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Towards a Global Health Workforce Strategy

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Preface

Orvill Adams and Gilles Dussault

When they met in Annecy, France, in December 2000, the authors of the papers presented here did not fully realize they were initiating a discussion that would become increasingly crucial to the future of the health sector, whose ability to meet growing challenges was increasingly being questioned. The HIPC programme[1] launched by the multilateral financial agencies in 1996 to alleviate the debt of poor countries, was still in its starting phase, and the Millennium Development Goals Declaration, had been adopted a few weeks before by the United Nations General Assembly[2]. These two topics were hardly mentioned at Annecy, but what was discussed is now proving highly relevant to the implementation of these two major agendas.

The HIPC process is making fresh resources available to the under-financed health sector, as it requires that some 20% of resources made available to the eligible country be directed to the health sector. For example, this has meant an increase of 60% in the health budget of Mauritania in 2001. But these new resources will not be translated into more and better services—and eventually to better health outcomes—if the recipient countries cannot count on a workforce sufficient in numbers, well educated and trained, adequately deployed and managed, and motivated to provide services of good quality.

Similarly, the health-related MDGs[3] will not be achieved if countries cannot successfully address the issues of (1) lack of qualified health personnel, due to a limited capacity to produce them and to retain those who have been trained, and in the case of Africa to loss due to AIDS; (2) irrelevant and outdated education mechanisms and content; (3) poor

[1] The Heavily Indebted Poor Countries Initiative, launched by the IMF and the World Bank in 1999 and supported by most bilateral donors (see http://www.worldbank.org/hipc/)

[2] United Nations Millennium Declaration, 5 September 2000, resolution 53/239 (see http://www.un.org/ millennium/).

[3] The health-related MDGs are to do the following: (1) reduce by two-thirds, between 1990 and 2015, the under-five mortality rate; (2) reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio; (3) have halted by 2015 and begun to reverse the spread of HIV/AIDS; and (4) have halted by 2015 and begun to reverse the incidence of malaria and other major diseases.

capacity to regulate professional practice; and (4) insufficiently attractive incentive systems and ineffective management policies and practices. Access to services of good quality is crucial to the attainment of most of the MDGs, and this, in turn, requires adequate human resources.

The HIPC and MDG processes have highlighted what many students of the health sector have been saying for many years: the performance of the health sector will be only as good as the performance of the men and women who provide the services—from the admissions staff to the most specialized health personnel. Why this has long met with systematic neglect by policy-makers and managers would be an interesting topic for students of the policy process. Whether the explanation lies in their complexity, their multisectoral nature, their political content or the lack of ready-made solutions, the fact is that health workforce issues have been overlooked by countries and by the international community until now. This oversight is less and less justifiable.

Indeed, since Annecy, health workforce issues have become more prominent on the agenda of many agencies, beginning with the World Health Organization, which has developed a full work programme to produce and disseminate sound policy advice. In early 2001, WHO's Regional Office for Africa joined forces with WHO headquarters, the World Bank, the International Organization for Migration (IOM) and the United Nations Educational, Scientific and Cultural Organization (UNESCO) to convene a "Consultative Meeting on Improving Collaboration Between Health Professionals, Governments and Other Stakeholders in Human Resources for Health Development" in Addis Ababa, which brought together 17 countries and a score of international agencies[4].

As a result of this meeting, many actors have engaged in advancing the HRH agenda, and a series of initiatives have been developed. The most significant has been the "Strategies on Human Resources for Health and Development—A Joint Learning Process" launched in 2002 by the Rockefeller Foundation, in which a number of multilateral and bilateral agencies and professional leaders and experts from many countries are now participating.

[4] Report available at http://www.whoafr.org/hrd/consultative_meeting_report.pdf

The papers presented here cover the main dimensions of HRD in health: planning and managing the workforce, education and training, incentives and working conditions, managing the performance of personnel and policies needed to ensure that investments in human resources produce the benefits to which the investing populations are entitled. Authors write from diverse professional, regional and cultural perspectives, and yet there is a high degree of consistency in their diagnosis of problems and proposals for strategies to address them. They all agree on the multidimensionality of problems and on the need for solutions that take into account all dimensions. They also agree that if problems tend to be similar in nature, they take forms that are time- and context-determined.

This set of papers raise questions and give insights into strategies that are relevant to developed and developing countries.

For example, all countries experience imbalances in the geographical deployment of health personnel, but causes and avenues of solutions vary from one country to another, according to historical, economic, organizational and cultural factors. This leads the authors to also agree that HRD is a process, not a blueprint, and will be successful only if the main stakeholders participate in it. Top-down policy development simply does not work in this area, where professionals not only value their autonomy, but have the social and political capacity to defend it. Countries that have succeeded in adjusting their workforce to the health and service needs of their population have done so through a long and difficult process of planning and continuing negotiation with providers, educators and managers of health services. This seems a heavy price to pay, particularly to those who look for immediate benefits, but the long-term reward of a health workforce that does the right things—and does them well—is likely to be well worth the investment.

Part I - Human Resources Management

Labour Market Adjustment in Health Systems

Douglas A. Smith and Alexander S. Preker

INTRODUCTION

This paper reviews the issue of change management in the health system as it relates to the requirement for labour adjustment. The process of labour adjustment will generally be initiated whenever an enterprise or administrative unit has either too few or too many workers to carry out its mandate. Adjustments can be made when health systems are reformed or when a reform leads to a situation in which more of some types of workers are needed and fewer of other types are required. The paper focuses on integrating human resource planning, including labour adjustment, with broader strategic plans for health systems.

There is not a substantial literature that deals directly with the topic of labour force adjustment in health systems. As a result, much of this paper is based on inferences derived from the broader literature on labour adjustment. In addition, much of the literature on health sector reform and on alternative approaches to service delivery is relevant.

A central focus of this paper is on linkages between strategic plans for health systems and human resource plans. Given the high degree of labour intensity involved in the delivery of health services, effective health system planning must ensure that the proper human resources are available by location and by skill type. Many health sector labour adjustment situations will be "unplanned" in the sense of not originating in the health sector. Frequently, overall government fiscal restraint leads to this type of unplanned adjustment in the health sector.

The framework in this paper for assessing labour adjustment in the health system implies that integration of decision-making is required. This suggests an expanded role for human resources staff whose traditional role has been to implement plans developed by others. There may be important efficiency gains from this type of integrated decision-making. Health system labour force inventories by region, specific locations and skill levels must be a component of integrated health system planning.

The findings of this paper are consistent with recent experience in the private sectors of most industrialized economies. Globalization and increased competitive pressures have forced private sector organisations to review all elements of their cost structures. This has led to various types of labour adjustment scenarios. The implication for health systems is that human resource professionals should participate in broader health system design issues. Frequently, this may require health system human resource professionals to expand their skill sets to deal effectively with health system planning.

BACKGROUND

Labour market adjustment issues are faced in a wide variety of contexts. Changes in technology, incomes, and new methods of producing goods or delivering services are key sources of the requirement for labour adjustment. Like many related changes, the ones that impact on the labour market have both costs and benefits. New opportunities develop for some members of the labour force but others may see reduced employment opportunities as a result of these changes. That is, adjustments can be positive or negative in terms of their impacts on employment levels. Frequently, changes will be positive for some groups and negative for others.

In all societies, a key challenge of the policy process is to promote changes that generate benefits in excess of costs. Various barriers to change may have negative impacts on overall productivity growth. At the same time, it is important to ensure that the costs of change are not borne disproportionately by individuals who must make adjustments in response to developments that lead to contractions in employment levels.

The process of change is reflected in the introduction of new products and processes and by the provision of new services, improved services and service delivery systems. The central role of labour as a factor of production means that labour adjustment is at the core of these types of changes. Particularly in contexts in which service delivery is labour-intensive, the process of change has important labour adjustment dimensions. We define labour adjustment as a process that is initiated whenever there is an imbalance between actual workers in an enterprise or department and the number required.

This paper focuses on the process of change in the delivery of health care. Many studies have pointed to opportunities to rationalize world health care systems. In many cases, the health system conditions that imply the need for restructuring are most severe in the poorest countries of the world and in countries with economies in transition. Labour adjustment issues will be an important component for making these changes in the most effective manner. In fact, the availability of effective adjustment policies will, in some cases, determine whether or not reforms are implemented or blocked by those who fear the adjustment process. Particularly in the case of positive or upside labour adjustment, market processes can play an important role in recruitment and retention.

OBJECTIVES OF THIS PAPER

The purpose of this paper is to review the labour market context of likely changes that will lead to a reorganisation of the operation of health systems. The paper provides documentation for the view that such changes in the health system and the related labour adjustments are, in fact, likely. In many developing countries, for example, workers in the health sector have been members of the civil service. Major reforms that are either being implemented or considered would move some components of the health system such as public hospitals to the private sector. Other reforms within the public sector would create government agencies and corporations that would operate with different human resource systems than those in the civil service. It is not clear that health system planners have taken the human resource implications of these and other changes in the way the health system may operate fully into account.

New strategic plans are being developed for health systems in many parts of the world. A key objective of this paper is to demonstrate that these necessary changes will take place more efficiently if human resource issues are integrated at the planning stage. The paper also provides links to the broader literature on managing the process of change and integrating the labour adjustment component. In managing the labour adjustment process, the literature outlines the importance of planning and communication strategies and a key paper objective is to bring this focus to changes in the health sector.

Structure of This Paper

The following section of this paper focuses on actual and likely reforms in health care systems with an emphasis on Eastern Europe. There are increasing pressures on health systems and the systems that have been developed in many parts of the world are no longer sustainable. This implies the requirement for restructuring and this will lead to both upside and downside labour adjustment. This paper deals with the labour adjustment process first in general terms and then specifically in the case of restructuring health systems. The objective is to promote effective patterns of adjustment. In a longer run perspective, this paper argues that this will occur only in a context in which human resource planning in the health system is integrated with broader strategic planning of the evolution of the system. Particular types of labour adjustment scenarios that might emerge are addressed specifically. The final section of the paper provides a summary and conclusions.

Reforming Health Care Systems

Overview

What types of health system reforms are taking place, what future reforms are likely and how do we assess their impacts on health systems and on labour markets? Most importantly, what types of adjustment are most likely to lead to improved health outcomes? These are clearly difficult questions for which there are no definitive answers. There are many health reform agendas in place and different circumstances in different jurisdictions imply that many approaches to reform will be pursued. However, restructuring of various types is necessary to achieve most reform agendas. The labour intensity of the provision of health care services implies that labour market adjustment is a likely component of any serious reform agenda.

The Rationale for Restructuring

Health systems in many parts of the world require important changes to operate more effectively. There are many reasons for health system changes and the underlying factors vary among countries. In many of the countries of the former Soviet Union, the centrally directed systems that existed are no longer financially sustainable. In other cases, growing populations and

shifts in the location of populations motivate health system reform. Throughout the world, new health technologies have important implications for health system resource allocation. New organisational approaches to the planning and delivery of health care are a further important source of pressure for restructuring.

In many cases, incentive differences can mean that private production of some health services may be more efficient than production through public bureaucracies. Private production is not necessarily inconsistent with a state-operated system in which access is not based on individual payment for services. From the perspective of this paper, the key point is that any substantial changes in health systems, such as a movement to private provision of some services, mean that the existing deployment of labour resources in the system must be altered. These adjustments may involve costs. This will be the case for both upside adjustments in which new hiring is required and in downside cases in which some existing staff may be considered redundant. If individuals who anticipate adjustment costs can lobby effectively, they may be able to block changes that would improve the system. On these political economy grounds alone, it is important to anticipate the labour adjustment issue and incorporate measures to ameliorate these adjustments in the plan to reform the system.

REQUIREMENTS FOR ADJUSTMENT

There is not a detailed literature that focuses exclusively on labour adjustment in the health sector. There is, however, an extensive literature dealing with various trends leading to a more limited role of the state in the management and delivery of a variety of services including health services. This literature is related to various initiatives to improve the effectiveness of resource use, particularly in the poorer countries of the world. This perspective can be seen in the World Bank's World Development Report (1). More specifically in the area of health policy, the World Development Report, focused on health policy reform and on health system issues. The social and economic importance of health issues and improved resource allocation in health were highlighted in Health, Nutrition and Population, World Bank. This theme has been pursued and extended in the recent work of the World Health Organization (WHO) in the World Health Report 2000 (2).

CHOOSING INSTITUTIONAL STRUCTURES

There have been many perspectives over time on the appropriate role of the government and the role of the market. This is true not only in the area of health systems but more generally in terms of resource allocation and service delivery. A global perspective on this issue is provided in the 1997 World Bank report sub-titled The State in a Changing World (1). Imperfect markets and their effects have long been recognized but there has been growing recognition that we also deal with imperfect governments. Many of the factors leading to market failure will make allocation through government difficult as well. Faced with imperfect information as the source of market failure, for example, will public production necessarily be more efficient than private? The economics literature in this area suggests that this is an empirical question. Many existing institutions, however, are based on earlier approaches that used identified market failure (relative to the optimum) as a rationale for public provision. This is now recognized as incorrect, but there is an historical pattern in the health sector (and others) based on this earlier policy approach.

In some areas, privatization may lead to improved outcomes in the health system but other, more limited, options such as contracting out within a system of continuing public management may also lead to gains. Preker, Harding and Travis (3) provide a series of perspectives on this issue including a review of the standard "make or buy" problem with a specific focus on hospital issues as an example. Improved organisational effectiveness may be generated through new management structures and new incentive systems. The challenge in this regard is to incorporate measures that improve efficiency while at the same time maintaining the access to services that is expected by patients and other users of the health system.

Changes in organisational structure in health systems are related to the extensive literature on principal-agent problems and the incentive structures of such relationships. As described in classic papers by Fama (4) and by Jensen and Meckling (5), different organisational forms have different strengths and weaknesses. In health systems, this is related to the responsiveness of health care providers to the wishes of patients. Some market-related incentive features when injected into public systems may make the agents (the providers) more responsive to the needs of the principals (the patients).

The framework for analyzing potential reforms in health care delivery by Harding and Preker (6) emphasizes that in spite of significant past accomplishments, many health systems face important challenges. Public delivery of health services provides widespread access but at the same time frequently obscures the costs of service provision. Promoting efficient resource use in this context may be difficult. This is the reason why many governments have started to consider the use of different institutional arrangements for delivering health care.

The literature on organisational reform is linked to this paper because there will generally be important human resource implications of any significant change in the way services are delivered. The following section provides an initial review of some of the implications for human resource planning of health system reforms.

IMPLICATIONS FOR LABOUR ADJUSTMENT

Egger, Lipson and Adams (7) focus on the human resource component of health systems. They recognize that many developing countries and countries with economies in transition have human resources for health (HRH) planning systems in place. However, these systems may be incomplete or ineffective in some dimensions and may not have been implemented fully. HRH problems may, then, be the source of other problems in operating the overall health system effectively.

The development of effective HRH systems is constrained by various elements of the health system. These constraints may reflect the operation of the health system itself, but the broader economic, political and social systems also have important impacts. Funding may be an important issue but how those funds are used may be of equal importance if the focus is on health outcomes. Training existing health sector workers will be important, as will be issues of recruitment, retention and reallocation. This is a further example of the importance of aligning human resource policy with broader strategic objectives for the health system. In fact, it is not an understatement to assert that appropriate human resource policies including incentive aspects of employment in health systems may be critical factors in determining whether overall health system objectives are achievable.

Many issues enter into effective HRH frameworks, being the most important among these what Egger, Lipson and Adams (7) refer to as

balance. This balance is in terms of the number of workers, the mix by skill type and their location. To achieve this kind of balance, Egger, Lipson and Adams argue that there must also be a balance in the way health system plans are implemented particularly in relation to human resource planning.

In many ways, this description of required linkages for overall organisational effectiveness parallels what has happened in many private sector organisations over the last two decades. Initially labour issues were treated separately from overall corporate strategy issues and human resource professionals were not closely linked with the overall framework for strategic planning. Globalization and increasing international competition meant that such systems could not continue since competitiveness was linked to controlling labour costs and using the workforce more efficiently. To the extent that increasing effectiveness of health systems is required, comparable system and planning changes may be required in the health sector.

A key element in the labour adjustment process is determining which workers or types of workers are most likely to face adjustment situations. Workers with more specific skills will generally have larger adjustment costs in downside adjustment situations since their skill specificity implies a lower competitive opportunity cost. These workers may have difficulties finding alternative employment and it will frequently be at lower wage levels. Highly trained, specialized medical personnel fall in this category. The upside adjustment issue is symmetrical. Gaps, in terms of requirements exceeding availability, are more likely for workers with more skills for which recruitment and training are more time-consuming and costly. This issue is pursued in more detail in the following sections of this paper.

Labour Adjustment Issues

The Process of Labour Adjustment

Labour adjustment is a general feature of a dynamic economy. Many factors contribute to required adjustments that may be positive or negative for any sector or sub-sector at any time. That is, the adjustment process can involve a variety of specific scenarios. Sectors can grow with all sub-sectors sharing equally in employment growth, some sub-sectors may decline while others increase and some overall sectors may decline in terms of employment.

This implies that mixed strategies capable of dealing with both declining labour demands (downside adjustment) and expanding labour demands (upside adjustment) will be important. Table 1 provides a general outline of the factors underlying the labour adjustment process.

Table 1. A General Framework for Assessing Labour Adjustment

Causes of Change	*Adjustment Processes*	*Outcomes*
Technology	Flexible labour markets	New products, services
Socio-economic factors	Training programs	Improved delivery systems
Political decisions	Relocation allowances	Job losses for adjustment cases
System restructuring	Early retirement	New jobs and opportunities
Population changes, shifts	Normal attrition	

SOURCE: Adapted from Riddell, 1986 (8).

If the human resource component of the health system is not in equilibrium, or balance, this implies that some form of labour adjustment is required. As Table 1 indicates, there are many sources of change leading to disequilibrium. There are also many elements of the adjustment process and many potential outcomes. This general framework can be applied to any labour adjustment situation, including adjustment in health systems. The causes of change in the first column are the factors leading to adjustment and are intended to be inclusive of all factors causing change in a system. In the case of health systems, for example, changes in medical knowledge about the efficacy of different forms of treatment can be included under the system-restructuring factor in the first column.

The framework in Table 1 begins in the first column with a series of factors that can disturb an initial equilibrium in the labour market. For example, if para-professionals are trained to perform tasks previously carried out by professionals, this substitution leads to an excess supply of professionals. Many forms of adjustment are possible as shown in the second column. In a flexible labour market, workers would move to their next best alternative. However, if skills are highly specific, other forms of adjustment like those listed may come into play. Outcomes in the last column include more cost-effective delivery of services but there may be significant adjustment costs for individuals who are affected.

In terms of planning the operation of a health system, the system requirements on the human resource side can be assessed relative to the current labour resource endowment. This division is similar to the concepts of labour demand and labour supply. The related points that follow provide an outline of human resource linkages in the health system. The outline is designed to highlight the role of labour market adjustment. The elements in this process are as follows: develop health system plan, specify human resource requirements of the plan by location, occupation and skill level, describe existing labour force by location, occupation and skill level, compare actual labour force with required labour force to meet demands of reformed health system, estimate degree of surplus or shortage by location, occupation and skill level; if surplus, develop detailed labour adjustment plan and communications plan for implementation, if shortage, develop recruitment and retention plan.

One purpose of the description of the labour adjustment process above is to highlight the fact that labour adjustment has potential upside as well as downside elements. Much of the labour adjustment literature, including Moore (9), whose focus is on the health sector, and Abraham and Houseman (10) whose focus is broader, deal only with downside labour adjustment. Particularly in health systems where populations are growing or shifting, there may be significant upside adjustments in the labour force required to meet system objectives. For other types of changes, the same sector may have both upside and downside changes with the net effect varying from case to case. In the sections that follow, both upside and downside labour adjustment situations are considered.

THE DOWNSIDE LABOUR ADJUSTMENT PROCESS

In the case of downside labour market adjustment in which an enterprise or department must reduce employment levels, we can define the costs of adjustment for individuals negatively affected by the changes. This labour adjustment cost (LAC) is computed by considering labour market opportunities prior to and after the change for individuals who are "adjustment cases".

The standard focus of the labour market literature in the case of displacement (a downside labour adjustment) is on the earnings change that results. A complete analysis would add to this any loss in utility (possibly related to different levels of job satisfaction) not captured in the

earnings measure. Following the general approach of Jenkins and Montmarquette (11) and more specifically that of Jacobson, LaLonde and Sullivan (12), let E represent earnings, W the wage rate and N the amount of time per period (for example, per year) that the individual is employed.

Using this notation, earnings for individual i are then the product of the wage rate and the time employed. That is:

$$Ei = Wi \times Ni$$

If E^1 refers to earnings after the adjustment takes place (worker displacement in the downside case), and E^0 refers to pre-adjustment earnings then labour adjustment cost are defined as follows:

$$LACi = E^1 - E^0$$

The LAC that is computed in this way clearly depends on changes in Wi and Ni. If an analysis is being carried out prior to the adjustment actually taking place, then it is necessary to estimate the labour market opportunity cost of displaced individuals. This opportunity cost would be determined by the W and N that would be observed in the next best alternative of these individuals in the labour market. Most published studies, including Hamermesh (13), Jacobson, LaLonde and Sullivan (12) and Farber (14) focus on labour adjustment costs following a particular change in the relevant labour market. A series of studies including Tansel (15) estimate the impact of institutional changes including privatization on earnings after dismissal. Hall (16) considers the circumstances in which job changes are efficient and the barriers to efficiency in the labour market.

In principle, the adjustments that take place in the labour market for health care workers (due to health system reform) are no different than the adjustments that take place on a regular basis in the broader labour market. The economics literature reveals many parallels including the adjustment costs related to the introduction of tariff reductions, the introduction of new technology and many other sources of change in labour markets. Brander and Spencer (17) investigate the worker adjustment costs in different trade-related scenarios in which there are payments to displaced workers. Rama (18) provides a broad policy framework for assessing and implementing downsizing in the public sector.

All adjustment scenarios involve costs but downside adjustment raises the possibility of an important set of costs related to the political aspects of restructuring. As the recent report of WHO indicates, there are many difficulties in changing investment patterns in physical and human

resources. This relates to the standard economic model of concentrated costs and dispersed benefits of reforms. As the WHO (2) report indicates, the resource that is "spent on health service delivery or investment is income to someone and therefore creates a vested interest. If the income is large, this 'someone' will lobby for more resources and resist changes that do not match his or her particular interests". There are potential gains from the changes that are being considered but those gains are for widely dispersed users of health systems who do not have comparable incentives to lobby in support of the changes. The cost framework described above, in terms of labour adjustment costs, highlights how such costs would be calculated in terms of income losses for some elements of the health system.

THE UPSIDE LABOUR ADJUSTMENT PROCESS

Labour market adjustment on the upside (employment growth in an enterprise or department) has received much less attention in the standard labour economics literature than has been the case for downside adjustments. From a political economy perspective, this is understandable since there are fewer obvious "losers" from the adjustment situation in the upside case. As well, in the upside case, market mechanisms are relied upon almost exclusively to mediate the adjustment process, at least in market economies. This is in contrast to the downside case where public sector adjustment policies and programs are common.

If markets act effectively (or relatively so) in upside cases, there may be some lessons from this for planners in health systems in which upside adjustments are required. Recruitment, retention and training will be the key elements of the upside adjustment process through markets. In the case of health systems, upside adjustments may require time lags to train specialized personnel. In addition, however, to the extent that the skills are highly specific and require large investments, this creates potential future incentives to preserve the sunk investments. That is, there may be an element of irreversibility in these investments that should be taken into account when they are initially made.

Labour markets perform a variety of functions that may have particular importance in the context of health systems. Wages act to attract the correct quantity and type of labour to specific locations and occupations. The structure of compensation can also play an important incentive role that is related to the quality of service provision.

The use of more market forces on the input side (in the form of wage differentials to attract and retain human resources) does not, however, necessarily imply that the health system is becoming more market-oriented from the point of view of patients and related users. Many factors determine the role of market forces on the "output" side of the market and different health systems use widely differing combinations of market and non-market allocation methods. However, the key point is that a decision to reform health care by using more incentives for workers and suppliers does not have to imply that access on the patient side is being altered in a market direction as well.

The conclusion with regard to attracting labour to specific locations and occupations is that there is an important role for wage differentials in attracting labour. This implies the existence of occupational and locational wage premiums as a method for ensuring that health system human resources are allocated efficiently. Union wage policies or public sector wage systems aimed at reducing the dispersion of wages may be a constraint on the extent to which this is feasible. In less developed countries in particular, there may be an important informal component of the health care sector. Extending reforms to this sector may generate difficulties at both the planning and the implementation stages.

PROMOTING EFFECTIVE ADJUSTMENT PATTERNS

The general labour adjustment framework in Table1 shows that in cases where labour adjustment is required, both public and private adjustment mechanisms will be at work. The literature in this area indicates that the scale of the required adjustment relative to the size of relevant labour market is a key variable in determining the extent of adjustment costs. This is true for both upside and downside adjustments. The required time frame for completing the adjustment process also impacts adjustment measures. Longer lead times and longer implementation times allow adjustments to occur more readily. Of course, this reduction in adjustment costs, with more time for adjustment to take place, may be offset by increases in other costs.

The principal factor that can be utilized to hold down the costs of any restructuring initiatives that lead to reduced levels of staffing is the process of normal attrition. The extent of attrition depends on the age structure and normal mobility patterns of the workforce. In addition to

normal attrition, it is possible to increase the attrition rate through various measures to induce voluntary attrition. This would be in the form of the provision of incentives to increase turnover, including early retirement.

It is important at this point to indicate the difference between gross and net attrition. In many public sector restructuring initiatives, downsizing is accomplished, in part, through a program featuring the provision of financial incentives for individuals to leave. Depending on the nature of these incentive packages, there may be post-program problems with the regional or occupational distribution of remaining staff. In some cases, areas or functions may become under-staffed if take-up rates for early retirement or other incentives are particularly high for some regions or groups. If this leads to a requirement for new hires to maintain the operational capacity of the organisation, then the gap between gross and net attrition opens up. An increase in size of this gap will clearly increase the cost of implementing the new system of service delivery. Haltiwanger and Singh (19) provide evidence of this problem in the form of rehiring some workers who had initially been paid an incentive to leave.

The literature on labour adjustment highlights a number of elements of labour adjustment involving downsizing. These include the provision of severance pay and the use of retraining and mobility incentives. In the case of severance pay, if the "operational capacity" referred to above is to be maintained, it will generally be necessary to target severance packages since an open door approach can lead to the exit of critical personnel. In a union or public service environment, impacts of existing job security provisions in legislation or collective agreements will have to be taken into account. These are barriers to mobility and adjustment, which may be stronger in the public sector, particularly in less developed countries.

Policies adopted by government can either promote or discourage change and labour adjustment. There are both efficiency (market failure in the adjustment process) and equity rationales for public policies dealing with labour adjustment. In some jurisdictions, for example, adjustment situations involving large numbers of layoffs may be subject to regulatory requirements. The emphasis on large-scale adjustment situations is related to the discussion above of the costs of adjustment and how these may vary with the scale of the layoff.

Some common features of labour market adjustment initiatives include the following: advance notice and consultation; development of joint committee to improve and administer adjustment measures, relocation and retraining, and effective communication.

Labour adjustment will be affected by government policies wherever it occurs but there may be particular issues when the affected workers are government employees. This reflects the commonly held view that public sector labour markets may exhibit more rigidity than those in the private sector. For a general overview of the operation of labour markets in the public sector see Ehrenberg and Schwarz (20)

ADJUSTMENT ISSUES SPECIFIC TO THE HEALTH SECTOR

Barriers to Adjustment

The process of adjustment in labour markets is common in some areas but less common in protected markets. The process of change may be anticipated more in some sectors of the economy than others and this tends to reduce adjustment costs. In the health care sector, particularly if there has been heavy government involvement in planning and directing resource allocation, there may be significant rigidities. Trade unions and government regulations provide examples of institutions that may be designed to reduce the extent of change.

Worker Characteristics

In addition to these factors related to the structural characteristics of the health sector, the types of human capital in this sector will also be important. In the terminology of Becker (21), highly specific human capital in some sectors of the health care system will make adjustment costs higher and can act as an important barrier to restructuring. This implies that assessing restructuring in health systems requires relatively precise scenarios in terms of the types of workers likely to be impacted. Topel (22) examines U.S. data on specific human capital and confirms its links to the costs of job loss.

Some unskilled and semi-skilled to mid-skilled workers in the health system will have similar adjustment patterns and labour adjustment costs as workers in other sectors of the economy. No special policies may be required in these cases. Physicians and other specialized medical resources may be more difficult to deal with because of the highly specific nature of

their human capital. The more specific is the human capital of displaced workers, the larger the labour adjustment costs are likely to be. Physicians may also have a greater capacity for influencing policy-makers to prevent or delay changes in the health system that may affect them negatively.

Selected Adjustment Issues

Staines (23) provides a useful perspective on the development of health sector strategies for Eastern Europe and Central Asia. Particularly in countries with economies in transition (CEITs), the inherited health systems are changing and in most cases there is no coherent plan for reform. The CEITs face inevitable change in health systems. Inherited systems did not deal with emerging health issues and were not fiscally sustainable. The structures that supported old systems (with many positive factors) are no longer in place. The challenge is to anticipate and co-ordinate a variety of aspects of change. Most commentators recognize that there must be a continuing government role or, in the absence of this condition, issues will be dealt with unevenly and there will be service level differences related to incomes. There is continuing concern with the possibility of growing disparities of access to affordable care.

There is a clear general question of "How should health systems be reformed?" There are country and region differences that are important. It would be desirable to have a general template, although its development is a major task. Consistent with the work of Harding and Preker (6), the key role for government in this regard is in structuring the framework of the new system and monitoring to deal with potential market and local government failure.

Staines (23) provides one perspective on the reform process and on the likely characteristics of new health systems in these jurisdictions. The view of Staines is that "health facilities and regulatory organisations will exhibit new incentive systems, a more entrepreneurial, results-oriented and outward-looking culture, and more sophisticated information systems". More specifically, this will require "an expanded primary care system coupled with a leaner and more cost-effective but better equipped hospital sector". This description implies that both upside and downside labour adjustment may be required. This is a frequent result of a misallocation of human resources-some areas have excess labour while other areas are not staffed at sufficiently high levels.

In the CEITs, the adjustment focus comes from efficiency measures and the requirement for cost containment. Staines (23) and other commentators have pointed out that the inherited health systems used the wrong types of inputs to produce outputs that were less effective than would have been the case with more effective selection. Changes, however, are not easy to generate because important constituencies support the *status quo*.

Much of the published literature suggests that health systems in CEITs may have had too much central direction and insufficient use of market forces. That same literature recognizes, however, that health systems require a balance of public and private participation due to market failures. Whether or not one agrees fully with this assessment, the "inherited" health systems were not sustainable implying that in the change scenario that develops, there will be a continuing process of both upside and downside labour adjustment.

Developing an effective change scenario for health systems requires an understanding of how the inherited systems operated and a related understanding of what worked in the old system along with what did not work effectively. As Preker and Feachem (24) point out, many of these systems had important positive elements. Cost control through doctor allocation of services worked reasonably well in Hungary, for example, in a system in which practitioners were well trained and there was universal coverage of the population. However, as Preker and Feachem (24) also point out, this system, along with many others, had problems because "relying too heavily on a state monopoly in a centrally-planned and supply-driven health sector lowers the efficiency and quality of care".

A variety of problems have been identified with health systems in the CEITs. There is evidence of ineffective targeting of investment in both physical and human capital. As has been the case in some Western countries, the allocation process of the former health systems led to over-investment in acute care hospitals with high levels of specialization and under-investment in public health services and treating patients at the primary level.

Skill problems related to excessive specialization have often been identified with many occupations such as nurses' aides being recruited before they had acquired sufficient general training. This means that workers in these categories are less adaptable, raising the costs of labour

adjustment. Klugman and Schieber (25) point out that in Kazakstan, wage levels for health sector workers have declined relative to wages offered to workers with comparable skills outside the public sector. Wage structure issues are an important component in the task of integrating human resource and overall strategic plans for the health sector.

Other elements that have been identified as issues in health sector reform include weak incentives for efficiency, particularly in countries of the former Soviet Union, and a tendency in some reforms to go too far in the direction of market financing thereby creating inequalities in access. Problems of this kind reflect the fact that the planning frameworks of the inherited health systems have been abandoned but no replacements have yet been provided. It is important to recognize the difficulties of altering health systems in an environment in which the entire social and economic system is changing so rapidly.

In developing new health systems, particularly in Eastern Europe, a number of elements of an improved health system strategy can be identified. These include improving lifestyles, 7particularly as it relates to tobacco and alcohol consumption. If successful, such measures would also contribute to controlling health costs in the long run. Other objectives include increasing choice in the health system and aligning provider incentives with health system outcomes. In considering the development of new health system strategies, it may be useful to consider North American ideas of managed care and managed competition. All of these alternatives may be associated with changes in delivery structures and with labour adjustment.

As these adjustments take place in the health system and in its labour force, to ensure desirable health outcomes, it will be important to maintain health/Gross Domestic Product (GDP) ratios but there may be a need for budget caps in specific parts of the system. All of these factors are related to labour adjustment in health systems. As other parts of this paper have emphasized, the high degree of labour intensity of the provision of health services means that major health system changes will have significant impacts on the health labour force.

Regional Location Issues

Many jurisdictions report continuing problems in serving rural or remote locations particularly in the case of specialists. In managed systems with standard salaries across the board, residents in remote locations are likely to

face continuing problems. This is an issue in the United States and Canada as well as in countries undergoing major changes in their economies and health systems.

In the case of these professionals, there is a clear question of providing the correct incentives. In a purely private sector context, we would expect to observe wage differentials to attract workers with the required skills to the locations where they are in short supply. This kind of upside adjustment problem may be resolved through the use of more market mechanisms that would allow for greater flexibility in salary structures to offset perceived negative aspects of some locations.

DEVELOPING A HEALTH SECTOR LABOUR FORCE ADJUSTMENT SCENARIO

This section of the paper outlines and describes the major steps in developing an adjustment scenario for the labour force in the health sector. This reviews and brings together the various elements of labour adjustment described in previous sections of the paper. The principal focus here is on downside labour adjustment. The steps involved are represented in Box 1.

Most of the steps listed above are relatively straightforward to describe but may be difficult to implement in some cases. The first step of specifying changes to the health system is crucial for understanding labour adjustment but will be difficult to achieve agreement on in many jurisdictions. There are vested interests associated with the status quo, frequently with sufficient resources to resist changes that may threaten their position in the system.

Box 1. Major Steps in Developing an Adjustment Scenario for the Labour Force in the Health Sector

Specify health system changes.
Construct data set on existing health system labour force.
Estimate impact of health system changes on labour force.
Measure "surplus" and "shortage" positions by location, skill type.
Estimate normal attrition and consider induced attrition.
Estimate number of positive and negative adjustment cases.
Review institutional barriers to adjustment.
Estimate costs of required adjustment program.

Data on the health system labour force may be less problematic, although at the national level, data are not routinely organized in this way.

To fit with the remaining steps in this outline, data on the existing labour force must be organized by location and skill type. These data can then be analyzed in terms of a variety of possible scenarios for change in the health system. As noted earlier in this paper, it would then be possible to compare the existing allocation of labour resources with the one that would exist in a new health system scenario.

The analysis in the steps described to this point provides estimates of the extent of "surplus" and "shortage" positions by location and skill type in the health system. In a labour market context in which there is continuing turnover due to voluntary separations and retirements, the next step is to estimate normal attrition and consider the use of induced attrition. Early retirement packages and other types of severance agreements are examples of induced attrition. To the extent that these are voluntary and, together with normal attrition, can often account for a large fraction of the required adjustments, these are important avenues for reducing both the extent of resistance to change and the costs of change.

Following the steps described to this point, the analysis provides an estimate of the number of positive and negative adjustment cases. Positive cases imply the need for recruitment but, in some cases, recruitment can be found among the negative adjustment cases. If health system workers can be relocated or retrained, there are important benefits in holding down the other costs that may be involved in resolving both the remaining surplus and shortage cases.

The existence of institutional barriers to adjustment will vary by jurisdiction. Seniority provisions may limit the ability of managers in the health system to deal with negative adjustment cases. Particularly if the adjustment strategy moves as far as layoffs,
union agreements or public sector employment arrangements may be an important barrier.

Given the measures that have been implemented in the steps above, the number of adjustment cases will have been reduced from the initial surplus and shortage amounts. Further steps are then necessary if adjustment cases remain. Retraining to improve mobility will be an important option for dealing with a situation of labour surplus. The full range of options can then be specified, allowing development of a plan from which planners can estimate the costs of the required adjustment program.

PLANNING HEALTH SYSTEMS AND DETERMINING RESOURCE REQUIREMENTS

An important link in the labour adjustment process is to compare existing human resource allocations with the requirements of the plan for reform. A key contention of this paper is that effective overall planning and implementation requires integration of health system and human resource planning.

This section of the paper focuses in more detail on some of the issues that are involved in doing this in the context of health systems. The circumscribed nature of market forces in the delivery of health care makes this a more difficult problem to deal with.

The main point to note in this regard is that the health system planning that is required need not all be carried out centrally. This is a key element of the World Health Report, 2000. It also reflects the conclusions of recent work carried out at the World Bank and described in Harding and Preker (6) who develop a conceptual framework for reforms in health care delivery. This work also reflects the work of economists such as Williamson (26) who focus on alternative institutional arrangements.

The starting point for this work is the standard economic framework of comparative advantage. Different institutional forms for delivering health care services will have different comparative advantages under different circumstances. The range of institutional forms is extensive. It runs from pure public sector planning and delivery at one end of the spectrum to purely private provision through markets at the other. This spectrum includes incentive-based public sector budgeting, contracting out some services and contracting out some facilities such as entire hospitals or hospital food service.

The rationale for considering these alternative institutional arrangements is related to the original decisions in the health area to move away from markets. The rationale for this initial move is related to market failure in the health care area that has been documented widely. There are many potential forms of market failure as it relates to health systems. However, government provision of health services as the obvious alternative to markets may exhibit signs of government failure. Wolf (27) explicitly discusses this possibility and its implications in the context of imperfect alternative arrangements. Market failure initially leads to a consideration of government provision but, in some circumstances, the

extent of government failure may be greater. The current focus is no longer on public or private provision of various elements of health and other services but on the mix that will work best. This literature has been highly persuasive in the movements to privatization and contracting out of some government functions.

The search for institutional forms that will lead to better results has not been confined to health care. Canada, for example, has moved to private operation of airports that had previously been run as part of Federal government activities. Finding the right mix of delivery and monitoring systems is important in health care systems and in other areas if we aim to operate these systems effectively.

These choices about institutional forms have a number of possible implications for labour adjustment in health systems. Most clearly, changing the way parts of the system is organized can, itself, be an important source of changing the way that inputs including labour are used. Less obviously, some forms of institutional structure will react more quickly to changing pressures on health systems than others. Markets often exhibit more flexible responses whereas activities that are publicly provided often exhibit more inertia and are more susceptible to lobbying to maintain the status quo.

Summary and Conclusions

Main Findings

The purpose of this paper is to review different approaches to change management in the health system specifically as it relates to the requirement for labour adjustment. When health systems are reformed both upside and downside labour adjustment may be required. The paper focuses on framework issues and provides an overall context for integrating human resource planning, including labour adjustment, with broader strategic plans for health systems.

There is not substantial literature that deals directly with the topic of labour force adjustment in health systems. There is, however, literature that focuses on labour adjustment, in a general view, not in the context of health systems being reformed. In addition, all the literature on health sector reform and on alternative approaches to service delivery is relevant although much of the health sector literature does not include direct links

to human resource requirements and to the labour adjustment that may be involved.

A central focus of this paper is on linkages between strategic plans for health systems and human resource plans. Given the high degree of labour intensity involved in the delivery of health services, effective health system planning must ensure that the proper human resources are available by location and by skill type. Human resource constraints can limit the effectiveness of health system reforms when there is increased demand for some skills. Similarly if downside labour adjustment is involved, a failure to plan the labour adjustment process can generate resistance to reform that may delay or alter substantially the intended reforms. Effective planning must be accompanied by effective communication to ensure that plans are implemented as intended.

Some general trends in health systems that are relevant for the analysis of this paper include movements to systems that are more flexible and in which substitution away from the most costly elements of health care is possible. More flexible systems will have lower adjustment costs in response to future changes, including fewer labour adjustment issues. Such long term planning should also take into account potential rigidities associated with sunk investments. In cases where there is highly specific human capital, requiring large investments, individuals who have invested will have strong incentives to engage in political action to protect their investments. This clearly makes adjustment to change more difficult.

SOME IMPLICATIONS

The key implication of the framework in this paper for assessing labour adjustment in the health system is that integration of decision-making is required. This implies an expanded role for human resources staff whose traditional role has been to implement plans developed by others. There may be important efficiency gains from this type of integrated decision-making. The levels at which this type of decision-making should take place will vary with the institutional structure for planning and delivering health services in different jurisdictions.

The integration of strategic and human resource planning requires incorporating human resource data in broader planning frameworks but it also implies a need for human resources professionals to be more pro-active in developing databases on the existing labour force. Health system labour

force inventories by region, specific locations and skill levels must be a component of integrated health system planning. These data on currently available health system human resources must then be related to the resources that are required in order to carry out health system reforms most effectively. In the area of health care, the determination of required resources by location and skill level is a complex task since many services can be delivered with varying input mixes.

The perspective provided in this paper is consistent with recent experience in the private sectors of most industrialized economies. Globalization and increased competitive pressures have forced private sector organisations to review all elements of their cost structures and this has led to various types of labour adjustment scenarios. A common feature of this experience is a reorientation of the roles of different layers of management in the broader decision-making process. The implication for health systems is that human resources professionals should participate in broader health system design issues. In many jurisdictions, this may require a reassessment of the role of human resource professionals. These individuals will require expanded skill sets and job experience to deal effectively with broader aspects of health system planning.

Planning and effective communication of planned activities are related tasks that highlight the changing role of human resource departments. Worker concerns about adjustment costs remain an important barrier to change in many jurisdictions. The general labour market literature on the adjustment process strongly indicates that resistance to change is directly related to the extent to which effective communications programs are pursued and the extent to which options such as retraining and relocation are made part of the overall package.

CONCLUSIONS AND SUGGESTIONS FOR FUTURE WORK

Human resource inventories for personnel in the health system can play an important role in providing important data to achieve the objectives of health system reform. These data can be used to estimate attrition rates based on the age structure of the labour force and on experience with various plans to increase attrition. The objective is to have a quantitative health system human resource-planning model tied to strategic plans for health systems in different jurisdictions. Case studies may be the best way to develop building blocks to implement such systems more widely.

The core hypothesis of this paper is that health system reforms will be more effective if labour adjustment issues are considered as part of the initial planning process. Different jurisdictions may be thought as occupying different points on a spectrum in which one end point is a "little consideration of labour adjustment" issues and the other end point is a "substantial consideration of labour issues". The placement of individual jurisdictions on the spectrum would be based on indicators to be developed in the case study analysis. Variables that are likely to be important include the existence of human resource inventories, a well-developed human resources planning model and evidence on the role of human resource professionals in the overall strategic planning process.

In assessing the effectiveness of health system reforms, a labour adjustment focus in case studies of different jurisdictions could be used to test the hypothesis that effective human resource planning is a key determinant of the overall success of labour reform. An important focus of the case studies would be on the extent of labour adjustment costs and how they relate to integrated planning activities. Many elements clearly enter the reform process so that the case studies, focusing on labour adjustment approaches, would have to be part of a larger effort to understand the reform process in health systems.

Achieving a greater degree of integration of strategic and human resource planning would be a major step forward in increasing the efficiency of health systems in many jurisdictions. However, the degree of difficulty in achieving this should not be underestimated. This paper is not intended to minimize the inherent difficulties in this process or to suggest that there are never links of this kind in existing health systems. Health systems are dynamic. The process of change requires adaptation of labour and of capital and other inputs. There are important time lags in the adaptation of many forms of physical capital in health systems. It is important to recognize that many forms of human capital in health systems may have comparable lags. This makes an integrated planning system both more difficult and more important to achieve.

The discussion in much of this paper relates to planning and delivering health care in effective health systems. It is important to stress as well, that part of the development of such systems may involve decentralization, privatization of some functions, contracting out of others and more use of incentives throughout the system. Effective delivery of

health care requires consideration of alternative organisational reforms for the delivery of health services in addition to more effective planning of core public sector components that guarantee the access to these services.

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Integrating Workforce Planning, Human Resources and Service Planning[‡]

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INTRODUCTION

Changes in health systems worldwide have created new challenges for health human resource planning (HHRP). The World Health Organization (WHO) has been instrumental in modifying the principles of health human resource planning by emphasizing the integration and coordination of services and human resources, and the provision of education according to a Primary Health Care model (1). WHO (2) notes that provision of health care involves putting together a considerable number of resource inputs to deliver an extraordinary array of different service outputs. HHRP should be broad in nature, incorporating the entire health workforce. Key stakeholders including health providers, planners and government policy makers must be involved in the entire planning process to facilitate acceptance of HHRP recommendations. Health system inputs must consider the appropriate balance between human and physical capital. Human capital decisions include the appropriate quantity, mix, and distribution of health services. Finding this balance requires continuous monitoring, careful choices given the realities of countries, and the use of research evidence to ensure that population health needs are addressed effectively and efficiently. Trends in societal factors such as determinants of health, needs of consumers and the knowledge and skills of health providers need to be considered in planning (3). The Canadian Institute for Health Information (CIHI) (4) has confirmed that better health is associated with greater levels of income, education, employment, better housing, supportive environment, and opportunities for early childhood development. These factors may not be under the control of departments and Ministries of

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Health in many countries. This paper will describe the extent to which integrated health human resource and service planning can and do facilitate this process in the year 2000. We shall therefore: identify how labour market analysis can be integrated into workforce planning; discuss whether planning is sufficiently responsive and flexible to retain relevance and validity in rapidly changing health systems; describe different models and approaches to linking and integrating workforce planning and service planning; discuss approaches to integrating the planning for different groups of health workers (multi-disciplinary/multi-profession planning); and examine effective approaches for the use of computer-based scenario modeling to support assessment of current and future planning options.

BACKGROUND

Hall describes the health human resource process as involving three major and interrelated steps: planning, production, and management (5). The focus on one component at the expense of the others will do little to ensure an effective and efficient health system. While the goal of integrated workforce planning is articulated by many, it lacks a clear definition (6). In this paper, integrated health human resource planning (IHHRP) involves determining the numbers, mix, and distribution of health providers that will be required to meet population health needs at some identified future point in time. It deals with aggregate level resource planning processes in a long-term horizon. Hall (7) has identified that intermediate IHHRP should be concerned with the next 5-15 years and long term planning with 15-30 years. Longer-range planning projections involve greater uncertainty of the planning variables in comparison to intermediate range planning (8, 9).

Service planning in many countries is generally limited to shorter time periods. While some countries plan services with one- to two-year horizons, there is growing recognition that this planning must occur over a longer time span. Short-term planning is aimed at ensuring that resources for health are allocated and managed in an efficient and effective manner, and is concerned with the number and type of health resources allocated among different sectors and among human and physical capital – e.g., technology, drugs, human resources, and the renewal of existing infrastructures or planning for new ones.

If undertaken properly, both service planning and IHHRP consider an integrated human resource process and the principles that underpin good IHHRP practice also underpin good service planning. Both should be seen as part of a continuous quality-improvement process which is updated at least biannually and where each activity informs the other. Both sets of activities should be based on evidence of best practice. Labour market analysis is a useful tool for understanding the shortfalls of previous planning decisions, the current context, and provides clues for future corrective action to be taken in all planning horizons.

IHHRP and Service Planning

To ensure system efficiency and effectiveness both IHHRP and service planning activities should be needs-based and outcome directed. Furthermore, planning at all levels requires good quality data. In describing the approaches to modeling or service planning, we assume that the data that form the basis for resource planning are currently available and of good quality: it is consistently reported (reliability) and actually measure the key variables that must be measured in order to estimate human resources requirements (validity). Needs-based approaches, in which resource requirements are based on the estimated health needs of populations, create greater data demands than the approaches required for planning based on supply/utilization. The requirement to link needs to outcomes will initially create greater data challenges. To plan services and/or to model human resources requirements without high quality data will only lead to unreliable estimates of future human resource needs and erroneous service planning models. Planning should be conducted when planners are confident that the data that underpin the estimates are of good quality. The WHO toolkit has assisted many countries to identify what data to collect – and how – for approaches to modeling and planning based on supply and utilization. Formulae and data collection guidelines are detailed in the toolkit.

The State of the Art

Government planners have used various approaches to forecast supply and demand related to health human resources (HHR) (9, 10). Traditional approaches have been further developed, and many disciplines have added

unique design and analytical methods to the array of tools available to researchers. However, the wide choice of methods, the lack of comprehensive data bases, and the inaccurate projections of population growth have not improved the accuracy of forecasting (9–11). HHRP in most countries has been poorly conceptualized, intermittent, varying in quality, profession-specific in nature, and without adequate vision or data upon which to base sound decisions (9–13). The assumptions that underpin HHR modeling activities need to be evaluated for relevance and accuracy on an ongoing basis. Failure to conduct ongoing HHRP has led to the fragmentation of therapeutic tasks into sub-occupations (14).

Furthermore, HHRP has only been weakly linked to national health policies (15) and population health needs (16). In the United Kingdom, human resource problems are dogging the National Health System: "Junior doctors are threatening to strike, consultants are voicing frustration, and nurses are voting with their feet. Though their concerns are less visible (...) other members of the profession allied to medicine are also facing major challenges. The problems have been well rehearsed but the solutions seem as far away as ever. If the healthcare needs of this new millennium are to be met, more radical approaches to collaborative work will need to be explored" (17). Many nurses and midwives around the world are experiencing a life where quality of work is poor, with under- and over-utilization, geographic distribution problems, role ambiguity and role overlap, particularly in relation to physicians (18).

The efficiency and effectiveness of service delivery depends to a great extent on the effective deployment and use of personnel (19). Recent findings in the World Health Report 2000 (2) suggest that there remain great variations internationally in the level and mix of health resources (technology, drugs, hospital beds, and human resources) devoted to health care. In Thailand, health spending is primarily directed towards technology (e.g. CT scanners) and drugs rather than to human resources, whereas in Mexico and Egypt the opposite is true. However, Mexico has the highest ratio of physicians to nurses and – together with Thailand – the lowest expenditure on nurses within the case study countries (2). Yet Mexico reports that as many as 15% of physicians are inactive, underemployed or unemployed. The balance among human and physical capital inputs, the mix of human resources, and the distribution of health resources between urban and rural settings remain a critical issue (2, 12). To date there is but

limited evidence of the use of substitution roles among human resource providers (12).

THE ROLE OF LABOUR MARKET INDICATORS IN PLANNING

How can labour market analysis be used in workforce planning? Many consider that the continuous cycles of over- and under-supply of health human resources world-wide reflect the inadequate projection methods used to estimate future requirements for expanding health systems and/or the failure to consider the evidence supplied by ongoing labour market trends (6, 9, 11, 20–23). Buchan and O'May (23) acknowledge that migration of health professionals in and out of countries must be part of HHRP. The potential for modeling international nurse flows is limited by the international lack of mobility data for modeling (24). Ethical issues arise as they relate to the global migration of the nursing workforce. For instance, some countries produce nurses simply for export while binding these nurses to severe financial commitments to the home country. Alternatively, wealthier countries have the potential to strip the health professional workforce of poorer countries who cannot compete with the financial packages offered. Globalization and the migration of workforces have increased the need to make use of labour market indicators in planning. The International Labour Office (ILO) has played a major role in defining the Key Indicators of the Labour Market (KILM). Eighteen indicators (see Table 1) were developed based on three criteria: conceptual relevance, data availability, and compatibility across regions (http://www.ilo.org./public/English/employmentstrat/polemp/kilm/toc_f.htm) and are intended to monitor trends. The KILM can assist countries in examining the overall status of the health workforce in the broader labour market of their country, by comparison with countries at similar levels of development (such as OECD countries) and/or by WHO regions.

The ILO intends to focus on 5 indicators (labour force participation rates; employment to population ratio; employment by sector; unemployment, under employment, and inactivity; youth employment) out of the 18 used for world comparison purposes. The capacity of countries to participate varies widely around the world. For example, there are better data bases in those countries that have regulatory bodies mandated to collect information about their professional constituency. In Canada and

the WHO European Region, nursing and allied health data, population demographics, hospitals, number of beds, ratios, etc. are available to provide the necessary information in each of the five categories designated by the ILO (websites: www.CIHI.ca, www.statscan.ca, www.WHO.dk). However, some countries lack data, organisational structures, technical staff, electronic infrastructure and the financial resources for information technology, as well as the training required to support the collection of information. This is a challenge when there is a struggle in many countries to provide even the most basic of health care services. However, it is important to consider that some of the current human resource difficulties experienced in some countries may be due to the absence of such data and related planning. It is recognized that "sound data on the existing numbers and distribution of human resources, especially linked to data on health system performance, can contribute to the formulation of policies and plans to address health problems" (2).

The World Health Report 2000 (2) highlights many problems of under- and over-employment, participation rates, employment by sector, and urban sector employment. World-wide numerical imbalances (e.g. too few qualified health personnel in sub-Saharan Africa versus an overall surplus of physicians in Egypt), training and skill mix imbalances (as in mismatches between available skills and needs in Eastern and Central Asia), and distribution imbalances (urban/rural imbalances and difficult to service areas – in Cambodia for instance 85% of the population lives in rural areas but only 13% of health providers work there) (2). These are examples of situations where careful analysis of labour market indicators could be useful to inform decision-making. In both developed and developing countries there remain significant challenges in meeting the needs of populations outside urban areas. At the present time it is difficult to make comparisons among countries across all sectors, including health.

Table 1. International Labour Organisation's Key Indicators of the Labour Market (KILM)

Participation in the World of Work
Labour Force Participation
Employment-to-Population Ratio
Status in Employment
Employment by Sector
Part-time Workers
Hours of Work
Urban Informal Sector Employment
Unemployment, Underemployment and Inactivity
Youth Employment
Long Term Employment
Unemployment by Educational Attainment
Time-related Underemployment
Inactivity Rate
Educational Attainment and Illiteracy
Real Manufacturing Wage
Hourly Compensation Costs
Labour Productivity and Unit Labour Costs
Poverty and Income Distribution

Ensuring Responsiveness and Flexibility of Planning to Retain Relevance and Validity in Rapidly Changing Health Systems?

Flexibility, relevance and validity in planning require both ready access to timely and accurate information and the use of appropriate conceptual and analytic techniques for planning in a rapidly changing health system. Computer-based modeling eases the computational difficulties and burdens experienced in previous years. However, the component parts of these models need to be understood in order to identify the contribution of the various elements of the models to predicted outcomes. Planners must remember when planning for smaller provider groups that the smaller the group the greater the uncertainty around the estimates derived from the model. Modelers may have no choice but to use the less sophisticated analytic techniques. Excellent linkages and exchanges among key stakeholders, multidisciplinary expertise (nursing, economics, computer science, epidemiology, medicine, sociology, etc.) working in collaboration with policy and administrative decision-makers and planners, and the availability of accurate and comprehensive data are thought to enhance the relevance, responsiveness and acceptance of planning activities. HHRP is an interactive process and can benefit from the experience of other sectors. However, the direct transfer of techniques must be based on careful scrutiny and a full understanding of the unit of analysis.

Health Human Resource Planning – an Overview

IHHRP involves estimating future requirements for human resources and identifying efficient ways of providing for those requirements. There is no unambiguous 'right' number and mix of health professionals (2, 25). Instead, health provider requirements will be determined by broader societal decisions about the level of commitment of resources to health care, the organisation of delivery and funding for health care programmes, and the level and mix of health care services. Although more may always be done in terms of service delivery to meet populations' needs, whether more should be done will depend on what other things have to be forgone in order to provide the additional resources – considerations which are essentially subjective.

Assuming that the role of HHRP research is to reduce uncertainty, public policy makers must weigh research-based facts – along with several other factors – to determine action. Yet today we know that public policy is not based on good human resource research. To add value to traditional research activities and improve "evidenced-based" decision-making requires the involvement of a number of actors including decision-makers, research funders, researchers, and other professionals in an interactive synergistic process. Each step in the process requires relationship-building and improved communication between decision-makers and researchers as well as across health sectors. Further, using evidence in decision-making is a "virtuous cycle" and any weak link in the chain may interrupt the optimal flow of research into decision-making.

To complicate matters, the science underpinning HHRP is young. Approaches to estimating human resource requirements have been few and plagued with methodological and conceptual limitations. One key challenge has been the lack of easily accessed clinical, administrative and provider data bases to conduct complex modeling activities such as the use of data based on health needs, system and caregiver outcomes, as well as management information systems which reflect utilization and costs. Governments require a variety of human and material resources to inform the policy decisions related to HHR. Ministries also need the following resources: visionary project leaders who have epidemiological, human resource planning and modeling knowledge and who are familiar with the health services being modeled. These individuals must work within government structures that have responsibility for human resources policy decision-making and benefit from political support and financial resources in order to take action on HHR decisions.

As O'Brien-Pallas (25) notes with respect to nursing resources, nurse planning does not exist in isolation from the world in which these services are delivered. Future planning models must explicitly place the health care industry in the general context of the economy. Lavis and Birch (24) also note there is no unambiguous right way to model human resources. Instead, the conceptual basis for HRP will depend on the question(s) being asked. Do we want to know how many nurses or physicians are required to continue to serve populations in the way they are currently served? or how many are required to support the services required to meet all (or part) of the expected needs of the population? or how many

are required to satisfy the expected development and plans for the future provision of health care services?

Birch *et al.* (26) refer to these three approaches as utilization-based, needs-based and effective demand-based approaches to HRP. The 'unit of analysis' across the different approaches is the same – physician consultations, dentist courses of treatment, and nursing hours, but the underlying 'driver' of this measure differs and reflects the various ways in which societies think about the delivery of health care, the provision of services, the population's needs, and the commitment of society's scarce resources. In some ways, each approach builds upon the principles of the previous approach and introduces additional considerations (26). Although this might be seen as enriching the applicability of the approaches to epidemiological, economic, and political realities – and hence enhancing the policy relevance of the analyses, the philosophical basis of the particular health care system being studied is of importance. For example, in societies where health care services are delivered through private markets and access to services is determined by the individuals willingness and ability to pay for services, there would be little value in basing future requirements for nurses or other health providers on the estimated needs for care of the population, or on the estimated future commitment of government resources to health care, since neither of these factors will be paramount in determining the future deployment of available health providers. In this way, the future plans for funding, delivery, and configuration of services determine the appropriate approach to be followed.

NEEDS-BASED APPROACH

A needs-based approach approximates most closely that described by WHO. The needs-based approach estimates future requirements on the basis of the estimated health deficits of the population as well as on the potential for addressing these deficits using a mix of different health care human resources to provide effective service intervention in efficient ways. Nursing requirements are therefore an epidemiological concept, based on the age- and sex-specific needs of the population – needs that are independent of current service utilization but are interdependent with the requirements for other health human resources. This approach avoids the perpetuation of existing inequities and inefficiencies in the deployment of nursing or other health provider services. Insofar as current needs are not

all met, unmet needs will be included in the estimation process. Similarly, the estimation process will not be 'contaminated' by any current inappropriate use of services.

The approach is based on three underlying assumptions: all health care needs can and should be met; cost effective methods of addressing needs can be identified and implemented; and health care resources are utilized in accordance with relative levels of need.

Although it has the advantage of focusing attention on the efficient use of resources within the health care sector, this approach ignores the question of efficiency in the allocation of resources between health care and other activities. The allocation of resources between sectors of the economy is essentially a political decision. Needs for care may be an important input into this decision, but they are unlikely to be the only one.

A second issue that arises from the needs-based approach is that there is no a priori reason why resource requirements derived from a needs-based approach will necessarily be used to meet needs. Human resources may be used to meet demands that do not coincide with underlying needs while the needs of 'hard to reach' populations may remain unmet. In this way, even estimates based on needs-based approaches may appear to be inadequate to meet all needs – because of inefficiency in the use of nursing resources, for example – and this may lead to demands for further increases in nursing resources. In other words, the epidemiological principles underlying the needs-based approach must be linked to economic principles about the opportunity costs of resources, both within and beyond the health care sector.

UTILIZATION-BASED APPROACH

Under this approach the quantity, mix, and population distribution of current health care resources are adopted as a baseline for estimates of future requirements. The level of utilization of human health resources services is expressed in relation to the demographic profile of the population to produce subgroup-specific average rates of provider utilization.

The population characteristics used are generally confined to age and sex, since there is evidence that health care needs vary systematically according to these factors. Age- and sex- specific rates of utilization are applied to estimates of the future size and demographic profile of the

population to produce nurse requirements for the future. In principle, this range of characteristics could be increased to incorporate other population characteristics related to needs. However, the confounding influence of variations in supply on variations in populations' use of services have tended to deter researchers from incorporating these factors in the utilization-based approach. In its simplest form the approach is based on three broad assumptions: the current level, mix, and distribution of nursing services in the population are appropriate; the age and sex specific resource requirements remain constant in the future; the size and demographic profile of the population changes over time in ways predicted by currently observed trends in age and sex specific rates of mortality, fertility, and migration patterns.

The validity of any one of these assumptions is arguable. Markham and Birch (27), for instance, note that practice patterns and modes of delivery are continually developing over time in ways that affect the per capita use of specific provider-specific services. Indeed, applications of the approach have relaxed some of the assumptions Denton *et al.* (28) consider alternative assumptions about trends affecting the future demographic profile of the population. However, the underlying question remains: "How many nursing (or other provider resources) hours will the population use in the future?". As patterns of behaviour such as smoking and alcohol consumption change over time, the health risks associated with these behaviours will also change, with consequences for the demographic profile of service requirements. Similar arguments can be made about changes in environmental exposures, employment profiles, and many other factors associated with health risks. Markham and Birch (27) argue that the main problem arising from this approach is that, from a policy perspective, it overlooks the consequences of the 'errors' arising from these assumptions proving to be invalid. Because service utilization is not independent of supply, any overestimate or underestimate of requirements will be reflected in changes in the levels of services per capita population (i.e. service intensities). Thus, current service intensities, which form the basis of the utilization-based approach, emerge from the estimating errors of the past and not from the epidemiological characteristics of the present or even from the current willingness and ability of the population to pay for services.

EFFECTIVE DEMAND-BASED APPROACH

Under the effective demand-based approach, economic considerations are introduced to complement the epidemiological principles of the needs-based approach. As Lomas *et al.*(29) argue, fiscal resources have not historically been factored into projecting supply requirements, presumably because the forecasting task has been seen as an attempt to assess requirements based on needs. Because of the social nature of healthcare needs, the assumption has been made that resources could be found. However, we have seen that definitions of need are less than precise and, more importantly, that there are clear possibilities for resource trade-offs. It would be unwise, therefore, to omit fiscal resource constraints in future forecasting exercises". The approach remains interested in ensuring that human resources are deployed efficiently (i.e. in ways that have greatest impact on health needs). But, by relaxing the assumption that all needs can and should be met, the approach can focus on relative levels of needs within the entire population affected by those needs.

Using this approach, the starting point is to estimate the future size of the economy for which nursing services as well as all other commodities are to be funded. This estimate is then used to assess the proportion of total resources that might be allocated to health care, and the share of this health care allocation that should be devoted to nursing or other provider resources. Epidemiological information on the level and distribution of needs in the population interact with the roles that nursing or other provider human resources can play in meeting those needs for different health human resources. In many countries, special consideration of economic issues may have better prepared us for the ultimate swing in over- and under- supply of nursing personnel we currently face.

THE PAKISTAN STORY

In many countries, the regulatory body is a repository of information relating to supply and labour market indicators. In some countries however, the regulatory body lacks even the most basic information on its members. In Pakistan, data on both labour force and labour market are incomplete, fragmented, and not readily available. In her study Amarsi (30) has noted that "the nursing human resource development situation is unclear" and identified an excess demand for nursing personnel, but no ability to

evaluate current utilization and distribution of nurses. The lack of quantitative data has led Amarsi (30) to use a qualitative approach in order to investigate critical issues in health human resources for nursing.

A four-year programme, entitled The Development of Women Health Professional Programme (DWHP), focuses on the need to collect quantitative data on the nursing workforce and to develop an integrated data system. A computerized database developed at the regulatory body provides quantitative as well as demographic information on licensed nursing personnel within each cadre of the profession. That information has negated many of the widely accepted perceptions regarding labour force participation. Contrary to popular belief, many women continue to work in nursing after marriage and motherhood. Reliable information on the number of nursing personnel in each cadre demonstrates the gap between the number of nursing personnel reported in government planning documents (35 000) and that observed in reality (15 000) as regards registered nurses.

The computerized database developed at the nursing examination boards provides information on the students enrolled in basic nursing educational programmes and on newly qualified nursing personnel. Profiles of the student body and new graduates became available to planners. The development of a computerized data base on the labour force participation (e.g. distribution across facilities, hours of work, status in employment, underemployment, unemployment) encountered numerous problems as the information coming into the central nursing offices was unreliable and incomplete. The need for a comprehensive on-site survey of each service and educational facility in the country became an essential first step. Once a data-gathering tool has been developed and pre-tested (31) and, once it becomes functional, it will be linked to the other data sets, providing a comprehensive data base readily available for planning.

Before 1995 there were no databases on the nursing labour force and no ability to forecast the number of nurses that would be needed. The situation in Pakistan demonstrates the need for an infrastructure with the capacity to gather reliable and valid data and to establish linkages with information systems on other health care providers and on the changing market conditions for labour. At the same time there is considerable pressure "to upgrade human resources through continued expansion of education and health services".

O'Brien-Pallas *et al.* (9) have built a dynamic system-based framework that takes into account: population characteristics related to health levels and risks (needs-based factors); service utilization and personnel deployment for nurses and others who provide similar or the same services (utilization-based factors); the economic, social, contextual, and political factors that can influence health spending (effective demand-based factors); population clinical and health status elements, provider and system outcomes resulting from the different types of nurse and other health provider utilization.

This model incorporates each of the three methodological approaches outlined earlier but places these approaches in the context of the assessment of needs and outcomes for service provision. Simulations of the health system provide needs-based estimates that are used to optimize outcomes. Members of the research team are currently testing the practical applications of the model.

Simulation is a powerful technique. Hall (7) suggests that it allows planners to explore consequences of alternative policies, facilitates input and output sensitivity analysis, and makes it easier to involve stakeholders throughout the process. Simulations are a means to assist planners to make decisions; they are not an end in themselves. The extent to which simulation provides useful scenarios for consideration depends on the quality of the data used in the model and on the extent to which the variables modeled reflect the system as a whole. In tracing key challenges to the use of WHO's simulation tools through the 1990s, Hall (7) found that planners want short-term estimates since they may be reluctant to project "estimates", in the longer term because of complex data requirements. Planners do not understand the concept of scenario testing and view scenarios as outcomes rather than as information to be used by planners in order to influence the training and deployment of health professionals and hence avoid or reduce the probability of shortfalls or surpluses in health planning.

Personnel to population ratios, population based rates and utilization-based rates have been used as the basis for computerized simulations (32–34). However, these are not considered to be typical simulation models. They are static models and lack the capacity to examine the dynamic relationships among inputs/outcomes. Although techniques

such as production functions, linear programming, and Markov chains are attractive because the resulting models can be solved analytically, they often require significant simplification of a problem to make it fit the required form. Simulation is much more flexible, in that it can model the evolution of a real-world system over time according to mathematical or logical relationships between objects and to probability distributions. Rather than generating an exact mathematical solution, an iteration of a simulation generates one possible outcome. The model is run repeatedly to get an estimate of how the system will behave overall. Simulation probably offers the most useful tools for assessing substitution across and within professions and for addressing issues such as the geographic distribution of health personnel. Simulations are often used to analyze 'what if' scenarios, a capability essential for use in health system planning. While they are easier to apply than analytical methods and require fewer simplifying assumptions, simulations can be costly to implement because of their detailed data requirements.

Two commonly used approaches to assessing uncertainty in health projections are deterministic sensitivity analysis and stochastic simulation (7, 35). Song and Rathwell (35) developed a simulation model to estimate the demand for hospital beds and physicians in China between 1990 and 2010. Using a simulation model they compared deterministic sensitivity analysis and stochastic simulation for the assessment of uncertainty in health projections. Their simulation model consisted of three sub-models: population projections, estimation of demand for medical services, and productivity of health resources. The outputs for the model included the number of hospital beds and the number of physicians required for the future. They produced three estimates, including the low and high limits, and the most likely value for each variable. Their findings indicate that the stochastic simulation method uses information more efficiently and produces more reasonable average estimates and a more meaningful range of projections than deterministic sensitivity analysis. However, Hall (7) cautions that detailed data requirements required for stochastic modeling usually make it difficult to use the stochastic model approach in developing countries.

OTHER APPROACHES

More recently, Bretthauer and Cote (36) have tested a model and solution method for the planning of resource requirements in Health Care Organisations. To determine resource requirements, they developed an optimizing/queuing network model that minimizes capacity costs while controlling for a set of performance constraints, such as setting an upper limit on the expected amount of time a patient should spend in the unit. This model needs further testing; however, it may be applied to capacity planning in a variety of health care settings, including the community.

Anderson and colleagues (37), describe a managed care model for projecting the number of otolaryngologists required in the United States. They suggest that unless assumptions are clear, different models used for the prediction of health human resource requirements will produce different results. This is a conclusion previously reached by Birch *et al.* (26) and O'Brien-Pallas *et al.* (38, 39). Whatever method used, O'Brien Pallas *et al.* (9), Song and Rathwell (35), and Eyles *et al.* (40) suggest that estimates for requirements will not be exact numbers but a range of numbers. As models are developed further, sensitivity analysis will allow policy makers and planners to have different estimates of required resources from which to plan their service need and HHRP. The importance of continuously updating estimates cannot be overstated.

ARE WE DOING IHHRP TODAY?

There are limited indications that we have moved closer to IHHRP-based modeling. The published literature since 1995 continues to stress the need for IHHRP today, but few peer-reviewed publications discuss the results of such studies. Grey literature from WHO describes some of the structural and process factors needed for IHHRP and indicate that these activities are underway at the region and country level. The outcomes of these analyses have been hard to access despite a thorough search at WHO Headquarters and regional offices. Access to these findings on web pages would contribute to the science of IHHRP. While 'pre-packaged' methods for planning human resources are attractive because they offer documented methods for immediate action, approaches to planning must consider the goals of the exercise and the desired outcomes. Trade-offs between

conceptual and analytic advances, as well as rigor and ease of use, must be carefully considered in light of the user's situation and the future orientation of planning.

Cooper (8) uses supply-based statistics to emphasize the need for integrated planning. Professions included in this exercise include physicians, and the ten most common non-physician clinicians (NPC) whose roles most strongly overlap with physician services. The non-physician groups include traditional NPCs like nurse practitioners (NPs), certified nursing midwives (CNMs), and physician assistants (PAs); alternative disciplines including chiropractors, naturopaths, practitioners of acupuncture and herbal medicine; and specialty disciplines including optometrists, podiatrists, certified registered nurses anesthetists (CRNAs) and clinical nurse specialists (CNS). Many of the practitioners are being prepared for primary care roles. Projections until 2005 revealed that, given supply and current enrollments in educational programmes, the number of NPCs would increase by 68% between 1995 and 2005. This is at a time when Cooper estimates there will be a surplus of physicians in the US. If misdistribution problems of providers can be corrected, the potential impact of the surplus may be somewhat mitigated. The study has several methodological limitations but does point to the needs for linking national and state workforce planning with the actual production of personnel and the integration of both. The author notes that the relationship between the demand for physicians and that for NPCs needs further evaluation. A link to needs of the population and health and system outcomes would provide the context for a thorough investigation of these issues.

Most of the approaches to IHHRP models described in the WHO Toolkit (7) are utilization- or supply-based subject to challenges of the related assumptions as was the case in the Cooper study. The toolkit approach to determining future requirements for integrated workforces uses among other things the ratio of other professions to the number of physicians. As health restructuring moves out of the hospital or clinic setting to non traditional service settings, the number of 'other' personnel, may have to be "unbundled" from the data related to physicians in order to ensure that practices as defined in country and professional legislation are fully addressed. Inefficient substitution could lead to duplication of services.

IHHRP must determine the numbers of health professionals required to meet population health needs and examine questions such as

substitution and skill levels within and among professional cohorts. WHO (2) states that the relative price of different skill categories should guide decisions about the most efficient mix where labour markets are functioning. No direct account is taken of outcomes of interest. The basic goal of human resource planning is to ensure that populations in need receive essential services. In countries where some degree of planning is possible, de-skilling of the workforce must be carefully considered. In the case of nursing, recent literature has demonstrated that higher skill levels are associated with reduced incidence of nosochomial infections and adverse events (41–44). This knowledge must be balanced with country realities in the short term goals for future planning must include the notion of the right level of professional training, in the right place, to achieve best outcomes. Decisions on the skill levels of providers must be made judiciously and must take into account the evidence of ongoing research.

Restructuring initiatives in many countries have been driven by fiscal policy considerations rather than by the need to realign the system towards better outcomes. In the late 1990s, industrialized nations have faced two important challenges: the non-viability of the welfare state; demands for wide ranging services from consumers (45); (website: www1.worldbank.org/ publicsector/civilservice/oecdcountries.htm).

The resulting activities of reform led to redesign of the government approaches with a focus on decentralization and local accountability. However, job losses occurred as a by-product of this process of "reinventing governments and reforms". Resulting initiatives to retrain and assist with job searches to enhance re-employment opportunities have led to disappointing results. For example, registered nurses and other health professional were laid off or moved to part-time employment to reduce costs. However, these planning decisions have had some unanticipated consequences. In Australia, Canada, the United Kingdom and the United States, for example, nurses were laid off or became unemployed or underemployed. The media and others quickly identified that there was no certainty of full-time employment upon graduation. Enrollment in nursing schools declined as a consequence, partly through programme closures and partly because of a severe drop in the applicant pool as young men and women chose other career options with better employment potential. Nurses who remained in the system report concerns about unsafe practice environments and severe work overload. Given the transition period

between programme entry and graduation – even though enrollments have now increased in the meantime the impact of the reduced production of new nursing personnel is occurring at exactly the time when the supply of nursing personnel is decreasing because of aging of the nursing workforce. There is thus a potentially severe shortage in nursing. Changing public policy and the public perceptions of nursing as a career option and improving the work environments for nurses in order to attract new nurses and retain the aging nurses now in place will be difficult in the short time available. The nursing situation described above is true for other health disciplines such as physicians. Analysis of the potential impact of planning decisions must consider many factors that can influence both short and long term consequences.

CONCLUSION

This paper provides an analysis of how labour market indicators can be integrated into service planning, discusses whether planning is sufficiently responsive and flexible to retain relevance and validity in rapidly changing health systems, describes various models and approaches towards linking and integrating workforce planning and service planning, discusses methodological approaches to integrating planning and examines effective approaches to the use of computer based scenario modeling in support of the support assessment of current and future planning options. The context and broad cross-cutting themes of public sector, political, social, and macro-economic changes have been considered, using actual country examples. Where publications exist, empirical evidence serves as the basis for this analysis.

While strides have been made in resource planning, the following key themes emerge from this paper including: few empirical applications of the conceptual frameworks have been developed in the last 10 - 15 years; integrated and discipline-specific empirical applications are in place but do not build upon conceptual and analytic advances; discipline-specific studies still dominate the literature; labour market indicators, if collected, play an important role in planning for the workforce; many applications do not show a link to outcomes; modest financial investments to build upon conceptual and analytic advances and data requirements may result in large payoffs that greatly exceed investments; the opportunity costs of not

moving forward and relying on old methods must be considered (continued reliance on primarily supply and utilization based approaches have led to cycles of over and under supply approximately every four to five years in the physician and nursing workforce).

In order to move into the 21st century we need to make a concerted effort to move away from old and safe approaches and embrace conceptual and analytic complexity, with a focus on outcomes and integrated planning, in order to provide an efficient and effective health service for future generations.

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Integrating Workforce Planning, Human Resource and Service Planning Developing Country Perspectives, Nepal

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INTRODUCTION

There is virtually no limit to the amount of medical care an individual is capable of absorbing (1). Nepal is a poor country, one that has been put in the group of those that are least developed. In this context, therefore, we have nothing to boast about. Leaders who rule us keep on telling that things will be going to be better by the end of this century viz. by the year 2000 in reference to Primary Health Care. We have been hearing this since the Alma-Ata declaration. More recently there has been talk of liberalization and privatization. The talk is of public and private mix in the delivery of health care services. Though the writing is not quite clear on the wall, the intention seems to be to hand over the curative services to the private sector and for the government to restrict itself to just promotive health care. Whilst this is an easier option this seems tantamount to washing ones hands from having to do the difficult task of providing reasonable health services to the people at large. Nearly half of Nepal population is living below the poverty line. Its per capita GDP is US $110 (2), and official spending on health care by the public sector is a mere US $ 3.10 per person (including donor funding) (3). The fertility, infant mortality and population growth rates are very high. In the World Development Report 2000, Nepal is ranked 144 from the top (4). Nepal is one of the poorest and least developed countries in the world with extremely limited resources. The World Bank in 1998-99 (3) carried out a comprehensive analysis of health care delivery in Nepal. Following an analysis with WHO guidelines and support of experts from Nepal and outside, Government formulated a National Health Policy, with the following commitments: to improve the health status of the people particularly those whose health needs are not often met, are underprivileged, specially women, children and the rural population, by strengthening promotive, preventive, curative and

rehabilitative health care services; to manage technically competent and socially responsible health personnel in order to provide quality of health care services; to improve the management and implementation capacity of the public health sector; to develop appropriate roles for public, private and NGO sectors in financing health services & work for alternative Health Financing Schemes; to implement health programs with full community participation following the norms of decentralization and local government concept in an integrated approach. Hence, the capacity of people's access to the labour market by creating a healthy labour force, income generation activities, to assist the poverty alleviation (5).

Full acceptance and understanding of primary health care has been achieved at all levels of the health system. At the policy level it is realized that only an integrated approach is a viable alternative to manage the present crisis in delivery of primary level health care. However it is felt that the primary health care (PHC) concept should be clarified and explained to health workers associated with the referral system particularly at the hospital end (6). Whilst the government stated that Nepal is committed to HFA 2000,it also claimed that the National Health Policy of 1993 is radically different from anything in the past. In this policy document a commitment for providing health care at grass root level is spelled out very clearly. Manpower management was planned to make them more efficient and responsible to local leaders. The concept of reaching all the villages by way of Sub Health Post at the Village Development Committee (VDC: smallest administrative unit and a unique example of local governance) level was accepted and became official. The stress was on the integration of all health related activities in the District Unit with the intention of upgrading the health status of population, 93% of which is rural (7). Despite its commitment to acute care and other aspects of health care, hospitals have the opportunity to provide leadership in resolving the epidemic of social ailments. It is a major community concern. In its role as a major community agency, systems must recognize that the results of the majority of the illness lies in the lifestyles and social conditions people lives. Doctors alone can not tackle the situations, promotion of health needs an integrated effort by all agencies of Civic Governance, working together for promotion of health and healthy living, preventing diseases, treating cases, controlling transmission and rehabilitating those in need.

The hospital industry is still in the highly technological phase of its life and evolution. In this situation, that means getting involved with other social agencies in the region, each of which is frustrated by the burdens it is carrying. The challenge is to help their agencies, not to replace them. The challenge is to organize facilities, services, people, finances, and special knowledge in a community based operation This action would entail a close relationship between the new Community Services Corporations and Public Health Agencies with Academic Institutions. Integrated health care systems were developed with the cooperation of government, physicians, citizens and local businesses and industry; and today are financially, medically, and organisationally successful. Tomorrow's health care system is challenged to establish a new organisational entity with a mission that will control the epidemic and create a healthier community. Integrated systems are an unusual combination of a social enterprise, education, and an economic and/or business enterprise. Each of these has its' own life. As a social enterprise, every person in the region is affected by the system's social commitment. As an educational enterprise, quality of care is assured. As an economic enterprise, the system is assuring itself and the community that the best care, services, facilities and personnel will be available to care for those who are sick and injured. Each of these major aspects of community life must be rallied to the support of a proposal for a service organisation to respond to the problems and to plan for the next 5 to 10 years. In the mean time, we are in the midst of an epidemic. It must be attacked. Community interest, pride and well-being are our tomorrow are and will be tough. On the one hand, we must deal with an epidemic. There must be an organized and well-financed community corporation to lead this effort. On the other hand we must move into the future with a vision of greatness. We must also be willing to share our financial strength, medical care, research capabilities, creativity, vitality, and dreams for all our children with our concerned leaders. A Quote from Abraham Lincoln: " The dogmas of the quiet past are inadequate to the stormy present, we must think a new and act anew". The success of the future depends upon the dynamism of work, rather than repeating the mistakes of past. This goes for in any management process including health care.

INTEGRATION OF PROVISION

As organisational units like hospitals or clinics become more autonomous, the service delivery system runs the risk of becoming fragmented. Fragmentation may occur among similar provider configurations (hospitals, ambulatory clinics, or public health programs) or between different levels of care. Such fragmentation has negative consequences for both the efficiency and the equity of the referral system unless explicit policies are introduced to ensure some sort of integration among the resulting semi-autonomous service delivery units (8).

When health services become fragmented, allocating efficiency suffers. For example, non-clinical health facilities designed to provide public health services in Poland and Hungary often engage in secondary prevention and a wide range of basic care because they are not adequately linked to ambulatory care networks. The university hospitals that have been made autonomous in Malaysia provide a wide range of inpatient and outpatient care for conditions that could have been treated effectively at lower levels in a community setting. The newly autonomous general practitioners in the Czech Republic have been quick to buy a large quantity of expensive equipment that is rarely used (9). When organisational changes among providers cause fragmentation, disillusionment with a market-oriented system can lead to some vertical and horizontal reintegration, with more hierarchical control. One way to preserve the virtues of autonomy for providers without fragmentation is via "virtual integration" instead of traditional vertical integration. Under vertical integration, a clinic takes orders from a hospital or a government department, limiting its responses to local needs. Virtual integration means using modern communication systems to share information quickly and without cumbersome controls.

This is particularly valuable for referrals, and can include non-governmental providers hard to incorporate under hierarchical schemes. Efforts at virtual integration face three common problems, related to decentralization, separating purchasers from providers, and user charges. In many countries, there has recently been an increased enthusiasm for decentralization as a means of attaining a wide variety of policy and political goals in health as in other areas. The explicit objective of decentralization is often to improve responsiveness and incentive structures

by transferring ownership, responsibility and accountability to lower levels of the public sector. This is usually done through a shift in ownership from the central government to local levels of the public sector-provinces, regions, districts, and local communities' individual publicly owned facilities (9).

HUMAN RESOURCES MANAGEMENT FOR HEALTH

Most countries share this view of the importance of human resources for health development. Evans (10) suggests that "survival, let alone growth and development, of all organisations depends on the availability of human resources, time, effort and skills to carry out activities". Within health sector the importance of human resources is recognized "both because the workforce has the ability to make health services effective, and because of the high proportion of health expenditure dedicated to salaries, incentives, and the payment of health workers" (11). Estimates place the health workforce's use of the country's recurrent budget at about 70-75% (12). In the past decade the workforce has become a focus for civil service reform, cost containment and health sector reform initiatives in many countries. Fiscal responsibility is a predominant concern of virtually all governments today. The world health report 1997 chronicles the fact that ministries of health are faced with chronic problems of imbalances.

There are three common imbalances in the health workforce. Numerical imbalances in countries that are either producing more health workers than they can afford, or not enough. Qualitative the type and level of education and training and the job that needs to be done are not consistent. Distributions mismatches between the geographical, occupational, institutional and specialty mix or between the public and private sector. A fourth type of imbalance often observed is the lack of synchrony between HRH policies and the national health policy. For example, national health policy may emphasize PHC while the HRH policies are designed to facilitate growth only in medical personnel (and specialization), often at the expenses of the education and training of health workers who are more oriented towards the delivery of PHC services.

Comparisons of the numbers, levels and categories of health workers across countries are subject to significant difficulties owing to differences in the organisation and management of health systems, differing

roles and responsibilities, varied standards of education, and nomenclature. The comparisons, nonetheless, can indicate a magnitude of differences, which require investigation. For example, the World Health Record 1997 states that the number of nurses and midwives varies substantially between countries at different levels of development (crudely measured in terms of their macroeconomic indicators). Economies in transition report an estimate 800 nurses and midwives per 100000 population; developed market economies report around 750, where as Low Developed Countries have around 20 per 100000. It is clear that regardless of the overall organisation of a country's health services delivery, these figures point to different capacities to deliver services and to meet health system objectives such as equity and access to health services. Nepal is one of the country in SEARO region whose planning in Health Manpower was not reached up to the fairness. Table 1 shows a contrast of its success with neighboring countries. Of course, things are improving now, but needs a well-planned agenda to balance the ratio in different level of health care services, its manpower as providers' and public as consumers.

Table 1. Medical and Nursing Personnel in SEAR Countries

Country	*Year*	*Physicians*	*Nurses/ Nurse-Midwives*	*Midwives & Auxiliary Nurses/Nurses Midwives*
		Number per 100000 population		
Bangladesh	1994	18.1	7.7	Not available
India	1991	48	40.2	19.8
Indonesia	1993	11.6	64.6	Not available
Maldives	1993	18.9	13.0	51.2
Myanmar	1994/1995	28.4	22.4	23.7
Nepal	1995	5.3	5.4	6.4
Sri Lanka	1994	22.7	73.8	37.0
Thailand	1993	23.5	80.4	87.6

SOURCE: Regional Health Report 1996. WHO SEAR, New Delhi (13).

BACKGROUND INFORMATION OF INTEGRATION OF HEALTH SERVICES IN NEPAL

By the late sixties both USAID and WHO had come around to the thinking that the Nepalese health services needed to be integrated (14).

This naturally led on to the proposal of trying the process in two districts viz. Kaski and Bara, which were dissimilar in terms of location, living styles etc. The administrative aspects were first handled by Community Health and Integration Division (CHID). A Central Integration Board (CIB) was also formed. As time went on, four more districts were added. In 1980 however, both the CHID and CIB were disbanded and a new Integrated Community Health Services Development Project (ICHSDP) was formed as per the Development Boards Act of 1956 (15).

Several WHO initiatives starting from the Basic Minimum Health Needs culminated ultimately in the Health For All by 2000 (HFA 2000) strategy of 1978. This in course of time, following acceptance by the world at the Alma Ata Conference of 1978, became the "Health Call of the World". By 1987 the Ministry of Health, Government of Nepal, decided to integrate all vertically run programs. The District Public Health Offices were established. By this time the ICHSDP had a total of 37 integrated districts under it. All these now came under the newly established District Health Offices, which also became the central focal point for the district Health system. During this integration a large number of programs were merged into basic health system. Malaria Tuberculosis and Leprosy Control Programs, MCH & Family Planning, ARI, Diarrhea & Dehydration management Divisions started to work together from a single platform (16).

An important landmark in the Health Ministry took place with an act of parliament on 18th Jan. 1993 that started the process for the setting of autonomous Health Sciences University, in the eastern region of Nepal, catering for 35% of the population of the country (17). The University took its distinct position in medical education, declaring whole eastern region as a Teaching Districts. Initially 3 Districts Hospitals, 16 Primary Health Centers, 24 Health Posts and 136 Sub Health Posts were incorporated for field practice area. This provided an alternative way for Health Manpower Planning. Chronic scarcities of trained doctors are not a new problem in rural areas (18). Those working are either from a poorly equipped private sector not pace of advanced knowledge or traditional healers of different background. So, integrating health work force from public, private and academic institutions resulted in many unseen problems. The Health Sciences University is doing its best by creating partnership with many other organisations (health and social service related) in the eastern region

of Nepal. It aims to obtain support for the total human development approach based on equity and social justice. Partners in this endeavor are District Health Offices, Village Development Bank, Britain Nepal Medical Trust (BNMT), UNICEF, Plan International, Family Planning Association of Nepal (FPAN) and UNFPA, SOS Balgram, AMDA Hospital, Rotary Club Dharan, Itahari, Inarwa, Dharan, Biratnagar Municipalities and active NGO working in Health Development. Under the leadership of BP Koirala Institute of Health Sciences many other social organisations, industrial groups, private groups are interested to take part in this endeavor.

The B.P. Koirala Institute of Health Sciences is trying to bridge the gap between educational institutions, where health manpower is produced, and health centers where service is provided. It believes that "this linkage between education and service should be at all levels of health professionals' education from students' selection, training and continuing professional education to health service delivery and from primary through tertiary care. And finally, such a linkage should address the priority health care needs of society."

Active participation by medical faculties in ongoing major health activities will prove valuable in many ways. It will be highly rewarding learning experience for the faculties themselves. It will impart greater relevance and realism to undergraduate and post-graduate training programs being undertaken by the faculties. It will augment the technical content and standard of our integrated approach of health care delivery at the grass-roots level. Such participation, if imaginatively undertaken, far from detracking the faculties from their primary obligation towards education and training of the students under their charge, it will greatly facilitate their educational and training programs and make them more meaningful.

A state of the art hospital with 646 beds is functioning efficiently. It is an institution committed to provide the highest quality of health care services to the people of Nepal. Unlike most of the medical institutions and universities in the world it aims at providing comprehensive health care services from primary to tertiary level. It is committed to the development of replicable and sustainable models of integrated health systems, sensitive to the needs of both individual and community, living in both urban as well as rural areas (19). Being a community oriented and community based Health Sciences Institute, it emphasizes the need of delivering primary

health care services to the rural population at its doorsteps as well. At the same time it nurtures the goal of providing the highest degree of tertiary health care through the state of the art hospital manned by staff committed to the people of Nepal. Community based as well as basic research is an integral component of the Institute's goals and objectives. The Institute is in the process of leading from the front towards improving the health status of people of eastern Nepal. The institute has a committed team of experts in various fields of medical and allied sciences, who are ready to take up newer challenges and tougher goals to prove their worth.

The doctor per population ratio is 1:15,800 of the population (20). However about 50% of the doctor population are in the capital. This is simply because of health institutions of larger bed capacity are located inside the Katmandu valley. On top of this, the central region of the country has 445 of the 874 government posts for doctors (21). A very rough estimate of hospital beds in Katmandu valley is put at about 2000 out of the total number of about 5000 beds in the whole country. A question that immediately arises in whether the Government supported hospitals and teaching institutions are so overstaffed, that under utilization of the technical personnel occurs? Considering the relatively smaller numbers of personnel that they employ, are the private and semi-private institutions providing substandard services? Have the nursing and paramedical staffs at such institutions been adequately trained in recognized institutions and are they registered in their respective Councils?

In the case of Nepal there are on average, 6 doctors per every 100000 of the population. In rural areas the ratio is probably 1 per one hundred thousand population! This ratio will not be immediately changed. It will persist until such time as pay and facilities for living, lodging, and career development for those serving in rural areas are better than for those in the cities. As concessions on these matters are seen as "being soft" by the government authorities, it is likely that the manning of governmental posts will never be satisfactory. Proof of all this is evident in the fact that many of those selected for posting in government health institutions have not taken up this option. Even the passage of the newly enacted Health Act, is not helping much as there is no enthusiasm to join government services.

With the new medical schools and the new specialized institutes plus the nursing homes of the urban centers vying for the services of the doctors, there will not be very many left for service in the districts as per the

intention of the government. The numbers of middle level workers such as nurses, laboratory technicians required etc is not going to be available, as there are not enough for the present existing services. The private sector is more attractive than the government one and so the reality that will be faced soon is that there will be a gross shortage of middle level workers. In such a situation, the planned new institutions will not be able to function and the standards in existing ones will drop because of inadequate numbers of staff. To continue functioning, certain compromises will have to be made, leading thereby to undesirable functioning. Manning of the hospitals in the district is going to be more difficult. The district health services at the grassroots level will be functioning with lack of appropriate staff with absence of monitoring, and with a total lack of effective and supportive supervision. Alternative arrangements or options will have to be taken up. As the year 2000 approaches it seems that Health For All is perhaps just a mirage in the distant horizon.

The only solution to this problem is to share the responsibilities between academic health institutions and district health services. They should join hands following the example of the BP Koirala Institute of Health Sciences. Nepal has signed the Declaration of Alma Ata. Our commitment was to HFA 2000 with determination to provide Primary Health Care. The National Health Policy has been laid down with the stress on the rural areas. When the BPKIHS was established and the community based training course was started, the stress was on the concept of "health teams" providing care to the people. Now as developments in Nepal unfold, it seems that stress is being laid more on the training of physicians with more emphasis on tertiary care. What has happened to the concept of a health care team? It seems to have fallen by the wayside. So too have suffered the teachings of the seventies and eighties when it was said that the "high cost, big buildings, orientation to episodic illness and sophisticated technology" was not suited to developing countries such as ours (22). The stress was to have been on labour-intensive instead of capital oriented-policies, the new catchword "public/private mix in the delivery of health care". The identification of the district as the unit of health care seems another gimmick to pronounce and keep the masses in the world of make believe health care.

One way however of looking at all this is with a philosophical outlook and saying that the process of decentralization and integration of health services is on the move. Instead of concentrating all the health institutions in the capital, the building of health institutions in Pokhara and Dharan is right direction. Now the Institute should be responsible to those populations residing in adjacent areas and support its poorly equipped peripheral health institutions. Developing countries like Nepal are facing increasing challenges, which in all probability will get worse. Health problems will be greater in magnitude and the interventions will be more complex and costly. Planning of manpower including in health sector is out of balance in any developing countries. If properly undertaken, integrated management especially in primary health with the help of sound academic health institutions, a ray of hope of successfully meeting the challenges of "Health For All" will enhance the wisdom needed, now more than ever (23).

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Human Resource Management and Public Sector Reforms: Trends and Origins of a New Approach

Roberto Passos Nogueira and José Paranaguá de Santana

INTRODUCTION

This paper is presented as a contribution to a new approach to human resource management that will take into account of developments in public sector reforms in the 1980s and 1990s. The intent is to show that those reforms, especially in their opening stages, underemphasized the importance of human resource management for two main reasons: the reformers' strong emphasis on the need to reduce the size of the government apparatus and the war on bureaucracy that was made one of the principal objectives of the new style of public administration.

Hence, the approach to human resource management was essentially negative and gave little attention to the supporting legal framework or to the complex political aspects of the process. Weber's classical analysis (1) of bureaucracy in modern societies is still relevant today. Many reformers have used him to buttress their criticism and even to turn the elimination of bureaucracy into a kind of slogan (2). Despite efforts in the 1990s by many sociologists and economists (3-6) to examine the role of government in helping to fill the ideological void left by the reformers of the New Right in the tenets of social democracy, these important writers are typically more concerned with the future of employment, working conditions, and social protection in modern society than with what is usually understood as human resources.

Some reformers (7) argue that Weber's description of bureaucracy is associated with an outdated administrative style that is obsessed with process control, proposing its replacement with a management style typical of private enterprise, focused on results and cost/benefit ratios, which often requires that actions be carried out not directly but by private firms or nongovernmental entities contracted for the purpose. This is a false contrast that has been quite useful to the rhetoric of the reformers but rests on inadequate theoretical foundations. Weber himself most felicitously postulated that there is no modern society without a bureaucracy and

without an ongoing effort at political mediation between the workings of the bureaucracy and the aims of equity, social change, and democratic participation. This means that, to make public services truly effective and thereby attain the aim of balance between bureaucratic prerogatives and citizens' rights, human resource management must be policy-driven, along with other measures of social control to be taken by the State outside the public agencies.

The interpretation proposed here is that human resource management is a policy function for regulation within and outside the public agencies, mediating between a bureaucracy and the ethical and political aims that are embodied in its institutional mission. This analysis requires a change in the theoretical underpinnings in order to give weight to the principles of justice that must govern the functioning of public institutions in a democratic society. Such a change must begin with an understanding of the social significance of a bureaucracy.

The interpretation of human resource management as a policy regulatory function is a proposal to help counterbalance the excessive emphasis on economic aspects that typified the reforms in their early years. The present discussion must not disregard the current relevance of the principle of merit, which as an expression of equal opportunity governs access to public posts and serves as the foundation for the prerogatives of the bureaucracy. However, recent and complex notions of distributive justice are modifying the context of that principle, in which it acquires a relative value. Democratic policy has also imposed heavy constraints on the power of the bureaucracy in the name of other citizens' rights, and the initiatives for public sector reform have only encouraged the radicalization of those views in advocating the urgency of shifting the focus of public services to the citizen/consumer.

The analysis that follows shows that, 20 years after the establishment of the pioneering and highly influential Thatcherian framework in the United Kingdom, reformist experiments began a course correction that has restored the importance of human resource management as public policy. That trend must be interpreted as part of the reaction to the ideology of "the less government, the better," which impelled the reforms of the 1980s and today is the target of criticism from multilateral cooperation agencies. The view in the present paper is that in many places the combined effects of downsizing and underestimation of the

human resource planning function have led to a situation where government has lost the ability to regulate and govern. Governments are now endeavouring to rectify that strategic error, and a trend is emerging toward the upgrading of human resource management processes, seeking some balance between old and new ideas.

THE PRESENT CONTEXT FOR CRITICISM OF THE REFORMS

Proposals for reform of the public sector were components of the liberal economic reforms adopted in numerous countries in the 1980s and 1990s. The novelty here is that fiscal adjustment policies - the backbone of those reforms - have recently acquired new critics in addition to those on the left. Eminent figures associated with United Nations cooperation agencies and the international development banks have drawn attention to the unfavorable impact of those reforms on income distribution and on overall indices of well-being in developing countries. The impropriety of continued rigid application of the principles underlying such policies in a situation that calls for more effective action by the institutional structures of government has also been emphasized. In 1998, as Vice President of the World Bank, Joseph Stiglitz opened the door to that trend toward critical review when he stated that the principal aims of economic reform in the "Washington consensus" are insufficient to trigger the growth of national economies. In his view, measures to open up markets and stabilize prices, directed strictly at making markets work properly, failed to provide for important social aims such as equitable and democratic development (8).

Jose Antonio Ocampo (9), Executive Secretary of the Economic Commission for Latin America (ECLA) expresses similar views. He recognizes that in the last two decades the countries of Latin America have been extraordinarily successful in their policies for managing their public deficits and debts, and that this has brought their economies more in line with international guidelines. He underscores, however, that in face of the imperative of adjusting the public accounts, equity fell by the wayside. In his view, the strength or weakness of public finances depends on the capacity of a country to enter into a "fiscal pact" that legitimizes government action, so that priority aims can be set for public expenditure that will contribute to stable development. Experience with economic reforms has shown that many countries, after promoting privatization

processes, have found themselves unable to make the investments needed to implement subsequent measures such as: the efficient regulation of new markets; the development of human capital; the provision of infrastructures for services; and in consequence, a wide distribution of the fruits of progress (9).

Kliksberg (10) warns that the time has come to restore the issue of social inequity at the heart of the development effort. Elsewhere (11) he notes that the emergence of these problems has revived a discussion of the role of government in stimulating socio-economic development. In the 1980s government was seen as a hindrance to the thriving of markets and was to be dismantled and reduced to the essential minimum. This interpretation had arisen to supplant the opposite view that government action was by itself sufficient to promote development. These two opposing interpretations have produced wild swings in opposite directions. It should now be recognized that, when deprived of government regulatory machinery, the market gives rise to enormous social inequities.

Enrique Iglesias, President of the Inter-American Development Bank (IDB), argues that, in the face of the social gap that was partly widened or reinforced by the wave of reforms in the 1980s and 1990s, the role of government must be reconsidered in terms that go beyond the two extremes of the debate: government as the big engine of development and the minimal or near-minimal government role implied in those reforms. He claims that the old fundamentals must be left behind and new theoretical references must reflect on the role and functions of government as a precondition for its reinvention. One preconception that became deeply rooted and inspired many reformers led to a drastic downsizing of government and of its ability to intervene in economic and social affairs through such measures as privatization, deregulation, decentralization and withdrawal from whole sectors of activity owing to the scarcity of fiscal resources (12).

When the reforms began it was thought that the smaller the government, the better, whereas the conclusion to be drawn from the accumulated experience is that the better the government, the better. Iglesias cited the case of the United States, where a preoccupation with downsizing is giving way to mounting demands that government act intelligently to regulate markets and provide essential services, and where

there is an acknowledged undersupply of talent in government institutions and shortage of public servants.

THE SHRINKING SUPPLY OF PUBLIC SERVANTS

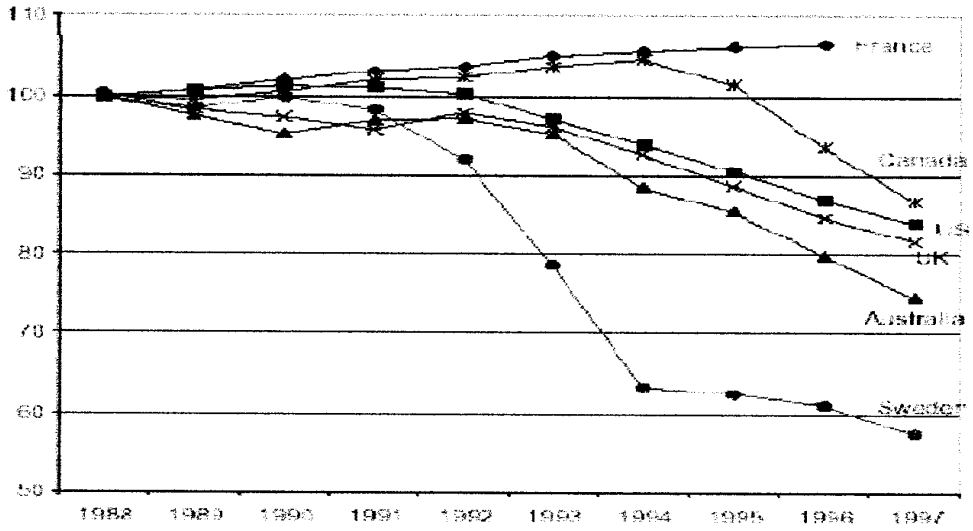
The rule that "the smaller the government the better", which governed the reforms of the public sector may be said to have been based on two assumptions, one financial and the other administrative. On the financial side the reforms started from the diagnosis that the government apparatus was bloated with personnel costing much and doing little. On the administrative side the bureaucratic style of public administration, favoured by the distinctive culture of its personnel, was to be replaced by a management style similar to that of private enterprise.

These two assumptions did not always lead to the adoption of the same kinds of measures. There was considerable variation among countries in the mix of internal contracting (between government entities), outsourcing (to private entities), outright privatization, and simple non-replacement of outgoing staff members (with or without incentives to early retirement). But every reform led in one way or another to the same result: a reduction in the supply of civil servants.

Changes in personnel strength in some developed countries are conveyed by OECD data. In the United States, a downsizing program passed by Congress led to a reduction of the personnel of the federal agencies by 355 500 persons (16.2%) between 1993 and 1998. In Australia the federal workforce shrank from 177 742 in 1987 to 121 262 (31.8%) in 1998. In the United Kingdom the reduction came to 34 000, or 34% of the national civil service in 1979. In Sweden, despite the predominance of social-democratic policies, no less than 200 000 posts in the central government have been abolished since 1990.

The figure that follows illustrates changes in the strength of the civil service in six OECD countries between 1988 and 1997. Only France did not drastically reduce its force of civil servants in that period. There are no data for a group of Latin American countries, but the case of Brazil may be taken as an example: the work force of the Brazilian federal public sector shrank from 986 034 civil servants in 1991 to 830 180 in 1998, a gross reduction of 15.8%.

Figure 1. Relative Changes in the Number of Public Servants Over Time - OECD Countries



It is necessary to underline that the health sector did not systematically experience similar down trends in labour. In Sweden, for example, as Bach (13) analyzed, the labour market in public sector of health increased from 215 000 in 1970 to 387 000 in 1980 and to 420 000 in 1992. The reduction of the rhythm of growth of the health market labour in the past two decades seems, nevertheless, to be a universal trend that reflects the impact of certain technological and organisational innovations in the delivery health services rather than an explicit downsizing policies.

In the beginning, public sector reforms were described by the reformers as an attack on what they regarded as the root evils of public service: privilege, co-operativism and incompetence. One of the reformist slogans adopted by Margaret Thatcher's government was "deprivilege the civil service!". In many places the reformers publicized their agendas by using the word "bureaucracy" in a pejorative sense and identifying it with civil servants collectively and a mode of administration based on rigid standards and hierarchies that engendered an obsession with formal control of administrative processes. The two books by David Osborne *et al.* that

have deeply influenced public opinion in the United States and helped the political leadership to devise the "business" model for civil service reform bear the suggestive titles Reinventing Government and Banishing Bureaucracy. They imply that radical reform of government by creative leaders requires elimination of the bureaucracy or a check on its power.

While the reforms in progress in such countries as Australia , New Zealand, the United Kingdom and the United States all emphasize a managerial style of administration, they exhibit important differences in human resource aspects, with nuances that are not always easy to perceive. Hence, it is necessary to consider how the cultural, political, economic, and social peculiarities of each country operate to shape the reform of its public sector.

SIGNIFICANCE OF BUREAUCRACY: THE ERROR OF THE CIVIL SERVICE REFORMERS

Paraphrasing Enrique Iglesias, the error of the reformers was in thinking that the smallest bureaucracy was the best, whereas sociology actually shows that the best bureaucracy is the best. The reformers distorted Weber's thinking to buttress their ideas of flexibility in government action. Weber's view (and the view taken in this paper) is that bureaucracy is indispensable in any modern society because its existence is a necessity for distributive justice. It must be emphasized, however, that the quality of a bureaucracy can vary as widely as the functions it performs.

According to Weber, a bureaucracy is an expression of the rationality of modern capitalism, which imposes general rules of control on the functioning of the organisations of society, be they private enterprises or government agencies. But it is above all an instrument for dispensing justice by virtue of its very impersonality, because it generates equality of opportunity or, more precisely, because by administering tests it gives all persons of talent a shot at a position or office. A bureaucracy does away with the patronage found in earlier societies, where appointments were made at the whim of the sovereign, his protégés and the powerful in general.

The authority of bureaucrats derives from legal mechanisms that give them dominion over specific matters and/or territorial jurisdictions. It is usually apportioned along hierarchical lines, in the sense that the higher

the post or office, the wider the compass of functions and hence, the greater the decision-making power. A public bureaucracy is governed by the principle of legality, under which only that which is expressly permitted by law and administrative regulations may be done. The very structure of a bureaucracy is determined by formal description because of the need to specify the qualifications required of the incumbent of each position and the duties attached to that position. A private bureaucracy is less formal in this respect, but it is known that the positions are also subject to qualification requirements and are associated with specific duties. In today's societies selection tests in both the public and private sector are increasingly guided by criteria of justice, including greater opportunities for minorities and for the disabled.

These are perhaps the salient features of a bureaucracy, and it must be emphasized that the degree of centralism, formalism, and coverage of the hierarchies in which it is organized depends on the historical conditions of the particular case. In a meticulous study of the bureaucracy in a number of French institutions, Crozier (14) found evidence that the notorious "bureaucratic rigidity" is less a preferred management style of the functionaries and more a personal strategy for defense against abuses of power by supervisors. It also preserves a space for freedom of action around the worker without which life in those organisations would be unbearable. The idea that a bureaucracy acts everywhere in a coldly impersonal manner because it is required to by the rules that govern it is no more than a myth, because it ignores the adaptability and cultural evolution inherent in any social operating scheme.

Moreover, the view that a bureaucracy is only a way of organizing administration, which makes it one option among others available to the authorities of the public sector is reductionist. In any sector of social activity, a bureaucracy embodies a basic solution for justice in a democratic society, and its structure is regulated by principles consistent with the general idea of equality: equal opportunity of access to positions and offices. This access is an important factor in the equalities/inequalities of power, status and property among members of society. It is therefore customarily regulated by criteria of justice not only in the philosophical sense of the term, but in the positive sense that the applicable laws are to be obeyed, which in many countries is made a constitutional matter. The philosophers who have concerned themselves with establishing foundations for the

criteria of justice in the modern world state that those differences can not be taken as a matter of greater or lesser productivity of collective work.

It was John Rawls, the most eminent philosopher of justice, who with the well-known "difference principle" sought an appropriate solution to this problem in the doctrine of political liberalism. "Social and economic inequalities are to satisfy two conditions: first, they are to be attached to positions and offices open to all under conditions of fair equality of opportunity; and second, they are to be to the greatest benefit of the least advantaged members of society" (15).

Under this principle it is understood that the differences engendered among members of society by the apportionment of positions and offices are fair when access to them is governed by procedures that ensure wide public knowledge, impartiality, and probity in the selection process, uniformity of the tests administered, etc. They are also fair when they confer in different ways certain prerogatives or advantages on the least privileged in the society. In many democratic countries there are special provisions favouring access to positions and offices for women, ethnic minorities, those with mental or physical disabilities, persons living with HIV/AIDS and other special population groups. These aims of distributive justice and their general criteria are usually enshrined in law, though the actual procedures for their implementation may be left to the discretion of those in charge. This is a basic feature of organisations in all democratic societies, and may be said to produce a rationality of the rules of bureaucracy that administrators may not circumvent or bend unless they are prepared to answer to the civil and labour courts.

Even in the United States, which is viewed as the birthplace of labour flexibility, the body of provisions on human resource management is of enormous legal complexity. Since the New Deal in the 1930s, an extensive body of laws has been enacted to impose principles of equal opportunity in hiring, promotion, leave, working conditions, etc., prominent among which are the directives for affirmative action engendered by the civil rights movement of the 1960s. There are so many rules in force that, according to Walzer (16) a position has become very similar to an office. Caruth and Handlogten (17), the authors of an excellent manual on human resource management for enterprises, draw attention to this point: virtually every phase of staffing - from recruitment to selection, from compensation to termination, and from performance

appraisal to promotion - is covered in some fashion by federal legislation, executive orders, or federal administrative regulations. In addition State and local laws often impact on staffing. And increasingly, common law provisions are applied to staffing issues (17).

The intent of social regulation of labour in the public and private sectors is partly to preserve the sense of meritocratic justice: those with the best personal qualities must be rewarded with the best positions and the highest compensation. But the social gains for citizens expressed in these laws often have a side that makes the importance of meritocracy relative because, as emphasized above, application of the difference principle assures appropriate social compensation to those who are disadvantaged under fair employment practices.

Hence, the meritocracy principle - that is, of merit based on personal qualifications - dear to the old bureaucracies has been revamped and its importance relativized to adjust it to new notions of equity. Thus, an individual who obtains a lower score than another in a competitive examination may be appointed to the vacancy in question if he or she is a member of a minority that is underrepresented on the staff relative to the total population.

In modern societies the validity of a formal qualification as defined by tests or degrees is generally limited to a specified period of time; there are mechanisms for reappraisal and
revalidation that run counter to the old assumption that a degree (professional or other) is forever a warrant of knowledge and ability. As Walzer (16) observes, meritocracy is an institution restricted to the idea of simple equity. In advanced democratic societies its importance has been recontextualized in a notion of complex equity - that is, it must be offset and enriched by other criteria of justice so that it will not give rise to unfair privilege.

Indeed, the aforementioned mechanisms for regulation of the apportionment of positions and offices, which apply the Rawlsian difference principle, marked a decisive step in the evolution not only of the concept of meritocracy but in that of bureaucracy itself. This is a strong argument for the proposition that bureaucracy is culturally mutable and can evolve at the same time as a public policy for the promotion of fairness. This is a fact of life in the world of organisations, both public and private, and it is clear that those criteria of fairness cannot be attacked on behalf of an abstract

flexibility with slogans that only conceal ignorance of the general rules that govern the organisation of society.

In considering the issue of bureaucracy with an eye sensitive to what it represents as a culture and as a manifestation of modern justice, we may conclude that its characteristics change, but are not abolished. Similarly, many of its administrative features and processes persist even in the most advanced enterprises. Every and any organisation, whether civilian or military, follows rules such as these: more or less uniform internal procedures; a hierarchical chain of command; process control; filed records of communications; initiatives and results.

Even when a private enterprise has been subjected to methods of organisational flexibility, such as quality management or reengineering, its bureaucracy persists in another form, just as it does in the reinvented public sector. Bureaucracy comes in many administrative styles, hence there are bureaucracies and bureaucracies.

But reformers have insisted that bureaucracy is only one specific style of administration and has been rendered obsolete by an evolving capitalism. For example, Osbome and Gaebler (18) assert that bureaucracy was right for a certain time in the past, when the tasks to be performed by the public sector were relatively simple and the economic environment was stable. In their view, in an age of gigantic and abrupt changes, when the ability to compete on the market is based on intensive use of information media and knowledge management, bureaucratic institutions simply break down. The rhetoric of reform promises the liberation of an entrepreneurial spirit languishing in the toils of the bureaucratic style of administration, and invokes the benefits that will accrue to all, to the body social (the citizen-consumers) and to the civil servants themselves.

Today's environment demands institutions that are extremely flexible and adaptable. It demands institutions that deliver high-quality goods and services. It demands institutions that are responsive to their customers, offering choices of nonstandardized services; that lead by persuasion and incentives rather than commands; that give their employees a sense of meaning and control, even ownership. It demands institutions that empower citizens rather than simply serving them (18).

However, a critical reading of this opinion reveals a clear exaggeration of propagandistic intent. Consider, for example, the issue of uniformity vs. diversity. Classical bureaucracy obviously standardizes, but

quality management also favours uniformity just as much as diversity so long as the customer is happy. Some successful enterprises rely on a very limited line of standardized products - the most famous example being the McDonalds' chain of restaurants. Others, such as Swatch, a Swiss manufacturer of novelty watches, strive for the greatest possible variety in its product line. On the other hand, consider the matter of "empowerment" vs. "service" in public institutions. A parent will obviously expect a public school to empower his or her child educationally by developing in that child a real capacity to achieve the learning process and not merely to exercise its memory or learn how to do this or that. However, if his child has an accident, what the parent most certainly wants is well-defined, high-quality first-aid service, and not empowerment.

There is thus no "modern" way to administer private enterprises as against an "obsolete" way of administering the public sector. There are, simply, many ways of administering, depending on the kind of service and the primary purposes (that is, the mission) of each organisation. Differences between public and private organisations arise more out of how they define and redefine their mission and on how they control the prerogatives intrinsic to any bureaucracy, so that their mission can be accomplished.

HUMAN RESOURCES AS A POLICY REGULATORY FUNCTION

An organisation's bureaucracy may perform indifferently or incompetently relative to its mission, and this is a major risk as much in the public as in the private sector. As Weber already noted, the interests of the professionals in the bureaucracy frequently coalesce into standing mechanisms for the protection of their own careers, which contributes to their total alienation from the organisational mission.

The question then shifts to another field, that of determining how to restrict the powers of the bureaucracy so as to better serve the interests of the other members of society. Those who expect good performance from a bureaucracy include the directors; the owners and shareholders; the customers; and the citizens. Every democratic government has to impose limits on the power of bureaucracy so that other purposes of fairness, especially those linked to social welfare, may be served, and also for attainment of the aims of direct democracy, which are met by citizen participation in the control of what government does and how it does it. It

is no accident that two of the words most frequently used by reformers in their antibureaucratic drive have been “accountability” and “openness”.

The functionaries of a bureaucracy must be appointed as a result of one of the conditions for fairness - the openness of the organisations of democratic society that gives equitable opportunity of access to their posts and offices. Conversely, society must make an effort to prevent the privileges of the bureaucrats' positions from being exercised against other legitimate public and private interests. This control is necessary because in a modern society bureaucracy wields its power under an express arrangement of social fairness and not by virtue of privileges based on inheritance, nobility or personal charisma. Control is accomplished in part through legal instruments that refer to the accountability and openness of the organisations. However, it is only effective when exercised through a political process that springs from the movements and entities of civil society. One of the most important contributions of reformers has been their theoretically consistent description of the instruments of accountability needed so that the public agencies will function for the benefit of the citizen/consumer and be open to direct control by the representatives of the entities of civil society (19).

A new approach describes human resource management as a component of the effort to mediate between the inevitably bureaucratic character of organisations and the missions they must accomplish with accountability and openness in a democratic society. It is usual to consider this form of management as a process geared to the organisation's human resources themselves. This is actually an important and necessary aspect in the technical sense, concerned with the description of posts, recruitment, selection, determination of the conditions of employment, training, etc. But this relates only to the design and maintenance of the functions and prerogatives of the bureaucracy. The ever-lurking danger here is that, when it is conceived as a purely technical matter, human resource management becomes an instrument in the service either of the self-interest of the functionaries or of the authoritarianism of the institution's management. To move beyond those usual tasks, human resource management must be policy-driven, and to be policy-driven it must become attuned to the mission of the given institution and motivate people to work for its accomplishment in their day-to-day activities.

The mission of a public agency corresponds in general terms to the public interests it is called upon to serve. It is not limited to a formal definition of the purposes that the agency must accomplish, but partakes of the quality of an ethical and political sphere of thought and action within which major goals are linked to values of the agency and society. The mission embodies a vision of the future, the strategies for realizing that vision, the ethical principles of the agency, the quality targets, efforts at accountability, etc.

Human resource management is thus seen as a process which, in regulating the components of the personnel system (careers, performance, qualification, etc.), endeavours to shape them so that they will not only be consistent with the mission, but also facilitate its accomplishment in the middle and long run. Accordingly, this form of management must be "uprooted" and "despecialized" within the organisation, and be projected beyond the confines of any given department. So defined, human resource management is not a matter for a few professional specialists but rather one that is shared with all the levels of management, starting with the agency's executive head. The relation of an institution's strategies to its human resource requirements, hiring procedures, training measures, active participation in the selection process performance evaluation, action to improve conditions of employment, etc., all these tasks are now decentralized throughout the organisation, and at the same time are raised to the summit of the chain of command The human resource department and its professional staff have specific tasks to perform, but their principal function becomes one of support to the process, which goes forward across the organisation. The traditional "HR specialists" are no longer seen as the sole performers of that complex function, but become more than anything else advisers to the managers in carrying it out.

Hence human resource management is policy-driven as it diffuses widely through the organisation and as the top managers take over the strategic aspect of that function completely. The strategic part may be defined as taking initiatives for regulation of the personnel system that are directly concordant with the components of the mission. This idea is summarized in the Table 1.

Table 1. Human Resource Management as Mediator Between the HR System and the Components of the Mission

HR System	*HR Management*	*Mission Components*
Description of posts		Strategic goals
HR planning	Cooperation processes	Vision of future
Design of careers	Negotiation processes	Organisational values
Recruitment and selection		Quality of services
Rules for remuneration	Managers	Customers participation
HR development	Staff members	Accountability
Conditions of employment	HR advisers	Openness
Code of ethics	HR department	

In this view human resource management may be said to be playing a policy role of regulation for two reasons. Firstly, because it satisfies the legal requirements for the different components of the human resource system, which are planned in light of the agency's mission; secondly because the human resources are now mobilized and managed in accordance with the commitments imposed by that mission. There are two main ways of bringing the human resources system in line with the mission components: cooperation processes, with emphasis on teamwork, which help to identify problems and propose and implement corrective measures; and conflict resolution or brokering, so as to arrive at agreements in keeping with the collective interests of the workers (union members and others).

Neither one nor the other can happen if human resources management is viewed as a technical function with rules of its own and is made the exclusive responsibility of one department. The new approach requires a process in which the top managers are truly involved, though advised by specialists in the subject. Hence human resources management becomes policy-driven by virtue of its real importance to the mission; this requires firmness of purpose of the managers in placing real emphasis on it in their decisions and going beyond the stage in which they confined themselves to fine words about the obvious, that is, how essential human resources are to the proper functioning of the organisation.

This approach is presented here in rather general terms, but the intention is that it shall produce a scheme of strategic action valid both for public agencies and the private sector. As has been said, the difference between the two sectors lies in the object of their respective missions. In the

case of the public sector, the components of the mission are (or ought to be) in line with the public interest; in that of the private sector they are geared to the business strategies of the given enterprise.

The recent literature on the human resources of enterprises reflects the same concern to give effect to human resources management by associating it with the strategic decisions of its managers. The predominant idea is that this function has to be deconcentrated and the responsibilities for human resource practices, which include training, must be spread out. In Human Resource Champions. The Next Agenda for Adding Value and Delivering Results (20), Dave Ulrich states that: "The responsibility for strategic execution in most firms today is shared between HR professionals and line managers (...) As partners, each brings to the strategic discussion unique skills and talents. Together, they team up to accomplish business goals." (20).

In Beyond the Learning Organisation. Creating a Culture of Continuous Growth and Development Through State-of-the-Art Human Resource Practices (21), Jerry Gilley and Ann Maycunich contend that the responsibilities for human resource management can scarcely be spread out without a complete revamping of the technical role and orientation usually assigned to the personnel department in firms (where it is usually highly centralized): "We contend that to improve credibility, HR professionals must be willing to leave the 'mother ship' the highly centralized administrative unit, and become fully integrated into the broader business operations. They must relinquish most training and development responsibilities (for merely assigned to HR professionals) to managers and supervisors. Human resource professionals must encourage organisational managers and supervisors to become more actively involved in selection, recruiting, hiring, and training practices, while surrendering much of their responsibilities for compensation and rewards." (21).

The titles of these two books are given in full to illustrate the current trend towards reassessment of human resource management in enterprises. It will now be shown that this trend is also visible in initiatives for reform of the public sector.

Rather schematically, the three main dimensions of management that reforms of the public sector aim to develop may be said to involve results, leadership/governance and values. Each of these dimensions may be seen as resulting from a complex of factors and certainly as influenced by cultural determinants in each country, and their relative priorities may vary with the status of a given reform initiative. By way of illustration, the Table 2 presents a partial list of the factors that may be included in each of those dimensions.

Table 2.Three Dimensions of Reform

Results	*Leadership/Governance*	*Values*
Contracts within the public sector	Entrepreneurial spirit	Accountability
Privatization of organizations	Creativity (reinvention)	Openness
Partnership with community entities	Ability to redesign functions, hierarchies and teamwork	Social control
Evaluation of human resources performance	Empowerment of human resources and costumers	Citizen participation
Remuneration of human resources performance	Motivation and participation of human resources	Solidarity
Ongoing qualification of human resources	Preventive mentality	
Focus on the costumer	Delegation/Decentralization	

This division may appear artificial, since reforms are bound to be all directed at obtaining results that are financial more than anything else. This is so because the emphasis on results expresses the official intention of making more efficient use of the public budget, which means that the public sector must be made more obedient to the rules of competition on the market in its relations with both its suppliers and its customers. But reformers are always aware that their reforms are in the nature of a political process proceeding in a democratic milieu, in which weight is given to personal leadership qualities and to the system of institutional values of the society -important goals in themselves. Thus, an analysis of reforms that focuses only on the dimension of results and views leadership and values merely as means to the desired change cannot be correct.

The abundant literature on reforms in public management contains exhaustive discussions on how those components are conceived and articulated in practice, which dispenses us from having to review them in detail. This paper will confine itself to citing some differences of emphasis in different national projects, especially at their inception.

In the United Kingdom the reform plan that has been developed since 1979 was characterized by internal contracting. This implies the separation of public functions between a contracting entity (which sets goals and administers a given budget autonomously) and a contracted provider (who delivers services in accordance with those goals and other specifications). This distinction corresponds in theory to the relationship between a principal (who contracts) and an agent (who is contracted); when it disseminates throughout the public sector it gives rise to processes of competition that are conducted within the public sector. The British reform was regulated in accordance with a contractual market model and was carried out from the top down, in which it was helped by the hierarchical spirit of the bureaucracy (22). The main consequences were changes in institutional configuration and in power relations, both of which had profound effects on the bureaucracy. The two basic human resource issues addressed were how to win the bureaucracy over to the proposed management model and generate an organisational culture geared essentially to results; and how, in a general way, to promote the management training of civil servants in accordance with this new philosophy and how to attract managers from the private sector (22).

In the United States the reform of the 1990s was also market-oriented, but as a consequence and not as point of departure, in a process that combined leadership and values in a quest to reinvent government. The strategic aim was to produce more efficient and competitive institutional combinations that did not, however, conform to a given regulatory model. Reform was undertaken from above and outside the bureaucracy, through initiatives taken by elected political leaders and by managers drawn from the private sector. At the national level the strategic conduct of the reform was in the hands of Vice-President Al Gore. This was therefore not a reform governed by a given model of institutional order, but the outcome of a set of practices of competitive excellence in which creativity and leadership were taken for granted, transcending the heuristic value of the models. The institutional patterns of the reform varied because

they were responsive to the entrepreneurial spirit, that is, the special, almost charismatic gifts of the chief executive officers. In this case the most important thing was the ability to combine a multiplicity of decisions for action and not to be confined by formulae.

What is the place of human resources in the American initiative? The answer is perhaps that it has to do with leadership training. But this does not appear to be a specific concern, for it is a very widespread cultural trait of American society. Indeed, a reading of the books co-authored by David Osborne leaves the impression that the human resources of the public sector are scarcely present in the dramatic scenes of institutional change brought about by enterprising leadership. The underestimation the role of human resources has a theoretical justification, which this author has found in the teachings of Edward Deming, the mentor of quality management. Deming (23) states that 80% of the errors made in a work process are attributable to the design of the system and not to people. The conclusion is that it is the system that must be changed, and this can only be accomplished by bold, creative leaders who are not afraid to make mistakes. But, it may be objected, all organisational quality requires the ability to foresee the future and adapt to new circumstances, and this calls for certain qualities in people, starting with their education: "Preparation for the future includes lifelong learning for employees" (23). However, the American reform model attaches (or attached) no importance to the functions of human resources in the public sector. Strangely, this concern does not even show up in the dominant concept of "human capital".

Australia, by contrast, presents an example of an institutional transformation of the public sector that strongly emphasizes the values of social importance inculcated in the human resources of the public sector, that is, the civil servants. Although privatizations and countless other market-oriented contractualistic institutional transformations have been carried out there too, the distinctive feature of the Australian experience is the centrality of values (24). The aim is to bring about a change in the outlook and behaviour of civil servants on the basis of fully regulated and publicized values. The force of this "orientation to public service" policy is well attested by the Australian government's elevation a code of conduct for civil servants to the status of a law. This particularly stresses the principle of merit in work, which must be honoured and enforced by the

autonomous agencies. Hence, it can be said that the reform took as its governing criteria the components of the value dimension.

In Australia, the basic issue in human resources is thus associated with an ethical, political and legal reconfiguration of the performance of the civil servant. The aim is to change the values that actually guide his or her selection and performance, with an emphasis on the mechanisms of fairness relating to merit and equity of access concordant with an emphasis on the elements of the mission and the quest for results. Moreover, leadership is seen as a factor to be widely developed, though preferably within the public system and not as a force from outside. The following features are prescribed by the Australian central government as constituents of good human resource management (25): all staff understand and are committed to the goals and values of the organisation; meeting the needs of government, clients and the community is a primary focus of all staff; decisions on managing people are ethical and transparent; staff are encouraged to find innovative ways to enhance organisational performance; the work environment reflects a respect for a healthy balance of work and personal life; the diverse backgrounds, cultural values, skills and knowledge of employees are viewed positively and used effectively to add value to business outcomes; staffing practices incorporate equal employment opportunity, natural justice, privacy and elimination of unjustified discrimination; recognition and rewards are values and performance based.

The notion of human and cultural diversity refers in this context to a human, cultural and ethnic capacity of the workers collectively, but it is serviceable as an aid in accomplishing the institutional mission. Moreover, both the arrangements for cooperation among work groups and those for collective bargaining in the workplace are clearly encouraged. With due regard for certain national parameters, the autonomous agencies are encouraged to take initiatives of their own; this includes collective agreements with their civil servants on remuneration and conditions of employment, organisation of the work process, the framing of guidelines for recruitment, selection, promotion, etc.

In other countries, it was only at the end of the 1990s that signs appeared of anything that could be considered a reconsideration of human resource planning for government. In both the United Kingdom and the United States there is again talk of the importance of merit and of the need for greater efforts on the part of the agencies to improve their personnel

recruitment, selection and planning processes. There appear to be three reasons for this shift in human resource management.

Evidence has emerged of a scarcity of staff at the highest levels of qualification, which stems as much from downsizing of the sector as from a shortage of supply on the labour market. In the United States especially, the labour market has been heating up in recent years with the remarkable growth of the national economy.

Evaluations indicate that the systems for the reward of productivity are not working as they should and are in need of revision.

A new policy orientation is gaining strength toward fairness of access (diversity in the workplace) to enhance the opportunity for admission to public service for minorities and to generate greater diversity of thinking among the personnel.

The need for personnel planning is reemerging at all levels and in all spheres, but the greatest scarcity is that of high-level professionals, because of the importance and complexity of the regulatory and strategic management functions, compounded by the dizzying pace of economic and administrative transactions based on information technology in all government agencies. Consider the example of the United Kingdom. In the report on evaluation of the reform submitted to the Prime Minister in 1999 the head of the public administration stressed the commitments assumed by the directors of the sector in relation to six basic themes: stronger leadership with a clear sense of purpose; better business planning from top to bottom; sharper performance management; a dramatic improvement in diversity; a service more open to people and ideas, which brings on talent; and a better deal for staff.

The choice of these themes may perhaps be taken as a sign of a new policy that resets priorities to give more space and prominence to the human resources and institutional mission components; at the same time it underlines a reassessment of the principles of fairness inherent to government bureaucracy. The current strategic objective is stated as "to create a more open, diverse and professional Civil Service in which people will put the public's interests first." There is here a perceptible concern for adhesion to values that could help surmount certain purely economic limitations in the original model. The approach also opens prospects of promoting processes that can attract talent from other sectors of the economy by offering higher levels of remuneration. The motto of human

and cultural diversity in the workplace is also voiced in order - among other purposes - to increase the contribution from the work potential of ethnic minorities.

A similar set of policy guidelines designed to strengthen diversity and the human resource recruitment and selection methods of the federal government was issued in June 2000 by the Office of Personnel Management (OPM) of the United States Government. In the official document the key idea of diversity is explicitly adopted in its economic scope in face of the strong competitiveness of the labour market, and also as an inclusive democratic policy, as seen in the following quote: "The business case for diversity has two significant elements. First, the labour market has become increasingly competitive. The Federal Government must use every available source of candidates to ensure that each agency has the high-quality workforce that it needs to deliver its mission to the American public. Any agency that fails to take steps to recruit among the full spectrum of the labor market is missing a strategic opportunity. Second, the changing demographics of America mean that the public served by the Federal Government is also changing. When agencies recruit and retain an inclusive workforce that looks like the America it serves and when individual differences are respected, appreciated, and valued, diversity becomes an organisational strength that contributes to achieving results. Diversity offers a variety of views, approaches, and actions for an agency to use in strategic planning, problem solving, and decision making. It also enables an agency to better serve the taxpayer by reflecting the customers and communities it serves."..

Thanks to this shift in human resource management policies, which are again giving preference to certain principles of fairness in access to public positions and attention to equity in the delivery of services of public interest, public sector reform in the United States and other countries appears to be moving toward a greater equilibrium between the imperatives of the economy and those of right.

THE HEALTH HUMAN RESOURCES IN THE LATIN AMERICA REFORMS CONTEXT

The public sector of the health system has been one of the main targets of the national initiatives of reform for the public administrations, particularly

because of the magnitude of their expenses and the number of personnel employed.

The reform of the National Health System in the United Kingdom is an example of the strategic changes in the public services that have been introduced by the conservative governments since 1979; these changes have been much larger and deeper than those introduced in the educational sector (22).

The pattern of the British reform suggests an institutional division between management and service deliveries and has become the reference for all Latin American countries, although none has actually adopted it for the totality of public health services. The Colombian reform, however, introduced an orthodox guideline of internal competition to the public sector. In other countries the separation between financing, regulation and service delivery was only partially inspired by these reforms because policy makers had adopted a similar effect to cope with the new market tendencies. This was the consequence of several economic deregulations, especially in the labour market, which did not follow the official rules of the reform, mainly because the labour agreements were fairly informal and did not cover productivity or health purposes.

There are two important differences in the political pattern of Latin American countries regarding the adjustment proposal based on the British reform. The first one concerns the Bismarckian character of the Latin American health systems, which are traditionally supported by a mix of individual and fiscal contributions and are already run in association with several types of private health services. Therefore, the governing of the reform process is under an obligation to look after the interests of the various players, including the private sector as well as the health professionals' corporations. Institutional changes cannot be achieved only by changing managerial mechanisms within the public sector, as happened in the United Kingdom. This move must consider links among the external interests of the private providers, doctors and other professionals that form part of the management system. The second difference comes from the national structure of the countries where the authority of the health system is relatively restricted by the power and resources of other levels of government. Therefore, the argumentation of a reform model can not be based on financial incentives and legal arrangements on a national level alone, but has to be operated by political agreements among policy makers

at all government levels. Except where the context was authoritarian (e.g. Chile in the 70s), the health sector reforms that have occurred have come through conflict of interests and labour union demands and have suffered set-backs due to the multiplicity of the players and the fragmentation of economical and political power.

In many places, the split between management and service delivery cannot therefore function in a uniform and universal way. It has been established not as a mandatory feature of the system but as a management option. Managers now have more freedom to make decisions and handle a budget specified for each level of the health system (including public hospitals). In order to meet the challenge of enlarging the labour force in the public administration, managers have adopted a model of sub-contracting and privatization of the health services that seldom follows any preconceived set-up. This unregulated decentralization creates many different types of public/private service mixes.

The institutional changes made appear to have achieved their goal, i.e. better health services to the people and this has the undeniable advantage of efficiency. However, financial difficulties and certain legal and political embarrassments (such as conflicts between employees and the public sector that supports the expansion of direct public jobs) have prevented the managers from extending the work contracts to the whole service network.

There is evidence that what happened in the European countries, i.e. stability and growth (13), has happened in the workforce of the Latin-American public health systems. Unfortunately, there is a lack of data to allow appropriate analysis of certain tendencies. There may be a decrease in the workstations in hospitals due to the combined effect of new technologies and surgical treatment, shorter time for in-patient care and the growth of outpatient clinics. However, workstations for primary care, including the family health program, that are concentrated in the poorer population, tend to grow.

The intensive labour that characterizes this sector continues to prevail, in spite of the technological progress and organisational innovations. Therefore, the response to health care reforms has not been a "downsizing" of the sector. Adjustments have been made to the employees work contracts while at the same time new alternatives have been created for the sub-contracting of services by private companies, workers'

cooperatives and NGOs - all of which leave several groups of workers in a somewhat precarious situation.

The instability of the health labour situation in Latin America is a complex phenomenon, but its main features remain the same as those observed in other sectors of the economy. The only difference is that everything is introduced by the State in the social field: the temporary aspect of the work contract, the decrease in work hours, the instability of work contracts, the lack of guarantee of social insurance benefits, the absence of unions, etc. (25). The workers that join the institutional compound, whether public or private, fall into one of two categories: the typical one that benefits from the protection of the law and social insurance, and the atypical one that excludes such social benefits. The first ones include the civil servants or employees that benefit from the contractual laws of the country. The others are those workers known as "semi-autonomous", or, in other words, workers that have an occupation that should be covered by contractual laws but are not, and therefore have no legal rights.

This situation reduces the social costs to each employee while at the same time absolving the employer from the obligation to contribute to social funds that would protect the worker. However, this situation offers the opportunity for health professionals to earn a salary higher than the ordinary employees' salary. This attracts the interest of doctors or other health professionals to hospitals or primary health care programmes, even though there is only a very fragile and unstable working agreement. They accept this situation because it allows them to earn bigger wages. In some hospitals employees do have local agreements achieved through co-operatives and associations that are more or less organized. But budget limitations and political resistance impair these flexible agreements, which in the end generate greater differences in wages and in the work conditions of the public health system.

A further result of this labour instability is that it renders inapplicable the principles of merit and the position of trust expected from the State. This new style of getting work in the public sector can be very casual and personal. Admission examinations have been surrendered and only curriculum, personal reports and interviews are taken into consideration, just as in the private sector.

The presence of the State as a general administrator of the system and its financing role reinforce the belief that rules of equal opportunity regulate the access to the public sector. These circumstances are expected to favour fairer selective hiring of personnel according to the law. The continuing situation of judicial ambiguity in those arrangements allows for many interpretations of the law in each country. For instance, when services such as cleaning, security, catering and others are contracted, it is understandable that the contractor does not have the obligation to follow the rules of the public sector. But when health professionals are hired (which is the main purpose of the health system) it can be understood that the employees constitute a continuance of the public system and therefore have to follow its laws of personnel selection and hiring.

What is important to the observer of this public labour situation is that this is not a temporary situation, nor is it a crisis that will be gradually overcome. This instability is a permanent and widespread reality that will impair any attempt of stabilization in the near future.

In the developed countries, a casual and temporary agreement between employers and employees may be a step that can lead to a more permanent work agreement. The previously mentioned movement of restoration of public service values' and the rules governing human resources can certainly help to achieve this balance. In Latin American countries, the current scenario is much less promising. The bulk of the casual workforce see their situation as hopeless and among those workers who benefit from higher wages, the current situation can strengthen the idea that this is not just permanent but a desirable status.

In these new social circumstances, legal issues and labour conflicts are part of labour relationships bound with deep discrepancies in the ingress and remuneration mechanism of the public health sector. To gain authority, managers are now beginning to handle for themselves the awkward situation of public sector personnel. They are being forced to undertake political initiatives in order to reduce the intensity of conflicts. Sometimes this activity involves collective bargaining processes with different degrees of formality that tend to be located in a given administrative area or in an operational unit of the health system. The negotiation of agreements extended to the casual worker is always the centre of attention, since advantages, as well as the disadvantages, cannot be extended to all the workers of the system.

Furthermore, the network between public and private institutions compels the administration and development of human resources from being restricted any longer to the internal demands of each organisation. The administration of human resources becomes externalized because of institutional arrangements between the public and private sectors. It also invites the interest of executive managers that have to deal with this new organisational workforce network.

Therefore the legal, administrative and political problems grow and merge. It eliminates common knowledge that the administration of human resources is the sole obligation of a given bureau. It also forces the human resources departments to leave their office and become a permanent consultant to the executive. The reduction of the human resources administration to a shared technical and political resource for all executive leaders decreases the differences among personnel administrators, training groups, planning negotiators both within and outside an organisation.

All these changes affect the whole public sector workforce and not only the health system, although it is recognized that the latter has specific issues to be considered, such as a high degree of professionalism, an increase in job opportunities and the magnitude of the workforce. It is imperative that human resources managers as well as health professionals have a greater shared knowledge and analytical understanding of the political and social context in order to instigate these changes.

CONCLUSIONS

In the writer's view, the aim of conceptual reformulations of public sector reform is to arrive at tools with which to make the management of government human resources a policy function with real regulatory power, in order to help frame the institutional mission and to bring the internal working capacity into line with the strategic aims and values embodied therein. The Australian experience is notable in this regard because it sustains a clear concern for overall management of the government's human resources and takes due account of the need to update the principles of fairness in the treatment of those resources. Though it was not possible to examine it in greater depth, the writer's wishes to make clear that this is the experience that most closely approaches the description of human resources management as a policy function of regulation.

This paper has examined the causes of theoretical error in the analysis of government bureaucracy that in the 1980s led to the abandoning of the planning of human resources required by government. The downsizing of the public sector promoted at the time could have been accompanied by a forecast of strategic objectives that would prescribe targets for the numbers and kinds of human resources required in the performance of the new and old functions of government - the capacity to predict personnel requirements could have been preserved. This, apparently, did not happen, in their analysis of the public services, the reformers shifted their focus too far over to the dimension of economic results and had eyes almost only for the need to improve the cost-benefit ratio of their operations and for the financial benefits that would accrue from downsizing.

In this particular issue, it is necessary to underline the exceptional situation of the health sector, because all indications show that the workforce has remained about the same size or has even grown, in developed as well as in developing countries. In fact, the main impact of the reforms in the health sector has been to increase labour relations flexibility and, depending on the economic and political situation of each country, a bigger or lesser degree of privatization through contracting out. It seems that in Latin America there is more emphasis on job prevarication, with loss of those rights that are assured to other workers by labour law and social insurance.

The changing economy itself and the increase of competition in supply and demand on the labour market have generated for government an unexpected need to reinstate the functions of human resources management. Competence in human resources has become a matter of vital importance to the proper functioning of government. It is being called not only for the proper performance of the complex tasks of social regulation, but also for the usual tasks of economic transactions between suppliers and customers in a relationship that is being increasingly mediated by information technology. One of the consequences of this new situation is a revival of merit and negotiation schemes in employment. New and important concepts of ethical-political scope are being asserted, such as the notion of diversity of the workforce. Finally, human resources management in government with all its legal, ethical, economic and political nuances - is once again on the order of business.

Generally speaking, in Latin America and Third World countries, the dominant trend is a combination between the competitive forces of an unregulated labour market and the rigorous restriction of government expenses. This tendency reinforces the precariousness of employment in the public sector. The new proposals for public service revalorization and for the revitalization of its merit ideals could be copied from the developed countries, such as happened with the reform state models. However, the effectiveness of this approach will depend on the emergence of conditions of sustainability for economic development and on adequate public policies that are not always in place yet.

We have stressed here the notion of relevance of the human resources management in the public sector - a new situation in public sector management policies. This new context tends to be a break-even between the rights of state bureaucracy (the public sector workers) and the rights of the citizenship.

Our interpretation is that human resources management now has to be a function regulation policy, played by the policy makers in accordance with technician specialists. This is a function that mediates policy and technique between the objectives of handling the available workforce and the ethical and political objectives of the institutional mission. One criticism of the State reformists was that they frequently did not give due importance to the justice principles embedded in the bureaucratic structure of the State, especially as regards the principle of equal opportunity of access to the public service and the merit system. Our conclusion is that, although the efficiency of the State should not be lost, it is decisive that principles of justice are not abandoned when dealing with those working in public service in the democratic societies. This will require an appropriate understanding of the social meaning of bureaucracy and the changes in this meaning that may occur in coordination with the economical and social development of those societies.

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Human Resources and New Approaches to Public Sector Management: Improving Human Resources Management Capacity

Stephen Bach

INTRODUCTION [5]

Across the world policy makers confront great uncertainty about the future for health care systems and the scope to reform them effectively. The 1990s were characterized by unprecedented interest in health system reform, but by the end of the decade it was clear that the high expectations of reformers had rarely been fulfilled. In the Organisation for Economic Cooperation and Development (OECD) countries the internal market reforms of Britain and Sweden were in retreat and the fragmented US health care system remained substantially unaltered. In Eastern Europe and Central Asia forms of privatisation and revamped health insurance systems have so far not been able to turn round deteriorating health systems (1,2). In many developing countries measures to decentralise health systems have taken place in a context of structural adjustment programmes, exacerbated by the problems of HIV/AIDS.

The reform of health service employment conditions remains a sensitive issue. As the Director General of the World Health Organization (WHO) commented: "dealing with issues such as pay and incentives in the public sector constitute some of the most challenging items on the international health agenda" (3). It has become increasingly recognised that poor human resource management practices remain a dominant constraint on the reform of health services (4). The legacy of insufficient attention to human resources (HR) is all too evident; the majority of countries have problems with shortages, misdistribution and poor staff utilisation that often co-exist with problems of chronic over-supply (5,6). Even if countries possess sufficient numbers of staff they are often utilised ineffectively

[5] I should like to thank James Buchan (WHO) and David Winchester (University of Warwick) for their comments on an earlier draft of this paper.

because they lack appropriate skills (e.g. in public health) or are concentrated in urban areas leaving rural areas poorly served. Honduras provides one such example (7). These HR problems reduce service effectiveness resulting in health services being ranked as the least efficient public service, according to a World Bank survey of government services in developing countries, using industrialists as respondents (8).

The almost universal reforms of health systems that were unleashed in the 1990s have raised many new HR challenges. In a labour intensive human service industry the quality of service is intimately linked to the skills, motivation and commitment of the staff providing that service. Although reforms of heath services have been badly needed, they have often been accompanied by reductions in staffing levels (9-11). The uncertainty and more intensive working patterns associated with the reform process have frequently impacted on staff morale. At the same time, however, decentralisation and forms of marketisation require the development of new competencies and more sophisticated HR management. Moreover, the management of the workforce has become more complex arising from the growth of 'atypical' employment and greater competition for staff such as nurses, as alternative employment opportunities for women have expanded (12).

This paper is divided into four main sections. The first section examines the broader context of public sector reform and draws out the implications of health reform for HR practice. The second section considers the contribution that HR can make to improved health sector effectiveness. The main section of the paper considers how a more strategic approach to HR can be developed in the health sector, drawing on the existing evidence base, and emphasising the importance of ownership, external fit and internal fit. The vital role of the specialist HR function, and the different ways in which HR services can be delivered and audited, comprises the final section, prior to a brief conclusion. This paper touches on many areas considered more fully in other papers. In these cases (for example, rewards, performance management) developments are noted but not discussed in any detail.

HEALTH CARE REFORM, HUMAN RESOURCES AND THE NEW PUBLIC MANAGEMENT

In many countries health care reform has taken place against a background of substantial political and economic change. A WHO sponsored survey of 18 countries' HR strategies suggested that each country's particular political and economic circumstances had an important bearing on HR policy (13). For example, in countries such as Angola and Cambodia continuing political and economic uncertainty has led governments to focus on minimum HR requirements that will enable more fully developed HR policies when political stability returns.

These differences highlight issues about whether management practice in the public sector has started to converge around a new public management, as some commentators have suggested (14). Although not amenable to precise definition, it has been associated with a plea that the public sector should mimic 'best practice' in the private sector. New public management places great emphasis on accountability for results, with the development of a cadre of professional managers that are forced to compete for resources from government or donor organisations (15). It has also been associated with measures to aid policy delivery. By separating the formulation of policy from its implementation, with the creation of separate business units measured against clear targets, greater clarity and expertise can be developed in both policy formulation and delivery. Nonetheless, new public management reforms require sophisticated capacity to develop targets and to enforce them through contractual means, expertise that is not well developed in many countries (16) and which may account for its modest impact in less developed nations (17). In Europe, the experience with developing and implementing new public management reforms has been more uneven than is often suggested (18).

Despite these uncertainties there remains substantial agreement on the main themes arising from the health care reforms of the last decade (19-21). Although often conflated in practice, for analytical purposes a distinction can be drawn between the content and process of health care reform. This allows the implications for HR to be drawn out more fully and the scope for policy interventions to be made more explicit. In almost all countries the content of health care reform has involved a mixture of: altering the role of the state, decentralisation, a greater emphasis on

primary health care and, to a lesser degree, the empowerment of users (Table 1).

If the main strands of health care reform are well known, the consequences for human resource management are rarely considered in a systematic manner. Table 2 illustrates the process of health care reform with 'top-down' and 'big-bang' (18) approaches the most prevalent. Although the process of reform can have an important bearing on the outcomes of the reform process it has been subject to much less attention and many of the issues examined in Table 2 are implicit rather than explicit within the reform process.

An important lesson is that health reforms are frequently devised separately from HR management policies and from broader processes of civil service reform. This divorce results in the implications of health reforms for HR policy not being considered until the end of the process or plans developed that can't be implemented because the Ministry of Health has neither the capacity nor the influence to make them happen. Insufficient attention has therefore been given to whether the management capacity and influence exists to implement reforms. An unfortunate side effect is that a gap emerges between espoused policy and actual practice (because of implementation problems) leading to cynicism and eroding support for change. In summary, policy analysis often focuses on the technical elements of reform without sufficient attention being given to implementation issues; especially the specific institutional and contextual factors that facilitate or constrain reform.

Table 1. The Content of Health Care Reform: Implications for HR

Content of health care reform	*Implications for HR*
Altered role of the state: increased use of market-style incentives and private sector involvement in provision and funding.	More diverse terms and conditions of employment arising from different employers or self-employment; Forms of incentive pay and performance systems introduced; Job losses and role changes occur from privatisation (contracting out etc.); More complex to forecast workforce requirements due to greater diversity of finance and provision.
Decentralisation: delegation of decision making to lower organisational tiers and greater community involvement.	Requires increased administrative and managerial expertise at local level with associated increases in staff costs; Information may be under-developed.
Renewed role for primary health care and a strengthening of public health infrastructure.	Staff may have more autonomy; More interdisciplinary team work than in traditional acute hospital environments shifts in staff roles skill mix; Requires increased public health expertise.
Increased user involvement and empowerment.	Development of a customer/client orientation amongst staff; Approaches to performance management that include client feedback (360 degree); Altered working patterns – longer/more convenient opening hours staff to follow protocols.
Focus on cost containment: a central objective is to contain expenditure and develop more transparent budgeting mechanisms.	Human resources are viewed as a cost rather than as an investment; Personnel costs are a prime target for expenditure reductions via incomes policies, recruitment freezes etc.; reduced educational opportunities.

SOURCE: Author's compilation.

Table 2. The Process of Health Care Reform: Implications for HR

Process of health care reform: key tendencies	*Implications for HR*
Top-down: reforms are centrally led by ministries and other political elites, supported by management consultants and international agencies (for example, Colombia).	Little attention to involvement and ownership of reforms by the workforce; Encourages uncertainty, fear and resistance from stakeholders.
Big bang approach to reform: the main infrastructure of health care reform is implemented in one rapid phase, for example the internal market in the UK.	Managers concentrate on establishing the organisational structures and information requirements for the reforms and limited attention is given over to HR issues; Limited time to develop capabilities; Few opportunities to learn from experience and 'reform the reforms' as knowledge of the reforms unfolds.
Finance and managerial values dominate the reform process.	HR issues are secondary to 'business needs'; Changes in personnel policy are limited; A professional HR role is slow to develop.

SOURCE: Author's compilation.

HUMAN RESOURCES: FROM NEGLECT TO VALUED ASSET?

The lack of attention to HR issues is not confined to the health sector. For many years commentators have bemoaned the traditionally low priority given to people management issues within most organisations (19). In the health sector, in which the largest proportion of recurrent expenditure is invariably staff costs, it may seem curious that such neglect has persisted, but this reflects a historically narrow and low profile HR agenda.

First, most governments which directly or indirectly fund the majority of health care expenditure have been primarily concerned with macro-economic issues, especially the size of the health sector workforce,

rather than the micro-level focus of contemporary HR practice which concentrates on the motivation and performance of the workforce. In most OECD countries the state has had a long-standing concern to control the public sector pay bill to ensure that fiscal objectives including the control of inflation are not jeopardised. By contrast in some African countries and parts of Southern Europe, the state has acted as an employer of last resort and dispensers of political patronage, allowing the continued growth of public employment even during periods of austerity (8). Consequently, governments whilst pursuing different objectives for public employment have rarely been overly concerned with the detail of HR management policy.

Second, the establishment of terms and conditions of employment in health systems has usually formed part of a broader system of public sector employment regulation, characterised by centralised personnel policies. In many developing countries, these issues are often handled by a separate Public Services Commission, with the Ministry of Finance taking keen interest in wage determination. This has left the Ministry of Health bereft of personnel expertise or influence over HR issues, as noted in the case of Ghana (20). In many industrialised countries, irrespective of whether wages and other conditions of employment are established unilaterally by government, by forms of pay review body or through collective bargaining, there has usually been little scope for managers to alter employment conditions (21). Involvement in personnel management policy has therefore been confined to small groups of experts located at central level. In countries in which dedicated personnel managers have existed, their role has been circumscribed by these policies, leaving them with a limited, operational role, in implementing and interpreting national employment rules.

Third, health care systems and their development have been shaped strongly by the role of professionals, especially doctors, whose training emphasises autonomy and professional self-regulation. These values have led their professional organisations to focus on the regulation of their own profession rather than broader policy or operational matters. This agenda is distinct from the current focus of health reformers on issues of efficiency, effectiveness and equity. Moreover, the HR issues involved in managing professions has been given limited attention because in the past it

has been assumed that health professionals are motivated by intrinsic rather than extrinsic factors discouraging the adoption of active HR policy.

The Contribution Of Human Resources

Within the specialist HR literature there has been increasing awareness of the contribution of innovative forms of human resource management (HRM) to organisational performance (22). Traditionally, personnel management has been associated with management-trade union relations, maintaining control of the workforce and ensuring organisational adherence to policies on recruitment, appraisal, training and such like. These predominantly operational tasks, largely removed from the core preoccupations of senior managers, have tended to ensure a relatively low status and marginal position for personnel specialists.

By contrast in recent years it has become commonplace for organisations to suggest that human resources are their most important asset. Whether termed HRM or high performance management the novelty of these approaches is that they emphasize pursuing a strategic approach to the management of people. This involves developing a coherent HR approach with the full backing of senior management and with a tight coupling between human resources and 'business' policy. HRM comprises a particular 'high commitment' route in which there will be organisational pay-offs if specific configurations of personnel policies are adopted. These policies aim to: secure the commitment of the workforce; ensuring highly flexible and innovative working practices; and establishing a high quality of work by developing a skilled workforce (8-27). Many commentators suggest that a positive link exists between the establishment of sophisticated HR architecture and a firm's financial performance (25).

This emphasis on adopting a more strategic approach to HR reflects a developing consensus that human resources are *the* key source of competitive advantage because it is the skills, behaviour and values of staff that are paramount in sustaining high performance (26). This insight has been associated with the resource-based view of the firm in which it is suggested that successful firms are those that systematically identify, use, develop and renew their core competencies (27).

MODELS OF HR PRACTICE

The resource-based view has influenced a number of models that try and demonstrate how a strategic approach to HR can be translated into a set of coherent HR policies. There are two broad approaches (28). First, universal models imply that they there is one 'best way' for achieving high performance regardless of the context or specific circumstances of the firm. Second, contingency models link the HRM policies adopted by the organisation to the particular aspects of the business environment. The universal models vary in their emphasis but they all put a premium on ensuring that HR policies are meshed together coherently and reflect the requirements of the external business environment (Table 3).

Table 3. Linking HR and Business Strategy: the HRM Model

Policy area	*Policy choice/practice*
Beliefs and assumptions	Business and customer (internal and external) needs are main referent; Search for excellence, quality and continuous improvement are dominant values; Aim to go 'beyond contract'; high levels of trust and commitment; HRM is central to business strategy.
Managerial role	Top managers are highly visible leaders that set the mission and values of the organization; Line managers encourage and facilitate change by harnessing co-operation of employees and developing them accordingly; Managers own and are committed to the HR strategy.
Organisation design	Federal' highly decentralised, flat organisational structure;. Cross functional' project teams and informal groups responsible for particular services to customers; Teams enjoy high level of autonomy and work organisation is flexible; Organisational design and work organisation is focused on satisfying customer requirements;

Policy area	*Policy choice/practice*
HR Policies	Numerical flexibility, i.e. core and periphery workforce. Time flexibility e.g. annual hours; Selection – emphasis on attitudes as well as skills; Appraisal – open and participative – two-way feedback; Training- learning and development of employees are key; Participation – extensive use of two way communication; Rewards – individual and group performance rewarded Integrated HR policies ensure external and internal fit.

SOURCE: adapted from Storey and Sisson, 2000 (28).

The type of policies the HRM approach incorporates is shown in Table 4. By contrast the contingency models link HR policies to the particular circumstances of the organisation. Some models emphasise that it is the stage of the organisation's life cycle (start-up, growth, maturity) that should determine HR policy whilst others focus on the characteristics of the firm whether a single product firm or a highly diversified business. Finally, whether a firm is competing on the basis of cost, quality or innovation has also been associated with particular HR strategies.

Table 4. Seven Dimensions of HR that Produce Profits Through People

1	Employment security
2	Selective hiring of new personnel
3	Self-managed teams and decentralization of decision making as the basic principle of organisational design
4	Comparatively high compensation contingent on organisational performance
5	Extensive training
6	Reduced status distinctions and barriers, including dress, language, office arrangements, and wage differences across levels.
7	Extensive sharing of financial and performance information throughout the organisation

SOURCE: Pfeffer, 1998 (26).

This type of contingency approach has been applied to health care settings. Eaton examines the patterns of HR policy and patient outcomes associated with three different types of work organisation amongst nurse aides in the nursing-home sector in the USA (29). Using the same type of approach as the contingency models, particular forms of 'business strategy' (models of care) were linked to specific HR policies, suggesting that managers could exercise a degree of 'strategic choice' in the approach adopted. Different HR approaches were associated with very different levels of performance in terms of the quality of patient outcomes (Table 5).

Table 5. A Typology of Nursing-Home Work and Care Organisation for Nurse Aides

	Traditional low service quality	*Semi-skilled high service quality*	*Semi-autonomous 'regenerative'*
Work patterns	rigid traditional	teams flexible adaptive	neighbourhood units resident assistance
Worker input	discouraged	welcomed	built into work
Information shared	little to none	most	virtually all
Supervision and control	for tasks only	for outcomes	co-ordination
	compliance with formal procedures	help to do the job	resident choice
Assumptions about Workers	theory X	theory Y	community members
Staffing ratio: day	ten + residents	seven to nine	five to seven
Wages	$5.50 +	$7.00 +	$6.50 +
Turnover, annual	more than 80 %	30-80 %	20-40 %

	Traditional low service quality	*Semi-skilled high service quality*	*Semi-autonomous 'regenerative'*
Career paths	little or none	senior NA scholarships	cross training evolving
Ownership/reimbursement	for profit chain	non profit special chain high-end for profit	non profit religious or high-end private for profit
Labour relations	mostly non-union	the most unionised	Mixed
Cost structure	low to average	average to high	average to
Philosophy of care	medical-custodial	medical-rehabilitative	

SOURCE: Eaton, 2000 (29).

DEVELOPING A STRATEGIC APPROACH FOR THE HEALTH SECTOR

These models have value in highlighting some fundamental issues and demonstrating the importance of a strategic approach. With few exceptions, however, the models are focused on the development of HR strategy at the level of the individual firm with an implicit assumption that the organisation is relatively autonomous in developing its own strategy. In the health sector HR strategy needs to take account of a range of different stakeholder perspectives and to be focused at national as well as lower organisational tiers. This complexity reduces the scope for autonomous management actions and if these realities are ignored, unrealistic and naive HR strategies may be formulated. For example, in many countries such as China there is a tradition that the distribution and allocation of health professionals is decided centrally, with local managers having little discretion over staffing decisions (30).

No pre-packaged model is therefore appropriate to the range of circumstances within health care systems. It is the ability to craft a strategy appropriate to local conditions and culture and to implement it effectively that is paramount. It is therefore important to move beyond generic models

to distil the core processes and values that underpin successful HR. Three broad conclusions can be drawn on effective HR strategy from the research evidence: Ownership, people are regarded as a strategic resource to be nurtured and developed with top managers that support such an approach. There is clear leadership of the reform process with sufficient HR capacity to maintain the momentum of reform; External fit, organisations with an effective approach to HR are alert to the external environment, planning their HR requirements in a manner that incorporates the HR implications of a changing external environment and able to modify the strategy or resolve the problems arising from any environmental changes; Internal fit, refers to a coherent approach to HR policy which is not over-reliant on one element (e.g. training) but combines HR policies into an integrated bundle of policies and processes. What is the evidence about the adoption of such approaches within the health sector and what improvements could be made to existing practice?

OWNERSHIP

The evidence suggests that ensuring the importance and ownership of HR within the health sector remains a major challenge. It is at national level that Ministries of Health are expected to lead health reforms, including HR activity. In many developing countries HR activity is located within a specific HR unit within the Ministry (31). The difficulty is that many of these units are not staffed by HR specialists and they tend to concentrate on issues of personnel administration and training. This operational focus can contribute to the sense, as in the case of Colombia, that the Ministry forms part of the problem rather than part of the solution and this weakness prevented it from building consensus for reform with other stakeholders (employer and union representatives) (32). For this reason it is important to establish a specialist and independent HR capacity at central level to flesh out detailed plans because this is the best means to implement unpopular changes (33).

Moreover, if at Ministry level there is a failure to invest in HR expertise, it undermines the message that HR issues are important. In the United Kingdom radical attempts to alter HR policy in the early 1990s, as part of the establishment of an internal market, floundered because the Ministry of Health provided little concrete support and guidance to local trust hospitals about how to implement HR strategies. This made local

managers cautious about reforming employment practices because they believed that they were receiving mixed messages about the priority attached by the government to the reform of employment conditions (34). These difficulties place a premium on investing in HR capacity at central level, including top level board representation for HR specialists, which has been shown to increase HR credibility and foster a tighter link between HR policy and business strategy (24).

These problems of central capacity can be exacerbated by the undermining effects of constant change amongst senior staff. Accounts of transformational change in successful organisations are peppered with references to strong leaders and the emphasis placed on developing the next cadre of top managers (35). The health sector, particularly at central level however, is subject to political fluctuations in which there may be frequent changes of personnel due to political upheaval (36) and the allocation of senior roles on the basis of patronage. This discourages a longer-term perspective, erodes organisational memory and expertise, reducing the capacity to implement reforms.

So far the discussion has presupposed that the HR strategy is owned by the Ministry of Health. This assumption, however, ignores the extent to which ownership of HR issues is diffused amongst many different actors. Because HR policy invariably has pay bill implications the Ministry of Finance takes a close interest in HR matters, as do other government departments. HR policies will only be effective if there is agreement and co-ordination at central level. In addition to the need to improve co-ordination with government departments, the role of the private sector and educational institutions needs careful consideration to ensure sector wide ownership of HR. This is not straightforward because the interests of educational institutions, for example, may clash with those of government. In Peru, private and loosely regulated educational institutions are creating an over-supply of physicians; an issue that has not been adequately addressed by the state even though it exacerbates existing problems of staff utilisation and deployment (37).

Other key stakeholders also need to be involved. Although there is often a reluctance to include trade unions, their exclusion can store up problems for later. For example, in Costa Rica a relatively closed policy making process, at the behest of the World Bank and Inter-American Development Bank, marginalized union involvement and led to incoherent

HR policy. Similar problems have been highlighted in Fiji and Guinea-Bissau. By contrast widespread consultation with stakeholders in Angola and Botswana facilitated a greater sense of ownership (13).

Strengthening HR Ownership

Several interventions can ameliorate the problems of HR ownership. The importance of a clear vision, which reflects the overarching view of where the organisation is heading, and a mission statement that puts in more concrete terms the key ideas that guide the organisation have been recognised as central to establishing a strategic approach to HR. In many countries there are forms of hospital charter that reflect the key mission of public hospitals, as for example in France (Table 6) (38).

Table 6. Hospital Mission in France: A Charter for Hospital Patients

Public hospitals should be available for everyone, especially for unprotected patients, and they must be suited to the needs of the disabled.
Hospitals guarantee high quality health care, focusing especially on pain relief .
Patients should be fully and faithfully informed about the disease and planned diagnostic and therapeutic procedures. The patient is deeply involved in decision making.
Medical procedures can be carried out only after the patient's informed consent.
Special informed consent is required for patients involved in biomedical research, organ donation and any use of human body products.
The patient is entitled to be discharged from the hospital on his /her own responsibility
The patient should be handled with respect, including respect for privacy.
Confidentiality of any personal information is guaranteed.
Free access to any information from the patient's record will be provided, but should be made available through the general practitioner.
The hospitalised patient is allowed to make any comment on the health care and the reception by the hospital.

SOURCE: Geschwind, 1999 (38).

This type of statement, however, is only of value if it is developed in co-operation with staff and taken seriously by managers. This is more likely

to be the case when the mission statement is integrated with training and performance management systems. Below Ministry level, at district or hospital level, many of the same issues of HR ownership and leadership arise. An important issue is the involvement of clinical staff which has become more pressing as decentralisation increases the role of professional staff in HR matters. It is crucial therefore that clinical staff receive training and support to build up their knowledge and understanding of management issues.

Ambivalence towards such developments and other forms of 'best practice' (e.g. team working) has led to suggestions that the management of culture and values is an integral part of the new HRM (Table 3). The argument is that improved organisational performance results from the development of explicit corporate values that guide behaviour (39). The evidence suggests that within the health sector caution needs to be exercised. Health workers have highly developed professional values and there is a danger that attempts to manipulate the culture can easily back-fire and be treated with cynicism. As health workers appear especially hostile to managerial reforms that may undermine an existing public service ethos (40) it is more fruitful to gain ownership for HR policies by focusing on behaviours and competencies rather than trying to alter core values.

The evidence suggests that three main factors will influence employees' willingness to change their behaviour and consequently their capacity to 'own' the HR agenda. First, the further that new behaviours are distinct from the old ones the more threatening and uncertain are likely to be the reactions of staff. In the UK the pressure on doctors to take on budgetary and staff management roles led to considerable resistance because these responsibilities were radically different from those that clinicians had been expected to undertake in the past. In addition, without training and support, staff at hospital level may lack the confidence and experience to take on additional HR responsibilities as the experience of Hong Kong indicates (41).

Second, the degree of transparency and the simplicity of HR changes is an important influence. Organisations that are able to communicate the key messages of their HR strategy and ensure that individuals understand how their role fits into wider organisation objectives have more success in managing change (24). The complexity of the health sector with many stakeholders and multiple competing objectives that are

not easily measured makes this a difficult task. In addition, the political character of health care organisations with informal alliances and trade offs between different objectives make policy makers understandably hesitant about revealing these political compromises. Inevitably clear priorities suggest that other objectives are less important, which may antagonise powerful groups and vested interests (42). Nonetheless, innovative organisations have the maturity to debate their priorities, making decisions explicit and converting them into measurable targets. This type of approach has been adopted by the WHO in its Health 21 programme in which HR forms an important component of the initiative (43).

Third, in any change process there will be winners and losers. Not surprisingly the extent to which people will embrace change is influenced by their perception of whether they have gained from the change process. In the Czech republic, for example, physicians expected that privatisation would boost their incomes (44). In general, however, a key lesson from health care reform is that in many countries too many influential stakeholders believe rightly or wrongly that reforms will have a detrimental effect on their status, working conditions and pay (11). There is also considerable unease that the commercialisation of health services is placing financial considerations before patient care, fuelling industrial action, for example strikes amongst nurses in South Africa (49). These concerns are reinforced by governments that are unable to provide sufficient resources to implement the reform agenda (e.g. Zambia) (15). The experience of successful HR change, however, suggests that policy makers need carrots to offer staff in order to be able to pay for change.

EXTERNAL FIT

The second key component of developing a strategic approach is a planning framework that enables alignment between HR and the external environment. This ensures that the organisation's policies support the behaviours and competencies required for it be effective. The focus of most attention is usually an HR audit and HR plan because without some knowledge of existing HR resources and future requirements, it is difficult to know whether HR capacity can fulfill the needs of the 'business plan' (health plan). In the health sector, the WHO has examined existing HR resources focusing on the medical and nursing workforce. The state of nursing and midwifery was investigated following the passage of World

Health Assembly resolution 45.5 in 1992. This resolution addressed the problems of nursing and midwifery, especially staff shortages. A survey that examined the implementation of this resolution painted a mixed picture on responses to shortages, with the greatest attention being focused on improving educational programmes. Only half the countries responding had a written national action plan for nurses with a lower figure for midwives (39 per cent) (46).

This situation reflects the generally very patchy picture of HR planning. Few countries have formulated a comprehensive national HR development plan (see the experience of the Caribbean countries). This problem is compounded by the lack of a database on existing skills in the health sector (47). This picture is perhaps unsurprising because there is a limited tradition of effective planning and strategy development (48). Even if a HR strategy exists too often it has been discredited by being a top down, formulaic planning ritual using inaccurate and dated information with HR considerations isolated from health policy issues (Table 7) (49).

Table 7. Approaches to Merging Strategic and HR Planning

Afterthought/'add on'	*Integration*	*Isolated*
The focus is on business planning, with HR practices considered as an afterthought	The focus is on a synthesis of business and HR planning	The focus is on HR practices and how the HR function can add value to the business
Line managers own the HR discussions, with tangential involvement of HR professionals	Line managers and HR professionals work as partners to ensure that an integrated HR planning process occurs	HR professionals work on the plan and present it to line managers
The outcome is a summary of HR practices required to accomplish business plans	The outcome is a plan that highlights HR practices that are priorities for accomplishing business results	The outcome is an agenda for the HR function, including priority HR practices

SOURCE: Ulrich, 1997 (49).

Nonetheless the near universal attempts to reform the health sector provide an opportunity for policy makers to use the objectives of reform (Table 4) to develop a more strategic view of health services, including at the same time the implications for HR, formulated in clear and measurable HR plans.

This has been the approach of the British Government which has recently published its revised strategy for the NHS which sets out its core principles (Table 8).

Table 8.The UK NHS Plan Core Principles

The NHS will provide a universal service for all based on clinical need, not ability to pay.
The NHS will provide a comprehensive range of services.
The NHS will shape its services around the needs and preferences of individual patients, families and their carers.
The NHS will respond to the different needs of different populations.
The NHS will work continuously to improve quality services and to minimise errors.
The NHS will support and value its staff
The strength of the NHS lies in its staff, whose skills, expertise and education underpin all that it does. They have the right to be treated with respect and dignity. The NHS will continue to support, recognise, reward and invest in individuals and organisations, providing opportunities for individual staff to progress in their careers and encouraging education, training and personal development. Professionals and organisations will have opportunities and responsibilities to exercise their judgment within the context of nationally agreed policies and standards.
Public funds for healthcare will be devoted solely to NHS patients.
The NHS will work together with others to ensure a seamless service for patients.
The NHS will keep people healthy and work to reduce health inequalities.
The NHS will respect the confidentiality of individual patients and provide open access to information about services, treatment and performance.

SOURCE: Department of Health, 2000 (50).

Importantly this strategic plan does not simply quantify the goals of the organisation and the number of staff that it believes will be necessary to achieve these aims, important as this is, but it also outlines in qualitative terms the expectations of staff (50). The HR components of the plan are integral to it not a separate add on component. To ensure that local

employers take their HR responsibilities seriously the government has included the way that employers treat their staff as a core component of the performance framework; linked to the financial resources that hospital trusts receive. For example, each employer is to be assessed against a 'Improving Working Lives' standard that will assess the organisation's training record, sickness and safety performance, approach to discrimination and the like.

The UK approach takes a broad perspective that emphasises the impact of HR strategy on customer service, investors and employees; mirroring a 'balanced scorecard' type approach (51). This is in contrast to most of the evidence in the health care sector in which HR strategy is defined narrowly in terms of workforce supply and demand issues (e.g. Eritrea) or attempts in Greece to establish a register of all nursing personnel and to predict future workforce requirements (52). These efforts are a necessary but not a sufficient condition for developing HR capacity.

First, the focus of analysis tends to be the occupation, especially doctors and nurses. This not only ignores many other healthcare occupations, but planning on this basis assumes relatively fixed roles for staff. As discussed below, competency based approaches which focus on the behaviours required of staff rather than existing professional roles, may increase the flexibility and thus the capacity of the workforce. Second, numbers orientated workforce planning methods leave key questions about the distribution, qualifications, motivation, development and performance of staff unexplored. Finally, the issue of whether adequate measures exist to forecast the numbers of staff needed given that staff roles in health services are changing and that the process of globalisation is expected to increase health sector mobility remains an unresolved issue (54). It is for these reasons that many organisations whilst maintaining a systematic approach to human resource planning are moving away from an emphasis on quantitative techniques (55).

A final issue in terms of integrating HR policies to health policy requires more detailed and explicit consideration of key health trends that are not included sufficiently in the planning process, even though scanning the environment is a central component of ensuring external fit. A number of sensitive issues may not be factored into HR plans. For example, the growth of HIV/AIDS has considerable implications for the availability of health personnel in many countries and the type of services that will need

to be provided. It may be politically too sensitive to incorporate accurate forecasts of HIV/AIDS despite its consequences for HR. Private practice raises different issues. In many African and other countries professional staff carry out private practice to boost their salaries, even though it has an ambiguous status (56) and may compromise their public sector work, as noted in the Caribbean (47). Nonetheless, the failure to incorporate private practice and the activities of NGOs into an analysis of HR requirements will reduce the credibility of HR planning.

In summary, the key lessons are simple. Health policy goals have to be translated into operational plans if there is to be a strategic approach to managing HR; people undertaking this task need to have sufficient influence to ensure plans are taken seriously and implemented to prevent the 'Strategic Plans on Top Shelf' (SPOT) trap (49). Indeed if senior policy makers and managers really believe that HR is fundamental to organisational effectiveness they will be involved in developing HR plans and capacity at the same time as they develop health policy rather than the former being 'downstream' of the latter (28). It is for these reasons that issues of fit are central to building HR capacity.

INTERNAL FIT

As well as the need to align health policy and HR policy (external fit) there is also the need to ensure that personnel policies are internally consistent (internal fit). The widespread use of competency frameworks are one means to ensure that the requirements of the HR strategy can be linked to the specified attitudes and behaviour of staff. These standards are then incorporated into all aspects personnel practice (recruitment, appraisal, training etc). The appeal of the competencies approach is that it provides a currency to describe and link personnel practices that have often been characterised as a set of disparate activities with little cohesion. There are a number of different types of competency framework that have been developed (Table 9) (57).

Table 9. Approaches to Developing Competencies: Advantages and Disadvantages

	Research-based	*Strategy-based*	*Values-based*
Approach Description	Competencies based upon behavioural research on high performance executives	Competencies forecast to be strategically important based upon anticipated future	Competencies based formally or informally upon organisational norms/cultural values
Processes used	Competencies validated by capturing behaviour of high performance managers or via interviews/focus groups	Interviewing top managers as to anticipated changes and/or use of consultants' competency databases	Approaches range from 'pronouncements of chief executives/owners or lists generated by HR departments.
Advantages	Grounded in actual behaviour Air of legitimacy Managerial sense of ownership	Competencies based upon future not past Focuses managers on learning new skills Can support organisational change measures	Competencies can have strong motivating power Values can provide stability and direction over time
Disadvantages	Based upon past not future competencies. May omit intangible and unmeasurable competencies Requires considerable financial and HR investment	Anticipated future may prove inaccurate/misguided Competencies based upon speculation instead of actual behaviour	The 'wrong' values may lead to misguided competencies Can be difficult to translate into actual behaviour Competency development process can lack rigour

SOURCE: Adapted from Briscoe and Hall, 1999 (57).

Within the health sector the competencies based approach is most prevalent in the industrialised countries and has been applied particularly to leadership positions. In Sweden, for example, case study evidence from a number of clinics emphasised the central role that competency based

management development played in improving leadership skills and enhancing employee attitudes to change (58). Other studies have asked nurse managers to rank the behaviours of health executives that they found most helpful in supporting organisational change with 'frequent communication about transition plans' and 'commitment to quality of care' ranked highest (59).

Competency based approaches, despite their potential to provide the 'glue' in complex organisations, are not without their critics. First, competency frameworks are often viewed with suspicion by professional staff that wish to retain a monopoly of expertise and are reluctant to accept new categories of health worker. Competency approaches by emphasising behaviours rather than qualifications can break down the barriers between occupational groups and encourage cross-functional working. Professional resistance, however, can be exaggerated as over time attitudes appear to change and medical staff are more willing to delegate work to nurses, as appears to be the case amongst general practitioners in Britain (60). A lot depends on the structure of incentives that can facilitate or hinder changes in behaviour. Second, competency approaches have been criticised because they focus on what people can do rather than what they know. Based on Australian experience, it has been suggested that competency frameworks reduce the importance of the learning process and do not equip staff to be 'problem solvers' (61). In practice, considering that in many parts of the world training and development activity has been inadequate and focused on narrow technical skills, for example, in Central and Eastern Europe (62), competency based approaches can make a valuable contribution to reducing the gap that frequently exists between the output of educational and training institutions and the needs of the health sector as, for example, in the Philippines (63).

Recruitment and selection

Cohesive HR policies are heavily dependent on effective recruitment and selection practice. A number of difficulties have been highlighted in the literature. First, decisions about recruitment and selection are often handled by a central government body using standard staffing ratios that are often poorly linked to local service requirements. Policies that decentralise service provision whilst retaining central control of staffing add to these problems. Poor distribution of staff can result, for example in Tanzania,

because recruitment and allocation decisions are based on political influence rather than linked to workload (36). These difficulties can be exacerbated by the poor links between recruitment requirements and training outputs; graduates in Nepal and Indonesia have to wait months or years before they can take up posts (31).

Second, selection procedures very often part of a formalised recruitment process for the whole civil service in which formal exams are set that have little relevance to the particular jobs undertaken. In Honduras, selection is based principally on medical qualifications. Candidates are rarely interviewed and management skills are not considered (7). Similarly in Spain, selection examinations are heavily weighted towards legal matters of questionable relevance (64). This type of cumbersome recruitment process has encouraged forms of 'backdoor' recruitment to allow more flexibility and autonomy in recruitment matters; encouraging the growth of temporary employment (65). The difficulty is that it encourages a haphazard increase in staff levels, with staff on different terms and conditions of employment, often with little legal protection. The recruitment of temporary staff may be a logical component of an HR strategy but it should not be used to circumvent cumbersome recruitment and selection regulations.

Instead, especially in countries that are decentralising management practice in line with the precepts of the new public management, employers have been granted increased discretion over recruitment and selection. This encourages staffing patterns linked to local requirements, increases the authority and accountability of local managers and streamlines the process. This does not mean that local managers should have a completely free hand to recruit; the process must remain within a clear HR framework, but it does allow discretion to move beyond the internal labour market and recruit externally which can boost the quality of applicants (e.g. Kenya) (65).

A related issue is the criteria used to select staff. Innovative organisations use targeted selection methods driven by their competency framework. In the health sector this approach has been translated into a more critical approach to standardised tests that cannot detect competencies such as organisational commitment or communication skills. Coupled with problems of recruitment and retention it makes sense to use more flexible recruitment and selection methods. For example, in the

United States, many states including Connecticut, Indianapolis and Virginia have largely dispensed with written tests for recruiting many welfare staff and use experience, references, work samples and interviews as the main selection techniques (66).

Performance management and rewards

The management of these issues and the outcomes in terms of working conditions present some of the greatest challenges to policy makers in the health sector. The criticisms of employment conditions in the Caribbean are illustrative of these difficulties (Table 10).

Table 10. Disenchantment with Health Sector Rewards and Employment Conditions in the Caribbean

Salary, career structure and mobility, grievance review and disciplinary actions are covered under the Public Service Regulations, even though these rules may not be strictly relevant to health sector personnel.
Salaries, which are developed within public service procedures and negotiated with trade unions not exclusively representing health sector personnel.
Promotion is slow and usually tied to age or years of service rather than education and training.
Top-heavy management in certain categories, such as nurses, creates a bottleneck in the organisation/ management structure.
Career structures and mobility within and between the different professional groups are weak or absent.
Actions on staff grievances and discipline, being centralized, are very slow, creating managerial problems since remedial action cannot be taken at the workplace.
The majority of health personnel also experience unsatisfactory conditions of service and work, including inadequate supervision.
Frequent lack of supplies and malfunctioning equipment add to frustration by creating a large amount of downtime for these professionals.
Professionals are often obliged to waste a certain amount of their time on non-professional duties.

SOURCE: Nunes and Reid, 1997 (47).

The problems can be stated bluntly: salaries have in general been eroded in recent years, performance expectations are under-developed, and pay determination arrangements are often inappropriate focusing almost exclusively on seniority with no link made between rewards and performance (11). These points can be briefly developed here.

Although it is very difficult to generalise, salaries are relatively poor, especially in developing countries. This has encouraged staff to supplement their meagre incomes by private practice, with detrimental consequences for public health services; a practice that many governments have condoned because it takes some pressure off them to raise public sector salaries (68). Low salaries arise not only because of the universal constraints on the public sector pay bill, but also because health sector pay determination arrangements are frequently incorporated within wider civil service pay systems. One possible solution has been to break the link between health sector and civil service wage setting (for example, in Ghana) increasing wage dispersion. Staff may be reluctant, however, to transfer onto different employment contracts because of the benefits of civil service employment (for example, pensions) as noted in countries such as Zambia (69).

Different approaches to reform are influenced heavily by the characteristics of existing pay determination arrangements, not least the degree of centralisation and decentralisation, as the case of Europe demonstrates (70). Although it has become very fashionable to advocate more decentralized systems of pay determination there are considerable risks involved in such an approach.

There is the requirement to invest in considerable HR capacity and the danger that far-reaching reforms of pay systems may have the opposite effect to that intended by demotivating staff as experience from both industrial (for example local pay in Britain) and developing countries (e.g. The Philippines) suggests (37-38, 71). The important lesson is that systems of health service pay determination are highly resilient to change because of managerial conservatism, trade union opposition and the cost implications of pay reforms. It is striking, however, that significant changes in employment practices can be introduced (performance management systems, working time changes, alterations in work organisation) within a national pay determination framework as long as managers have some local flexibility (72).

Too much emphasis has been placed on the need to reform pay systems and pay levels of health service staff and insufficient attention has been given to the equally important issues of improving non-pay benefits and working conditions. Table 10 provides illustrations of these problems, suggesting that addressing issues of career structures, working conditions and working hours could have a crucial bearing on improving the performance and morale of health care staff. Rewarding good performers through promotion, more responsibility and incentives such as attending conferences and making space for research has been one such approach (66). In industrialised countries the promotion of 'family-friendly' working practices has also been a prominent recruitment and retention strategy. Performance appraisal systems also have an important role to play in ensuring that staff are aware of the expectations of them and that transparent promotion criteria are developed. Performance appraisal also forms an important component of the overall HR strategy because it provides important information for HR planning and training purposes and can also help communicate key messages (73).

THE SPECIALIST HR FUNCTION

The discussion so far has examined key aspects of HR practice and approaches that can be taken to build HR capacity. However, a key question remains who should undertake these roles? It is often assumed that a specialist HR function will exist in health care organisations, but this is not necessarily the case and a key issue is the balance between the role of HR specialists, other staff that perform HR roles and other means to deliver HR service (e.g. outsourcing). There is very limited information on the role of HR specialists within the health sector and it is predominantly prescriptive focusing on what HR should do rather than evaluating what it actually does. There is an important gap in our knowledge of health sector reform both in terms of the facilitating or constraining role played by HR expertise within Ministries of Health and how HR reforms are actually implemented at workplace level.

The HR function like any 'support' function needs to prove its worth to justify its existence. In the health sector it is often hard for HR staff to be viewed as legitimate, and resources to be invested in HR capacity, when their role does not obviously contribute to improved patient

care. The uncertain contribution of HR specialists is a continuous theme of the wider HR literature (49). This ambiguity reflects the very wide range of tasks that they are expected to perform and their uncertain influence in which they often have to work through line managers. It has also been suggested that the prevalence of women in HR roles may reinforce their marginal role within many organisations.

The tradition of centralised wage determination and employment conditions has confined HR to an administrative role in implementing and policing national agreements. The professional character of the workforce, with the dominance of the medical profession, has ensured that personnel can only exert influence in a subtle manner. If not, professional staff can feel that their autonomy is threatened and will seek to marginalize any personnel role, for example, in the selection of junior medical staff (74). Recognition, however, of professional power can be a positive force for change when HR professionals gain professional support and encourage them to lead on HR issues, for example training and development initiatives (75). It is important therefore to question much of the historical baggage or 'myths' that the HR function has inherited (Table 11) to enable it to make a more positive organisational contribution. How can this type of role be developed?

This paper has emphasised the importance of developing a strategic approach to HR. A very important lesson, however, is that HR specialists need to develop both effective operational and strategic roles. The reason for this is that the HR function cannot establish its credibility with senior managers and be invited to make a strategic contribution unless it can deliver effective operational services. For example, on issues like recruitment and selection and giving employment advice HR needs to be able to offer a timely and accurate service if it is to establish its credibility. It is for these reasons that HR needs to fulfill a variety of roles which requires the development of a number of key competencies (Table 12).

Table 11. Myths that keep HR from Being a Profession

Old myths	*New realities*
People go into HR because they like people.	HR departments are not designed to provide corporate therapy. HR professionals must create the practices that make employees more competitive, not more comfortable.
Anyone can do HR.	HR activities are based on theory and research. HR professionals must master both theory and practice.
HR deals with the soft side of the organisation and is therefore not accountable.	The impact of HR practices on business results can and must be measured. HR professionals must learn how to translate their work into financial performance.
HR focuses on cost, which must be controlled.	HR practices must create value by increasing the intellectual capital within the organisation. HR professionals must add value, not reduce costs.
HR's job is to be the policy police and the health-and–happiness patrol.	The HR function does not own compliance – managers do. HR practices do not exist to make employees happy but to help them become committed. HR professionals must help managers commit employees and administer policies.
HR is full of fads.	HR has evolved over time. HR professionals must see their work as part of an evolutionary chain and explain their work with less jargon and more authority.
HR is staffed by nice people.	At times, HR practices should force vigorous debates. HR professionals should be challenging as well as supportive.
HR is HR's job.	HR work is as important to line managers as are finance, strategy and other organisational domains. HR professionals should join with managers in championing HR issues.

SOURCE: Adapted from Ulrich 1997 (49).

Table 12. Definition of HR Roles and key Competences to fulfill these Roles

Role	*Outcome*	*Metaphor*	*Activity*
Management of strategic HR	Executing strategy	Strategic partner	Aligning HR and business strategy organisational diagnosis'
Management of firm Infrastructure	Building an efficient infrastructure	Administrati ve expert	Re-engineering organisation processes Shared services
Management of employee contribution	Increasing employee Commitment and capability	Employee champion	Listening and responding to employees
Management of transformation organization and change	Creating a renewed	Change agent	Managing transformational change ensuring capacity for action

Key competences required to fulfill these roles:

Understanding of the business
Knowledge of HR practices
Ability to manage culture
Ability to manage change
Personal credibility.

SOURCE: Ulrich, 1997 (49).

ROLE OF LINE MANAGERS

A crucial issue is the division of responsibility between HR specialists and line managers. The trend is towards the devolution of responsibility to line managers especially in areas like recruitment and selection, appraisal, communication, and to some extent over training and disciplinary matters. Pay determination is the area that is least likely to be devolved (76). The rationale for devolving responsibilities for people management to line managers is clear and the same logic applies to devolution from a central

HR unit to local HR specialists. Because HR responsibilities form part of every manager's job, devolution allows greater ownership of those decisions and enables them to be tailored to local circumstances (28). It also reinforces the trend towards health service decentralisation, noted earlier.

Nonetheless dangers exist. First, it is inadvisable to devolve HR activities until formal personnel practices and procedures have been developed, which employees understand and accept. If personnel policies are not in place there is a danger that line managers will flounder and inconsistent HR practice will result or local HR managers will continue to rely on the central HR unit (41). Considerable investment is therefore needed in training line managers and local HR managers so that they understand their responsibilities and feel confident in carrying them out. Second, experience in the UK suggests that HR managers may be reluctant to abandon the familiarity of their traditional roles. Devolution can also foster tensions with line managers and with the central personnel department (77). Finally line managers although supportive of devolution in principle may be reluctant to take on additional people management responsibilities because of their existing workload and because they may be uncertain whether they will get sufficient training and support (78). The pros and cons of devolution are summarised in Table 13.

Table 13. Pros and Cons of Devolving HR to Line Managers

Pros	*Cons*
Local management accountability	Lack of time to perform HR duties
Line management responsibility for People issues	Increase in line manager's workload
Potential cost savings	Additional costs of training managers
Increase speed of decision-making	Increase in grievances/tribunal cases
Policies/practices to suit local conditions	Lack of consistency in decision making
Strategic role for central HR/IR	Potential for HR/IR to be marginalized
Short lines of communication	Less consistent communications
Increased awareness of people management issues throughout the organisation	People management not considered to be part of line manager's job.

SOURCE: Industrial Relations Services, 1998 (82).

Many of these issues revolve around local HR activity, but are the same considerations appropriate at central level within the Ministry of Health? The emerging consensus is that it is crucial to have a specialist central HR capacity at Ministry level and that the central HR unit should have: an information and monitoring role in terms of developing an HR information system that includes collecting and analysing information about the reform process; a policy role in terms of developing an appropriate regulatory framework for health staff in liaison with other public bodies; and an advisory and guidance role in terms of providing technical assistance on HR issues and providing support for cultural change (32, 79).

DELIVERING SPECIALIST SERVICES: OUTSOURCING HR?

It has been assumed that there will be a specialist in-house service to deliver HR activity, but the increased use of outsourcing is a well-documented development (80) and in the health sector it has been reported in industrial countries and to some degree in India, Mexico, Papua New Guinea, South Africa, Thailand and Zimbabwe (81). The question arises at to whether HR activity should also be outsourced. The arguments in favour are that it allows the organisation to buy in particular specialist expertise, removes time-consuming activities from managers allowing them to focus on key core activities and may provide a better service at lower cost (82). To be set alongside these advantages are considerable disadvantages. First, the health sector is distinct from many other industries in terms of the complexity and interdependence of delivering effective health care. Best practice therefore indicates the importance of integration rather than fragmentation (83). The danger of outsourcing is therefore that a substantial proportion of HR activity is crucial to the organisation's strategy and culture and therefore it should be provided internally (84). Moreover, outsourcing often provokes strong resistance from staff, for example in the Philippines (85), and it may not be worth antagonising staff over this issue when more important changes are in the pipeline.

Second, outsourcing assumes that suitable suppliers of such services exist. In many industrialised countries this is not the case with the market fragmented between providers that specialise in particular areas like training, job evaluation etc and which may have no particular expertise in the health sector. The unavailability of suitable providers is likely to be a major limitation in many developing countries. Although multi-national

companies are extending their reach, contracting out can also be prone to problems of poor service specification and corruption (86).

A number of alternatives are available which can bring market discipline and expertise into the organisation without making use of full outsourcing. With the growth in contracting mechanisms within health care via purchaser/provider splits, the same type of mechanism can be applied to the personnel service.

HR an act as business unit or trading division within the Ministry of health or at lower tiers (for example, an individual hospital) and can sell agreed services at an agreed specification level (for example, job adverts will be placed within 48 hours) to their customers. The advantages of such an arrangement are that it clarifies objectives and outcomes, but it also incorporates some of the disadvantages of contract mechanisms; especially the difficulties and costs of specifying contract levels.

MEASURING HR EFFECTIVENESS

Irrespective of which approach is adopted it is crucial that the effectiveness of the HR department is measured and audited. There are three broad approaches: quantitative or hard measures, i.e. numerical measures of inputs, outputs and outcomes (Tables 14 and 15) (87); qualitative or soft measures which provide information on staff attitudes and line managers' views of HR via surveys and focus groups; process analysis which can trace a process through its various stages (e.g. recruitment and selection) to gauge its effectiveness; HR can also ensure that its performance is effective by benchmarking its practice against other organisations and using the balanced score card approach discussed earlier.

Table 14. Hard and Soft Measures of HR Effectiveness

Hard	*Soft*
Recruitment and selection	Number of long term vacancies Average time to fill vacancies Proportion filled through promotion, demotion or lateral movement Average time spent in a job or function per employee
Training and development	Number of trainee days/number of employees Total training budget/total employment expenditure
	Total compensation cost/total revenues
Compensation and benefits	Basic salary/total remuneration
	Number of salary grades/employees
Employee Relations	Number of resignations/total headcount per year
	Average length of service per employee
	Rate of absenteeism
	Average length of absence per employee
	Number of supervisors and managers per employee
Overall HR management	Total revenue per employee
	Total headcount this year compared with last year
	Proportion of part-time employees to total number of staff
	Employment cost/total expenditure
	Number of HR professionals per employee
	Age distribution of employees
Internal customer satisfaction	Total revenue per employee
	Employee focus groups
	Line management survey of HR's performance
	Senior management views of HR performance

SOURCE: Industrial Relations Services, 1998 (82).

Table 15. Strategic HR Audit: Questionnaire

Is there a clearly understood HR strategy ?	Is this strategy known and understood by the organisation? Does the strategy support and fit in with the business plan? Is the HR strategy regularly reviewed? Is the HR strategy consistent with the organisation's mission? Is the HR strategy consistent with other functional strategies?
Are people seen as a strategic resource by senior management?	Does the business plan demonstrate a belief that human resources are a valuable source of long-term competitive advantage? Do managers at all levels manage their staff in a way that recognises their role in strategy implementation? Do management training and development programmes take account of the need for managers to think and behave strategically?
Are there clearly understood strategies for each element of HRM?	Are these strategies integrated and mutually supportive? Do these strategies focus on improving individual and organisational performance? Have strategies been formulated for all the main elements of HRM? Are they consistent with other functional strategies? Are the values of these strategies consistent with the values of the overall HRM strategy? Are these strategies tested by developing feasible implementation plans?
Does Human Resource Planning (HRP) take account of internal and external environmental factors?	During the planning process is a SWOT analysis carried out on human resources? Does HRP incorporate long-term environmental trends? Are short and medium term HR plans consistent with long-term forecasts and environmental trends?
Does the personnel function have a strategic role in HRM?	Does the most senior HR manager help formulate business strategy? Does the personnel department have a strategy for delivery of its services? Is the strategic role of the HR department understood by both personnel staff and the line managers? Does the personnel department's strategy focus on successful implementation of the HR strategy?

SOURCE: Adapted from Collins, 1991 (87).

A WHO sponsored initiative has developed key HR indicators for the health sector (for details see 88). The key message of the WHO research is that if HR indicators are to be accepted and used effectively they must form part of a broader process of cultural change and management development. Unless these pre-conditions are satisfied, the scope to highlight 'outlier' values and make comparisons between organisational units will be undermined.

CONCLUSION

In the last decade there has been much more attention paid to health care reform and the relative merits of different health systems (89). The argument of this paper is that diverse attempts at health care reform have been hampered by the insufficient attention that has been given to HRM issues. Policy makers have been overly optimistic in their expectation that once plans for reform have been devised, the process of implementation will be relatively straightforward. This has led to insufficient attention being given to building support for reforms amongst the workforce and other key stakeholders, developing the leadership skills and competencies needed to implement complex reforms, and establishing realistic timetables for implementation.

There is clearly a long way to go in developing effective HR capability in the health sector. More positively, however, there is an increasing commitment to take such steps and because the health sector starts from a relatively low base line in HR terms, a variety of measures in areas such as recruitment and selection could make a substantial difference to the working lives of staff and the effectiveness of health systems. Nonetheless, even simple measures will be more effective if they are based on a sound evidence base that critically appraises both the successes and failures of recent attempts to strengthen HR capacity in the health sector.

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Part II - Evidence-Based Interventions for Human Resource Development

Labour Relations, Employment Conditions and Participation in the Health Sector

Pedro Brito, Pedro Galin and Marta Novick

HEALTH CARE SECTOR REFORM AND RE-ORGANISATION

The health care sector is an important employer in every country. An estimated 35 million people currently work in the health sector (1), approximately 9 million in Latin America alone (2). Although over-all employment in the health sector has stagnated in Latin America, employment in the public sector is likely to increase in the near future. This will be due primarily to efforts to increase health care coverage, to changes in models of care, and to changes in epidemiological conditions, with poverty and infectious diseases coexisting with chronic and degenerative diseases.

The labour component of health care is crucial to the successful adaptation of services to new requirements. At the same time, the labour component is affected by various structural modifications. The purpose of this paper is to analyse these interactions and their consequences for labour relations.

The 1980s and 1990s saw an unprecedented interest in health care reform worldwide. Despite the labour-intensive character of the health sector (labour-associated expenditures comprise 50% to 75% of the sector's recurrent budget), insufficient attention has been paid to the repercussions of reforms on human resources and their management. One explanation is that issues related to human resources (e.g. remuneration and incentives) are "one of the most difficult aspects of the international health agenda" (3).

In Latin America, some health sector reform processes are derived from a general reform of the State or Constitution, some are due primarily to financial considerations, and some are influenced by both. Whether or not they were involved in national reforms (4), Health Ministries have had little say in the design of those changes. In this region, few reforms have influenced all of the functions of the health sector or substantially modified the private-public mix. Most reforms have been limited in their reach (for

example changes in service delivery but not in financing) or in their scope (including for instance only Ministries of Health and Social Security). Formal criteria for the national evaluation of health sector services and reforms (4) have been very restricted.

Even when health personnel have participated in the process of health sector reform, employee characteristics and their actions, whether for or against reform, tend to determine the viability and sustainability of the latter (5). Problems, policies and interventions related to human resources have received little mention within strategic agendas. Policy decisions related to human resources are subordinated to economic considerations. At most, personnel matters have received attention only insofar as they relate to managerial concerns, as a part of a group of actions intended to improve efficiency and productivity.

Paradoxically, this has occurred at a time when more general changes in the State, the economy and institutions have revolutionized the economic and labour conditions achieved so far.

Generally speaking, the importance of employee action has been grossly under-estimated. Health sector workers, both individually and collectively, should be protagonists in the health sector reform. Failures in implementing reforms can often be explained by the tendency to consider workers as tools and to forget that their involvement and commitment are crucial to the success of reform.

Some cultural and managerial changes have been included in so-called second-generation reforms, such as the substitution of programme planning for project planning, the search for cost-benefit and cost-efficiency in determining interventions, and the incorporation of competition in assigning resources and in managing social actions. These are very significant changes within the health sector, with important consequences for human resources, as noted below.

DECENTRALIZATION OF PERSONNEL MANAGEMENT

The decentralization of health care systems has generated most of the changes in personnel management within the public sector. This decentralization is taking place in all of Latin America and in many European countries (6). Among the Latin American countries studied, most have shifted resources and responsibilities to the intermediate level (State, provincial or regional governments) and, albeit to a lesser degree, to

more peripheral levels (municipalities or their equivalent). This applies to services offered by the Ministries of Health (4) but not to those offered by the Ministries of Social Security. In developed countries, hospitals have acquired more autonomy in the management of their human resources (3), including the allocation of resources for wages.

A New agenda or Human Resources Management

Today two approaches or agendas occur in the management of human resources: the old agenda, which corresponds to a model of stable and protected labour relations, based on lifetime career; and the new or flexible agenda, which responds to a new regulatory model characterized by the flexibility of labour and employment (7).

The old agenda includes problems that personnel administration has not been able to deal with and that still persist - the continuation of a rigid norm makes changes in management difficult everywhere. The new agenda refers primarily to situations and problems arising from the reforms.

Reforms, Players and Strategies

Certain critical issues related to human resources in health care have regained importance and attention. The existence of multiple dynamics and conflicts among the social actors as well as corporate interests are of primary note in this regard. In addition, views that take employees and their work as merely instrumental are being questioned and are being replaced by integral social and institutional views. These reflect various policy perspectives, emphasizing the right to health care for all, the status of health workers as citizens, new organisational paradigms with regard to human capital, and the role of knowledge as a productive force. The old style of management, planning and education is also criticized. The individual-management point of view subordinates administration and emphasizes organisational, social and institutional relations and matters of power. The new perspective values strategic vision and workers' constructive participation within a planning process adapted to local realities. The following table attempts to illustrate the reform processes as well as the changes in human resources they may bring about.

Table 1. Impact of Reforms on Health Sector Workers

Substantive Process of Reforms	*Implications for Workers*
Decentralization	Greater resolution of Services and interventions
Changes in the Ministries, both structural and functional	Changes in function and new competencies Demands for quality and productivity
Changes in finance and payment modalities	Organisational changes and a preference for teamwork
New Management Modalities : externalization, outsourcing, buying of services, autonomy etc.	Labour flexibility : new and more precarious contracting mechanisms Emphasis on performance and evaluation
Changes in care models at primary and complex levels	Changes in incentives
Extension of coverage	Process regulation, human resources development
Concern with quality	Professional accreditation and certification

SOURCE: PAHO/WHO Human Resources Development Program, 1999 (8).

MANAGEMENT OF HUMAN RESOURCES WITHIN SECTOR REFORM

Despite transformations in the sector, few countries have developed or strengthened specific units to improve human resources or have set up programmes to prepare themselves to face the challenges posed by health care sector reform. All agree that public sector reforms are taking place in Latin America, but there is no systematic commitment to guide the process as regards human resources. Several countries have introduced policies to link incentives to performance and improvement in productivity, yet few have developed far-reaching and integral approaches to labour performance.

When it comes to services, most developing countries are redefining public health care services, particularly ambulatory networks, dispensaries, and health care centres. This is commonly associated with the creation of programmes for vulnerable groups. Yet little has been done to improve the secondary and tertiary level (4). Changes in models of health care, particularly at the basic level, require improvements in workers' preparation, with emphasis on skills for health care promotion and prevention, for general practice and for effective teamwork.

Changes in models of health care and the challenges they involve (e.g. organisational transformation and major changes in work content) are forcing institutions to lead professionals and technicians in redefining their profiles and in acquiring a greater commitment to integration within the changes taking place in their services. In several countries, coping with change and developing new responsibilities have led to the emergence of relevant new educational components within projects of institutional the emergence of relevant new educational components within projects of institutional strengthening and investment, in order to support ongoing reforms. The current rich experience of "in-service education", based on new educational perspectives, decentralized execution and forms of competitive management, must be evaluated.

VARIOUS MODELS OF EMPLOYMENT AND LABOUR RELATIONS IN HEALTH SECTORS

Employment models and labour relations in health care (both public and private) and their impact on organisational efficiency are part of a network of changes extending far beyond the institutional limits of the health sector. "Paying attention to the changes in labour and employment relations caused by state reform and the corresponding changes in labour administration acquires great importance. It is important to keep in mind situation changes as well as changes of the norms for employment of national economies, which are the ones to produce labour reforms. The health sector, with all its singularities, is subject to mechanisms of interconnecting links between sectors and sub sectors regarding labour markets and wages" (9).

For that reason, examination of the models of labour relations in the health sector must be introduced along with the analysis of labour regulation models within the economic framework, sector reform, and

public administration reform. Those factors combine to determine the specifics of labour relations in the sector.

LABOUR REGULATION MODELS

Three labour regulation models have been identified among developed countries: that of continental Europe, the Anglo-Saxon and the Japanese. Economic orthodoxy has considered the USA as a paradigm of productivity and competitiveness because it has few regulations, whereas continental Europe embodies the opposite. Japan has very strict labour regulation and social protection, but collective negotiation is decentralized.

Orthodox apologists of the American model emphasize the productivity growth of their economy in the 90s and take it as proof of the superiority of the model. Yet this statement has been questioned by diverse studies. For instance, it has been stated that none of the three great blocks in the world is globally superior to its competitors - each has comparative advantages and disadvantages (10). OECD research on specific institutions has led to similar conclusions on the efficiency of each model when taking into account working time, contracts, minimum wages and worker representation rights (11). The link between fundamental labour norms (freedom of association and collective negotiation) and commercial flows confirms that labour laws have a very limited impact on trade performance (12).

Another study concludes that the available evidence does not show a statistical correlation between economic performance and collective negotiation. There is one exception: economies with higher centralization/ coordination in their collective negotiation show higher income equality than those that are more decentralized or non-coordinated. Another tendency observed is that the more centralized/coordinated systems register lower unemployment levels (higher employment rates) than those that are less centralized/regulated. The countries that have moved towards a more decentralized/less coordinated model during the 1980s have suffered sharper falls in their employment rates than those more centralized or coordinated (13). In 1998 OECD concluded that countries with relatively high minimum wage regulation had smaller income inequalities and lower incidences of low income (14). In 1999 OECD presented another paper exploring Employment Protection Legislation (EPL) and the performance of the labour market (15). The data therein describe protective legislation on

regulation of redundancy compensation in time limited employment contracts, and its practice in 27 countries between the late 1980s and the late 1990s. Consistent with prior studies, little or no relation was found between strict EPL and global unemployment (Author's emphasis).

It is worthwhile recalling Richard Freeman's memorable study and his conclusion: "Does labour market idiosyncrasy and/or employment policy significantly affect economic performance? My answer is yes Institutions associated to collective negotiation and other forms of institutional determination substantially reduce disparities in income distribution. But the impact of those institutions on efficiency is weak and uncertain. A suggested null hypothesis is that institutions have an insignificant effect on efficiency at the national level, at least as far as the developed countries' experience goes" (16).

Among underdeveloped countries there are two opposed models: Latin America and South-East Asia. Orthodoxy has considered the first one as over-regulated, deepening structural dualism and preventing the labour market from adapting well to changes in market forces. On the other hand, in recently industrialized countries of South East Asia the labour market is very de-regulated, and this is considered to be a cause of the success of their export-oriented strategy of growth. It has been argued that this success has contributed to the repression of trade unions, particularly in their wage-negotiation function. This orthodox perspective on the South East Asian model has been criticized on the grounds that: growth emerged within an environment of rising wages (17); in Korea it was necessary to discipline both the labour force and the companies, intervening to ensure working conditions corresponding to the level of development achieved (18), so that workers would also profit from the fruits of growth; the evolution registered in the mid 1990s saw new measures of protection with no interruption of those countries' growth levels (the crisis had a financial origin). "The normative evolution in Asia reveals that for export markets to succeed it is not indispensable to have a fully liberalized labour market or repression of the defense of workers protection" (21).

The orthodox argument is well known in Latin America: tariff barriers and strong State intervention alter the relative rents of sectors leading to economies with little capacity for growth and high sensitivity to macroeconomic instability. Labour norms, in particular, reduce market flexibility, raising wage costs and increasing (sometimes excessively), the

bargaining power of trade unions, in the 1990s most countries introduced measures "to reform the legal system of labour protection, easing the dismissal of workers and creating flexible contracts ... (that) did not translate into employment growth, and had the opposite effect, due to the increase of dismissals and temporary contracts" (19). In the same sense, regarding collective negotiations: "the evidence suggests that, in Latin America, during those periods in which collective negotiation was not restricted or relatively free, the degrees of wage disparity and centralization of collective negotiation are inversely but loosely correlated, reproducing the OECD characteristic pattern" (20).

To summarize: the models of labour relations oriented to increase flexibility, de-regulate and decentralize do not appear to be more successful than their alternative - more protective model in terms of national economies. On the other hand, the latter seems to offer better distributive behavior.

MODELS OF PUBLIC ADMINISTRATION REFORM

Public sector reform in developed countries has been based on the idea of competition and economic incentives. In underdeveloped countries, public sector reform included three main aims as promoted by the World Bank at least well into the 1990s (these aims were strongly influential in determining the nature of health sector reform in emerging economies): reduction of personnel paid with public funds; introduction of wage differences as incentives; restoration of the key elements of traditional bureaucracy: order, hierarchy, formal procedures and increased responsibility.

Experience with this model of public sector reform has been uneven, particularly because of resistance by the public sector, which strongly opposed reforms. Yet that resistance was mostly passive, leading to nearly indefinite delays in the implementation of norms (21). This resistance considers that reductions in personnel represent a direct threat to the means of livelihood of most public sector employees, while the wage options will benefit only a few at the higher levels (22).

The tendency of public sector reforms to modify the legal status and resources of employees has been observed everywhere. Countries like Austria (where health sector personnel are covered under the general labour law), Brazil, Italy Switzerland and the former centrally planned

economies of Central and Eastern Europe all introduced greater flexibility, in those cases in which legal status has not changed, there have been frequent changes in contract conditions, inspired by those of the private sector: decentralization, subcontracting, and privatization (22). Among the examples of privatization, decentralization and subcontracting came from the health care sector, indicating that this is the sector in which most reforms have started and have been most extensively applied (22,23).

MODELS FOR EMPLOYMENT AND LABOUR RELATIONS

Sector reforms have many factors in common: privatization, de-regulation, decentralization and subcontracting. This is the model followed by the recent evolution in all labour relations, though without modifying their original features. This is not a coincidence. All factors were based on the same inspiration of orthodox economics and, particularly among developing countries, of Bretton Woods institutions. That is why the tendency recurrently goes towards individualization, decentralization, flexibility, and in many cases deregulation of labour relations. The impact of these changes, nevertheless, has not been sufficient to fully dissociate the labour relations models in the health sector from those of the rest of society. Labour relations in the health sector are, for that reason, similar to the main national or regional models and trends: in the case of industrialized countries: that of continental Europe, the Anglo-Saxon particularly the North American and the Japanese, each with its singularities. Among developing countries, Latin America and South East Asia models represent opposites in this regard.

TYPES OF EMPLOYMENT AND LABOUR CONDITIONS IN THE HEALTH SECTOR

Health sector reforms - whatever their starting point - have leaned towards the introduction of competition in formerly integrated systems. The outcome does not differ much according to the different types of health systems (Beveridgian and Bismarckian systems) as defined by Bach (24) since, in all cases, the reforms tend to increase competition between the private and the public sector.

Significant organisational changes have been observed in the US along three main strands: increased diversification in organisational types and products; changes in managerial configurations and traditional

ownership; development of new institutional arrangements with structural stratification combining multiple organisations and requiring more complex hierarchies and decision-making (25).

Such patterns are emulated elsewhere. This is particularly the case in community hospitals because of mergers or take-overs. The tendency towards reducing the number of institutions and increasing their complexity and stratification has increased the emphasis on competition. This is also linked to the increased relevance of market mechanisms in replacing many nonprofit organisations, including changes in the way professional personnel are hired: doctors are behaving less like consultants than like wage workers due to matters of economics (26).

Competition and changes in the nature of hospitals have been reflected in a reduction of stability and coverage, in greater labour mobility, and in surpluses in the supply of some services (27). Analyses carried out in Western Europe and other countries (1,6,28) show that increase in competition greatly affects working practices and that consequently "a larger share of personnel is hired under more precarious contracts (fixed time, temporary) (36).

Employment and Contract Modalities

In terms of levels of employment, the ILO (31) identifies three situations linked to health reforms:

Reforms that Reduce Employment

Among the examples mentioned are those of Chile and Latvia between 1974 and 1990 (recovering slightly with the reinstatement of democracy). In the province of Alberta, Canada, restructuring meant a 5% reduction in personnel. In Los Angeles, USA, 2800 jobs were cut in the first two years of restructuring (37). The reductions have not always had a global character; on the contrary, in many cases they applied to specific sub-sectors. According to an ILO survey, most job cuts took place among positions occupied by women. Mechanisms of internal restructuring between different health sub-sectors include lowering the number of people employed in pharmaceutical areas, especially in manufacturing, or decreasing personnel for geriatric care and the number of beds for

psychiatric attention. These obviously represent a reduction in personnel for the sub sector concerned.

REFORMS THAT CREATE ARISE IN EMPLOYMENT

Examples of this reforms occurred in Mexico, Sweden and Zambia. In Sweden, employment in the sector rose from 6.2% of employment in 1970 to 9.9% in 1980, then remained stable (3) until 1992.

REFORMS THAT RESTRUCTURE EMPLOYMENT - THE MOST COMMON CASE

The ILO survey mentions Brazil as regards restructuring. Attention must also be paid to an important reduction in management personnel in some services, as was the case in the UK (6), where there was an overall increase in the number of staff expected to reorganize and reassign tasks. This creates a new structure in sector qualifications, replacing less qualified employees with others with better qualifications.

REGULATORY FRAMEWORK AND CONTRACT MODALITIES

Flexibility emerged as the main instrument used by some companies to increase productivity and competitiveness (30). A British study (1) indicates that more than a third of health companies and institutions that hire nursing services from recruiting companies have seen a rise in flexible contracts, and more than a quarter (27%) have experienced a fall in full time permanent contracts. In France, even the public sector has hired a larger proportion of employees under more flexible contracts. Most of them are young workers with no qualification, hired under less favorable contractual conditions, sometimes paid below the minimum wage. It has been calculated (3) that 10% of clerical work at public hospitals in France is done under precarious conditions.

Part-time work has risen steeply everywhere in the industrialized world. Everything indicates that, at least for the United Kingdom, full time personnel will be further reduced, and replaced by part-time workers. In African countries (1), on the contrary, part-time work is practically nonexistent. The rule in the public sector is still full time employment.

Despite this heterogeneous panorama, the ILO was able to state that flexible modalities of labour are gaining ground very fast in the private sector in industrialized countries. Although situations vary among

countries, there is less employment security, overall (6) - for those who keep their jobs whether in the public or in the private sector. Studies carried out in Latin America show important transformations in hiring modalities within the health sector. In some cases the need to expand coverage[6] has increased the number of non-typical contracts. This is the case in Brazil's "Health for Family" Programme and Peru's "Health for all" plan. A Brazilian study shows that different modalities of contracting are in use even for unlimited-time contracts. The coexistence of alternatives has interfered with the development of administrative strategies for human resources (31).

In Peru in 1996, 76% of health workers were hired under public employment terms, with stability and social security. But new modalities are on the rise. Workers assigned to "Health for all" (12% of all people employed in the health sector) have been hired without social security. Between 1992 and 1996 (32) the health professionals (physicians, nurses and technicians) were hired through temporary contracts (about 10 000 people). Brito Quintana (33) cites the case of Ecuador, where, along with a fall in wages, new forms of flexible contracts are being used and replace in law former contracts that included protection clauses.

Argentina (34) shows a rise in precarious contracts, even fraudulent ones that cover full time jobs under the label "autonomous professional". The data available for Latin America indicate the emergence of more autonomous types of work, less protected and stable (even considering the traditional heterogeneity of the sector). Forms of semi-dependent and pseudo-autonomous work can also be observed in the region.

This analysis considers a continuum of types, ranging form "typical waged work" to "typical self-employment", with diverse forms of non-typical or hidden wage employment. This phenomenon is linked to a blurring of the concept of "dependent employment", crucial for the classic school of labour law to distinguish between waged and independent work: "the pluralism of regulatory frames dilutes the borders between types (dependent

[6] In some Latin American countries, another important reform process has been that of expansion and in some cases recuperation of old levels of basic coverage. Fifteen countries are carrying out programmes to expand health care, most of which are based on improving or expanding basic services through the introduction of packages aimed at the entire population or specific groups (mothers and children). This implies the incorporation of new workers for primary attention.

and independent)" (35). It seems that this interpretation comes closest to describing the emerging modalities in the sector, particularly for professionals. But a question arises on the relation between these changes and the quality of the services offered. How do these new contracting situations affect the efficiency and quality of health care services? No specific studies are available, but it can be presumed that the interaction of the two variables is very significant.

MULTIPLE EMPLOYMENT

Another important feature detected in Latin America is that of multiple employment, particularly in Argentina, Brazil, Peru and Uruguay, and to a lesser degree in Chile (36). This also has been observed in El Salvador and in Panama (34).

In Peru a study found that 71% of physicians hold at least two jobs (37), and in Uruguay (38), the ratio was stated to be 2.6 jobs per professional (especially medical physicians), and 2.26 amongst dentists in the early 1990s, despite the growth in the number of professionals.

Several causes may lead to an increase in multiple employment. It is facilitated by the introduction of part-time positions, and reductions in remuneration for any given job may force individuals to seek additional sources of income. Finally, the development of a dual labour market makes way for multiple employment, pitting better wages and working conditions in the private sector against social security and other benefits with lower salaries in the public sector. The remuneration differential leads to an important overall bias in favor of the private sector, with the public sector losing its most prepared and experienced professionals.

In Central and Eastern Europe, health care employees are also moving toward the private sector, though there is no clear indication of the extent or speed of this change. The tendency is also observed elsewhere in Europe, e.g. in Sweden. In several specialties, individual strategies to sustain income seem to bring about the accumulation of jobs. These strategies allow certain groups to maintain their incomes by diversifying their posts. Among nurses, multiple employment is much less common: this can be explained by the number of hours actually worked in each position. In Uruguay, where this problem has been studied systematically, the average was 1.34 positions per working nurse, half the figure observed for physicians.

Multiple employment has also been noted in China (28) although in a much lesser proportion of health workers: a growing number of health workers in rural areas work partly in public and partly in private hospitals.

Generally speaking, it can be said that the tendency to multiple employment has expanded considerably.

LABOUR RELATIONS, ORGANISATION AND WORKING CONDITIONS

Collective labour relations

The public and private sectors in health have evolved differently with regard to collective bargaining. Within the public sector negotiations used to be highly centralized. Now they have shifted to a more decentralized process, "lowering" the negotiating level. In the private sector there has been an individualization of labour relations.

Collective bargaining at national level is the predominant method to determine health care sector remuneration in Europe, and this is still highly centralized in most European countries, in some cases the response has been to decentralize to the local or company level, empowering the managers (3) so that they can negotiate and set wages, in the United Kingdom the formal structure of negotiation has not changed, yet there is a tendency to decentralize and create autonomous negotiating entities, particularly in order to determine wages. Incentives linked to individual characteristics, based on qualifications and other criteria (years on the job, number of hours worked, geographical areas, etc.), have been established(39). By virtue of their increased autonomy, hospitals and local authorities have also been able to negotiate wages and working conditions, which are now linked to productivity and other criteria. Remuneration on the basis of merit represents a substantial additional cost, and this has driven many hospitals to abandon the system.

In France, collective bargaining is still centralized in the public sector; this is also the case hi Sweden (40). Generally speaking, the trade unions in the sector have little experience in local negotiation. Nurses have shown the strongest opposition both to decentralization and to changes in the remuneration system.

In the countries of Central and Eastern Europe, labour relations have become stormy. There are new employers, emerging professional associations and re-organized trade unions, and a lack of experience in dealing with labour relations in a market economy. Before the political

transition there was no clear distinction between the State and the employer. Nowadays, without the State as monopolistic employer, it has become difficult to carry out centralized collective bargaining with employers (32), because the latter can not always be identified.

In Argentina, traditional collective bargaining took place in the private sector, and only recently in the public sector; however, because of a budgetary crisis, the public health sector still has not entered into negotiations. In the private sector many agreements have been reached at the company level, introducing new negotiating topics, such as "remuneration for productivity", "polyvalence" and changes in the way work is organized (41), including changes in work schedules.

Brazil is undertaking some interesting experiments in collective bargaining in the public sector, with the participation of all interested parties including the community. Those Brazilian examples that have been analyzed have been shown to allow, at the same time, flexibility in the position assignments of jobs and improvements in the quality of health care services (42).

WORKING CONDITIONS

Many hospitals and health corporations have adopted management ideologies that originated in the industrial sector. Using private industry methods, executives have tried to reduce the strength of the labour force, usually by incorporating non-professional workers and establishing a more flexible labour force, both professional and non-professional (43). From a positive perspective, managerial literature argues that the redesign of working methods offers an alternative to the old Taylorist system and the scientific organisation of work, which divided work into tasks and subtasks to be carried out by non-qualified workers. From a critical perspective, it can be argued that the new methods focus excessively on increasing productivity and reducing costs, regardless of the satisfaction of the workers or the clients.

The application of these methods in the health sector highlights these contradictions. Some authors (3) argue that the changes aimed at redesigning the organisation of work for better health care services should be praised. Yet the strategies to re-design organisations are aimed at reducing costs and at minimizing workers' power. Other strategies tend to decrease the presence, power and importance of the professional level and

to destroy labour-oriented institutions that interfere with the "rationalization" of labour. In fact. Bach (3) states that "there are reasons to believe that the intensity of work of health workers is growing". Among the reasons Bach mentions is the average reduction of patient stay, which means that the workers must pay even closer attention to the patients. Budgetary constraints also force health services institutions to leave positions vacant or to eliminate them, intensifying the workload for the rest of the health workers.

An ILO survey of health workers (1) seems to indicate that the normal duration of the working week has not changed after reforms, particularly in the public sector and in the health sub-sector. Nevertheless, in some cases, yearly measurement of work has detected programmed increases in the total number of hours to be worked by individual workers during the year. The length of the working day and the excessive number of extra overtime hours are also a problem for the health sector. A study in Europe (1) points out that although 70% of workers work between 37 and 45 hours per week, 1/4 work between 46 and 72 hours. Among physicians, 67% work more than 5 extra hours per week. In Japan, nurses have denounced an excessively long working day and an "impossible" rhythm of activity. In Austria, physicians work 55 hours a week. In Romania, the effective duration of the working day for male health staff is one hour longer than that of average workers, and nurses work three more hours a day than this average.

The greatest problem seems to be the work-load, more as a result of deficits in human resources, unfilled vacancies, reductions in the number of "on call" workers, and the need to supervise less qualified personnel (3), than because of the actual number of hours worked. In Latin America, there is little information in this regard, although data on multiple employment suggest that the real working day is very different from what is legally defined for the public sector, when the effective practices of professionals with multiple jobs are taken into account.

PARTICIPATION IN MANAGEMENT

Although information on "new management" for the health sector is scarce, it is presumed that managerial capacity has acquired greater importance. There has been a shift from "administered" to "managed" services. This is due to the changes introduced by reform and to the greater emphasis on the inclusion of physicians and other professionals in the management process (44). In the UK, the system of participation has become a legal - and quasi-moral imperative, although with varied outcomes because of discrepancies between initial objectives and daily practice. Other cases point out the difficulty of establishing priorities between the demands of physicians and those of patients (4). In Latin America, significant administrative changes have been introduced. In some countries (Chile, Costa Rica, Peru) the public sector has developed participatory management modalities (called management contracts) that imply a greater degree of commitment by the workers. A tendency to introduce participatory mechanisms in health care reform has been observed in 20 Latin American countries, particularly at the intermediate and local levels. Citizen participation and health care evaluation are increasing in importance (6).

CONCLUSIONS

Two sets of conclusions emerge from this study. In almost every country, reform priorities appear to be changing the way in which the system is financed, cutting costs and incorporating market mechanisms. Reforms have improved coverage in a few cases, but the issues of human resources have been neglected, to say the least. In those few cases in which attention was paid to human resources, changes have focused on incentives and remuneration systems, not on a systematic action in human resources management. This neglect is highlighted by the surprising dearth of systematic literature and specific studies surprising in view of the fact that the health sector is labour-intensive. This also affects economic and other studies of innovation mechanisms, given the importance of knowledge for professional practice. From that perspective, countries undergoing reforms differ only in the degree and depth of the reforms introduced and in the degree to which these reforms affect those employed in the sector.

Regardless of the direction of reforms, experience shows them to have been mostly negative in terms of human resources. Changes in

contract modalities have only made employment more precarious, with consequent increases in segmentation and also in the intensity of work.

Available information does not suffice to show the fall consequences of those transformations in the organisation and content of work. More systematic studies are needed to analyse the effects of the main reform-related changes on human resources, on the quality of health care services and on the health of the population.

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Terms of Employment and Working Conditions in Health Sector Reforms

Public Services International

Elements Needed to Attain Quality Health Services and a Successful Health Care Reform

Health care systems throughout the world are undergoing major changes. The main impetus for reform has been brought about by the escalation in the cost of care. The growth in cost is attributed to the aging of the population (evidence in itself of health and social achievements), to higher levels of chronic disease and disabilities and to increases in the availability of new treatments and technologies. Rising expectations have also exerted an upward pressure on health expenditure.

Another significant factor in shaping the health reform process has been the challenge of insufficient and unequal access to health care. The Health For All programme (HFA) of the World Health Organization (WHO) sets out the global aim of achieving greater accessibility of health care through community-based provision of primary health care (PHC) and other health services. Over the past two decades, governments have increasingly accepted HFA as a goal in their efforts to improve health, and generally there is a positive move to strengthen PHC facilities and to reduce the concentration on secondary and tertiary care.

Overall, there is a trend towards reducing hospital care. There has been a continuous fall in the average length of stay (LOS) and in the number of beds and an increase in the number of patients treated in outpatient departments. The negative impact of the switch from institutional care to community care is that the latter has been viewed as a cheaper option. Consequently, funding has not increased sufficiently to allow community-based facilities to meet demand. This has left existing staff over-stretched and has had a negative impact on patient care.

Access to elements of PHC has increased, albeit with wide variations both within populations and between countries. PHC, together with economic, educational and technological advances, has contributed

significantly to the worldwide decline in infant and child mortality and morbidity and to substantial increases in life expectancy at birth.

Despite these health gains, progress has been hampered by a number of factors. The pace of improvements and the achievements of targets have not been uniform. Disparities in health status and access to health care, including PHC, among countries and among certain population groups within countries, are greater now than they were two decades ago. Millions of people still do not have access to some elements of PHC and in many places effective PHC services do not exist. While health infrastructures have physically expanded in the past 20 years, actual provision of care has been limited by inadequacies in national capacities. In addition some international and bilateral funding agencies have not significantly shifted their aid priorities towards low-income and least developed countries.

Perhaps the most influential agencies internationally were the lending institutions such as the International Monetary Fund and the World Bank. Since 1987 the World Bank has provided large-scale funding and technical expertise to the health sector, advocating a greater reliance on user charges, insurance mechanisms, the private sector and decentralization as the main pivots of policy change.

In the poorest countries a lack of funding for health and social services and the inability of government to raise domestic and international funds for health seriously hampers progress. The failure to establish or maintain essential health system functions has led to stagnation or deterioration in the health status of populations; emerging and re-emerging diseases also constitute a significant threat to health. The rapid growth of private health care in many middle income countries has had a mixed impact on public sector services. In some cases it has brought about rising costs and inefficient care and aggravated inequalities in access to health care. In most countries private and public-sector health care providers have not established effective partnerships, thus further hampering health development.

However there is hope for a change in attitude. In recent times the World Bank has adjusted its position; Its 1997 World Development Report, The State in a Changing World, stated, "The challenge for governments and governmental agencies -planners and politicians- is to ensure that the reform and restructuring of the public service enhances its ability to plan

and implement adjustment measures that promote economic growth and social and human development. To this end, the working conditions of public servants, the efficiency of their performance, and the quality of the service they deliver all have a crucial role to play." (1).

The emergence of the voice of the user/patient during the reform process is to be welcomed. Patients want a greater say in most matters that affect their health care, from choosing their doctor to participating in decision-making over their own care.

The ILO Background report (2) highlights those advances in science and technology that may provide a direct benefit to health – such as biotechnologies, pharmacology and medical appliances. Other advances include developments in telecommunications and information technology. The report also states that these technologies require considerable investment in education and training and may not be available to those who cannot afford to pay for them.

Health reforms share a number of common elements: a separation of purchaser and provider functions, the introduction of market principles within the context of managed competition, an increased consumer choice and an emphasis on clinical effectiveness and on health outcomes. Another common element is that workers, patients and the public have greeted health system reforms in many countries with considerable skepticism. Many are opposed to the reforms on grounds of principle and through a sense of lost power and influence. Others are confused by bewildering new jargon, job titles and structures. Most occupational groups working in health care have sufficient expertise and experience to know if the changes are workable, and how they would affect standards of care. In many cases their views were not sought or considered. In addition there was often no collective consensus or support for the changes; these occurred with little or no testing and evaluation and without the agreement of the majority of workers and public alike.

On many counts the reforms have not met their pledges or promises. The privatization process has led to job losses in the public sector and to poor or worsening pay and conditions in the private sector, with a demoralized, insecure, stressed and overworked workforce. Standards of care have declined at a time when patient expectations have been raised. There is generally a lack of confidence and a lack of trust in the government and in the employers who implement the changes.

The WHO Ljubljana Charter on Health Service Reforms (3) outlines the elements needed to attain quality health services and for successful health care reforms. The Charter outlines several fundamental principles driven by the values of dignity, equity and professional ethics. Its aim is centred on the principle that health care should first and foremost lead to better health and quality of life. Health reforms should incorporate the citizen's voice and choice in what is care and in the way services are designed and managed. There should be a focus on quality and a clear strategy for continuous improvement. There should also be sound financing and, in order to guarantee solidarity, governments must play a crucial role in ensuring and regulating the equitable financing of health care systems.

The Charter also sets out key principles for managing change; this includes re-shaping of health care delivery, reorienting human resources, strengthening management and promoting an exchange of information based on experiences in reform. This should be supported by a well-validated knowledge base, which is understood and appropriately valued.

Addressing the Changes of Privatization, Managed Care and Public/Private Mix in Health Care Provision

Health care reform has been influenced by the interlinked notion of markets and competition. In their drive for efficiency and for the containment of public spending on health, governments have been attracted to the progressive blurring of boundaries between the public and the private health sectors.

The public-private mix takes different forms in different countries but there is a general policy thrust in favour of extending the private sector's 'market share' within health care provision. Reforms have been least effective where there has been little or no consultation with trade unions, patients and the public. The wholesale importing of models that do not consider national circumstances, including history and the national economic position, is a recipe for failure. Health services are particularly susceptible to these changes, and they appear to have a propensity to turn ideas into solutions.

Managed care for example falls into this category. The term "managed care" is a North American concept that attempts to establish some principles with respect to evidence-based medicine and cost-

containment, whereby clinicians are encouraged/required to observe strict guidelines and protocols governing treatment and interventions. Whether this translates well globally is questionable. Nonetheless the term has attracted attention among those countries reforming health care as a result of developments in separating the responsibilities of the purchaser (generally governments and employers) and the provider (often physicians in the United States of America, USA). What is interesting is the lack of good evidence on the different policy models emerging. It is equally important to evaluate change in order to ascertain its effectiveness and in order to inform future policy development. In the USA for example, some physicians, such as surgeons and ophthalmologists, have shifted into other medical services not covered by managed care.

Crucial to the development of evidence-based policy making is the establishment of national and local health information systems that are transparent and publicly available. Information systems must ensure active surveillance and monitoring and provide early warning systems of threats to health. National and local health information systems must provide, analyze, evaluate, validate and distribute the information needed for decision-making, health management, clinical practice and public education.

Governments need to establish a legislative and regulatory framework that provides a sound basis for reform and to develop strategic management expertise in planning capabilities that focus on analytical skills, breadth and depth of sectoral understanding and interdisciplinary collaboration. Implementation capabilities should focus on organisational action, social dialogue, incentives, teamwork and results. Above all they must develop a supportive organisational culture that encourages health workers to innovate and move steadily towards clearly defined policy goals and targets.

Building a consensus includes a series of actions such as minimizing apprehension of cultural and social change, creating understanding of the need for the impact of change, generating positive support for change, building political alliances that support change, and communicating expected outcomes early, together with the implementation of projects that reflect specific policy decisions through consultation and involvement of trade unions.

MEASURES THAT SHOULD BE TAKEN BY ALL CONCERNED PARTIES TO GUARANTEE EQUAL ACCESS TO HEALTH CARE

Poverty and inequity in health care go hand in hand. The poorest in society remain socially excluded, suffer worsening health and greater health inequalities. Poor housing, poor diets, low income, long-term unemployment and older age lead to social exclusion, chronic disease and mental health problems. Economic policies that enhance equity are essential to the long-term health of the population and for sustained economic growth and human development.

Promoting health through health education programmes in a range of settings provides individuals and families with the information needed to improve their health when they are given the opportunity and the ability to make appropriate choices. People need knowledge, awareness and skills as well as access to the possibilities offered by society to cope with changing patterns of vulnerability and to keep themselves and their families healthy.

Poverty is multidimensional: the combined efforts of many sectors will be required for its sustained alleviation. The health system can play a vital role in reaching poor households and regions by focusing on those problems that disproportionately affect the poor. In addition to a broad-based approach, people's health and education must be protected during periods of temporary economic hardship. Health problems and reform issues are especially difficult in most of the low-income countries. At the end of the last decade basic health care was available to less than half the world population. Rural inhabitants who make up the vast majority of the population worldwide were particularly disadvantaged.

It is well known that improvements in health care lead to a more productive labour force, to an increased life expectancy and to a better quality of life. These improvements requires investments in health care that in many cases cannot be made by the respective countries alone but must be undertaken with the help of donors.

Programmes such as the Africa Capacity Building Initiative a specially focused, long-term programme, as opposed to conventional short-term technical assistance projects must be encouraged. More solidarity between poor and industrialized nations is necessary if the world's poorest countries are to advance in their struggle to provide basic health care for their people.

The growing crisis in the health system of developing countries is attributed mainly to the economic crisis, the debt crisis, and extended structural adjustment programmes, as the primary reasons for the decline in health care provision and infrastructure, among other things through their impact on the employment situation in the health care system. Because of poverty, many developing countries are unable to respond to growing health care needs and are unable to expand their health care facilities, to train their staff or to provide adequate medical supplies.

The international community as a whole must seek ways to provide more favourable conditions of trade, debt relief and generous and carefully targeted assistance. This will enable these nations to build and maintain the basic infrastructures needed for health and well being and to achieve economic growth, thus leading to improvements in living conditions and in health. The conclusions of the ILOS/PSI workshop (4) state: "the health sector in transitional countries had made some important achievements in the period from 1950-1990, including universal access to the available services, a good public health infrastructure and high levels of immunization, but there were also shortcomings. The system was funded at a low level, with problems of poor facilities, lack of equipment, low wages; "the scale and scope of the economic changes in the Central and Eastern European region are unprecedented. In all countries there has been a significant fall and in some cases a massive fall in the Gross Domestic Product (GDP), with potentially catastrophic effects on living standards and the affordability of goods and services and already a drop in life expectancy; "the pace and extent of health care reform has been dramatic. Its very speed has been in some cases dysfunctional and risks causing a near collapse of health care services. The pace of reform needs to be more measured to ensure the strengthening of the infrastructure, skills and processes. Most governments have been involved in a large experiment conducted on their people. It is essential to ensure that the lessons for policy making from this experience are learned as the process unfolds. The WHO Ljubljana Charter on Reforming Health Care (3) endorsed by the vast majority of governments in Central and Eastern Europe, provides the principles that are key to managing change effectively" (3).

The present report discusses two definitions that distinguish different groups of health sector employees.

The narrow definition covers the staff of health care provider units (hospitals, ambulances, and pharmacies) and within these institutions mainly the medical staff (doctors, nurses, midwives).

The broader definition covers all persons working in health care delivery including: private practices and health-related institutions such as spas and rehabilitation units, plus personnel working in units that supply medical or related aids for people with disabilities, staff in the administration of a health sector, in health information systems, in the Ministry of health and the staff developing and producing health products such as drugs, aids, spectacles or supplies and equipment for health care units (e.g., beds, technical equipment), as well as teaching staff, students, catering and maintenance staff.

It should also be noted that a considerable amount of health care is provided on a voluntary basis, particularly by women who often take care of relatives and also work for voluntary organisations.

For our purposes the broader definition more adequately reflects the wide spectrum of workers in the health sector and in our membership. The narrow definition only refers to approximately 60% of the workforce. It is important not to focus exclusively on the professional or skilled groups. Such an approach may lead to elitism and to a breakdown in the collective responsibility of public service trade unions by ignoring the multidisciplinary nature of the health sector. Reforms that affect one group such as ancillary staff will inevitably have an impact on other workers' pay and conditions of service and on their ability to deliver care.

There are marked differences in the density of health personnel between developed and developing countries and even the type of labour force imbalances differ. In established market economies, the employment level of doctors and nurses is up to 20 times higher than in developing countries. In some of the industrialized countries, especially in transitional countries, there is concern about a doctor surplus. In developing countries there is ample evidence of personnel shortages. This does not mean that posts remain unfilled but that posts are simply not created, in order to approach national and international targets that countries may have

subscribed to another complication for developing countries is the drain of staff to countries where there are more possibilities of employment and better working and living conditions.

The migration of medical staff is a serious concern to the developing countries that have invested money in the education and training of doctors and nurses. This is often referred to as the "brain drain". It has reached considerable dimensions particularly towards countries such as the USA and the Gulf States. Asian nurses constitute the largest group of foreign nurses. The countries of origin include South Korea, India, China (Hong-Kong), the Philippines and Thailand. Migration for labour plays a particularly important role in the employment of nurses.

Worldwide, the report identifies 3 types of reforms that have affected the employment situation in the health sector: reforms induced by financial constraints, leading to a reduction of employment and increased productivity. This is especially striking in transitional countries and typically includes the reduction of benefit packages alongside a reduction in staff; reforms leading to an expansion of employment. This type of reform is rare but there are examples such as Mexico and Zambia; reforms that restructure employment; for example, privatization of the health sector has led to decreasing employment in the public sector but increased employment under other (often worse) conditions of service in the private sector.

The health sector has an estimated workforce of 35 million workers worldwide. Employment opportunities in this sector are on the increase in most of the industrialized countries, largely because of demographic changes in the aging population and the rise in chronic diseases. The change is mainly that (as mentioned above) employment is rising outside the public sector.

Another change in the workforce is the significant increase in the number of staff employed on fixed term and temporary contracts. The trend towards temporary or part-time employment with lower salaries is attributed to attempts by employers to develop more flexible employment practices in order to cope with competitive market contract uncertainties and financial constraints. The hiring of temporary staff is linked to funding by purchasers. This process is not new to ancillary staff that have been subject to compulsory competitive tendering for some time.

Reform processes that go along with cost reduction in many cases lead to retrenchments of workers. The reason for this is the fact that the health care sector is very much service- and personnel-oriented. Changes in structure and a lowered budget imply cuts in the staffing levels. Such reductions often involve a combination of several measures, such as compulsory redundancies, the non-filling of vacancies, replacement of full-time jobs by part-time jobs, early retirement and voluntary redundancy schemes, recruitment freezes, retraining and other methods.

Such reductions can be done either globally throughout the whole health sector or for a part of the sector only, whereas other parts may continue to look for personnel. For example, general workers in the hospital sector or in the pharmaceutical industry may be affected, whereas in other parts of the same sector, maybe at the same time, workers in general or workers with special skills are required.

The kind of staff reductions taking place also depends on the size and the sector of the enterprise. In the private sector, dismissal is normally easier than in the public sector. In larger enterprises flexible ways of retrenchment without dismissal are easier than in small enterprises. This is why small enterprises dismiss earlier than large enterprises.

In Eastern European transition economies dismissal has been the form of retrenchment most frequently applied. Among those who were dismissed the share of women was disproportionally high. In Latvia retrenchment took place mostly for doctors at retirement age and for those unable to speak the national language. On the other hand the admission of medical students was strictly reduced. In Slovakia, during the major reform process, most retrenchments took place by attrition or through migration to the private sector.

Staff reductions in the health sector also occurred in a number of developing countries such as Ghana where four years ago many health workers were dismissed. In Zambia retrenchment affected support staff. In El Salvador staff reductions were managed mainly via early retirement and among non-qualified staff. As already mentioned earlier, retrenchments also took place in a number of industrialized countries. In the United Kingdom (UK), reductions of staff occurred in the big city hospitals, which were subject to restructuring. In Sweden, the number of staff in the health service has started to stabilize in recent years and amongst certain groups, such as nursing auxiliaries, the number has declined.

Another form of flexibility is the change in working practices and boundaries between occupational groups. The World Bank, for example, has suggested that there are too many doctors in Central and Eastern Europe and that doctor nurse ratios should be more heavily weighted towards nurses. In many Central and Eastern European countries doctors were employed for work that in other countries is typically undertaken by nurses; in some western European countries there is an oversupply of trained doctors. On the other hand, in many industrialized countries there is a shortage of nursing personnel and in developing countries there is a general shortage of all kinds of personnel.

Most of the countries of the world have traditionally placed importance on secondary and tertiary care in large institutions like hospitals and specialized polyclinics, with the result that there is an oversupply of specialized doctors. On the other hand there is a lack of primary care and qualified primary care personnel. These conditions have led to reform activity that not only has an impact on the level of employment in different kinds of fields but also may change the structure of employment.

The reform process in many eastern European countries has led to a reduction in the number of doctors whereas nurses are still required. As PHC has been strengthened, specialized doctors have been retrained to work as primary care physicians.

In Germany where insurance for long-term care was created some years ago a new field of activity has been created. Full time employment in the field of long-term care is booming and new teaching facilities are being set up.

In the UK, total employment in the health sector remained stable but dramatic cuts took place among the ancillary staff (52%), reflecting the policy of compulsory tendering. The shift towards a more commercialized NHS and the establishment of a system of managed competition have led to an increase by 25% in administrative and management staff, and increased uncertainty in funding for individual trust hospitals has led managers to increase the numbers of staff employed under more precarious forms of employment and to increase work intensity. Although some occupational groups, particularly doctors and nurses, have experienced strong growth in real earnings, others experience reduced job security and more intensive working practices associated with the system of managed competition. This

has led to sporadic industrial action and widespread stress and demoralization amongst NHS staff.

The role of the physician (general practitioner and specialist) and of the nurse (professional nurse and auxiliary nurse) are central to reorganisation. Work patterns and the distribution of roles and tasks in health care services are largely conditioned by national traditions and culture. Cost containment measures have a major impact on these aspects. The management of health care services is challenging existing boundaries among occupational groups through the reorganisation and reallocation of tasks to personnel. New grades or profiles are created, as in Brazil (cf. the "community agent") and in the UK (cf the "health care assistants" and the demand for "multi-skilled" staff). On the one hand, this may turn to skill-dilution and lower the payroll; on the other hand, the workers are obliged to reassess the self-understanding of their roles.

For example, industrial action in France, Sweden and in the UK suggests that nursing staff are disenchanted with their low status and pay, and there is a move in many countries to revalue the profession and reallocate tasks that have in former times been allocated to higher paid doctors. In this respect, physicians are facing a loss of influence in the reform processes in many countries.

In the UK, changes in functions are also being discussed for pharmacists who might be attributed a wider health role as "gate-keepers" to the National Health System. Doctors are likely to oppose such moves as they may feel that pharmacists are moving in on their activity.

A growing number of nurses are becoming self-employed, particularly in industrialized countries such as Canada. Reasons for becoming self-employed may include staff reductions and the shift towards outpatient care. Other reasons may lie in the attempt to introduce alternative managerial methods.

Nurses' associations have helped interested persons to establish their own health care business. However, the advantages of more job autonomy, personal satisfaction and flexible management of working time must be examined against the risk of isolation, lack of job security and possible disruptions in home life. One of the major challenges is how to keep up care standards and know-how, as well as managerial skills. Another problem may be the usually very high indemnity insurances for which the

income of independent midwives and nurse practitioners may not be sufficient, as appears to be the case in the UK.

Impact of Health Care Reforms on Gender Issues in the Work Place and Equal Opportunity in Employment

It is increasingly recognized that macroeconomic policies and structural adjustment measures entailing reallocation of resources and of public expenditures are not neutral as regards gender.

The health sector is a very important employer of women, who are often employed on a part-time basis and concentrated at the bottom of the employment hierarchy. In some countries they represent up to 80% of staff and there is a problem with low salaries. In addition, much unpaid work in health care with its own social and economic importance – is undertaken by women. This particularly applies to women taking care of ill family members and working for voluntary organisations.

Gender plays a role in redeployment, since women generally face social-cultural biases that limit participation in the labour market. This is coupled with the structural constraints that disadvantage women in the process of redeployment to other professions. These trends affect the ability of women to compete in the labour market for access to better quality and adequately if not more highly remunerated jobs.

Participation of women in the labour force was in the past much higher in Central and Eastern Europe than in the rest of Europe. Various changes in the transition to a market economy, as well as privatization moves as part of health care reform, have eroded the formerly existing network of enterprise/employer-level social benefits (e.g. childcare) for women. A larger proportion of women in the health care sector – generally speaking a more vulnerable group employed in lower paid, lower status branches than men – have lost their jobs. Furthermore, outdated values that assign all family responsibility to women and assert that their natural place is in their home are re-emerging.

In other European countries the level of women representation at higher educational and decision-making levels has increased in the last decade. However, compared to women's share in the workforce of the health sector, they are still under-represented among senior grades and at the decision-making level.

The increase in part-time work is a leading trend. In some countries, it appears to have reached a stalemate in connection with a general stabilization of female part-time work. In Canada the degree of part-time work by – mainly female nurses is significantly higher than the average for the overall female workforce. New nursing entrants often work on several part-time jobs.

A study among doctors in the UK also indicated that over 40% of women interviewed thought that their careers had suffered because of part-time work. The main reason for concern about the adverse effects of part-time work was that it was considered to give doctors less status.

In Canada, funding cutbacks to the institutional sector, where the vast majority of registered nurses work, and the lack of funding for community-based services have also contributed to the fact that health care reforms have affected nurses more than any other health care profession. Health care reform is contributing to a decrease in employment and career development opportunities at a time when more nurses with higher levels of education are entering the workforce. These developments have led to a growing interest by registered nurses in providing nursing services as self-employed entrepreneurs.

Widening the employment opportunities available to women – whether in the range of professions of health care providers or under the label of redeployment – requires multifaceted strategies. It is likely that the extent of women's access to technological training will be a key factor in determining their future opportunities.

Overall, women tend to have lower pay than men even in occupations that are usually thought of as "women's occupations". In extreme cases, such as physicians in Nigeria, women and men cannot be on the same salary scale the differences in average salaries is too great.

Reversing the trend that results in male colleagues having access to a broader spectrum of jobs and earning more income at every occupational level requires strategies that revolve around mainstreaming women and women's issues into all areas of economic, social and political development. Mainstreaming is an evolving concept with the objective of putting women on a par with men in the process of initiating development activities and in the outcomes of development. A reactive commitment to gender equality will strengthen every area of action because women can bring new impetus and a new basis for organisation.

Specific attention must be paid to occupational health protection. This is a gender issue not only because of the high proportion of women working in the health sector but because of the specific forms of violence such as workplace sexual harassment, which is predominantly directed against women. The mainly female workforce is also exposed to risks of violence and harassment on their way to or from work, also due to atypical working hours.

The issue of various forms of harassment is being taken up in the European Union. Particular attention is also being given to racial harassment, which is especially relevant in view of the number of migrant workers. Racial discrimination at work, including racial abuse by patients and relatives, is increasingly being examined. Guidelines to address such incidents have been developed by UNISON in the UK and Sweden has established a specific legislation against victimization at work.

Influential Reform Processes and Structural Changes on the Working Conditions and the Payment of Health Workers

Overtime is increasing because of shortages of staff or cost containment measures; both of which can be related to health care reforms. In 1992, the German Union of Salaried Employees (DAG) estimated that the overtime worked by health care providers was equivalent to 20 000 extra full-time staff posts. Today, trade unions in Canada and the UK express particular concern about using overtime to substitute for recruitment and about the increase in unpaid overtime.

Long hours of work and heavy overtime is also a problem for physicians. A report in 1996 by the Permanent Working Group of the European Junior Doctors (PGW) gave examples of the long hours worked and showed that 49% of doctors considered "sufficient leisure time" a major problem, while 46% considered the major problem to be "exhaustion".

Nurses in Japan have long since complained about the difficult hours and the heavy pace of work. The number of nurses for 100 hospital beds has been reported as less than 20 against more than 40 in Britain, almost 60 in the USA and more than 60 in Sweden and France, although a recent survey of the Japanese Nursing Association does show some improvement.

It is also important to consider the combined effects of "deviant" working hours with the pace of work. An intense rhythm of work can greatly add to the risk of atypical working time arrangements. Respondents to the ILO questionnaire indicated that normal working or even actual hours of work do not reflect the increase in intensity of the work. Early discharges in hospitals, additional tasks, the presence of fewer standby staff and the need for supervision of less experienced and less qualified colleagues require more energy and staff care for the performance of inpatient services, a phenomenon that cannot be reflected by the term "increased workload" alone. In the Canadian province of Alberta, layoffs have resulted in heavier workload for the remaining staff, and "the quality is reported to have reached crisis level".

In general, reform processes accompanied by cost containment have resulted in increased overtime and in atypical working time arrangements, while normal working hours have remained more or less the same.

The need to provide a continuous health care service has led to a large range of shift patterns. This is particularly relevant for inpatient establishments, where not only the medical professions but also administrative and auxiliary personnel are affected. Throughout the European Union the workforce are involved in a range of shift patterns. In Belgium about 83% of nursing staff are exposed to working two, three or four shifts. In France about one third of the hospital workers are concerned by shiftwork, in Germany 48% do mostly three shifts, as do 75% of nurses in the UK.

In France, it has been noted that people often make choices in favour of "deviant" working hours, especially night work, for reasons linked with familial and social life constraints, for instance child care.

In developing countries the situation is not well documented. Niger reported to the ILO that the reforms did not change the normal working hours in the public service. In the private sector, staff reductions led to the introduction of two 12-hour shifts.

Reform processes seem to have brought about changes in the shift work, night work and rest periods that are targeted at higher efficiency (e.g. two shifts of 12 hours). If run according to agreement, these arrangements may also reduce the pressures of "deviant" hours. However, the shortage of staff may prevent the implementation of working hours according to

agreement. Although it is very difficult to provide guidelines on the organisation of shift systems it is generally recommended that shifts should be: rotated rapidly; rotated in a forward fashion; arranged so that the longest period of rest should follow the night shift. Several studies have shown the importance of supervisor support to buffer work stress and a recent study has indicated that supervisory support is especially important for shift work.

Contract flexibility and part-time work can be considered a concept that is in the interest of the enterprises, the employees or both. For the employee, it may allow adapting the working periods to family responsibilities and other personal concerns. This may coincide with the enterprise's interests. However, a joint interest cannot be assumed per se and must be examined jointly.

Paralleling time-based flexibility, contract flexibility allows enterprises to increase their productivity and their competitiveness in the market. This is particularly important when enterprises undergo situations of structural adjustment and transition to the market economy.

Traditional full-time contracts can still be the majority in the health sector but the trend is decisively towards more flexible contracts. A 1994 study in the UK shows that most organisations expect to maintain or increase the use of fixed term contracts, although these forecasts are likely to change due to the commitment of the Labour Government to reduce the levels of flexible short term contracts.

In the hospital sector of the European Union, the percentages of part-time contracts vary between less than 1% (in Greece) to 52% (in the Netherlands). A European Court decision in 1997 has ensured that part-time workers acquire the same benefits as full-time workers in pension schemes, as was ruled in the case of 2 Northern Irish nurses.

Although an increase in part-time work is the leading trend, it appears to have reached a stalemate in some countries, in connection with a general stabilization of female part-time work. The Canadian Nurses Association reported that part-time employment of nursing personnel has grown from 29.3% in 1970 to 38.8% in 1995. Finland reported a relatively low level of part-time work but with an accelerating tendency. From 1992 to 1994 it increased from 4.6% to 6.3%. In Germany, part-time work counted for 24% in 1995.

The trend to more part-time work has not reached the sector in the African countries, since personnel are employed in the public service, where full-time jobs are still the rule. Ghana, Niger and Zambia report that the workforce in the public sector works full time and no flexible working time is foreseen. Other developing countries, such as Colombia and El Salvador, report no part-time or flexible work arrangements. Countries in transition, like Latvia and Slovakia, do not note any substantial share of part-time work.

Part-time work has also become an important feature in doctors' work. As mentioned above in discussion point 5 on gender issues, a survey in the UK shows that part-time female doctors often mention that they are treated less well than their full-time counterparts. Adverse effects of being on-call are also mentioned by doctors.

Other forms of flexibility can be created through temporary contracts, seasonal contracts, standby contracts and flexible working times.

Health service occupations in different countries have had different experiences of changes in their relative pay in the 1990s. While reductions in pay follow contracting-out or privatization of services, it is rare for wages to be reduced without a change of employer. Occasionally however there are reductions in money wages. The minimum monthly wages for physicians and dentists in Italy in 1993 was 4 855 829 Lire. This was reduced to 4 608 563 Lire in 1994. Other medical occupations had small increases of about 1.5% in their minimum monthly wages. In 1995 physicians and dentists minimum remained unchanged and the other occupations received increases of around 2.3%.

The report also gives examples of changes in real pay in some countries. In Austria the improvement in average real wages for the medical occupations over the years from 1990 to 1996 was a modest 1.4% in total, the same as for the civil service. The exception noted is for average hourly earnings for ambulance drivers where hours worked fell drastically so that average real hourly earnings rose by 70%.

In Finland average real wages of male physicians fell by 2% over the period 1990-95 and those of professional nurses fell by 10%. In the UK between 1990 and 1996, average real weekly earnings of male physicians increased by 16% and those of female physicians by 30%, while professional nurses' earnings rose by 13-16%.

Apart from male physicians who gained 17.4% in real median weekly earnings, the medical occupations in the USA all had reductions in real earnings between 1990 and 1996: median earnings fell by 16.7%, female professional nurses' by almost 5%, female auxiliary nurses' by 4% and others by around 1%.

In some transition countries in Central and Eastern Europe and in developing countries, a problem of increasing concern is the delayed payment or non-payment of wages (for up to 6 months) in the health sector. This entails negative social consequences for the workers and their families and has negative consequences for the economy and the quality of services. The regional ILO/PSI workshop on health services in Prague 1997 acknowledged this problem and concluded that "in accordance with the ILO Protection of Wages Convention 1949 (No. 95) ratified by a number of countries of this region, wages should be paid regularly (as stipulated in Article 12) to all other workers which includes health workers" (4).

In many countries the reforms in the health sector did not provoke conflicts. Trade unions supported the reform processes, even when they were not directly involved, as was reported by the workers' organisations of Ghana and Niger replying to the ILO questionnaire. In El Salvador, the process of health sector reform gave rise to more thought on the need for increased worker participation. In Austria, the workers' organisations were in the beginning quite supportive. However, they are becoming now more and more skeptical, as was reported by the Government.

Some labour conflicts did nevertheless arise during health sector reforms and were triggered by different reasons, such as local pay determination, changes in representation of staff and employers, restructuring of health services, contracting out, income reductions through managed care, financing of health care, slow rates of wage increases (compared to inflation) or non-payment of wages. Some cases of such labour conflicts in recent years are described below.

In the UK, the trade unions resisted the reforms as a whole. The resistance culminated in a national dispute in 1995. This dispute over local pay determination was further complicated by the multiplicity of forms of staff representation. Unions and professional associations were divided over bargaining objectives and strategies. In Sweden, bargaining at county level has led to lengthy periods of industrial action by medical and nursing staff

in recent years. Following nearly 2 months of industrial action during 1995, the nurses agreed to a new agreement until the year 2000.

The restructuring of the health services in the Canadian Province of Alberta was a big challenge to workers and their unions and the bargaining was confrontational rather than co-operative. This was mainly caused by the political decision for major budget cuts and by administrative reorganisations that changed bargaining rights. The unions tried to co-ordinate their bargaining power even though strikes were not allowed.

When large numbers of health workers retrenched, including nurses, a workforce generally in short supply in the country, hospital laundry workers went on a wildcat strike over the plan to contract out their jobs to the private sector. The laundry workers received broad support from other health workers and the public in view of increasing individual expenses and lengthening waiting lists. As a result, the laundry workers were given a one-year extension of their employment and the provisional government began to add funds back into the system.

In France, industrial action including strikes and demonstrations evolved at the end of 1995, after a variety of proposals to reform the public sector and to alter governance for the health system. They reflect the anger amongst the French health workers that these reforms were challenging the fundamental principles of liberalism and solidarity that are deeply embedded in the French health system The public hospital sector is characterized by the civil service status of the staff. The agreements reached between the unions and the state are normally also the basis for bargaining with the private employers. The highly centralized system of collective bargaining seems not always to have satisfied the needs of all occupations in the health sector of the country.

Representation of the mainly female workforce in the nursing profession became increasingly fragmented. Initiatives outside the mainstream unions led to co-ordinated strikes in 1988 and 1989 and achieved changes in working conditions and pay. In the spring of 1997, France again witnessed prolonged industrial action among junior doctors who were concerned about their future income through independent practice and by the introduction of elements of managed care and personalized medical cards.

Demonstrations and industrial action related to health sector reforms have also taken place in Germany since the end of 1996, when

doctors and nurses became increasingly concerned about efforts to curb health expenditures. The dispute with doctors arose over government plans to make them financially responsible for the sickness funds of their prescription budgets. Nursing organisations were particularly concerned about government plans to lift a law introduced in 1993 to ensure quality of care through tighter regulation of workloads. They also resisted the introduction of new, less qualified and lower paid nursing occupations.

Nurses took a leading role in strikes in South Africa in 1995 regarding working conditions, and labour conflicts in Zambia were taken to court. Nurses went on strike in Israel over a dispute between the Health Ministry and the local authorities regarding the sharing of costs to run the 500 family health stations throughout the country. The municipalities claimed that the national health insurance was, according to a recently passed law, responsible for financing the services to their members. When the municipalities announced the closing of a number of family health stations, the nurses claimed that they had become "hostages" over this dispute between central and local authorities.

In Russia strikes have increased in general, radically so since 1995. Most of the strikes were locally limited, but some developed into regional protests and in November 1996 and March 1997 they turned into nationwide rallies with tens of thousands going on strike in the health sector. The targets of the protests were mainly broken promises and non-payment of wages. In the Czech Republic, disputes over poor management were brought to court and in Romania up to 150 000 health workers went on strike and demonstrations in early 1998, requesting an increase in their wages in a situation of hyper-inflation. They finally achieved a 30% increase in pay – far below the inflation rate.

Violence at the Workplace and the Performance and Motivation of Workers and the Quality of Service

Work Related Stress

Reforms are frequently characterized by intensification of the workload, extension of tasks, job insecurity, and increased dangers at the workplace. In addition, there is growing strain regarding the quality of working conditions, workers' emotional involvement, the feeling that their professional value is under-rated and that the quality of health services is

declining. The last point also highlights the increase in stress from ethical dilemmas, often arising from the conflict between health care ethics and commercial interests.

Several major sources of stress with direct organisational relevance have been identified for nursing personnel: job design and workload, including job ambiguity, overload and lack of supervision; interpersonal relationships at work, including conflict with other staff, conflict with medical staff and conflict with other nurses; relationships with patients and their family, particularly under situations of inadequate preparation for dealing with their emotional needs; work organisation and the management of work including difficulties with management and supervisors, lack of resources and staff shortages; technical aspects of nursing, particularly concerning technical knowledge and skills.

All of the above have major effects on the quality of work and the health of personnel. There is general agreement that work-related stress detracts from the quality of working lives, increases minor psychiatric morbidity and may contribute to some forms of physical illness. This is supported by governmental statistics in several countries.

A major cause of stress lies in the specific working time and work organisation of health occupations. This is reinforced by health sector reforms. Shift work disrupts the biological rhythm of workers and bad work schedules may result in health-related problems. Shift work also disrupts social and family life. Surveys point to workers' feelings of irritability and nervousness without apparent reason, difficulty in concentration, amnesia, obesity, and gastro-intestinal disorders. There is evidence that nurses on rotating shifts and night shifts suffer more seriously than nurses on other shifts in terms of well being. The absenteeism rate is also higher for the night shift.

The causes of stress are often organisational and an organisational response is what is required. Typical organisational reactions to stress may include ignoring the problem; using stress to force people to work harder; intervening on the consequences rather than on the cause…or developing preventive responses that attack stress at its origin.

Only the last reaction may lead to more permanent and long term positive results. This requires responses that fit into the managerial, economic and social strategies of the enterprise. Costs of the response can be contained and become an integral part of the development of a sound

organisation if this is accompanied by appropriate training, communication and workers' participation.

Prevention measures to eliminate or reduce stress may include improvement in job design and content; the setting of realistic goals, performance standards, targets and deadlines; a better organisation of working time; and a better interface between workers and equipment or new technologies. Managers play an essential role: organisational responses must concentrate on improving systems of work planning, control and evaluation, introducing supportive management styles and training on how to deal with stress for management and workers both.

Improvements can also be best achieved by a control cycle for risk assessment and risk management in the work place; this should include the following steps: identification of hazards; assessment of associated risks; implementation of appropriate control strategies; monitoring of effectiveness of control strategies; reassessment of risks; review of information needs and training needs of workers exposed to hazards.

WORK RELATED VIOLENCE

Violence is so common among workers who have contact with people in distress that it is often considered an inevitable part of the job. Areas of health care where frustration and anger are known to arise out of illness and pain include old age wards/units, psychiatric hospitals, alcohol- and substance abuse rehabilitation centres.

Violence may also be induced by increased public expectations of health services. These expectations are based on public knowledge about new technologies and the promises made by health care reformers about improved services. The public increasingly see themselves as customers of services. The staff on the other hand face the limitations of given resources and may not be able to satisfy the demands of patients. This can lead to violence especially in emergency departments.

Other health care workers at the forefront of contact with violence include staff in ambulance services, which are the most exposed group because they are often the first, alongside the police, to arrive in situations of criminal violence, alcohol and drug abuse. Staff working in community services, working on their own, may be targeted on their journey to or from their home care patients.

Other contributing factors to an increase in work-related violence are: poverty and marginalization in the community in which the aggressor lives; insufficient training and interpersonal skills of staff providing services to this population; a general climate of stress and insecurity at the workplace.

As mentioned above in the discussion on gender issues, sexual harassment is a specific form of violence at the work place and is predominantly directed against women. The psychological effects of sexual harassment lead to stress and serious physical conditions. Besides the personal impact, a direct effect on the efficiency of the health care organisation can be expected, since work performance will be reduced.

Another form of harassment at work that is receiving increasing attention is termed "bullying at work", and can be described as offensive and intimidating behaviour designed to undermine an individual or groups of employees. Bullying at work seems to occur more frequently and intensively in situations of general pressure and major change. The personal and organisational effects are described as similar to those of various types of stress and violence. Particular attention is also being given to racial harassment at work, including racial abuse by patients and relatives. This is especially relevant for migrant workers.

Tackling violence at work by preventive strategies and early intervention is becoming recognized as the most effective way to contain and diffuse such behaviour and these approaches are progressively being incorporated in the responses to violence at work. Reactive responses, based on the use of fear and counter-aggression, still remain prevalent, however, even though these responses concentrate on the effects of violence rather than on its causes, with consequent waste in terms of the cost effectiveness of the action undertaken.

In too many cases violence is a forgotten issue and little or no action is taken to deal with it. The lessons on prevention need still to be transformed into practice. To achieve such a goal the following initiatives may be envisaged: disseminating information about positive examples of innovative legislation, guidance and practice; encouraging anti-violence programmes, particularly at enterprise level, specifically addressed to combating violence at work; assisting governments, employers and workers' organisations to develop effective policies against violence at work; assisting in the elaboration of training programmes for managers, workers and

government officers dealing with or exposed to violence at work; assisting in the elaboration of procedures to enhance the reporting of violent incidents; assisting in anti-violence initiatives at different levels and introducing these into organized strategies and plans.

There is no evidence on how much stress and violence at work have a bearing on the behaviour of health care workers towards patients. In cases where violence against patients has been reported, this has seldom been examined in relation to the position of health care workers as victims of stress and violence themselves. However, research has shown that employees treat customers in ways similar to the way in which they perceive themselves to be treated by their organisation. Stress and violence can be mitigated or prevented in an organisational culture that communicates a clear vision, mission, value system and strategies for quality health care services.

The report makes a passing reference to racism. Apart from questions of discrimination, racism contributes to stress and is a factor behind some violence at work. Some Workers' group representatives feel that racism in their country is an item that should be more fully addressed during the meeting.

Contribution of Training and Re-Training Preparedness and Responsiveness to Changes in Health Policy and Health Care Provision

The combination of new technologies and diverse demographic epidemiological and social challenges requires health workers' knowledge and skills to be constantly upgraded. A well-trained and motivated workforce is essential in order to function and adapt appropriately. Human resource management must recognize the need to provide ongoing and comprehensive capacity building for all health workers.

Career development is most commonly defined as a process that sets goals, identifies specific talents, capabilities and interests, assists in the implementation of career plans and makes counseling and guidance available. Career development and in-service training are essential for retaining staff.

In an effort to reorient human resources for health, greater attention needs to be paid to identifying and stimulating appropriate

professional profiles that can be part of the multi-professional teams of tomorrow's health care systems. There is a need for a broader vision than that of traditional curative care in the basic training, specialization and particularly continuing education of health care personnel. Quality of care, disease prevention and health promotion must be an integral part of this professional reorientation.

In the wake of structural adjustment, particular emphasis is placed on retaining the staff most suited to their task, whilst offering adequate opportunities for re-training and redeployment of health care personnel in neighbouring professions. Examples of such retraining programmes exist in Finland in the context of reinforcing community care and occupational health care. Severance and redeployment arrangements are an important aspect of retrenchment programmes; appropriate training enhances the employability of health care personnel.

Newly designed curricula for health care providers will have to take into account the overall context in which health care reforms are implemented, including economic and administrative training. Technological progress in medicine requires health workers to keep their knowledge up to date. This counts not only for doctors and nurses but also for the full range of staff, including ancillary and support staff.

The concept of lifelong learning is also of high relevance in the health sector. In Ghana it was integrated into the Act of 1996 and a programme for the rehabilitation of training institutions was launched. Respondents to the ILO questionnaire in Austria, Brazil, Canada, Colombia, El Salvador, Finland, Latvia, Lithuania, Mexico, Poland, Slovakia and Turkey pointed out that education and training systems were being adapted, with a focus on the link between practical work, primary health care and lifelong learning as one of its main features.

Key components to successful reform processes that achieve good standards of care accommodating the needs of both the citizens and the health workers include: national and local health information systems; capacity building throughout the structures; continuous opportunities to advance and upgrade knowledge and skills; and minimizing apprehension through consultation and inclusiveness.

The ILO report recognizes that major health reform moves tend to occur under circumstances of severe financial crisis, guided by donor conditionality. That being said, it is important to emphasize the importance of capacity-building as part of health care reform. Capacity-building applies to all levels, including both planning and implementation capabilities.

Changes in management are one of the most often mentioned instruments for the implementation of health care reforms. These changes imply the use of modern management and information technologies and of outsourcing and alternative management methods such as workers' participation and self-management.

New information technologies have allowed the computerization of personnel administration, patient admission, discharge and billing. This applies to hospitals and individual practices. Such technologies have also facilitated the reporting of data on sicknesses and their processing by the public health authorities. The information systems of public health have been further rationalized by linking various data processing systems within and outside hospitals and individual practices. In the past, these links were carried out by administrative staff and middle management the application of new technologies has led to the abolition of a substantial number of such posts.

Major rationalization in some countries and the outsourcing of auxiliary services such as catering, cleaning, laundry and transport have reduced the number of administrative and management posts in health services. On the other hand, the demand for management skills has increased at all levels. Countries in transition and developing countries have undertaken major efforts to upgrade management. One example is the case in China where programmes for management improvement are being implemented with WHO. Moreover, partnerships of Chinese hospitals with universities and private health providers in the USA have been established.

Several countries with structural adjustment programmes are undertaking management support and training programmes under World Bank and UNDP auspices. Examples can be found in Ghana and, as mentioned above, in China. Considerable resources are provided by the European Union to various executing agencies, such as the SIGMA/OECD programme, in order to assist Central and Eastern European countries to

improve management and organisation of those elements of their public services that also affect the health services.

There is a need to interpret capacity building as encompassing planning and implementation dimensions. By drawing attention to both planning and implementation capabilities, the importance of strengthening the capacity for action is being emphasized. Planning capabilities focus on analytical skills, breadth and depth of sectoral understanding and interdisciplinary collaboration, while implementation capabilities focus much more on organisational action, incentives, team work and results. Those engaged in capacity-building need to note the interdependence between the two elements. Capabilities to assess and design organisational structures, systems and processes, to create and enforce a suitable legal and financial framework, and to motivate and to provide guidance to people at different levels are of critical importance.

It may be useful to examine different elements of health reform along these lines to identify the nature and mix of capacity dimensions required in a specific country context. Irrespective of the sector, capacity-building would seem to involve more than the transfer of knowledge or skill. It is appropriate, therefore, to conceive of it in terms of knowledge and processes – referring to the institutional strengths and dimensions to be created and practised.

The report highlights the benefits of establishing autonomous centres and institutes for policy analysis and implementation, whether as "free standing" entities or as part of universities or even private sector organisations. It suggests that autonomous centres can build in greater flexibility than government agencies in terms of compensation and incentives, thus making it easier to attract and retain competent professionals. The report goes on to argue that this is a chronic and well-known problem for government. The report also emphasizes that it is essential that autonomous centres function as independent sources of policy advice and analysis, to ensure the creation of viable institutions with a critical mass of expertise in the relevant subjects: This can be achieved because the autonomous centres are more likely to maintain objectivity and independence than the captive policy units within government.

Unfortunately the example given for the "free and independent" initiative is the World Bank (and other donors) Africa Capacity Building Initiative (ACBI) (5). While it is to be welcomed that the World Bank and

other donors are assisting with a long term specially focused programme rather than short term projects, it should not be assumed that such institutions will remain objective or independent. The World Bank's record on donor conditionality in health service reforms has been ideologically driven and explicitly biased towards the implementation of unevaluated marketization and privatization in the health sector.

What can be considered common to all reform efforts is that managerial and implementation skills are indispensable preconditions to make systems work. Moreover, efficient institutional arrangements are critical in addition to individual skills.

Labour Relations in the Health Services in the Process of Structural Changes and Reforms

Health sector reforms have certainly had an impact on unionization, but it is not clearly identifiable whether changes are due to general trends in unionization or to health sector reforms. The ILO World Labour Report 1997-98 (6) states that membership levels of trade unions in general declined between 1985 and 1995 in 72 countries. The decline was most apparent in the former communist countries when membership was no longer compulsory. Union density fell in Central and Eastern Europe by between 50.6% (Czech Republic) and 22.8% (Belarus). A radical drop in trade union density also took place in Israel (75.7%). In 20 countries the level of unionization rose, for instance in South Africa.

Health workers are represented by a wide range of trade unions. In many countries, they are included in the membership of unions for the public sector, with special units for health workers, such as the Public Services, Transport and Communications Union (ÖTV) in Germany and UNISON in the UK. With privatization, membership in the public sector unions is declining and more recently discussions have been started about mergers with other unions. In Germany, ÖTV has started such discussions with unions covering also other sectors. Workers' organisations in Brazil report a tendency towards one comprehensive workers' organisation for the health sector in the country.

The nurses associations from Canada and France also report declining levels of organisation in the health sector. The Canadian Association of Nurses attributes the decline to the increase in the number

of part-time nurses and to increasing entrepreneurship among nurses who for various reasons would not seek membership. In other countries, such as Ghana and Slovakia, the level of unionization did not change.

Changes have also taken place as regards the structure of workers' organisations. In the USA, there is a marked interest by doctors in getting more organized in order to face the challenge of managed care and collective bargaining with insurers. The concerns of the physicians are working time and pay, but above all the interference in their medical decision-making.

In Central and Eastern Europe social dialogue appears to be only beginning. Several countries face problems in identifying the employers with whom bargaining processes should be initiated. Employers, be they public or private, are often not yet organized in a comprehensive way that allows collective bargaining. In Latvia, only 10 hospitals have jointly formed an employer's organisation since the central authorities are not the employers anymore. Similar problems may appear in developing countries. The workers' organisations from Zambia report that only individual hospitals would be the partner in negotiations. However, the Brazilian workers' organisations report that there is a move to strengthen the municipal employers' organisation. In Lithuania, the employers stressed the need for social dialogue.

Workers' participation in the reform process and their commitment to reform are essential for its successful implementation since health workers are those who in the end have to manage the reform and put it into place. Participation of health care workers and their unions in health reforms has varied across countries. In some countries health workers and their unions are involved in the preparation and implementation of health reforms. In general, however, they have had a limited role in planning and implementing health reforms and have sometimes been even viewed as impediments to reform.

According to some Canadian provincial jurisdictions, health care workers are eligible to serve on regional health authorities and in fact there is an increasing number of registered nurses serving as members of regional health authorities.

In Ghana, Niger and South Africa, health care personnel participates in the design and implementation of the reforms. Moreover, in Ghana, the unions will be represented in the Health Service Council at

various levels. In Mexico, the governments of the Federal States signed with the trade unions of the health sector a national agreement on the decentralization of the services and in Finland, where health workers enjoy high prestige, they were consulted during the decision-making process that led to the reforms and participated in the implementation of these reforms. In Colombia, workers also participated through their organisations in the discussion on the shape of the national health body.

In Austria, the health personnel was involved in planning and implementation of reforms. In Central and Eastern European countries such as Latvia, Lithuania, Poland, the Russian Federation, Slovakia, the health staff are involved in reforms. In the UK, staff were in the past expected to implement the reform but were not involved in planning. A change is promised there by the new Labour Government.

In other countries, health care workers are mainly regarded as a cost factor and do not participate in the reform process. This is the case in Zambia. In Brazil, health workers are not consulted either and this may be one reason why they resist the reforms.

Dealing With Ethical Problems of Accountability Towards Patients, Employers and Professional Bodies

Although privatization moves have occasionally contributed a "notion of efficiency" to the functioning of the health sector, application of monetary, fiscal and pricing policy solutions to health, as to other sectors, has in some cases damaged health objectives. By the same token, ethical values have been to a certain extent undermined, as commercial interests have been entering into the health sector through privatization and marketing initiatives.

Although privatization and social marketing may be effective instruments in order to improve equity and access to health care and health promotion, this process may have unpredictable consequences, with managers responding to market signals in a way that is implicitly and explicitly harmful to the purposes of socially provided health care. Beyond the criteria of economic efficiency, a wide range of other criteria (epidemiological, health, technological, social) needs to be taken into account in assessing whether any particular configuration of health resources is socially efficient or not.

The replacement of registered/licensed nursing personnel with less skilled workers can be observed with increasing frequency in several countries. While this may allow immediate reductions in cost it may have a devastating effect on the level of care for patients, on the general quality of the service provided and on the overall image of the health organisation. In the longer run, it may also have a negative impact on the financial situation of the providers, as shown in numerous cases that involved injuries and death of patients in the US. Consequently, additional training of staff must be introduced, consuming parts of the savings made. Other costs have been incurred through the need for intensive supervision and longer hospital stays including intensive care in order to in correct the effects of negligence. Information on the quality of care is not however monitored systematically by independent bodies.

Particularly in reforms of the health sector, health care workers and managers find themselves increasingly exposed to a dilemma between medical and health care ethics on the one hand and business and policy perceptions on the other. Health workers have professional responsibility and accountability towards the patients and the public that may bring them into conflict within their employer-employee relationship. This may also apply to "gagging clauses", clauses in the employment contract introduced specifically to prevent staff from raising matters in the public interest.

Whereas ethical issues appeared in the past to be more related to the performance of specific services, the dilemma emerges today from the general conduct of managers and workers. The impact on health workers is even more critical, since their registration/license which is based on professional patterns of conduct could be at stake. The ILO Sectoral Meeting in 1992 (7) discussed integrating the codes of ethics and practice for health workers and managers into collective agreements.

It is in this context that initiatives have been undertaken to provide more protection to staff who give information on the quality of services, often termed as "whistle blowers". In the UK, the groups "Freedom to Care" and later "Freedom to Nurse" were created to offer the free expression of concerns about the quality of care and to campaign for "whistle blowers", who often act against specific contract clauses. Such initiatives contributed in the UK, as previously in the US, to the adoption of a law protecting workers against dismissal on the basis of public interest disclosure.

Exposure to professional dilemma can occur in an extreme form when health workers are exposed to political pressures in situations of human rights. In this respect, Amnesty International launched in 1996 a campaign defending the ethics of medical and health personnel by establishing minimum standards for their profession.

ILO`s Priorities in Order to Assist its Constituents in Successfully Initiating and Adapting to Change

The ILO attaches great importance to the fact that the improvement of employment and working conditions of health and medical staff is vital to a satisfactory delivery of services in this sector.

Considering the critical importance of the health sector in terms of its workforce and in terms of percentage of global GDP, the ILO adopted a sectoral perspective, in accordance with its mandate, to deal with terms of employment and working conditions of health care delivery staff affected by recent health care reform moves. Such sector reforms are most likely to achieve their objectives of delivering efficient, effective and high quality services when planned and implemented with the full participation of health workers and their unions and consumers of health services at all stages of the decision-making process.

It goes without saying that the commitment of health care personnel to reform constitutes one of the cornerstones to it's the success of such reform Effective communication, consultation and negotiation with a view to reaching agreement with workers and their unions are essential during restructuration.

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Assessing Quality Outcome and Performance Management

Javier Martínez

INTRODUCTION

This paper address a number of questions. What is the evidence and what are the valid methods for improving the quality of care and outcomes through the use of human resources interventions? What are the different models of human resources related to quality improvement and performance management systems in the health sector at national/strategic level and at local/operational level? How are human resources performance indicators at national and operational levels derived, applied and used? What are the methods used to assess the performance of individual workers and teams in health care?

MAPPING OUT THE TOPIC AND THIS REVIEW

Performance management is or should be an eminently practical process closely aligned with other aspects of general management, and does not sit easily as an isolated subject for academic scrutiny. For example, much of the literature from the 80s and early 90s makes a separation between quality a service outcome, and performance a human resource outcome. In practice, such separation does not seem to make sense, since both performance management and quality enhancement ultimately rely on human resource interventions, and both pursue the goal of delivering better services.

This review will focus on the use of performance management – an increasingly popular human resource intervention – as a means to improve the quality and outcomes of health care. The approaches used to improve staff performance and increase service quality are many and have quickly become an integral part of general management theory and practice. These include Quality Assurance, Quality Audit, Total Quality Management, Quality Cycles, Benchmarking, Accreditation, Certification, and Performance Appraisal, among others. These approaches in turn share some of the tools used to ensure quality, such as treatment protocols, definition of

quality standards, user satisfaction surveys, or personal development plans, among many others. All these approaches require the introduction of human resource interventions of one type or another since they all ultimately rely on the skills, motivation and performance of health care professionals.

This review will attempt to cover the topic by answering three main questions: what is performance management? How have the concept and practice of performance management evolved over time? How is performance management being applied to health care organisations? What are the main models, approaches and indicators used? What are the essential prerequisites for applying performance management to national health systems?

The Concept and Practice of Performance Management

Definition

Performance management is a term borrowed from the management literature that has only recently been adopted in the health care field. The term 'performance management' was first used in the 1970s, but it did not become a recognised process until the latter half of the 1980s (1). The meaning of performance management has evolved and continues to evolve. While in the sixties and seventies performance management was often equated to some form of merit-rating, in the eighties and nineties it has been linked to 'new' management paradigms such as Management by Objectives, Performance Appraisal, Behaviourally Anchored Rating Scales and Performance-related Pay.

Even today, authors differ in their understanding of performance management. The following definitions allow us to view the changes that the concept of performance management has undergone during the 1990s.

Fowler (2) defines performance management as: "...the organisation of work to achieve the best possible results. From this simple viewpoint, performance management is not a system or technique, it is the totality of the day-to-day activities of all managers".

The (then) Institute of Personnel Management (3) produced a similar definition: "A strategy which relates to every activity of the organisation set in the context of its human resources policies, culture, style

and communications systems. The nature of the strategy depends on the organisational context and can vary from organisation to organisation."

Storey and Sisson (4) define performance management as: "...an interlocking set of policies and practices which have as their focus the enhanced achievement of organisational objectives through a concentration on individual performance."

Fletcher provides a more organisational definition of performance management :"an approach to creating a shared vision of the purpose and aims of the organisation, helping each individual employee understand and recognise their part in contributing to them, and in so doing manage and enhance the performance of both individuals and the organisation."

Finally, Armstrong and Baron(1) define performance management by eliciting the characteristics of a performance management system (table 1). This is a conceptual, organisational and operational definition that has been found useful by authors researching performance management in health systems.

Table 1. Characteristics of a Performance Management System by Armstrong and Baron

It communicates a vision of its objectives to all its employees.
It sets departmental, unit, team and individual performance targets that are related to wider objectives.
It conducts a formal review of progress towards these targets.
It uses the review process to identify training, development and reward outcomes.
It evaluates the whole process in order to improve effectiveness.
It defines a managerial structure to look after all the characteristics above, so that individual staff and managers are assigned specific responsibilities to manage the Performance Management System.
In addition, performance management organisations:
Express performance targets in terms of measurable outputs, accountabilities and training/learning targets.
Use formal appraisal procedures as ways of communicating performance requirements that are set on a regular basis.
Link performance requirements to pay, especially for senior managers.

THE RECENT EVOLUTION OF THE CONCEPT AND PRACTICE OF PERFORMANCE

Performance management is essentially about measuring, monitoring and enhancing the performance of staff, as a contributor to overall organisational performance. It must be said at this stage that while staff and organisational performance are closely inter-related, the nature of this relationship is complex and subject to many external variables often beyond the scope of performance or general management (5).

While the earliest forms of staff performance management focused on performance management tools, modern approaches have emphasized the need to combine various tools in order to achieve an integrated and coherent performance management system. Hence, performance management was initially equated with tools such as work study (which gave way to today's task and job analysis), Critical Path Analysis, or Merit Rating of various forms (6). In the public sector, the most popular approach to performance management has been the use of staff appraisal.

Efficiency drives in the public sectors of many countries during the 80s and 90s further contributed to emphasise the notion that the performance of individuals should not be taken for granted (7), and that higher productivity a dimension of performance could only be attained through people (8, 9). This led to the principle that good performance should be rewarded, and that bad performance should not be tolerated and should be promptly addressed by management. This required the setting up of means to measure performance, and the subsequent development of performance indicators. Indicators enabled linear comparability changes in performance that can be measured over time and cross sectional comparability how does my organisation's performance compare with that of other organisations of similar kind and trade?

All these concepts emerged from commerce and industry and soon permeated into the public sector. Initially, attempts at evaluating performance in the public sector were based on the assessment of value for money, and were normally conducted by external auditors. Gradually, a whole range of measures and indicators of performance followed, in an attempt to identify examples of good and poor resource usage and the setting of standards for complete service areas. Achievement against set criteria was then used as the basis for external accountability and became over time a common framework for resource allocation formulae, so that

organisations performing well would be rewarded with more public money. In the UK and the US, this process soon reached the health and education sectors: the Research Assessment Exercise in higher education and the league tables for publicly funded schools are two examples of how the performance philosophy has begun to drive resource allocation in the education sector (10). Clinical audit, quality assurance, accreditation and benchmarking are similar attempts to establish standards for health care now fully established within many European health systems and within the USA following the introduction of managed care.

Performance management has been constantly changing in recent years. Conceptual changes have usually followed changes in implementation. It is interesting to look at some of these changes for us to understand where performance management stands today. Based on their research between 1991 and 1997 Armstrong and Baron (1) summarize the key changes that performance management has experienced over time. These changes are shown in the following table and will be used as a basis for defining what performance management initially was, and what it is today.

Table 2. Evolution in the concept of Performance Management between 1991 and 1997.

From	**To**
System	Process
Appraisal	Joint review
Outputs	Outputs/inputs
Reward oriented	Development oriented
Ratings common	Less rating
Top-down	360 degree feedback
Directive	Supportive
Monolithic	Flexible
Owned by human resources manager	Owned by users
Profession/Cadre-based	Service-based

SOURCE: Adapted from Armstrong and Baron (2000) by the author (1).

From tools to system, and from system to process

Initially, performance management systems were viewed almost as stand-alone processes by which objectives were assigned to individual staff members and then reviewed periodically. The most commonly used approach to performance management in public sector organisations was

staff appraisal. From the use of individual tools, performance management adopted in the 1980s a more systemic approach by integrating it with other planning and management systems. This required the breaking of the walls that had long separated the human resource and other organisational functions, and their respective departments over many years. Hence, performance management became a process by which all managers and staff look at the performance of individuals and teams in the context of organisational objectives. The focus of performance management became the linking of individual with organisational targets, and the means to set, measure (and sometimes reward) the attainment of such objectives. (4,6,10).

At its simplest, performance management is a process that involves: setting strategic objectives and targets for the organisation and for its different units before attempting to establish individual staff performance targets; identifying and implementing tasks to achieve those objectives, and aligning individual targets to the fulfillment of those tasks; monitoring performance of those tasks at organisational, unit and individual levels; reviewing objectives and targets in the light of the outcome.

From individual appraisal to joint review

Staff appraisal is the most commonly used approach to performance management in the public sector, although many authors have highlighted that, in practice, it was more often related to behavioural issues than with performance as such. For many years, staff appraisal relied heavily on the interaction between a supervisor and the person appraised, to the extent that the outcomes of appraisal interviews were often kept confidential and were not even known to the later (11-13). Although personal interaction is highly desirable in any performance management system, it does not per se facilitate the necessary integration and matching between individual and service/organisational objectives. In contrast, performance management is today viewed as an open process where teams, rather than individuals, set and discuss openly objectives and targets set, and where staff and line managers participate equally in such discussions. Wherever individual staff appraisal is part of the performance management process (as in the British National Health Service through Personal Performance Planning review) it should always be based on prior setting and discussion of targets as described before.

Modern performance management systems put greater emphasis in team work, and in established planning review processes, than they do on individual appraisal which is, at its best, only one aspect of the performance management system. Nevertheless, research has highlighted that a comparatively small number of organisations have made special arrangements to operate performance management for teams (1).

From 'outputs' to 'outputs and inputs'

Initially, the emphasis of performance management and of quality assurance approaches was on objective-setting and on the appraisal of results against goals (outputs). The difference now is that there is a realization that a fully rounded view of performance must embrace how people get things done as well as what gets done, i.e., inputs and processes as well as outputs (1,14). In any organisation staff members may be unable to meet targets because they lack the right skills or because work processes are not effectively streamlined. In performance management terms this involves identifying what inputs are required following the failure to meet the expected outputs. In any case the responsibility no longer falls exclusively on the "poor performer" but on other staff and managers as well. This tends to change the focus of performance management completely, allowing it to adopt a greater developmental dimension. In sum, modern performance management recognizes that performance is a result of a combination of factors (staff, resources, protocols, systems) and not just the sum of performances by various individuals (15).

The shift from 'outputs' to 'outputs/inputs' has run in parallel with rethinking the nature, range and number of indicators used in performance management. There are essentially two extreme schools of thought. One claims that many 'boxes' must be provided for managers to fill in. The other advocates the use of a blank sheet of paper, giving managers freedom to do their own thing. An approach somewhere between these extremes is desirable (1).

From reward orientation to staff development

Although many performance management systems still include some form of individual or team reward (in cash or in kind) most analysts agree in stating that rewards are not as central to the notion of performance management as used to be considered. Rewards have been closely

associated with performance since the days of performance-related pay, when no performance enhancement could apparently be expected unless some form of reward was in place. However, many authors have argued that it is not so much the reward but the combination of incentives, positive (to reward good performance) or negative (to discourage poor performance) that make staff more open to performance management. It is the combination of positive and negative incentives the main characteristic of performance-oriented organisations rather than the existence of rewards for good performers

From what little evidence is available, performance-related pay presents managers with a number of practical problems and can act as a serious disincentive for staff. For example, it can introduce tensions and grievances whenever achievement of outcomes is the responsibility of a team rather than an individual responsibility, or wherever rewards are highly substantial or insignificant relative to the salary package. Evidence from a case study in a large health centre in Barcelona revealed that staff perceived any form of individual rewards as unfair, so much so that they had reached an agreement with managers that the cash rewards fund should be distributed evenly among all staff (16). In the same case study, and in another one undertaken in the British National Health Service (17) staff perceived that the greatest asset of performance management was its ability to highlight and act on staff development needs. In their own research Armstrong and Baron (1) describe how by 1998, from the initial association to performance-related pay in 1991, most performance management systems had shifted emphasis towards continuous staff development and self development.

In conclusion, while performance management can be a way to reward good performers (as long as all good performers are rewarded somehow) its focus has changed toward a staff development orientation that should enable staff and managers identify and act on staff (and management) development needs. Ensuring that staff are competent and motivated in their jobs is or should therefore be the central feature of performance management. The topic of reward and cash incentives is broad and complex (18, 19, 20).

From 'ratings common' to 'less rating', and from monolithic to flexible

Initially, performance management and performance appraisal were synonymous with performance or merit rating (7). Essentially, they consisted in assigning scores against agreed targets and indicators. This proved labour-intensive for human resource managers, and did not always lead to the expected improvements in individual performance. It was soon realized that performance rating was only meaningful when broader, overarching objectives had been defined, against which individual merits could be compared. Hence the shift from individual assessment to joint review described above. In health care, setting individual indicators was further complicated by the nature of health care, where many input, output, process and outcome indicators can be fixed for individual staff, teams, service units and departments, thus considerably increasing the potential for complication as regards the final measurement. Individual performance indicators can be controversial. For instance, productivity (output by input) targets are emphasized to the detriment of indicators relating to the quality and the personalized nature of care, where the same problem can present in a variety of ways and requires different service strategies.

Assigning indicators to jobs that rely heavily on group work was an additional problem in basing performance management on the measurement of indicators. Although most people recognize that some form of measurement and some indicators are clearly necessary in health care performance management, the nature of the indicators to be used is still the subject of much debate. In any case, the initial focus on rating soon gave way to other considerations that put the characteristics of each service at the core of its performance management system. The emphasis in performance management therefore soon shifted towards checking whether, for instance, staff possessed the required individual abilities and were able to work effectively in teams so as to provide a predefined set of services along agreed quality standards. What performance management was doing was simply to adapt to the new trends affecting the health care industry around the world, where benchmarking, service protocols and quality cycles, among many others, were becoming the norm. Ratings became less important than inputs, outputs and processes.

From 'top down' to '360 degree feedback', and from directive to supportive

In the 80s and early 90s many organisations still attempted to improve performance and service quality by ensuring staff compliance to objectives set at the top that then cascaded down various organisational layers. The rationale was that the "manager knows best" and that quality and performance management were largely managerial responsibilities. Nowadays, few performance and quality-oriented organisations operate in that manner. There has been a realization that quality and performance management must become part of the organisational culture, and that achieving such culture requires managers and staff to work closely together, identifying bottlenecks and acting on them. This in turn has led to looking more closely at staff needs and ensuring that staff members get all the necessary support and feel valued for what they contribute. The top down, directive approach has given way to more horizontal and supportive structures where everyone has a role to play to achieve best practice. Staff members are no longer expected just to 'do things right' but to 'do the right things' (10).

From 'owned by human resources managers' to 'owned by users'

For many years performance management has been viewed as the primary responsibility of human resource managers who had the responsibility for undertaking performance appraisal as part of their 'personnel function'. Human resources managers would seldom be involved in service planning or strategy development, while line managers seldom participated in the setting of individual targets or in dealing with staff development needs. Odd as such separation may seem, it has been reported in many organisations and can still be found in health care organisations from the developing world (21). Today, performance-oriented organisations have upgraded the personnel function and placed it within strategic management levels while devolving responsibility for performance and quality management to line managers and staff. Human resources managers are still critical for the implementation of performance management. For instance, many human resources managers are still responsible for acting on staff development needs and for administering the training budget, but such responsibilities are no longer performed in isolation (17).

From professional-based to service-based performance management

Many staff appraisal systems have been traditionally linked to individual professions and occupational groups (doctors, nurses, paramedics, administration, clerical staff). The rationale was that only doctors can appraise doctors, only nurses can appraise nurses, and so forth. Such rationale derived from deep-rooted perceptions in civil service and public sector organisations, and from the differences that have always existed and continue to exist among the medical professions in terms of roles, status, pay, subordination and gender, among others (21, 22). Performance management clearly exceeds the boundaries of professional or occupational groups. The team and service focus of performance management requires that various staff categories work in unison: doctors and nurses, reception staff and telephone operators are equally important at the time of delivering a user-friendly, quality service. Furthermore, health services are increasingly expected to comply with the changes in our societies and provide certain services almost around the clock. This has in turn required the application of a considerable degree of flexibility to the hitherto rigid job descriptions that used to prevail among professional groups. Performance management has become in practice a means to enable flexibility in service provision, respecting the distinct characteristics of different professions but aligning these within a single service delivery strategy. The cross-sectional nature of performance management must not be equated with a 'one-size-fits-all' approach. Doctors, nurses and other professionals must maintain their essential characteristics and strengths intact, and performance management implies no loss of professional identity whatever. In fact, some aspects of staff appraisal may well take place within professional group boundaries, as long as individual staff objectives are linked to broader service or organisational objectives.

Models Methods And Indicators To Health Care Organisations

Performance management in the public sector and in national health systems

"Not too long ago, it was generally considered impossible to measure performance in the public sector" (10).

Although the measurement of performance in the public sector is relatively new, a substantial body of literature on performance management has developed since the late 70s, encompassing terms such as performance measures, performance indicators, performance appraisal and review, value for money and, more recently, quality assurance. Public sector (service) organisations differ from their private sector counterparts: there is no profit-maximising focus, there is little potential for income generation and, generally speaking, there is no bottom line against which performance can be measured.

It was not until the appearance of organisational and managerial reforms in the 80s and 90s that public sector performance measurement became fully established. In relative terms, however, performance management "is still in its infancy (or at least, its adolescence). Consequently, the approaches used are still in need of further investigation and development, particularly in terms of understanding the actions arising from the measurement and evaluation process" (10).

All the above is also true and even more so in the context of health care. The use of performance management is still largely limited to a handful of national health systems from western European countries and to the managed care companies in the USA and Canada. Performance management is broadly absent from national health systems in the developing world, and few references have been found in the published literature about its application in this context. However, this situation is changing rapidly as several studies and meetings have highlighted the importance of further understanding how staff performance can become a central aspect in the management and organisation of health services in the developing word (24).

The increasing adoption of 'western' concepts in health care – such as the separation of financing and provision, the establishment of service agreements and contracts or the shifting of emphasis on demand rather than supply are all bringing performance management to the core of policy making.

Some forms of performance management, such as quality assurance, are already part of several developing country health systems, at least in so far as these approaches appear in policy statements (14). Accreditation, benchmarking and evidence-based medicine are also concepts and tools that are permeating rapidly into the developing world. It is only a matter of

time until these approaches become more firmly established. However, no matter how imminent such changes may be, the fact remains that it is far too early to derive conclusions about the use and application of performance management in developing country health systems. From the limited amount of research available it is clear that there are many more questions than answers. The performance management models so far introduced are in pilot stage, and it is not at all clear whether their use is delivering or will deliver the expected outcomes in terms of overall organisational performance, improved service quality or health outcomes of the population. Given that performance management is (or can be initially) very labour-intensive, its introduction into under-funded health systems where managerial capacity is in short supply poses a number of ethical and practical implications.

In conclusion, the approaches and tools described in this chapter apply to a handful of public sector health care organisations from well-funded and developed national health systems in the western world. While there is evidence that performance management is becoming increasingly incorporated into a larger number of national health systems, its introduction is far too recent to enable a complete retrospective evaluation. Transferring performance management approaches from industrialised to developing countries will require careful assessment of the status quo of such health systems.

Setting up Performance Management Systems

There is no single agreed, acceptable model of performance management or quality improvement. In fact, the term 'model' appears farfetched, since performance management is more often some sort of a framework or underlying rationale for the organisation to enhance performance or quality. Fletcher suggests that, at its simplest, performance management comprises the following: developing the organisation' mission statement and objectives; enhancing communications within the organisation to that employees are not only aware of the objectives and the business plan, but in a position to contribute to their formulation; clarifying individual responsibilities and accountability lines; defining and measuring individual performance what is meant by performance in a particular organisation, and how do performance management processes will enhance performance?

implementing appropriate reward strategies; developing staff to improve performance and career progression in the future.

It is easy to underplay the practical difficulties that implementing each of the above components has in practice, particularly in health care organisations where planning and management skills at the local level are scarce, and where levels of staff pay and access to resources are much below minimum standards.

Dimensions and Approaches To Performance Management in Health Care Taken From

The British National Health Service

In the British National Health Service, performance management has implied the integration, at both conceptual and practical levels, of what had hitherto been a series of diverse initiatives (15) (Box 1).

Box 1. Performance Management in the British NHS

Business Planning – the process of developing a plan that maps out how various organisational and service targets will be achieved over time (usually one year).

Quality assurance and benchmarking – defining quality indicators for services and for units, often in the context of nationally defined and agreed criteria. Quality assurance is a planned and systematic approach to monitoring, assessing and improving the quality of health services on a continuous basis within the existing resources (15).

Competence-based education and training – ensuring support to all staff in order that they show/attain the levels of competence required to undertake service tasks. This is crucial in a changing service scenario where staff adopt an increasing 'multi-purpose' orientation that requires them to undertake new tasks, or to undertake tasks in different ways.

Clinical audit - including evidence-based medicine, patient-based diagnostic and treatment protocols.

Performance indicators – these can take many forms and relate to individual staff, units or service areas. In all cases, they must be rooted on a prior assessment of problems and gaps.

Use of assessment techniques and of development centres – whether in the form of appraisal systems, Personal Performance Planning reviews or whatever form of assessment, performance management requires a periodic review of achievements against targets set, as well as the practical means to address staff development needs in staff development centres.

Fletcher explains that the integration of all the above initiatives, often owned and managed by different parts of the NHS, represents the real challenge of establishing a coherent performance management system in the context of the National Health Service. The fact that these initiatives were already present in some form or other is another point for reflection, since it is easier to build on what already exists than to attempt to develop everything from scratch as is often the case in many developing country health systems. National Health Service units have added their own initiatives to the performance management system. For instance, Martineau (17) highlights the importance of a number of features: induction programme, performance monitoring and personal performance planning.

INDUCTION PROGRAMME

When staff are recruited to a service trust they are provided with a formal induction process to ensure that the individual is clear about his/her job, and to brief her/him about the aims, objectives and working practices of the Trust. A detailed checklist has been developed to ensure all steps are covered. New staff attend a 3-day induction programme sometime during the first few months of their employment. Nursing staff have a formal 3-month preceptorship programme for all newly qualified nurses.

PERFORMANCE MONITORING

The contract between the North Mersey Community Trust and the purchasing health authorities specifies some of the workload for community-based services in terms of face-to-face contacts between health workers and clients. This does not take into account the complexity of the contact and a unique routine visit may be very short; a visit dealing with sensitive issues related to palliative care may need more time. The health worker enters each contact into a networked computer on a regular basis, together with additional information about the nature of the visit.

PERSONAL PERFORMANCE PLANNING (PPP)

Formerly known as P, this is mandatory across most of the Trust and has been in use since the early days of the National Heath Service Trust. The basic format is very similar across the Trust, though variations appear in

different localities, directorates, staff groups and even by manager. For the 40 or so senior managers there is also an element of financial bonus linked to PPP. The outcome is a written agreement of key objectives for the following year and for other actions to be taken. This is often in the form of a confidential letter from the manager to the individual and may also include a summary of the discussion. A table with objectives and possibly specific actions, a time scale, success criteria etc may also be produced and typed up. This is then used for guidance in the following year and discussed at the subsequent PPP meetings to review progress.

PERFORMANCE STANDARDS AND INDICATORS

Despite the constant reference to performance indicators in the literature, the best performance management systems have been found to put greater emphasis on processes and standards that they do on selected performance indicators. Indicators, in any case, relate to the models, approaches or tools used in the context of performance management. Stewart (25) states that emphasis on indicators can be unhelpful, and that it is better for management to focus on enabling and disabling factors before attempting to introduce performance indicators. The following are some examples taken from Stewart (25): the system should identify minimum standards to be achieved, a floor below which no one has an excuse for falling, rather than a ceiling beyond which no one can rise; the system should start with a basic assumption that people want to do a good job and are trustworthy. A system designed to check and double-check performance will not encourage people to give of their best; the performance management system should be expressed, as far as possible, in terms of a set of principles that people will need to follow, rather than rules that they have to obey; the touchstone for judging the success of the performance management system should be the extent to which it helps the organisation deliver a better service to the customer; the system should be minimalist, and not generate mountains of data. The 80/20 principle should apply what are the 20 per cent essential data that are needed? The choice of data should be subject to constant update and review depending of the objectives and new priorities being set; performance management systems should be designed and driven by line management, with staff involvement, the human resources function being to provide support in ways that line management deems important; the

performance management needs to be piloted and adapted in different parts of the organisation, with the understanding that the purpose of piloting is to adapt the system rather than to question whether it should be introduced at all; performance management systems (particularly performance appraisal) need to fit into the natural rhythms of organisational life the existing peaks and troughs of activity, often associated with the financial year and the business planning cycle; Edmonstone (15) provides several other criteria for assessing the success or failure of performance management and appraisal systems.

Essential Requisites For Introducing Performance Management To National Health Systems

Do Health Care Organisations Need Performance Management?

Performance management is a means to an end. It is based on the assumption that organisational performance is closely related to the performance of its individual staff. Even this apparently uncontroversial assumption has been the topic of much research and, as Bach points out, the link between organisational and individual staff performance remains elusive (5). Such elusiveness is the result of many organisational and contextual factors that should be in place before the whole (the organisational performance) can be usefully considered the sum of its parts (the individual performance). But individual performance does clearly matter and can make a difference. The important issue is to establish how much attention to individual performance should be in place for organisations to perform better, and what forms such attention can take in practice. Most of the findings in this section stem from as yet unpublished research reviewing practice across 16 different organisations, 14 of them health care organisations and 10 of them based in developing countries. Most published references relate to the application of performance management in industrialised countries. The fairly sophisticated level of their health systems, at least in comparison with the situation of many developing countries is what limits the generalization of conclusions. Research has shown that only a handful of health systems whether public or private from developing countries use performance management systems. Even fewer (none in the research study funded by the European Union) uses performance management as the "interrelated set of policies and

practices that, put together, enable the monitoring and enhancement of staff performance", as referred to earlier in this paper. In most countries performance management still is made up of a set of disconnected policies and practices, often not clearly related to performance. In some of these organisations the rating of staff dominates over efforts to help them work better. As a result, performance enhancement in these organisations is more of an afterthought or, as some authors have remarked, a means to blame staff for what represents essentially a great deal of managerial incompetence (1). The focus on enhancing performance characterises the most successful or promising approaches to performance management in the European Union research study. This is because focus on enhancement immediately changes the nature of performance management from the often quoted 'to verify that staff are doing their jobs properly' to the far more positive 'to ensure that staff get the necessary help to do their jobs well'. While the first approach favours control and measurement, the latter emphasizes positive supervision and staff development. In consequence this section of the report adopts the view that looking at individual performance is a useful way to attain organisational objectives as long as the organisation uses the appraisal of performance to act on staff needs and on the outcomes of appraisal. Consequently, we shall attempt to derive lessons from our research that can be used by any health care organisation aiming at putting staff performance at the core of organisational strategy.

Prerequisites For Introducing Performance Management in Health Care Organisations

Central to the findings of research into performance management in health care is the notion that not all organisations are performance-oriented or that they value performance in the same manner. For example, achieving high levels of employment or job security may be pursued by some national health systems as a primary objective over and ahead of staff performance, even if this is implicitly rather than explicitly pursued. Similarly, efforts to focus on staff performance may be rendered fruitless or see their effectiveness limited through inappropriate organisational design or inadequate management systems. In this section we reflect upon a series of pre-requisites without which performance management will not work or will do so ineffectively or for a limited period of time only. We differentiate organisational or internal prerequisites relating mainly to the structure,

culture and management systems of the organisation and environmental or external prerequisites relating to the policy environment in which the organisation operates. We are fully aware of the multiple overlaps between internal and external factors but still find this distinction simple and didactic enough for managers and policy makers to assess the extent to which performance management approaches can be established with some guarantee of success.

Organisational (internal) prerequisites

The following internal or organisational prerequisites will now be reviewed: there is an adequate level of pay or pay package; staff have the equipment, tools and skills to do their job; there is a balance of incentives to motivate staff; managers have the power to make decisions and plan on the basis of local (service) needs; managers and staff are familiar with planning tools such as target setting and achievement monitoring; communications between and within management and staff are effective; a culture of accountability and openness prevails. Each of these prerequisites will be now reviewed in some depth.

Adequate pay levels

Pay levels in some of the organisations covered in the study were so low that they did not enable staff to make a living and forced many staff members to resort to 'moonlighting' to make ends meet (26). In these circumstances staff will have little incentive to perform better, since increased effort will not result in better work or pay conditions. This situation was found in the Mozambican public health care sector and, to a lesser extent, in the government health services of Ghana, Guatemala, Zambia and South Africa (11,12, 27-29).

Even if adequate pay levels do not per se guarantee performance, they are essential prerequisites without which performance management will simply not work. This feature has led in some countries to stringent reductions in staff numbers as a means to increase the staff share of the salary bill. While staff cuts may or may not be the best approach to increase the salary bill, it is equally true that maintaining the status quo will not solve the problem. It is not a coincidence that organisations showing the most effective approaches to performance management in our study were also those where staff were getting a 'fair' salary in terms of what the market offers or what equivalent staff earn in other sectors. Defining what constitutes a fair salary is problematic and staff may never agree that the

level of pay is high enough, but pay must reach a certain level below which managers will be reluctant to ask not to mention demand higher or better performance.

Equipment, tools and skills to do the job

As is the case for salaries, this is an area that is often taken for granted in many developing countries. A case study from Guatemala records that while workers in a private health care organisation have the essential means to do their work, the same cannot be said for the public sector health services were staff are constantly faced with budget cuts and resource shortages of every kind. Such shortages mainly regard drugs, diagnostic equipment and transport, but can extend to shortages in skills levels or skills-mix among staff (28). Skills and material 'tools' are closely interrelated, since the former can hardly be developed in the absence of the latter. The study in Guatemala shows staff lacking such essential equipment as stethoscopes and surgical soap; this, combined with lack of drugs, has the effect of worsening the reputation of public health facilities. Low service coverage and low resolution capacity at primary level are two of the consequences. The reasons why equipment or drugs are not in place may not always be related to poor supply but to factors such as misuse by staff and their relatives instead of patients. The point is that it is futile to expect staff to diagnose and treat diseases properly or to conduct staff supervision when diagnostic equipment, petrol, vehicles or public transport are not available. Well-resourced health care organisations are many steps ahead in the starting line of performance management when compared to others where resource shortages are a daily feature.

The right balance of incentives for staff to perform well

The distinction between reward - and development-oriented performance management has been discussed briefly. Evidence suggests that while cash rewards can act as incentives for improved performance, they are not a central feature of performance management. We have also highlighted that how the provision of cash rewards is highly linked to the organisation's culture and context, and that staff do not necessarily appreciate cash rewards, particularly if they are unsure of getting them or if others get rewards for what is essentially a team effort (2, 15, 30). The need for staff to have the right incentives to do the work is however undeniable and the more performance oriented organisations in our study are also those where

the right combination of incentives has been achieved. This includes both positive incentives to encourage higher performance and negative incentives to discourage undesirable practices or behaviour. The most frequently quoted positive incentives include: clear criteria for promotion; job stability and security in employment (not necessarily equivalent to permanent jobs for life!); a good working environment with humane staff relations; and the existence of attractive career ladders that accommodate staff aspirations. It is interesting to note from the UK case studies (30) that career ladders are not always directly tantamount to the provision of higher salaries. Thus, senior nurses taking up management posts might be paid less that if they had continued their work as nurses, but a career in management may offer better job opportunities in the long run than are possible as a practising nurse. In the Barcelona CAPVO case study, another positive incentive quoted by staff is the existence of a well designed induction period for new staff that is highly focused on ensuring staff are clear and felt comfortable with their new responsibilities (16, 30)..As regards negative incentives, three organisations (in the UK and in Barcelona) have developed means to fight absenteeism from work. Interestingly, even these incentives take a positive form, rewarding those workers that have not used the number of leave days to which staff are entitled each year for illness or personal reasons. In NMCT (UK) for instance, all staff absent from the service for a day or more without prior notice are expected to report to their line managers when rejoining duty in order to justify the reasons for their absence. While this approach does not prevent staff to take sick or personal leave when needed, it does send a message across the organisation that absenteeism is not tolerated without proper justification. In contrast, public sector health care organisations in Zambia, Ghana and Mozambique report absenteeism as a major problem but do not seem to have the means to deal with it. In the case of Mozambique absenteeism is often related to moonlighting of staff because of low pay (12). While organisations must be able to deal with problems like absenteeism and may use performance management to do so, performance management should not be the way to deal with serious misconduct or with staff grievances. The rationale is that misconduct can be better addressed through specific grievance, complains and discipline procedures that are kept separate from the performance management system. This allows performance management to focus on performance in a positive manner, avoiding the confusion found in several

case studies where performance management and dealing with misconduct are often considered one and the same (11).

Local autonomy and decision making

Performance management requires a close relationship between management and staff, together with the ability on the part of managers to act on the results of appraisal. This implies a degree of local decision-making powers that is often absent from public sector health systems covered in the case studies of the research funded by the European Union. The decentralization of health systems is therefore an essential prerequisite for performance management, as is the need to avoid unnecessary bureaucracy when dealing with the results of performance appraisal. The practice of sending the results of appraisal higher up in the organisation, where little or no action is ever taken, is often reported among those organisations that are least performance-oriented. This eventually leads to downgrading staff appraisal, since neither managers nor employees will eventually feel bound by the outcomes. Managers conducting appraisal must work closely and interact frequently enough with the staff they appraise, and act swiftly on the outcomes of appraisal. The latter requires the ability to allocate resources, particularly (but not exclusively) training resources, according to need. The need for local autonomy also suggests that performance management should not be attempted across large organisations until such global effort can be matched with a bottom-up approach to implementation. National health systems must therefore avoid the rapid establishment of performance management systems that do not take into account, or build on, local decision-making powers and capabilities. In general, identifying where staff are with regard to performance orientation is important in order to judge how far staff will have to move to accept a different concept of performance, particularly where ineffective appraisal systems have been in place for a long time. The starting point will largely determine the pace at which performance management can be introduced. Staff familiar with ineffective appraisal systems will naturally be skeptical and wary of the introduction of new systems linked to individual performance.

Familiarity with planning methods

Performance management needs objectives and targets to steer individual performance. This will also facilitate the linking of individual targets to broader service and organisational objectives. Unless staff and managers are familiar with the process of setting and monitoring targets they may not be able to undertake performance management effectively. The local planning culture is absent in many health care organisations from the developing world covered in our study. Lack of a local planning culture and capacity is due partly to the lack of effective decentralization (and the consequent reliance on targets set from above), and partly to the fact that much of the planning in national health systems from developing countries is not grounded on resource availability. This may result in the setting of targets that are unrealistic, or for which achievement is hard to assess or quantify; both problems in turn affect the effectiveness of performance management.

It would therefore appear that when a local planning culture is not in place, the introduction of performance management must wait until staff has become familiar with planning tools. This will result in increased planning capacity and facilitate the eventual setting of interlinked individual, team and service targets. Just as importantly, this familiarity will put staff in the right mindset and reduce staff apprehension. Developing a planning culture can also be an excellent way to improve communications, accountability and teamwork within the service, all of which can significantly improve organisational and individual performance.

Effective communications

All authors highlight the importance of good organisational communications for performance management, to the extent that some of them consider performance management nothing more than a dimension of internal organisational communications (29). Attempts to introduce performance management will founder without clear and effective communication channels within staff, and between staff and managers. Many organisations, particularly in the public sector, disregard the importance of open and clear communications, and the impact these have for effective planning and management of health care. Armstrong and Baron emphasise the importance of communications and the sharing of the organisation's vision among employees, which is further emphasised by the findings of the EU-funded research study.

Sharing the vision of the organisation has become so much part of the management jargon that it is often equated to the production of grand statements in policy documents. What the case studies show, however, is that the sharing of vision must be a continuous almost daily task.

Means and channels of communication must be tailored to the prevailing organisational culture and structure. In small, flat organisations, formal and informal communications may not be a problem, but there is still a need to ensure that informal communication channels are matched with more formal and structured ones. In larger organisations with many management tiers it is the distance between staff and people with decision making powers that really counts. The NMCT case study in the UK took place in an organisation with 3500 employees, yet staff had and valued formal and informal means of communications with supervisors and line managers. In the Emergency Services organisation of the Basque autonomous region on the other hand, a relatively small and flat organisation with less than 75 employees experienced amazing barriers to communication between management and staff. This led to poor staff morale and was probably linked to very high staff turnover (31). In contrast, Pholosong was a small managed care organisation in South Africa where staff appreciated the open and informal communication channels (28).

Transparency and openness are two important features of effective communications that are perfectly compatible with the need for confidentiality of information originating in individual appraisal. In the context of performance management the results of appraisal must be kept confidential, but confidentiality should not prevent staff and managers from openly discussing and debating the accuracy and relevance of service and individual performance targets.

Finally, communications with legal representatives of staff such as trade unions is essential and may turn initial resistance to the introduction of performance management into support. The resistance of the Zambian trade unions to de-linkage of staff from the civil service is in contrast with the involvement of unions in the development of performance management and staff development initiatives in NMCT in the UK and Pholosong in South Africa (28,29,30). In the latter, unions in Zambia were formally involved in the process of reviewing the performance of the managed care organisation in terms of it meeting both patient and staff needs.

Leadership and effective management systems

An important ingredient to bring about change and improvement in systems is effective leadership. This involves having a vision of what is needed, sharing the vision with fellow managers and staff, and steering the process of realising that vision. In the ZESCO (Zambia) (28), NMCT (UK) (31), Pholosong (South Africa) (29) and CAPVO (Spain) (16) case studies this kind of leadership was present, but it would be wrong to expect such skills and drive to be available in public sector health organisations from many developing countries. Although there is a danger in relying on just one person since that person may move on (or be moved on) evidence that an organisation can respond to leadership is another good sign of the readiness to accept new systems such as performance management.

The same case can be made in relation to the degree of sophistication and effectiveness of the management systems used by the organisation to handle areas such as information, personnel, reporting or communications between different organisational levels. The public sector of many countries in the developing world suffers from many limitations in its management systems: information flows slowly and late and may not even be used; personnel records may not provide the information needed, or may not be updated; communications may be formal and bureaucratic, with no or hardly any feedback; etc. While we are not suggesting that performance management relies on highly sophisticated management systems, it is important to consider that its introduction may just add to the burden of service staff without attaining the desired focus on performance. On the other hand and by the same token, performance management may contribute to the improvement of management systems design in an organisation by identifying which aspects relating to performance are not being adequately addressed. In any case, policy makers must be aware of the trade-offs of attempting to build performance management within a weak health system.

A culture of accountability and openness

The prevailing culture in the organisation where performance management will be attempted (32, 33) and the 'societal culture' where organisations operate (34) are as important as management systems and leadership. In civil service (or ex-civil service) organisations, the main obstacles to performance management may originate in the attitudes of civil servants

and in the hierarchical nature of power and decision-making. It is a paradox that many civil service organisations may end up being so much staff-centred and so little client-oriented that staff easily develop a 'culture of entitlement and dependency' that becomes the main obstacle for performance management. The situation may be made worse when staff have been exposed to many years of ineffectual appraisal systems focusing on behaviour rather than performance.

Research in public sector organisations of Ghana, Zambia and Mozambique (11, 12, 28) reflect some of the issues mentioned above. Although Ghana has effectively de-linked health staff from the civil service Zambia only attempted to but was faced with stiff resistance the case studies show many civil service attitudes among staff. The use of close appraisal, where staff are not aware of the results of appraisal interviews, is common to the three case studies, although it is being abandoned in Mozambique in view of its irrelevance. It is hard to say how efforts to increase performance orientation would work in these three settings, but a degree of 'cultural rejection' should probably be expected.

As said for other prerequisites, phased introduction of performance management could render this type of organisations more performance oriented and could facilitate the process of change, particularly where health staff is no longer part of the civil service. But the changes that organisations undergo may be too great to allow for the installation of a performance management system requiring much preparation and careful implementation. For example in the Odi health district, there were confused reporting structures and a process of redeployment of staff from hospital to clinics was under way. In such a situation, the emphasis on performance may get lost (28). In contrast, NMCT (30) has undergone similar changes and is now facing the need for further radical changes. This organisation saw that active change management was necessary from an early stage and has identified this as a specific management process that requires its own strategies and skills. This has provided more stability in the organisation, and hence facilitated the development of the performance management system.

Gender Issues

References to gender are hardly found in the performance management literature, but the gender dimension of health care implies that certain approaches to performance management can reinforce gender inequalities (22,35). For instance, in health systems where managerial positions are overwhelmingly held by men or where (mostly male) doctors still take most

service-level decisions, the introduction of performance management is likely to mirror and reinforce the existing gender bias.

External Pressures And Triggers Facilitating Performance Management

The findings of our research suggest that health care organisations do not always have the means to develop greater performance orientation on their own. They need the synergistic support of external environmental factors that at times act as triggers and facilitate the establishment of performance management. The following are some external factors that were particularly significant in the context of organisations covered in the research study funded by the European Union. Somewhat arbitrarily we have divided external factors into the following categories: political pressures and health care reforms; financial pressures; decentralization client/user pressure; quality assurance introduction of purchaser/provider split and of service contracts.

Political Pressure And Health Care Reforms

Political pressure may take many forms and can be a trigger for greater emphasis on performance management. In the United Kingdom, the reforms introduced during the Thatcher years to the National Health Service forced service managers and senior executives to focus on performance and productivity targets. This focalisation has remained throughout the 90s and has been complemented by highly publicised scandals relating to failures of the National Health Service to deliver acceptable levels of service. Examples include: the Bristol Paediatric Surgery scandals; reports of patients dying unattended in ward corridors; or

the failure of the National Health Service to cope with the flu epidemic in 1999. These and similar accounts of malpractice and incompetence have kept NHS executives on their toes to demonstrate effectiveness of a service that is close to the heart of the British public and which forms a regular fighting ground at every general election. In Zambia, the pressure for reforms in the early 90s was initially strong, but has become seriously diluted as the government found the implementation of reforms increasingly difficult. It also met with opposition from the unions, which turned out to be much more powerful than had been predicted. The unions' threats of strikes forced the government to rethink its plans for de-linking staff from the civil service. This in turn has negatively affected plans to introduce performance management across the Zambian public health sector. Also in Zambia, the energy act enabled ZESCO to operate like a private company and introduce performance management (25).

Political pressure may act as a trigger but does not always force the health system to adopt effective staff performance, particularly if such pressure is short lived. The creation in the mid 90s of the Ghana National Health Service (partly) as a means to de-link service staff from the civil service is one such example. To this date, the establishment of performance management across the service has been attempted but remains elusive. This is exemplified in our case study from Ghana where an old fashioned, ineffectual staff appraisal system inherited from the civil service is still in place.

Although the two are often reported to go together, health care reforms are not necessarily an effective trigger for performance management. This is often linked to the fact that implementation of reforms is rushed through the system without due consideration of the organisational prerequisites that have been earlier discussed, including the need for effective leadership and management systems for performance management to work.

FINANCIAL PRESSURES

Budget cuts and the efficiency drive affecting national health systems throughout the word have brought about greater interest in performance management. Such interest, however, has seldom led to the establishment of effective performance management as illustrated in our case studies. For instance, budget cuts have often led to staff cuts that have negatively

affected service delivery, particularly when staff cuts are made across the board without due consideration of the need to maintain adequate complements of staff and skills mixes. Staff and budget cuts also negatively affect the attitudes and motivation of staff, particularly if pay levels remain low, by creating an environment antagonistic to the establishment of performance management (35).

INTRODUCTION OF PURCHASER/PROVIDER SPLIT AND SERVICE AGREEMENTS

Purchaser/provider split and service agreements may or may not be part of financial pressures, but separating funding from provision clearly provides opportunities and pressure for improved performance management. It is no coincidence that the most performance-oriented organisations in our research study have separated funding from provision, even if under different forms and for different reasons. In some cases, such separation has paved the way for competition to emerge within service providers. In the NMCT (UK) (31), CAPVO (Spain) (16) and CARE (Guatemala) (27) case studies, competition with other providers forced managers to provide attractive pay and reward packages in order not to lose good staff to other provider units. Thus, higher pay and rewards led to the development of performance management as a means to ensure value for money.

The NMCT (UK) (31) example depicted a provider organisation where the provision of resources is conditional on the attainment of service targets that are in turn linked to productivity indicators. This means that the only way for the Chief Executive to deliver on targets is to have well-motivated staff working in a positive environment. The competition for good staff among Community Trusts also forces the Chief Executive to pay staff at or slightly above market rates. The performance management system is therefore the means to ensure the achievement of targets.

When the funding and provision functions are not separated and remain part of a single organisation it is still possible to draw attention to performance through the development of service agreements. The term agreement suggests a different type of binding between the provider and funding sides of the organisation and refers essentially to an internal contract. Service agreements are too new for their effectiveness to be assessed. In theory, they should work as well as contracts between purchasers and providers. In practice, however, many service contracts are

too vague and remain poorly monitored, and staff do not relate to them, partly because increased delivery of services does not translate into increased availability of funds or improved working conditions. It remains to be seen whether service contracts of this nature can facilitate the introduction of performance management or at least focus the minds of providers towards individual performance.

DECENTRALIZATION

The decentralization of health systems is a sine qua non for effective management of staff performance. The most effective performance management approaches in our study all took place within decentralized health systems. However, what determines the feasibility of introducing performance management is whether decentralization has successfully achieved leadership, planning, flexible resource allocation practices and well functioning management systems at the local level. The reason why few 'decentralized' health care organisations in the public sector of developing countries have been successful in managing performance is probably that few of them have achieved such strengths at the local level

PRESSURE FROM SERVICE USERS AND QUALITY ASSURANCE

Public pressure, together with adequate legislation and formal complaints procedures, have increased the focus on quality, benchmarking and performance management in the British National Health Service. In our NMCT case study, for instance, every patient's complaint was replied to personally by the Chief Executive of the Trust. Quality assurance is not strictly speaking a performance management 'tool' but a common and possibly essential complement of performance management, providing a bridge between the focus on staff and the equally important focus on patients and service users. Many developing countries are beginning to adopt quality assurance approaches whose existence will undoubtedly facilitate the introduction of performance management for a number of reasons.

First, in quality assurance programmes, staff are familiar with the setting and monitoring of targets, and may have established formal review procedures very similar to the review of service and individual targets required in performance management.

Second, there is normally a person leading the quality assurance process whose role will have many similarities with that of steering the implementation of performance management.

And lastly, quality assurance provides structured means for service users to evaluate the quality of services. In these circumstances the views of service users can be a starting point for setting individual or team targets that can be incorporated into the performance management system.

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Assessing Performance Management of Human Resource for Health in South-East Asian Countries Aspects of Quality and Outcome

Don Bandaranayake

INTRODUCTION

Performance management is best defined as the development of individuals with competence and commitment, working towards the achievement of shared meaningful objectives within an organisation that supports and encourages their achievement (1). Ideally these individuals should be considered as members of a team. Performance management is basically concerned with optimizing the quality of work and technical efficiency in the health system through quality assurance strategies and mechanisms including built-in accountability at all levels of service provision, leading to accreditation, regulation of access to practice and surveillance of practice by professional councils (2). It is not a confrontational, one-way encounter with management or a formal interview for disciplinary action. It must commence with an acknowledgment of the overall vision, aims and objectives of the organisation, the lines of accountability, and a clear understanding of how the individual (or team) can best contribute. It must essentially include career planning or personal development and may also be linked to an incentive scheme.

When applied to organisations, the process relates to the goals and targets set by the organisation and the subsequent measurement of the outputs and outcomes by means of performance indicators. The measurement of performance as it relates to individuals has two main components. The first is in top management, where the managers are often on performance-based contracts. They are accountable for ensuring that the performance targets of the organisation are met and their performance measures are closely linked to those of the organisation. The second group refers to other employees who may not have direct accountability for organisational performance targets, but whose performance is still important

for the overall performance of the organisation. This is the larger group for whom performance appraisal systems apply.

Performance appraisal (PA) systems based on modern principles of human resource principles can enhance accountability by demonstrating success in achieving policy aims efficiently and effectively. They can also highlight service aspects where further inquiry and explanation are needed while making the responsibilities and achievements of staff explicit. The main difference between traditional PA and the assessment process as employed in performance management is that in the latter there is more rigour and a definite link with organisational objectives, incentives and individual development plans. It may also include self-appraisal. The traditional appraisal system sustains the hierarchy of authority by confirming the dependence of staff on those who manage them, and underlines who is the boss. This is not the emphasis in performance management, where these aspects are least important among all the other reasons for appraisal such as human resource considerations, training, promotion and planning (3).

In many countries in the south-east Asian region the concept of performance management has not taken root. Rather, at best it is traditional performance appraisal that is being applied. There have been recent efforts in a few countries in this region – Thailand and Sri Lanka, for instance – to move away from the traditional system. Performance management is not merely the appraisal of an individual's performance, although it has attracted criticism because of its appraisal function. It has unfortunately often been seen as merely replacing performance appraisal with no change in the actual process, just as human resource management in general has been seen as replacing personnel management without any change in approach (4).

It is pertinent to consider performance management in the context of the so-called New Public Management (NPM) movement. In addition to performance management, the core ideals of NPM include the separation of the policy and financing functions of the government from its operational functions, especially service delivery. It places great emphasis on the introduction of performance incentives and financial control and on the measurement of outputs of both individuals and organisations, in line with stated objectives. Moore (5) has indicated that in the longer term NPM will be more influential in developing countries than the traditional approach.

In the educational sector, performance appraisal or teacher evaluation is becoming mandatory as a consumer-oriented economy insists on obtaining value for the education dollar. The same cannot be said for the service sector, where even basic peer review efforts have not been easy to initiate. The more enlightened schools are adopting a process of performance appraisal where, at the commencement of an academic year, each teacher with his/her administrative head identifies goals and priorities for self-development for that year. At least one more meeting is held at the end of the year to ascertain to what extent these goals have been reached. This process gets close to the concept of performance management. Such methods have not been adopted to any great extent in developing countries (6).

MEASURING PERFORMANCE

The measurement of performance related to quantified objectives and remuneration according to results is one of the guiding principles of the NPM. Measuring outputs/outcomes of the activities of many public health agencies may be very difficult or even impossible, and such efforts may consume already scarce resources. Even in the best-developed organisations or systems it is difficult to measure health outcomes. They require a long-term perspective and indicators that cope with the influence of other variables or confounders. The measurement of outputs is relatively easier where a good computerized information system is available. Although client-generated records are the main source of information for performance appraisal in medical care, specific performance indicators (PI) could benefit by the inclusion of qualitative data based on observation. Appropriate performance measures should primarily ensure that client or customer requirements have been met. They must provide standards or baselines against which meaningful comparisons can be made and highlight the areas that require priority attention. The development, use and sustainability of performance indicators at individual or service levels will be possible in developing countries only if those involved at all levels can gain some benefit from them. Benefits should be for the organisation as a whole as well as at an individual level, e.g. the introduction of a merit-based career advancement and reward system.

Commonly used performance indicators represent selective and imperfect attempts to assess performance in particular areas using mainly subjective methods. Furthermore, most performance measures in current use are results-based and do not give any information on how the results were achieved. In the provision of health services the process of providing the service could be as important as the results. The measures employed may not give precise information about the performance of individuals as opposed to team efforts, and success could be attributable to factors outside the system itself. These measures should therefore relate to individual competences referring to the dimensions of behaviour that result in competent performance; these measures should also focus both on inputs (what competences each individual brings into the total service) and outputs or accomplishments. Impact measures such as beneficial changes in quality, standards of service, behavioural effects and innovation are equally important. It is often difficult to measure individual contributions to the service as a whole. Measures therefore may include individual productivity indicators, as well as service utilization rates and service provision relative to demand. A checklist of skills that identifies a competent worker may include relationships, communication, knowledge, judgment, teamwork, attitude, effectiveness, initiative, prioritized decision-making and accuracy in achieving work objectives on time (4). A performance appraisal format currently used by the International Council of Nurses for their performance management scheme lists competences in alphabetical order as: communication; corporate image, policies and protocols; customer service; equipment; information; interpersonal relationships; learning; leadership; networking; teamwork; planning/work practices; safety. Each of these competences has several indicators, e.g. the safety competence indicators are listed as: knows fire safety procedures/equipment; knows occupational risks; practices safe techniques; understands basic first aid (7).

A project for the implementation of performance indicators and evaluation pilot study conducted recently in the service sector in Sri Lanka (8) has indicated clearly that performance indicators imported from developed countries cannot be applied in toto in developing countries, although some core elements may be used in framing a country-specific set. Such adaptation and application of indicators was found – not surprisingly to require the commitment of national senior management staff and the availability of trained technical staff with analytical skills. The authors also

indicate that the application of performance indicators is of no use in itself unless managers are empowered to act on those deficiencies that have been identified. For such actions to take place there must be clear definitions of responsibility, accountability structures, and authority for local managers in a decentralized system. The study concludes that it was essential to understand the local management culture, apprehensions and sensitivities when such indicators are developed. The use of performance indicators also requires some central guidance and initiative supplemented by specific objectives in terms of management and standards of service provision. Most of these observations would apply to the development and implementation of individual performance management indicators in south-east Asian countries. The same team also looks at the possibility of applying the indicators in Nepal and concludes that it is not currently feasible at this very early stage of decentralization in the health system. The situation has been further complicated by a recent change in government and by uncertainty about the speed of introduction of planned service reforms.

Performance at an individual level cannot be divorced from incentives. In the NPM movement remuneration may be based mainly on financial or material incentives. In a situation where workers receive a decent wage, non-material rewards may be more acceptable as employees value them more in the long-term; these include peer recognition, a sense of making a contribution to the overall impact of the service, and companionship/solidarity with fellow workers. (9). The economic criterion of "value for money" is unlikely to be the only or even the main criterion in a public health service. The above-mentioned study in Sri Lanka (8) finds that for central and provincial managers in the health system, non-financial incentives such as career development, training opportunities and fellowships and even simple recognition are more appropriate, while hospital managers prefer financial incentives.

At a time when gender equity is high on the agenda in all countries of the region, the question of gender bias in terms of existing performance appraisal systems will need to be addressed. Although there is no empirical evidence, the current purely subjective systems of performance appraisal appear to disadvantage female workers at least in some countries. The introduction of a merit-based scheme will undoubtedly be more equitable. The abuse of performance appraisal methods based on subjective assessments of supervisors, a fact of life in many developing countries, can

antagonize employees against the organisation, particularly if this appraisal is linked to an incentive scheme. The introduction of a reward system based on improved performance of the service or institution as whole but reserved only for managers is common practice in many developed countries. This too can lead to employee frustration and even hostility towards management, since employees will rightly feel that their own contributions are not being acknowledged. Rewards to senior staff from superiors for good performance on political grounds can eliminate beneficial but politically unacceptable independent judgment and initiative (5). Accountability is a key requirement in performance management. It means holding public officials responsible for their actions. Accountability can be thought of as financial transparency, a focus on the aims and objectives of the total programme, as well as quality issues to do with health care procedures and activities. Process accountability is also critical in measuring the outcomes of clinical care (10). Accountability is based on the job description and responsibility to line management. It can also be extended to other, more general organisational policy objectives. For example, in Bangladesh, community involvement at all levels of service planning and delivery is stated as a policy in the Health and Population Sector Programme (HPSP) (11). Those directly involved in such activities can be held accountable for delivering services that demonstrate community participation.

Quality Assessment and Quality Assurance

The ultimate aim of performance management (or performance appraisal) is to optimize the quality of work and efficiency in the health system. Quality may simply be defined as fitness for purpose (12). Assessment of the quality of an individual worker's output, the product of a team effort, or the service as a whole is practised increasingly within health care systems in most countries. Quality assessment and quality assurance are closely related. The former is an essential first stage in identifying what action is required for attaining the latter. Assessment is a process of evaluation that does not by itself guarantee the outcome of a quality service unless some action is taken on the findings.

All approaches to quality assurance share the common theme of measuring actual performance and its comparison with either expected or normative standards. The ultimate aim is to create a "culture of quality" in

the workplace. For this to happen however it is essential that the institution or service is at the right stage of development and ready for changes that initially may appear, and usually are regarded, as being punitive. quality assurance initiatives can take root and flourish best in an environment in which everyone involved in health care activities is supportive of quality, alert to problems of performance and opportunities for improvement, and prepared to take responsibility for setting in motion the changes needed to improve care.

Total Quality Management (TQM), a relatively recent development, is applied at an organisation or unit level in which all employees regularly and systematically use quality assurance tools and methods to improve their work. Initially applied in industry, it incorporates a culture of worker empowerment, employer support, and incentives for continuous improvement. TQM emphasizes the importance of considering (and rectifying) the defects and deficiencies in the system and its components in the effort to optimize individual and service performance (13). It uses a proactive approach that calls for continuous improvement in the whole process and not only in the actions of individuals that provide the care. This concept is already being used in some countries in the health care setting. Although the attainment of a reasonable standard of health for all is the ultimate objective for a good health system, it is not enough. There will always be concerns about how that objective is met, i.e. how the health services are run. Such concerns are very much informed by local social values, and the social relationships that underpin the fabric of society. It is the process as well as the outcome that demands quality. TQM is very much concerned with these aspects of process. The links between process (intervention) and outcome cannot be taken for granted and must be rigorously tested.

Large scale quality assurance studies in both education and service sectors, unlike what happens in clinical trials or experimental studies, often encounter major and even insurmountable difficulties in controlling for intervening variables. The service-oriented structure-process-outcome paradigm of Donabedian (14) and the decision-oriented model of Stufflebeam *et al.* (15) in the domain of education are both useful to consider in systems research efforts for quality assurance. Both models focus on outcomes and attempt to validate outcomes by demonstrating causal linkages with the process. Retrospective studies have become more

accepted in this context, although not all outcomes are necessarily "caused by" stated inputs; a physicians' expertise in practice, for instance, cannot be assumed to be a direct result of education. To reduce the complexity of such studies only a few outcomes are usually studied at a time. The "tracer concept" (16) is a successful method to study several key outcomes simultaneously while maintaining validity and keeping confounding to a minimum.

A report from the WHO Regional Office for South-East Asia on quality assurance activities in the blood transfusion services has indicated that they are at different levels of development in Member States. Some countries e.g. Thailand, are striving for ISO norms with vibrant well-developed systems. Others, are experiencing a number of constraints that prevent them from making quality assurance activities fully operational (17). Not all countries have implementable national policies. Countries that do have such policies also have a better infrastructure in terms of budget, trained personnel, donor recruitment, appropriate screening, and quality. However despite the existence of such policies, the blood safety record in some countries is poor due to lack of government commitment, frequent government changes, limited financial resources, and lack of trained personnel (18).

When attempting to provide a high quality service, it must be appreciated that some factors that lie beyond the control of the individual. In all developing countries there are infrastructural, procedural, climatic, political, and communication factors that affect outcomes and quality. A recent assignment report on biochemical laboratory services from the Maldives states that "the assessment of quality is non-existent". It identifies some of the reasons for this state of affairs in relation to the regional hospital laboratory service. In addition to transport difficulties, these reasons include the detection of slides and reagents long since out-of-date and the observation that the target values on quality control material were unknown because the relevant package insert was not available. The author states that "given the weakness of the infrastructure, the commencement of an external quality assessment (EQA) scheme is not a feasible proposition. The notion that EQA can be a high priority in such circumstances is wrong" (19). Perception of problems in laboratory-based clinical microbiology were reported following consultation with key informants in an assignment report from India. These were identified as under-funding,

lack of training, poor career structure, uncertainty as to the quality of reagents, lack of quality standards and procedures, lack of effective central planning and leadership, lack of consensus and coordination among professions, and lack of tools for measuring quality and stimulating improvements (12). Although these were service-based quality assurance reports in specific situations, such concerns and constraints are likely to apply in some of the other countries in the region. They are also undoubtedly pertinent to the issue of performance appraisal for individual employees.

Feasibility of Introducing Performance Management in Developing Countries in South-East Asia

The possibility of introducing performance management in the developing countries of south-east Asia could usefully be discussed by taking into consideration the wider concept of New Public Management (NPM) as described in the foregoing section. The introduction of NPM requires several pre-requisites, the most important of these being the existence of a reasonable "basic" public health sector with a high technical capacity and transparency. In most developing countries such requirements may not easily be met.

Segall (9) has indicated that NPM ignores the basic ideals of a humanitarian public health service and that not all workers will value financial gains in the new management system. There is however a possibility that the idealistic expectations of the workforce for employer approval and peer-recognition may no longer apply in the new millennium. Job satisfaction is essential but, given that base, many of the younger generation of employees in both the public and private sectors prefer financial incentives to the so-called "inner generated ethic of service".

The critical requirement here is the existence of a "reasonably funded health service". The non-tangible rewards of recognition and self-esteem are only applicable in situations where workers receive a decent wage, a condition that does not obtain in many developing countries. In these countries the main incentive is financial reward. Many private organisations reward satisfactory performance, as judged by a rigorous appraisal system, with special bonuses and recognition. Bonus-linked performance management systems in general have been established and

continue to produce results in the private and public sectors in most developed countries. By and large such practices have not been adopted in the state sector in developing countries to any great extent, primarily for reasons of affordability. Since benefits accruing from such schemes can be substantial, more research is necessary in this area.

Many problems are inherent to the developing countries. They include: weak management capacity; inadequate management rules and practices; lack of planning, supervision, evaluation, and control; absence of accountability mechanisms; lack of understanding of responsibilities, regulations, and line relationships; and poor management training combined with inadequate tools for proper management. Supervision is taken mainly as an authoritarian task and not seen as a strategy for staff development and a supportive mechanism for both improvement and maintenance of quality. The reported implications of the above deficiencies include a widening of the gap between service needs and service provision, the expenditure of an inordinate amount of energy on addressing targets while neglecting the needs of individuals, the dissatisfaction of staff and their clients, a shift of clients to the private sector and a high rate of vacancies in the state-funded service sector (11).

The introduction of any management change that threatens established patterns of work and performance norms is difficult even in developed countries. Maintenance of the "status quo" is often seen as less threatening than the adoption of a new system, particularly for the more senior personnel and those in positions of power. The system of automatic promotion based on seniority is well-embedded in most developing countries of south-east Asia. There is a strong possibility that those already in senior positions or aspiring to be so might lose out if merit criteria were to be introduced as a requirement for promotion or wage increment. In such circumstances, antagonism to the introduction of a performance management or a modified performance appraisal system may also be expected to originate from the more senior personnel. These are also the people who can block any change. Those who might really want change will have no voice and hence no input into policy decisions.

The most successful application of performance management as observed in some private companies has occurred where all staff categories were brought into the scheme. Applying performance management only to the "lower" staff categories results in a greater divide between managers and

employees, as well as a further enhancement of the hierarchical system that pervades the service in developing countries of south-east Asia. However, performance management can be used only for the higher or professional staff categories, including most importantly top-level managers. As already stated, at the top management level, the indicators used for measuring performance would be based on the objectives and targets of the service as a whole for which they are held accountable. The Sri Lankan approach in performance appraisal seems to be restricted to the professional cadres.

It is rather tempting to apply an appraisal system to those staff categories invariably the "lower" level field workers who have to meet quantified targets on a defined time scale e.g. so many home visits per month. This is being done already in some countries including Bangladesh. It is however a far cry from a recognized performance management scheme. The question of performance appraisal is one that will appear at the top of any list of priority issues in human resources development (HRD). Experience in Bangladesh has indicated that external assessment of performance is usually unwelcome.

In the medical education sector, staff evaluation by students is seen as being inappropriate and unnecessary. In addition to a genuine fear of being identified as a poor performer, this attitude may be seen as another indication of a strongly hierarchical culture. In the service sector, the existing annual performance review, occasionally referred to as "a waste of both time and effort" (11), is seen as being adequate, and current efforts to introduce a new system will undoubtedly meet with firm resistance.

The greatest barrier to reform is rarely the cost or complexity of organisational change. There are several systems in existence that can be adapted to suit the specific requirements of a given country – including its social and cultural norms. The organisational culture and well-entrenched management systems are likely to be the greatest constraints to change. In bureaucracies that rely heavily on hierarchical systems based on archaic rules and regulations governing discipline, authority and power, even a well-planned attempt to institute change is unlikely to meet with much success. Sri Lanka introduced a new performance appraisal system for the public sector in 1997. This was extended with suitable modifications into the whole health sector and launched country-wide (20). A WHO-sponsored study to review this system has indicated that it is not operating as expected due to a lack of commitment from top management. Although

the reasons for such a lack of commitment have not been indicated it is likely that some of the foregoing constraints may have applied.

New systems involve participation of the person being appraised, and are based on performance assessment methods that utilize non-subjective validated measures rather than personal factors. Expected competencies and indicators are clearly defined and understood by both the person appraised and the supervisor. If the culture of the organisation is not geared to such a view of performance, performance-based appraisal or management systems are therefore unlikely to succeed. Recent research evidence following a pilot study of a trial of performance management system in South Africa indicates that in organisations that are not "performance conscious", attempting implementation may do more harm than good. Other reports from case studies in developing countries have indicated that efficient staff management is not perceived as having high priority in health systems that are starved of staff, equipment and supplies (21).

Given both will to change and motivation, the question of timing becomes all-important. Even in highly developed countries, initial at tempts to introduce performance appraisal systems have failed because the organisation was not ready for change. The optimal time for introduction of a performance appraisal system is when the organisation as a whole functions as one cohesive unit with clear aims, vision and objectives, and when all members of the workforce know and appreciate what is required from each of them. Such conditions may not apply in the state sector in most developing countries where employees struggle with low wages, poor job satisfaction, lack of guidance and fear of redundancies, all of this in a climate where information is lacking.

Major health sector reforms require a well-established communication system so that all employees are kept informed and indeed are given an opportunity to participate in discussion and debate. In Bangladesh for instance, where the implementation of such reforms is currently underway, many employees, including senior academics, do not know much about the reasoning behind policy decisions. At recent orientation meetings on the Health and Population Sector Programme (HPSP) , conducted in all state-funded medical colleges, a preliminary questionnaire to determine current knowledge indicated that less that 20% of participants even knew what the Essential Services Package was. Even

fewer could state what the letters HPSP stood for, even though this is the main structural reform currently being implemented. In such situations, where the employees have not been "taken on board" at the outset, it is extremely difficult to motivate them to adopt new human resources procedures that are seen as being part of the reform package.

A check-list of essential preconditions for the introduction of a performance management scheme in south-east Asian countries is given in Box 1.

Box 1. Core Questions an Organisation Will Need to Ask Before Implementing any Performance Management Scheme:

Does the organisation have a well-articulated vision from which specific objectives and targets have been derived and both understood and accepted by all workers?
Are there clear job descriptions for each employee (or category) that indicate specific responsibilities and lines of accountability?
Is there a defined career structure with specific criteria for movement up the ladder and are these criteria based on merit/satisfactory performance rather than simply on seniority?
Is it possible to introduce a performance incentive scheme or reward system if one does not already exist?
What is the scope for the introduction of a personal development plan linked to an annual appraisal scheme?
Are there sufficient numbers of committed senior staff who are trained as managers and value the basic principles of a performance management scheme?
Do the managers have sufficient authority within the existing system to take key decisions in order to rectify deficiencies detected either at an individual level or in the service as a whole?
Can the existing organisational culture be changed from one that is based on archaic rules and regulations governing discipline, authority and power, to one which values good performance and a client-focused service of high quality?
Is there an accurate, up-to-date, computerized personnel data-base?

The existence of even the most highly trained, competent, well-motivated and adequately remunerated personnel in any organisation in no way guarantees the quality of the end product. There may be major constraints to performance that are outside the influence of the workforce and even outside the organisation or system itself. Such constraints prevail in most developing countries. Performance needs assessments can readily identify financial, material, and human resources constraints that hinder

optimal performance. Such efforts however rarely identify the more important and usually more sensitive obstacles such as political demands, policy issues, and inter-personal relationships that pertain to an institution or situation. Any performance appraisal scheme that does not take these factors into consideration may not be acceptable and will do more harm than good to the organisation as a whole. Before we can suggest the introduction of a performance management process at the service level it should be mandatory that these non-technical factors affecting performance be identified.

Even as major structural changes are taking place, process initiatives such as the introduction of a performance management system may be initiated with appropriate preparation. Some countries have indeed focused on reforms in human resources management as a first priority to go hand-in-hand with re-structuring, in particular with a move to decentralization. The latter provides a valid reason for introducing reforms in human resources management, including performance appraisal or management systems. Indeed there is a need for using such measures in keeping overall strategic direction and control in a decentralized system that will result in more rather than less decision-making foci. Since such reforms are already taking place in many countries in the south-east Asian region, the implementation of reforms in human resource management has become an urgent necessity. Whether such reforms should include a performance management scheme is another question.

CONCLUSION

The concept of performance management is not sufficiently well understood nor appreciated in the health systems of most developing countries in the south-east Asian region. If initiated in its current format and in the existing organisational environment it is unlikely to be a success. The experience in Nepal shows the reality in the service sector and such constraints may apply to other countries in the region. Even in Sri Lanka the introduction of a new performance appraisal system, rather than performance management, has not been a total success, with less than optimal support from management. The rigid hierarchical structures that obtain in most developing countries in the region will also act against the initiative unless there is no threat to those in positions of power. This in

effect may mean the introduction of such new systems – by compulsion – at the lower levels only, resulting in a further emphasis and encouragement of the existing power structure. Such a result would be very much against the philosophy of performance management and its ethical principles.

In the absence of a reasonable "basic" public health sector with a high level of technical capacity and transparency, the introduction of even a modified performance appraisal scheme is almost certain to be seen as a threat and met with resistance at all levels. Although there is a move to introduce new concepts and implement performance management systems in some developing countries with the assumption that such introduction itself will change the culture of the organisation, there is no evidence to support this assumption.

Basic orientation programmes are an essential first step in any attempts to introduce even minimal change in the whole area of performance assessment. The initial introduction of a merit criterion as the main requirement for promotion, consideration for fellowships, or wage increment would be a good beginning in the overall human resource management process. Such measures will undoubtedly have a effect in improving quality and performance.

The picture is somewhat different for a well-designed quality assurance process in both educational and service sectors. Ideally the institution or service should be at the right stage of development for optimal benefit from a quality assurance system. In fact, some countries in this region are already implementing quality assurance even in the absence of a suitable organisational culture and with some success, particularly in the educational sector. Further encouragement along these lines leading to formal accreditation mechanisms is feasible given the necessary legislative structures and support.

It is time for the more "advanced" organisations and health systems within the region to move into TQM. In any or all of these initiatives a comprehensive, timely and accurate information system is now an essential requirement. Such systems are not always available in the developing countries in the region although they are in the process of being developed or implemented. The importance of non-technical factors affecting performance in many countries cannot be over-emphasized. Some of these are seen as being outside the direct influence of even senior management. Unless transparency extends to such sensitive areas of undue influence,

performance and quality can never be judged fairly and, more importantly, cannot be optimized to enable the health care "customer" to receive maximum benefit from the service.

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Pay and Non-pay Incentives, Performance and Motivation[‡]

Vern Hicks and Orvill Adams

INTRODUCTION

The World Health Report 2000, Health Systems: Improving Performance, defines incentives as "all the rewards and punishments that providers face as a consequence of the organisations in which they work, the institutions under which they operate and the specific interventions they provide" This definition suggests that the organisation, the work that is done and the setting in which work takes place will determine the incentive used and its resulting impact. Buchan et al add another dimension by defining an incentive in terms of its objective: "An incentive refers to one particular form of payment that is intended to achieve some specific change in behaviour" (2).

This review is intended to provide an overview of the current evidence on the effect of pay and non-pay incentives on health workers' performance and motivation. The literature on incentives is primarily focused on the impact of specific incentives on provider behaviour, especially physicians. There is much less work on the structural and organisational aspects of incentives. This paper primarily uses as its base two papers recently completed for WHO and in publication (2, 3). The first paper is based on a search of English language publications, using library and CD-ROM facilities. The review as reported by Buchan et al covered the following databases: Social Science Citation Index (SSCI), BIDS, CHNAHL, Psyc Lit, FirstSearch, Medline and Health Management Information Consortium (HMIC). A total of 352 articles and papers were identified. The paper by Hicks and Adams is based on ten country case studies using a common framework for analysis developed by WHO. The countries in the study (Bahrain, Bangladesh, Côte d'Ivoire, Estonia, Ghana, Islamic Republic of Iran, Kyrgyzstan, Mongolia, Nepal and New Zealand)

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have all undergone health policy changes in the past decade which explicitly addressed incentives, especially in regard to providers.

These two very different approaches for collecting evidence and experiences are augmented by a selected set of recent studies that focus primarily on incentives and their impacts.

The paper is organized in three sections. The first presents the range of both pay and non-pay incentives and begins to link incentives to objectives. The second presents a review of evidence about the impact that incentives have on provider behaviour and the third section outlines some of the key factors in making incentives more effective.

RANGE OF INCENTIVES

Buchan *et al.* offer a typology of incentives that can be included in remuneration packages as represented in the following table. They define remuneration as "the total income of an individual and may comprise a range of separate payments determined according to different rules". 'Payments' in this context refer to both financial and non-financial incentives.

Table 1. Typology of Incentives.

Financial	*Non-financial*
A. Pay	Holiday/vacation
B. Other direct financial benefits	Flexible working hours
Pensions illness, health, accident, life insurance,	Access to/support for training and education
Clothing, accomodation allowance	Sabbatical, study leave
Travel allowance	Planned career breaks
Child care allowance	Occupational health/counselling
C. Indirect financial benefits	Recreational facilities
Subsidized meals, clothing, accomodation	
Subsidized transport	
Child care subsidy, crèche provision	

SOURCE: Buchan J *et al*, 2000 (2).

Chaix-Couturier *et al.* (4) in a systematic review of the effects of financial incentives on medical practice initially identified 130 articles on the subject and accepted 89 that met their defined criteria. They offer a typology of financial incentives inherent in different types of remuneration. The principal difference between the two approaches is their scope, with the typology used by Buchan et al comprising a total pay and benefit package and Chaix-Couturier et al focusing on types of payment that are typically used to remunerate physicians for providing medical care. The Chaix-Couturier approach is more in line with common interpretations of physician remuneration systems as incorporating one or more of four strategies: capitation, shared financial risk, fee-for-service and salary.

Prospective payment incentives provide a measure of risk to physicians. In capitation by physician the physician is given a sum of money to provide ambulatory care for his or her patient population and the sum is adjusted for financial risks incurred by the managed care plan. In capitation by patient the physician is given a sum adjusted to the number and type of patients who register in his or her office.

Bennet defines payment strategies, or mechanisms, and key incentives for providers (Table 2) (5). This approach is based on economic theory in which responses are assumed to reflect an effort by physicians, as suppliers of service, to maximize incomes subject to constraints imposed by fees set externally and payment mechanisms. In the case of medical care, economic incentives are one of many factors that influence practice patterns. Other considerations include professional ethics, training, experience and the nature of relationships between the provider and paying agency (6).

Table 2. Key Payment Mechanisms

Payment mechanism	Key incentives for providers
Fee-for-service	Increase number of cases seen and service intensity. Provide more expensive services.
Case payment (DRG)	Increase number of cases seen, decrease service intensity. Provide less expensive services.
Daily Charge	Increase number of bed-days (through longer stays or more cases)
Flat rate (bonus payment)	Provide specific bonus service (neglect other services)
Capitation	Attract more patients to register while minimizing the number of contacts with each and service intensity.
Salary	Reduce number of patients and number of services provided.
Global budget	Reduce number of patients and number of services provided.

SOURCE : Bennett S, 1997 (5).

ALIGNING INCENTIVES WITH OBJECTIVES

The economic approach to incentives in purchasing health services was discussed in WHO's World Health Reports (WHR) 1999 (7) & 2000 (1) under the heading of 'strategic purchasing'. The focus there was on purchaser provider relationships, and the objective was to develop relationships in which appropriate packages of health care could be purchased. These packages could include discrete services or they could encompass comprehensive care to be provided on a long-term basis. In these relationships capitation or fundholding and contracting involve risk sharing in the sense that the provider agrees to accept responsibility for providing a negotiated bundle of services according to agreed standards of care at a fixed rate; the purchaser undertakes to finance care for insured populations and to be accountable to the public (or clients if the purchaser is a social security plan or private insurer).

WHR 2000 (1) also discusses the effects of incentives on organisational performance – in effect extending the analysis of the role of incentives to health care funding agencies. Incentives that affect

organisational performance can be divided into internal and external incentives (Table 3). Internal incentives affect decision making powers and can have profound effects on performance. As an example, the degree of autonomy and accountability will determine the extent to which incentive mechanisms, rather than explicit direction, will be necessary to ensure best performance. There is an obvious analogy between internal incentives in organisational performance and internal incentives in the management of the staff of an organisation. External incentives refer to methods used by health systems to control the activities of health organisations or funders. Regulation, for example, is used to limit governance decision rights so that the public interest is not jeopardised. Private sector organisations typically have high levels of decision rights and require strategic regulation, whereas public sector agencies are normally subject to hierarchical control, obviating the need for regulation.

Table 3. Internal and External Incentives

Internal Incentives	*External Incentives*
Decision rights(autonomy) Accountability	Governance (responsibility for decisions and control over residual income).
Market exposure (risk)	Financing directed toward public policy objectives.
Financial responsibility Unfunded mandates (e.g. to care for those with special needs without extra compensation)	Control mechanisms (the degree to which regulations or financial incentives are necessary to obtain desired policy objectives).

SOURCE: WHO, 2000 (1).

The internal and external incentives discussed in WHR 2000 illustrate the pervasiveness of incentives in economic relationships and the need to link incentives to objectives. Research into the effectiveness of various incentives in organisational behaviour is clearly of interest to health policy makers. Within health organisations and agencies, incentives are similarly important to the achievement of objectives. Much of the research literature on incentives (e.g. contracting and regulation) can be classified as dealing with incentives to organisations or independent contractors (e.g. independent professionals). An understanding of how organisations or contractors respond to incentives is incomplete, however, without parallel

insight into how incentives affect performance within organisations or institutions.

The link between organisational objectives and personal motivation is the psychological contract between the individual and the organisation (8). This describes a reciprocal relationship which may be defined as the mutual expectations of the individual and the organisation with each other. The psychological contract is often unwritten and unspoken, but nevertheless represents each party's expectations for the relationship's continued existence (9).

The psychological contract, for many individuals, includes an intrinsic belief that their work will give them a fulfillment which has many dimensions: it concerns self-actualization, a sense of achievement, recognition, responsibility and the quality of personal relationships in the workplace. It is increasingly being recognized that these sources of motivation are vital for managers to consider in HRD (10).

FROM ORGANISATIONAL OBJECTIVES TO PERSONAL MOTIVATION

In the context of health human resource management, incentives to health workers are necessary to obtain system-wide objectives such as the right balance of skills in the workforce and an appropriate geographic distribution. Incentives are also important to internal efficiency and effectiveness – examples include the experience and skill levels of staff, ability to work as a team and motivation to identify personal accomplishment with the achievement of organisation objectives. As we will discuss later, there is a special need for research into incentives that seek to affect personal motivation rather than simply elicit an economic response.

Personal motivation of health workers often is not explicitly considered in health reform policies. The link between policy initiative and worker motivation is complex and careful study requires an intellectual framework that recognizes the importance of individual, organisation and societal factors in motivation. A conceptual framework developed by Bennett and Franco recognizes a number of factors (11): individual level determinants, individual needs, self-concept, expectations of outcomes or consequences of work activities; organisational context, salary, benefits, clear, efficient systems, HR management systems, feedback about performance, organisational culture, social and cultural context,

community expectations and feedback; health sector reform, communication and leadership, congruence with personal values of workers.

The framework was discussed at a workshop in 1998, where several countries reported experience with worker motivation in health sector reform (12) Positive experiences were reported by Kazakhstan, where primary care reform provided greater prestige for health workers while financial rewards and effective communication were used to recognize performance. Zimbabwe reported negative effects of reform on motivation, which were attributed to low salaries and limited or ineffective communication with workers. Mixed experiences were reported by Senegal and Chile, where success factors included financial and non-financial incentives (such as increased status and improved working environment); negative factors included changes in management structure due to decentralization that created conflict between local governments and workers. The need for clear lines of authority and for autonomy of senior personnel was also highlighted as important issues in motivation. Other analyses of decentralization have identified risks to worker motivation in decentralization of authority for health systems. Risks include the potential for organisational roles and responsibilities to become conflicting or inappropriate; changes to organisational or worker responsibility may be poorly communicated and managerial competence may diminish (13).

However, it is also worth noting Schein's Complex Model (14), in which he suggests that because human needs vary across a life-span and from person to person, incentives will vary in their impact on motivation depending on the person and upon the stage of life at which they are offered. He suggests that universal approaches to motivating the individual do not recognize the complexity of people. For this reason, measurement of worker motivation is important to develop appropriate feedback mechanisms for human resource management. While measures of responses to individual determinants may be reasonably similar in both developed and developing countries, the latter group of countries will require customized measures of responses to organisational factors, taking into account cultural incentives and environmental constraint (15). Decentralization requires a concerted effort to build management skills for planning, implementation and evaluation at local levels. Decentralizing the process for rewards and

promotions was also identified as a potentially important factor for worker motivation in Ghana (16).

Impact of Incentives On Behaviour

Physicians and Other Independent Professionals

The choice of payment mechanisms has significant implications for mode of practice and work codes as a result of the tension between financial incentives and professional value (17).

There appears to be general agreement in the literature on the key differences between fee-for-service, capitation and salary in terms of their key incentives. The literature suggests that the impacts of incentives in general can be thought of in three ways: (i) financial impacts on providers in capitation or shared-risk plans; (ii) risks to the quality of care (4, 18, 19); (iii) impact on patient confidence. With respect to quality of care, the following risks in managed care and risk-sharing plans were identified in the review by Chaix-Couturier et al: limited continuity of care, in particular for patients suffering from chronic illness; reduced range of services offered to patients, particularly in the case of prevention and psychological support; under-use or improper use of emergency services resulting in delayed treatment - and related complications; risk of ethical conflicts; multiplicity of guidelines from different plans recommending different courses of action for the same condition; reduced time for teaching and research; reduced confidence of patients; the major risk identified remains that of conflict of interest between the physician and the patient, across all populations, including both low-risk and high-risk patients. The review found evidence of: increases in volume in response to fee freezes leading to higher expenditure; redistribution of patients from high income to low income physicians when ceilings were placed on annual earnings; higher rates of elective surgical procedures. Salaried physicians also referred patients less frequently than fee-for-service physicians; had lower levels of activity; and tended to have fewer home visits and to concentrate activities during office hours.

Another review that focused on salary payments found twenty-three papers in the international literature that dealt with practice patterns of salaried physicians(19) The papers suggested that salary reimbursement was associated with lower use of tests and fewer referrals compared to either

fee-for-service or capitation and fewer procedures per patient, lower patient loads, longer consultations and more preventive care compared to fee-for-service physicians. None of the studies were able to judge whether the more conservative patterns of salaried physicians were more efficient in terms of patient needs. It is also important to recognize that doctors' behaviour may be influenced by other incentives such as organisational level payments, limited drug lists, therapeutic protocols and high levels of peer review. A confounding factor in cross-sectional studies could be that physicians are attracted to certain remuneration modes as a result of their own preferences for particular practice styles.

Blended payment methods are being used increasingly in managed care plans in the United States. Blended payments usually combine fee-for-service for certain types of care and capitation for others services, notably primary care and prevention. A 1996 survey of independent practice associations in California, comprising 49,000 physicians, found that capitation tends to be used more frequently for GPs than for specialists (21) Evaluations suggest that blended payments perform better than non-blended payments in terms of providing incentives for types of care desired by the paying organisation (22).

Lessons about the use of payment incentives identified in the review by Chaix-Couturier et al were: practice changes in response to financial incentives result from economic factors rather than professional motivation; consequently they may not be effective as the only method of implementing public health policies; financial incentives should not be structured in a way that can create a conflict of interest between revenue and quality of care; adjustment of financial incentives to reward quality is very difficult in practice; disclosure of incentives is necessary to maintain trust in both physician and paying agency.

Financial incentives to physicians may cut across all payment mechanisms. A particularly controversial type of incentive consists of rewards or benefits provided by the pharmaceutical industry. A recent literature review of physician-industry relationships found that physicians' professional behaviour was affected by industry incentives and recommended the issue be addressed through educational programs and regulatory policy (23).

DISCLOSURE OF INCENTIVES

Disclosure of incentives is a topical issue in the US due to regulations passed by the Health Care Financing Administration in 1998 in an attempt to avoid conflict of interest by physicians in managed care plans that treat Medicare and Medicaid clients (24). Disclosure is expected to improve patients' understanding of treatment rights (25). Some analysts suggest that patients may be reluctant to think of relationships with their physicians in terms of financial incentives, may not understand the relevance of information on incentives to their own treatment and may experience an erosion of trust in their physician (26). Others have suggested that disclosure of incentives be limited to the information that patients want at the time they need it, rather than blanket disclosure of all incentives that potentially influence care (27).

PHYSICIAN RESISTANCE TO INCENTIVES

Financial incentives that limit incomes or non-financial incentives that increase administrative (transaction) costs and threaten professional freedom can cause resistance from physicians and impair the viability of policy initiatives. This appears to be the case with managed care strategies in the US, which have provoked a backlash from physicians and patients (28). In Canada there has also been a campaign led by physicians against cost restraint, and there are signs that central and provincial governments are abandoning reforms aimed at rationalizing physician supply and hospital resource use as a result.

OTHER HEALTH STAFF

The review by Buchan *et al.* found: "a limited evidence base currently available on the impacts of incentives on health workers and/or associated service providers." Their study found 62 papers that dealt with incentives for independent professionals and other health workers. Medical staff, primarily physicians, were the subject of 80% of the studies focused on health workers, and most were based on experience in the United States or United Kingdom. The authors concluded that, with the exception of physicians: "…there is little evidence generated in this review on which to base an assessment of the likely impact of incentive interventions." The

dearth of studies on non-physician health workers may reflect a preoccupation among researchers with economic responses to incentives. There is a solid body of theory and a lively debate about the role of supplier incentives in controlling utilization of health resources. Health human resource (HHR) policy is not based on economics to the same extent as payment for medical care services. In addition to an understanding of the role of financial incentives, HHR policy requires evidence of how a range of non-financial incentives affect motivation, including factors such as loyalty to the employer or the organisation and perceptions of control or empowerment in the job environment. This knowledge is especially important where possibilities for economic rewards are limited by fiscal constraint and employers must seek non-pay incentives to motivate staff. This study has concentrated on English language literature. It will also be important to stay abreast of literature and research in other languages.

ORGANISATIONAL INFLUENCES AND POLICY CONTEXT

Buchan *et al.* make the following points about incentives, which could inform future research: if an incentive strategy is to be effective, it must be congruent with, and based on, the overall strategy of the organisation; the strategy must be appropriate to the objectives of the organisation and the context in which it operates; pay determination arrangements can limit the nature of sector reform policies and modify the adoption of incentive policies.

The importance of institutional and other contextual factors was also highlighted in the report by Hicks and Adams, which noted that "specific behavioural responses cannot accurately be predicted without knowledge of the context in which an incentive exists. A complex set of health care objectives and policies may result in many incentives, some of which act in opposite directions." (3).

The report summarized health human resource incentives in the case study countries in terms of incentive packages, in which specific incentives were related to policy objectives and placed within a context that included complementary measures and constraints (Table 4). Most of the incentive packages were directed to salaried professionals rather than private practitioners. Some of the packages targeted or included non-physician staff, including nurses and primary care workers. The case studies found that remuneration policies or practices may determine whether or

not non-financial incentives will succeed. Examples included: a tendency for professionals in the public sector to spend most of their time and energy in private practice, or to charge informal fees, where salary levels are low or pay is delayed; a necessity for adequate remuneration (by country standards) in order for incentives aimed at recruitment and retention to be effective; opportunities for higher education or housing; and educational assistance for families.

Table 4. Incentive Packages for Human Resource Issues from Country Case Studies.

Objectives	*Incentives*	*Complementary Measures*	*Constraints*	*Results*
Recruitment and retention in country	Competitive salaries Seniority awards in pay scales[1].	Fiscal policies that increase the after-tax marginal value of salaries.	Budget limitations. Low public service salaries. Policies to reduce salaries as a share of operating costs.	Helps retain physicians in Bahrain.
	Allow after-hours private practice in public institutions.	Service standards and controls to prevent reduced work effort in the public system.	Work effort may be concentrated in private practice, leading to deterioration of quality in public service.	Considered successful in Bahrain. Other countries have experienced deterioration in the public system where providers also engage in independent private practice.

[1] Seniority as a basis for remuneration is often considered an inferior alternative to a results-based salary (which is not known to exist in any of the study countries). However, seniority can affect retention as noted by the Bahrain authors.

Objectives	*Incentives*	*Complementary Measures*	*Constraints*	*Results*
	Tolerate informal payments[2].		Informal charges limit access and may impede reforms that involve formal user fees and exemptions.	In Ghana, informal payments are widespread and entitlements to exemptions from formal charges are not respected.
Recruitment and retention - rural areas	Higher salary or location allowances. Remuneration based on workload[3].	Decentralized administration. Freedom to allocate institutional revenues or savings from operational efficiency to fund incentives. Improved infrastructure and staff competence.	Overall staff shortages. Budget limitations. Professional and lifestyle disadvantages. Greater potential in urban areas for earnings from private practice. Conflicting financial incentives. (e.g. loss of housing allowance in Bangladesh).	No identified successes.
Recruitment & retention - rural areas	Services in defined areas as a condition of licensing or special-ty training. Opportunity for	Consistent application of policies for transfer and tenure.	Confidence may be lost if selection process is perceived to be arbitrary.	Aids retention of professionals in public service in

[2] Not official policy in any of the study countries. Ghana author speculates this may explain the « blind eye » to informal charges.
[3] Planned in Ghana, but not implemented. Not implemented in other countries.

Objectives	*Incentives*	*Complementary Measures*	*Constraints*	*Results*
	government sponsored higher education.		Provider concerns that temporary postings may become indefinite.	Ghana. In Nepal, providers are critical of policy, as opportunities to train abroad are not linked to performance.
	Provide housing and good quality educa-tional opportunities for family.	Adequate salary.		Health sciences institute in Nepal reports success with nurses, but not with physicians.
Recruitment & retention – rural areas	Recruit trainees from rural areas.	Public health and family practice emphasis in training curricula.	Traditionally, urban area students are over-represented in student population.	No results reported in case studies.
Quality and availability of primary care.	Training and promotion opportunities for nurses and medical auxiliaries. Training of multifunction health workers. Community mobilization of women volunteers, TBAs and local leaders.	Clear job descriptions and criteria for promotion.	Opposition by professional associations to expanded roles for multifunction health workers.	Nepal reports success with a programme that allows health assistants and other health workers in rural areas to train for posting to

Objectives	*Incentives*	*Complementary Measures*	*Constraints*	*Results*
				higher levels. No results reported in the country studies.
Encourage teaching and research	Pay non-practicing allowance in lieu of private practice.		Allowances may not be competitive with private practice earnings.	Nepal reports success in basic medical sciences. In clinical departments, many physicians resigned their teaching positions.
Improve quality of care	Specify clinical guidelines in provider contracts.	Leadership role by professional organisations. Inclusion in curricula of medical schools.	Weak professional governance or management ability. Information systems.	New Zealand reports success in having guidelines adopted, although effects on clinical behaviour are not certain.
	Licensing of institutions and professionals based on defined standards.	Tradition of professionalism in medical culture. Acceptance of civil and legal authority.	Potential shortage of qualified inspectors and managers.	Estonia reports a reduction in the number of hospitals and unqualified doctors and an increase in quality.

KEY FACTORS IN MAKING INCENTIVES MORE EFFECTIVE

The most important factor in making incentives more effective will be to extend the scope of research and evaluation to include a range of professions that reflects the actual composition of the health system workforce. Professions that should receive special attention include: nurses, whose roles have been changing to include more responsibilities while appropriate staffing levels have not been clearly established; primary health care workers, who comprise the main source of care in many developing countries; managers of health facilities, who must cope with new incentives and accountability relationships as a result of decentralization and cost restraint. Incentives must be viewed in a broad context in order to understand the constraints and success factors that will affect the chances of their success. Components of the incentives framework used in case studies for the Hicks and Adams paper include: macroeconomic restructuring and health policy reform; health finance; provider supply and practice characteristics; external constraints and enabling factors; professional environment; evaluation of funding systems and policy; sustainability of change (3).

HHR must be seen as an interrelated system involving staff with a complex mix of skills and motivations. The effects of incentives aimed at one group of professionals will reverberate through the entire system. Policy makers need to know if specific incentives will reinforce health system goals or upset a delicate balance in which systems may be 'just coping' under stress. The study of incentives is also relevant to the issue of health worker mobility. A number of 'push' and 'pull' factors affect movements of health personnel. Financial incentives are usually considered as an option to aid recruitment and retention in under serviced areas. Non-financial incentives also have a role in mitigating adverse conditions in areas that have difficulty maintaining sufficient numbers of personnel and the right mix of skills in the health workforce.

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Role Definition, Skill Mix, Multi-Skilling and "New" Workers[‡]

James MD Buchan and Mario R Dal Poz

INTRODUCTION

This paper examines the human resource management issues related to skill mix in health care. The World Health Report 2000 has noted that determining and achieving the 'right' mix of health personnel is a major challenge for most healthcare organisations and health systems (1). Healthcare is labour intensive, and in many units labour costs will account for two thirds, or three quarters or more of total running costs. With the cost of labour accounting for such a high proportion of total costs, it is important that managers and professionals in any healthcare provider unit strive to identify the most effective mix of staff achievable within available unit resources and priorities.

This paper summarises the main findings from a review of available literature, and highlights the implications for health system managers, health professionals and other stakeholders. The review focuses primarily on the period since 1996, building on a previous review completed in that year. Key findings of the previous review are integrated in this report. The next section of this report highlights the reasons why skill mix is a growing issue in many health systems, and examines some of the main drivers for skill mix change. The report then summarises the findings of recent meta-analysis, other literature reviews and single papers examining skill mix and related issues; these issues include reports on defining and changing the role of health workers.

The annex to the report examines and assesses different methods of determining skill mix, and evaluates the effects of skill mix change, including reported evaluation of different "tools".

[‡] Paper already published as: Buchan J., Dal Poz M.R. (2002). Skill mix in the health care workforce: reviewing the evidence. *Bulletin of the World Health Organization*, 80 (7): 575-80.

Skill Mix in Theory

In practice, health care providing organisations can respond to the need to decide on the best mix of staff by using one or more of a range of methodologies. Why does the same challenge of determining skill mix produce different approaches? One reason is that there is a great deal of variation in what is meant by 'skill mix'. It can refer to the mix of posts in the establishment; the mix of employees in a post; the combination of skills available at a specific time; or alternatively, it may refer to the combinations of activities that comprise each role, rather than the combination of different job titles (3).

The reason for the existence of different skill-mix methodologies is thus partly due to the various understandings of skill mix and to the different types of problems that prompt service employers to review skill mix. Developing an approach to skill mix requires a broader vision of resource planning, in order to help map out the issues and the methods that can be used to tackle them. The danger is that a 'skill-mix review' can become a stand-alone exercise, not linked to other initiatives and organisational developments. This can lead to duplication of data collection, or results can be made redundant if other far-reaching initiatives, (such as reorganisation) have staffing implications of their own.

Approaches to Skill Mix

Methods used to examine staff mix can focus within occupational groups, or across different groups, such as nurses and doctors (51, 52). These approaches can be categorised as adopting a mainly quantitative or qualitative approach. Eight approaches used in reviewing and determining skill mix were identified in the analysis of research on the subject. The table 1 shows the key characteristics, strengths and limitations of each approach (8).

Table 1. Approaches of Skill Mix

Approach	*Methods*	*Strengths/Weaknesses*
Task Analysis	Frequency and cost of 'task' elements of jobs identified. Skills and knowledge required for agreed 'tasks'; used to profile staff and identify gaps.	Reliance on trained observers (costly; problematic if no agreement of skills/ knowledge required). Task-based approach criticised because it focuses on the "measurable".
Activity Analysis/ Activity Sampling	Activity performed by each staff member recorded by observers at predetermined intervals, for agreed time period. Frequency of different activities/time required identified. Data analysed, used as basis for reallocation of activities/tasks to staff.	Quantitative approach can be used as basis for discussion and debate. Observers can be expensive; difficult approach if workplace is not a 'fixed' ward or unit; danger that if staff are not involved they will not accept results.
"Daily Diary"/ Self-Recording	As above, but staff record activities.	Can overcome cost implications of using observers (but has an opportunity cost) . Staff may not provide accurate details. Strength is direct involvement of staff.
Case Mix/ Patient Dependency	Patients/clients classified in groupings according to diagnosis or dependency. Formula is used to relate "scores" to staff hours required.	Uses mix of qualitative and quantitative methods. Benefits can include determining variations in staffing over time to match changing workload. Gives only overall numbers of staff; further work required to determine mix.

Approach	*Methods*	*Strengths/Weaknesses*
Reprofiling/ "Re-engineering" ("zero-based")	Detailed analysis of current mix, activity, skills and costs. Working group considers alternatives within available resources; aim is to achieve 'ideal' mix.	Often radical and fundamental. Rarely applied in full, because of organisational/political constraints. Danger of becoming a "wish list", with less focus on "how to get there".
Professional Judgment	Staff/management in work area assess current activity and staffing, review data available, apply collective judgment to reallocation of work.	"Low tech" approach; involves staff, can be quick. Constraints are possible lack of transparency/objectivity; possibility of little change.
Job Analysis Interviews/Role Reviews	Detailed individual or group interviews; can include critical incident technique; repertory grid.	Structured approach, if interviewers are skilled, can reveal much relevant information. Involves staff. Main problems are potential for bias and lack of objectivity.
Group Discussion/ "Brainstorming"	Facilitates workshop/discussion group of staff to identify issues requiring change. Use of available data as basis for discussion.	Can be quick—often used as 'diagnostic' phase of other approaches. Involves staff. Requires skilled facilitation; raises expectations and can generate mass of contradictory information.

THE LIMITATIONS OF CURRENT RESEARCH ON SKILL MIX

The eight approaches outlined in Table 1 above represent the main methods used by health care organisations to review the mix and level of

personnel. Each approach has its pros and cons, and often more than one method will be used in combination.

It is notable that whilst published research on skill mix and associated issues in developing countries was relatively scarce in this review, much of which was identified focused primarily on testing or reporting the application of a methodology, sometimes as a "pilot" or exploratory study. These reports included: the comparison of results of different approaches to task analysis, staff in reproductive health clinics in Ecuador (53); the self reported activities of pharmacists in Northern Ireland (54); the activity analysis (staff and workflow), of child health services in the USA (55); patient dependency and staffing; child psychiatry in the UK (56); task analysis of surgical workload, urology in Ceylon (57); the validation of two health status measures and outcomes of home care nursing in Canada (58); the workload and cost analysis, using computer simulation, to determine "ideal" mix of orthodontists and assistants in the USA (59); and the activity analysis of physics' staffing in radiotherapy in Germany (60).

Whilst these studies assist in contributing to our understanding about aspects of skill mix in certain defined contexts and situations, and can also help test valid models, they are primarily a contribution to improving the methodological evidence base. A distinction must be drawn between the pragmatic and practical approach, necessarily adopted by many employing organisations, because of resource limitations and time constraints, and the "ideal" approach, dictated by a research study, where "objectivity" is required.

In an ideal study, the effectiveness of a particular skill mix of health workers would be defined by its costs, and by the effect it has on patients' outcomes. There are several reasons why this ideal approach virtually never happens in practice.

First, it is often difficult to identify suitable indicators of patient outcome. Secondly, patient outcomes are affected by a wide range of factors, aside from the care provided by any specified group of health care personnel. It is extremely challenging to determine the effects of one group of staff while controlling the effects of others. Thirdly, comparing the outcomes produced by one skill mix with those produced by another demands an assiduous application of controls. It is extremely problematic to control adequately for the huge number of variables (related to patients,

staff, interventions and the environment) that are likely to influence patient outcomes.

EVALUATION THE IMPACT OF SKILL MIX

Irrespective of the method used to examine skill mix, a complete evaluation will require consideration both of the effectiveness of care provided by the mix of staff, and the associated costs. Several main methods of evaluation these aspects of the impact of skill ix are described below.

PATIENT OUTCOMES

In an ideal study, the effectiveness of a particular combination of health workers would be defined by the effect they have on patients' outcomes. The outcomes produced by one mix could then be compared with those produced using another, and a judgment made about which is the more effective. There are several reasons why this ideal approach is rarely found in the evidence base, namely: identifying the indicators, controlling for context and comparing the outcomes.

Identifying the Indicators

It is difficult to identify suitable indicators of patient outcome. General indicators such as mortality rates or LOS, are useful in that they can be applied to all patients, and can be considered to be an end result of care. However, their crudeness as an indicator of outcome means that they may not be sufficiently sensitive to pick up changes related specifically to staffing mix.

The problem with using more specific indicators such as the incidence of pressure sores, or level of pain management is that they are only applicable to some patients and that they report on the effects of a few selected aspects of care whilst the rest remain untested. These "micro" indicators may be more useful at team or ward level.

One solution that has been developed is to attempt to use a battery of outcome measures in combination with each other (43, 61, 62).

Controlling for Context

Patient outcomes are affected by a wide range of factors aside from the care provided by a group of health care personnel. In many cases it would be helpful to be able to link specific outcomes to the input of specific staff

groups for example in reviewing the effectiveness of all registered nurse staffing, it would be useful to define those outcomes that can be considered 'nursing outcomes'. Teasing out the effects of one group of staff whilst controlling for the effects of others is an extremely challenging task that has not currently moved beyond the exploratory stage and requires detailed research. This is particularly the case where health systems are moving to support multi-disciplinary team working, or using "cross trained" or multi-disciplinary workers.

Comparing the outcomes

To control adequately for the huge number of variables (related to patients, staff, interventions and the environment) that are likely to influence patient outcomes is extremely problematic.

QUALITY

Due to problems associated with using patient outcomes, quality of the care provided or reported patient satisfaction is often used as a proxy for outcomes. Although this has its limitations in that it is a process indicator, not a measure of output, it has the advantage that the reported quality of care provided by specific staff groups can be measured. Several recent randomised control studies comparing the care given by nurses and general practitioners in the UK have used patient satisfaction as one of a "basket" of indicators (63, 64).

A second broad group of studies can be identified, in which an attempt is made to consider the relationship between cost and quality. Many of these studies are informed by the work of Donabedian (62). The difficulty of linking an assessment of cost with measures of quality and/or outcome of care is fraught with difficulty. A broad indicator of quality, such as patient LOS or a patient satisfaction survey is often used as a proxy measure for outcome. The use of such proxies can in themselves create difficulties.

Variations in LOS may not be an accurate reflection of the care provided, but may be linked to broader organisational requirements to decant patients more quickly to free up bed space.

COSTING METHODS

The cost data used in studies of skill mix varies markedly, in terms of configuration and accuracy. This is partly a reflection of the differing financial requirements of different health systems for example, in privatised systems there may be an organisational need for accurate staffing costs per patient day, and the costs of other inputs, to ensure reimbursement. In other systems, cost data may be more frequently expressed only in broad terms of wage costs.

WAGE COSTS

Most studies in the evidence base, which examine skill mix from the perspective of costs, use wage data. It is important to stress that where "before and after", or comparative evaluations of costs are being undertaken, a reliance on wage costs as the cost indicator will make the evaluation highly sensitive to wage differentials between groups of personnel. These differentials can vary markedly between employing units, healthcare systems and countries and across time. At the simplest level, if a wage differential between a doctor and a nurse is 5:1, the potential cost savings of substitution will appear much greater than in a system where the wage differential between the two groups is only 2:1 (8).

UNIT COSTS AND DIAGNOSTIC RELATED GROUPS (DRGS)

The different methods used to assess the cost of health care represent different responses to the same problem how can the total costs of providing care be disaggregated to produce a cost per unit? The approach used to assess costs will in turn have an impact on how cost effectiveness or cost variation is assessed in relation to staffing levels and skill mix. Many studies relate costs to DRGs, or other form of patient classification system. These systems use a measure of patient dependency to calculate the amount of care that is required, and "translate" this into staff time required- for example costs per patient day, or per minute of care provided.

Many studies conducted in the United States of America (USA) concentrate on the use of patient classification systems (usually in relation to DRG) as a means of assessing the cost of nursing care, for charging and reimbursement purposes. These studies focus on establishing a cost methodology, usually within a specific work environment. Quality of

outcome is given little or no consideration, the prime concern being the need to more accurately measure and cost the use of nursing resources (63).

Results from these studies are not readily synthesised into any general conclusions or lessons, other than that actual needs per patient within and between DRG vary markedly, and hence there is a considerable range in staff costs (usually measured as nursing costs within and among DRG categories) .

In short, different patients within DRG have different acuity levels, different lengths of stay, and therefore different levels of demand for nursing resources. Most of the studies reported above concentrate on small samples of patients in one or two units, and hence the effect of any "outlier" patients whose demands are above or below the DRG norm may be magnified. Indeed, a number of the authors caution against drawing any general conclusions from their work, which they regard as exploratory.

The approaches outlined above represent some of the main reasons for, and methods used by healthcare organisations to review the mix and level of personnel. Each approach has pros and cons, and often more than one method will be used in combination, to attempt to combat limitations. A distinction must be drawn between the pragmatic approach necessarily adopted by many organisations, due to resource limitations and time constraints, and the 'purist' approach which would be dictated by an 'objective' research study, which requires a certain distance from day to day organisational priorities.

In practice, many of the studies reviewed in the next chapter relate to an organisationally based description of an approach to determining personnel mix, rather than a research based evaluation of an approach or of a particular mix. This pragmatism is highlighted by the stated need in many of these studies for broader contextual matters of "change management" to be a priority for the organisation. In this situation, the method of reviewing and determining personnel mix is a means to the end of achieving organisational changes, it is not a conceptual model to be continually refined in the abstract.

Finally, one further aspect of evaluation must be mentioned. Given that many skill mix studies relate to a change in staffing levels or mix, there is a need to examine the evidence on the impact on the workforce. Was the change achieved with no negative impact on job satisfaction or motivation of workers? What has been the effect of any change in role or workload

subsequent to the change in mix? These aspects of skill mix and role overlap related changes are rarely given any research-based consideration. As such there may either be hidden costs or benefits of such change, depending how the process of change was managed, where costs really were incurred, and where benefits accrued (64).

SKILL MIX: DRIVERS AND CONTEXT

Most health systems around the world are coming under increasing cost containment and quality improvement scrutiny, often as a direct or indirect result of health sector reform; in such a situation the level and mix of staff deployed to deliver health care is a central element in the cost of care, and a major determinant of the quality of that care (1).

It is important to note that whilst there may be general trends in the changing utilisation of health personnel, there is no common starting point for different countries, sectors and health systems. Resource availability, regulatory environments, culture, custom and practice will all have played a role in determining the "typical" mix of staff in a health system. To the extent that these factors vary, so will the typical mix. This variation may limit the potential for transferability of results of studies, and highlights the need for more cross comparison. These are marked variations between countries and regions (2).

Table 2 highlights some of the key issues, which explain why skill mix is an important issue in many health systems.

Table 2. Skill Mix Drivers, Issues and Possible Interventions

Driver	*Issue*	*Possible Interventions*
Skill shortages.	Respond to shortages of staff in particular occupations or professions.	Skill substitution; improve utilisation of available skills.
Cost containment.	Improve management of organisational costs, specifically labour costs.	Reduce unit labour costs or improve productivity by altering staff mix or level.
Quality improvement.	Improve quality of care.	Improve utilisation and deployment of skills of staff through achieving best mix.

Driver	*Issue*	*Possible Interventions*
Technological innovation; new medical interventions.	Achieve cost effective use of new medical technology and interventions.	Re-training of staff; new skills; different mix or new type of worker introduced.
New health sector programmes or initiatives (e.g. "Roll Back Malaria).	Maximise the health benefits of the implementation of the programme through having appropriately skilled workers in place.	Assess cost effective mix of staff required; skill enhancement of current staff; introduction of new workers.
Health sector reform.	Achieve cost containment, improvements in quality of care and performance and responsiveness of health sector organizations.	Re-profiling, "re-engineering"; labour adjustment; new roles; new workers.
Changes in legislative/ regulatory environment.	Scope for changes in (or constraints on) roles of different occupations, professions.	Role change or enhancement; new skills required; introduction of new workers.

SOURCE: Buchan *et al* (3).

These driving forces for focusing on aspects of skill mix are not mutually exclusive. In practice, many healthcare units are attempting to meet the combined challenges of all three.

It must be also be stressed that changing skill mix is not the only potential solution to these challenges. Employing organisations also seek to review other options, including: improving utilisation of hospital beds, capital equipment and other resources; improving staffing patterns in relation to day-to-day fluctuations in workload and patient dependency; and reviewing and altering resource allocation and distribution (e.g. between tertiary, secondary and primary care).

REVIEWING SKILL MIX

This section reviews the evidence base, in terms of reports and publications, which have examined aspects of health worker skill mix, and the introduction of new workers to health systems. To help evaluate the design

of research studies, Woolf *et al.* (4) described a hierarchy of evidence (in descending order of utility, from "most" to "least") as follows: well designed randomised controlled trials; other types of trial: well designed controlled trial without randomization; quasi experiments; well designed cohort (prospective) study, preferably from more than one centre; well designed case control (retrospective) study, preferably from several centres; large differences from comparisons between times and/or places with or without intervention; opinions of respected authorities based on clinical experience; descriptive studies and reports of expert committees.

Of the methods listed, randomised control trials (RCTs) are generally regarded as being the most effective method of contributing to the development of an evidence base. However, few published studies on skill mix conform to the requirements of the higher levels as listed above; the majority of study designs fall into the lower categories in the hierarchy of evidence, most being opinion based descriptive studies. This means that there are a number of basic limitations to the current evidence base on skill mix. This includes: narrow or incomplete focus, incomplete reporting, methodological weakness and non-comparability of approaches adopted for studies.

Narrow or incomplete focus

Because of the complexity of determining and evaluating skill mix and the wide range of methods that can be used, many of the papers focus on a particular aspect of reviewing skill mix (e.g. they describe the development of a dependency scoring tool or activity analysis methodology), rather than describing all the elements of a comprehensive skill mix review. In particular, specific measures of patient outcome (or even proxy measures of process) are rarely used.

Incomplete reporting

Many papers do not give complete details of the context in which the skill mix is being examined, or the methods and data used in the examination. This limits the utility of the report, both in terms of its contribution to the evidence base, and the scope for comparing its findings with other evidence. For example, even in the few studies that include a comprehensive assessment of costs, the exact method of calculation used in the study is often not reported. Different methods of remuneration and calculation of

wages (i.e. are training costs to be allocated?; are unsocial hours premiums paid for certain times/days for certain groups?; are "on costs", such as employers pension contribution included?; are wage costs 'standard' for each grade/occupation or do they vary between individuals?) are major constraints on cross comparison of study results or generalisability of study conclusions, and are often a major weakness in individual study design.

Methodological weaknesses

Many studies fail to cover both measures of quality/outcome and costs, and many are methodologically weak with small sample sizes. Even when cost and quality are assessed, the multiplicity of different methods that are used for assessment mean that there is extremely limited scope to synthesise an aggregate overviews of the results of these studies. Focusing only on an evidence base in one country or health system could limit some of the difficulties inherent in cultural, organisational and country cross comparison. However even studies examining the same skill mix issue in the same country or health system often use different methods, which leads to non-comparability of results.

Non-comparability

One of the key findings of this review is the non-comparability of approaches adopted for studies. This highlights the need to move towards the replicated use of reliable and valid research methods for assessing the effectiveness of personnel mix which have scope for utility and general applicability. The identification and replicated use of the methods which have greatest potential for transferability will lead to results which have greatest scope for generalisability.

REVIEWING THE EVIDENCE BASE

The review of publications that examined skill mix in healthcare is mainly based on two literature searches: a review which focused on English language publications that were published in the period 1986-1996 and searched CINAHL, Medline, RCN Nurse ROM, ASSIA Plus, FirstSearch; and a follow up review of English language publications, from 1996 to 2000, covering CINAHL, Medline, ASSIA and Nurse online.

The search terms used for both reviews were: skill mix, skill substitution, personnel mix, reprofiling, staffing levels and staffing mix. To the second review it was added changing roles.

The publications identified cover a range of issues related to skill mix in health care. It should be noted that there are limitations in the review: there may be "publication bias", because unsuccessful attempts and changing skill mix are less likely to be written up and published; on line searches rely on the use of key words; it is likely that some relevant publications may not be identified; mainly English language publications are reviewed; this will lead to bias in terms of the countries and health systems being examined. In particular, it should be noted that the majority of the publications are from the USA, a country with a mainly private sector health system and a generally "free market" approach to employment legislation and job stability.

With these limitations in mind, it is important also to note that appears to be a growing interest in skill mix, if rates of publications are used as an indicator. More than twice as many publications were recorded for the four year period of 1996 to 2000 than for the previous ten years (1986-1996) . The key findings of the review are highlighted below. The review is in five sections: reviews and meta analyses, "macro" large scale data surveys, "micro" single site examination of roles and mix in nursing and other non-medical health professions, "micro" single site examination of role overlap between doctors and other health professionals and the introduction of "new" workers or the changing roles.

KEY THEMES IN THE EVIDENCE BASE

Reviews and meta-analyses

A number of other literature reviews and meta-analyses of skill mix and related issues have been published. Most English language publications in this area are from the USA or the UK. These are of two types: reviews which take a broad focus in examining all aspects of skill mix, and those which examine one specific aspect- most often doctor-nurse overlap.

A small number of meta-analysis has been conducted on skill mix related issues, in the North America (Canada/USA) (5, 6). Both these papers focus on doctor-nurse roles and overlap. Two international reviews (drawing heavily from USA sources) have also recently been undertaken in Britain (7, 8). A review focusing specifically on doctor-nurse mix in primary

care was also recently conducted in the UK (9). The use of anaesthetist nurses worldwide has also been examined (10).

The use of meta-analysis and the comparatively robust research approach adopted in the small number of studies in this area supports a more conclusive overview than can be drawn from single studies of skill mix. The general picture presented is that in certain specified areas of health delivery and clinical intervention, there is clear evidence, (mainly, but not exclusively from the USA) that there is scope for a cost effective increase in the role and deployment of registered nurses where there is actual or potential role overlap with doctors.

For example, one review suggest that between 25% and 70% of doctors' tasks could be undertaken by nurses or other professionals (7). In particular, there is evidence that the use of clinical nurse specialists, nurse practitioners and clinical nurse midwives, whilst maintaining or reducing costs, can improve care outcomes (often measured as patient satisfaction).

However, the extent of scope for substitution or development of alternative models of care delivery cannot be detailed or quantified, as the available research does not fully map out the parameters of role overlap/substitution, and many possible alternative models remain untested. Furthermore, the "starting point", in terms of the current roles and models vary from country to country. The identification of 'theoretical' or 'ideal' skill mix between doctors and nurses, as between any professions or occupations, also has to take account of potential constraints on change relating to legislation, professional regulation and associated organisational factors.

"Macro" large data surveys.

These studies report on large data set analysis, often using staffing and outcome data from multiple sites to assess the extent to which variations in measures of outcome can be attributed to differences in staffing level of staffing mix. As with above, the majority of these studies have been conducted in the United States. Recent studies are summarised in Table 3.

Table 3. Examples of Large Data Surveys on Skill Mix

Focus	*Key Findings*
Registered nurse (RN) staffing in relation to total staffing and outcomes in 494 US nursing homes (11).	"….although RN staffing is more expensive, it is the key to improving resident outcomes".
Hospital characteristics, staffing level, mortality rates, 3763 US hospitals. Multiple regression, controlling for severity of illness (12).	Mortality rates decreased as staffing per occupied bed increased, for medical residents, registered nurses, registered pharmacists, medical technologists. Mortality rates increased as staffing levels per occupied bed increased for licensed practical nurses and for administrators.
Relationship between RNAPD (Registered Nurse Adjusted Patient Days) measure of nurse staffing levels and various "adverse events" (e.g. urinary tract infections after major surgery, pneumonia after surgery; thrombosis after surgery) .(13).	Study found inverse relationship between nurse staffing and adverse events. Higher ratio of RN, the lower the incidence of adverse events.

These large-scale macro analyses of secondary data can give some insight into the relationship between staffing level or mix and indicators of cost or quality. They can also give some potential for benchmarking between employing organisations such as the discussion of early stages of a multi- country comparative study using this approach (14, 15), the multi country benchmarking study examining extent of used of "trained" nurses and overall resource use in long term care in Sweden, Spain, USA, England and Japan (16) as well the multi country analysis of variations in doctor-nurse ratios (17).

Macro surveys have the potential to increase our understanding of the complex interrelationship between different staffing, cost and outcome variables, but have two main weaknesses. By definition, they are retrospective, and it may be some time before the lessons of the analysis are known (for example, the Kovner study above was published in 1998, but uses 1993 data sets (13). Whilst they may inform policy, they are less likely to have an immediate impact on practice at operational level. The other limitation is that the reliance on secondary data from available datasets means that the findings of the studies are predicated on this data being accurate and complete for analytical purposes.

Local case study examination of role overlap and mix in nursing and other non-medical health professions

The literature on the effect of different mixes of health professionals and unqualified nursing aides, assistants and/or support workers is primarily based on single study descriptive papers. The vast majority of these papers focus on mix between different grades of qualified nurse, or mix between qualified nurses and nursing auxiliaries/ care assistants. There are relatively few published analytical studies of other, non-medical, health professions or health care workers.

The two most common themes, which have been examined in this field, are the effectiveness of an all qualified ("all-RN") nursing workforce, in comparison to a qualified/unqualified mix, and the impact on organisational costs and effectiveness of increasing the proportion of care assistants/support workers in the nursing workforce.

A third theme, which is relatively under explored, is the implications for cost and quality of care of the traditional practitioners (e.g. traditional birth attendants) (18), the use of relatives (19), and other "volunteers" (20, 21) as part of the care team.

The first theme, of "all RN" provided care, was mainly examined in North America in the period up to the mid/ late 1980s; since then it has become less apparent, as cost containment pressures have impacted on most health systems, nevertheless a recent study argue that "all RN" care increases flexibility and can be effective (22). The latter theme, of "qualified/ unqualified" mix has been a continuing issue of examination, but has become particularly apparent in the 1990s, as cost containment has led to a re-examination of nursing skill mix in many countries, organisations and sectors. Non-nursing examples include the use of care assistants in physiotherapy (23).

Cost containment led substitution of "cheaper" care assistants for more "expensive" nurses, has become increasingly apparent in recent years in many countries. Many of the publications in this area are written by and for qualified nurses, and set out their concerns about being "replaced" or their skills undervalued (24, 25). The argument that a "cheaper" skill mix may not be more cost effective because of various hidden costs associated with skill dilution are often made in these papers. This argument cites factors such as higher absence and turnover rates in less qualified staff; higher levels of "un productive" time because care assistants have less

autonomy and capacity to act independently, and reported concerns about possible harm to patients if care assistants are required to work beyond their technical or legislated capacity.

Regulatory or legislative concerns have led to some constraints being imposed on the extent of substitution. This last point has led to independent review or legislative change in some countries; for example legislation enacted in the State of California in 1999 required hospitals to determine a "safe" minimum skill mix operating theatres and intensive care. This in turn leads to debate and analysis about what is meant by a "safe" staffing level, and how it can be determined (26).

Despite the growing debate about cost effectiveness and "safe" staffing mix and levels in the health care workforce, there are comparatively few published research studies examining the cost/quality implications of this trend, and (setting aside methodological and comparability issues) there is no unanimity in results or conclusions. Most of these studies tend to be unit level "before and after" examinations of the effects of introducing or increasing the use of care assistants.

Most published work stems from the USA, and there are examples of studies which report cost and quality improvements in the "after" phase, whilst other studies suggest that the scope for real cost savings when substituting or supporting registered nurses may be more apparent than real.

Drawing from the work reported by Gardner (27) and Krapohl and Lawson (28), a number of models of qualified/unqualified mix in nursing can be identified: "traditional" aides/assistants/auxiliaries, mainly trained "on the job", performing simple nursing tasks in support of registered nurses; non-clinical assistant/"extender" clerk/aides role, mainly involved in non clinical clerical/housekeeping work (can be a "multi-skilled" support worker); technical assistant/operating department assistant role with specified remit in relation to use of complex technological processes, assisting nurses; primary practice partner nursing assistant "paired" with primary nurse to maintain delivery of care by primary nursing; vocationally trained/qualified career an additionally trained version of the "traditional" nurses aide; training programme of several weeks or months, in some countries leading to vocational qualification; career undertakes nursing care responsibilities under direction of RN or other health professional.

The fundamental issue in determining which model is in use is to identify if the aide/support worker/"extender" is being used to supplement, complement or replace ("substitute") the work of a qualified nurse (29).

The impact on outcomes of the introduction of "unlicensed assistive personnel" (UAPs) in the USA was reviewed by Siehoff (30). There have also been "one off" local studies which have evaluated the introduction of "extender". Some of these studies report mainly positive results include claimed costs savings using patient care assistants, (31) and using nurses' aides without change in patient satisfaction (32).

Other studies have been more equivocal in their conclusions, and have highlighted problem areas. These studies include the use of "co-workers", that found slightly increased productivity, but decreased quality and increased on call, sick leave and overtime working (33) and the use of patient care technician (PCT) reported cost savings, but reported higher workload, and initially a higher turnover of PCTs (34). A multi site examination of grade mix in nursing conducted in Britain reported that investing in additional training, and the use of a "richer" (and therefore more expensive) staff mix in nursing was related to higher reported quality of care (35).

An Australian study of nurse mix reinforces one of the major caveats of the danger of "generalisation" of the findings of small scale or single case studies on skill mix (36). This study compared the registered/enrolled nurse mix in relation to cost and outcome, in two ward configurations - one all-RN, one a RN/EN mix[1]. The researchers found that an all-RN mix was more cost effective in one study ward, whilst the RN/EN mix was more cost effective in the other study ward.

This study demonstrates that the application of a standard battery of research instruments to two different work environments can provide results which suggest that different mixes may be more appropriate in different environments (or, alternatively, it could be interpreted that no battery of research instruments can be so robust and comprehensive as to include the effect of all local demographic and contextual variables) (36).

Whilst the issue of qualified/unqualified mix in nursing has received a comparatively high level of attention, there are major limitations in the utility of these studies. Many are methodologically weak and often report on short timescale implementation, and tend to be written by the "champions"

[1] Enrolled nurses are vocationally trained nursing staff.

of the use of the nurse "extenders" /UAPs/ aides. As with other areas of nursing and medical research publication, there will also be a publication bias towards publishing studies with clear and positive findings.

Relatively speaking, groups other than nurses have received little attention in terms of evaluation of skill mix. In some countries, especially in Latin American and Caribbean, there has been some examination of different mixes of technicians (37). Although the number of these technicians is very big and even growing in some cases, no analytical study was identified.

The other fundamental limitation is that very few studies and reports really examine role or skill. In practice, most of the publications identified which attempt to assess costs and quality implications focus on grade, qualification or job title rather than skill or role. Grade or job title is used as a proxy for a level of skills or a definition of a role.

Doctor-Nurse role overlap and substitution

As previously noted, issues relating to the scope for extending the role of the nurse and developing clinical nurse specialists, nurse practitioners, clinical nurse midwives and nurse anaesthetists is one of the relatively robustly researched area of skill mix in healthcare.

Skill substitution and the development of alternative models of care delivery based on nursing/midwifery staff rather than doctors has been examined in a number of studies which have adopted a methodologically sound approach. This is the only area where there has been some use of randomised control trials, to assess quality/outcome, and it is also the only area where there has been any real attempt at meta-analysis of research studies. The evidence base on overlap and scope for substitution between nurses and doctor was reviewed by several authors (7,38-41).

A ground breaking issue of the British Medical Journal in April 2000 argued that the "time was ripe for a major reconstruction" of the working relationship between doctors and nurses (42-44). The edition of the journal included a series of randomised control based studies, which examined the scope for the extended role of nurses (reported below). The editorial, and the research, highlight a growing theme in skill mix that the relatively expensive (and often scarce) skills of medical practitioners require to be better deployed, with less role overlap with nurses.

A recent issue of the British Medical Journal reported on three randomised control trials examining general practitioner (GP)/nurse practitioner overlap. The first examined nurse-led management of patients with minor illnesses in general practice, using a multi-centre randomised control trial, and found that the nurses were effective and that patients reported higher levels of satisfaction than with GP (42). The second report examined the care given by nurse practitioners and (medical) general practitioners in a multi site randomised control trial (43). They found that patients were more satisfied with the care given by the nurse practitioners, that drug prescription rates were similar between the two groups, and that the nurses provided more relevant information to patients than the doctors. Finally, the third report examined the cost effectiveness of (medical) GP and nurse practitioners in a randomised control trial (44). They found similar patterns of drug prescription between the two groups, and no significant cost differences, because the nurses spent more time, on average with each patient than did the doctors. Reported patient satisfaction was higher for the nurses.

Other recent studies on the nurse doctor overlap of roles have included the use of a computer based decision analysis model to compare the cost effectiveness of five different staff mixes in anaesthetics, from "nurse intensive" to "physician intensive", finding that physician intensive was not cost effective (45), and another which examined the role overlap and the scope for GP in England to "delegate" tasks to practice nurses (46).

The general picture presented by a review of research in this area is that in certain specified areas of health delivery and clinical intervention, there is evidence, (mainly, but not exclusively from North America) that there is scope for maintaining or improving quality of care (whilst maintaining or reducing organisational) by increasing the role and deployment of clinical nurse specialists, nurse practitioners and clinical nurse midwives. However, the extent of scope for substitution of doctors by nurses, or the development of alternative models of care delivery, cannot be detailed or quantified, as the available research does not fully map out the parameters of role overlap/substitution, and many possible alternative models remain untested.

Furthermore, the "starting point", in terms of the current roles and models of care delivery varies from country to country. The identification of 'theoretical' or 'ideal' roles and skill mix between doctors and nurses, as

between any professions or occupations, also has to take account of potential constraints on change relating to legislation, professional regulation and associated organisational and contextual factors.

"NEW" WORKERS / ROLES

Many health systems have considered, or have implemented "new" cadres or groups of health worker, either to fill a skills gap, or improve cost effectiveness of the skill mix of the workforce. In practice, the "new" worker is in fact often a current occupation or grade with additional skills or an extended role. Many of these types of amended roles are in one of four categories: "multi-skilled" or extended roles in "traditional" support workers: catering, patient transport, cleaning, catering and food distribution, and clerical duties; multi-skilling, "cross training" or extended roles for care assistants and auxiliaries (e. g. health community agents of family health program in Brazil (47); extended roles for current health care professional (e.g. nurse practitioners); new technician roles (e.g. surgery or anaesthesiology, in some countries, as Mozambique) (48).

The extent to which truly "new" cadres of worker have been introduced to health systems is therefore difficult to identify, as there is much blurring of roles between what was "traditional", what is an extension of the roles of traditional workers (perhaps with a new job title), and what does relate to the introduction of a completely new cadre.

One group which can be identified is the doctors / physicians assistant. Recent debate in the UK National Health System has focused on whether or not to initiate the use of doctors assistants (49).

A recent study in Latin American and Caribbean region identified more than 50 health technicians careers which were not nursing-related. The more frequent careers, by type of technology are laboratory (20%), physical therapy (19%), radiology (16%) and sanitation/health environment (12%) (37).

CONCLUSION

In the previous section, it was noted that there are extreme limitations to deriving general conclusions and lessons from the available published literature in this area. There are four main reasons for this. Firstly, many published 'studies' are, in practice, descriptive accounts, which add little to

the evidence base in terms of use of methods or interpretation of results. Secondly, where studies do move beyond description, their utility is often constrained by methodological weaknesses, or the lack of appropriate evaluations of quality/outcome and cost, or the use of small sample sizes (or all three) Thirdly, with few exceptions, the published analytical studies are derived from the USA, and therefore the findings may not be relevant to other systems and countries. Finally, publication bias has to be considered.

The end result is that the end results of some evaluative studies may be suspect, and the results of many other studies are difficult to compare or generalise. Aside from the methodological weaknesses that prevent the results of individual studies from being aggregated both produce general conclusions about the cost-effectiveness of different mixes, there is a more fundamental reason why such general conclusions cannot be reached. The results from even the most rigorous studies, incorporating all of the features of an "ideal study", cannot necessarily be applied to a different setting, organisation or health system.

The results of each study only remain true for the time and place from which they are derived. This is the basis on which skill mix is examined – the need to identify the care needs of a specific patient population and match these to the skills of staff available. It is thus impossible to prescribe in detail a "universal" ideal mix of health personnel.

The two mains areas where current research does make a significant contribution to issues of personnel mix are in relation to mix of staff within nursing and in doctor/nurse mix.

In nursing staff mix (often termed "skill mix", but rarely examining skills), the evidence suggests that increased use of less qualified ("cheaper") staff will not be effective in all situations (it is equally important to stress that in certain situations as measured by specific studies greater use of care assistants has lead to greater organisational effectiveness).

The evidence base on the doctor/nurse overlap, suggests that there is unrealised scope, within the constraints of country and system specific regulations, for extending the use of nursing staff and for further developing nurse/midwife led forms of care delivery, such as midwife led maternity units. What remains comparatively under-explored in terms of published work is the associated issue of developing medical assistant roles.

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Equity, Equal Opportunities, Gender and Organisation Performance

Hilary Standing and Elaine Baume

INTRODUCTION

This paper has attempted to cover a very large terrain – success has been limited. There are large gaps in coverage, with a bias towards advanced market economies (particularly the United Kingdom (UK), where equal opportunities initiatives in the health sector abound) and towards nursing and medicine. Very little published or "grey" literature was found on low or middle income countries. A mailing to contacts in different countries produced little of direct relevance. Some employment equity policies are sectorally generic and can therefore be considered to cover other kinds of health staff. However, much of the debate is focused on single occupations/professions.

CONCEPTUAL AND PRACTICAL APPROACHES TO EQUITY IN EMPLOYMENT POLICY

Arguments for and against equity measures in employment policy

There is no universally agreed view on either the desirability or the cost-effectiveness of policy measures to promote greater equity/reduce discrimination in labour markets. Bennington and Wein (1) give a useful summary of the main arguments. Neo-classical economics provides the core arguments against such measures, arguing that in a competitive market it is illogical for employers to discriminate against certain types of people on the grounds of personal taste or prejudice since this will affect productivity. The market is thus a self-regulating mechanism that does not require external interference. Indeed, such interference constitutes an unacceptable additional cost to employers and reduces profits.

Whilst this is an important viewpoint on labour market regulation, many counter arguments have been marshaled.

First, markets are never perfectly competitive, but are often highly segmented (health is an obvious example). Employers lack many different

kinds of knowledge which would enable them to make "rational" choices. Prejudices frequently override decisions based on economic rationality. Even in competitive markets, discrimination tends to persist and reproduce itself. Second, public sector labour markets (which are particularly important in health care) do not operate on profit-maximizing principles, yet discrimination has been shown to be as pervasive. It has been argued that the labour market simply reflects wider societal patterns of discrimination –stereotyping and competition in themselves will not break these down.

Arguments for policy intervention in this area usually come from three different directions. One is a wider human rights direction, based on an ethical stance on human equality, justice and fair treatment of people regardless of race, gender, age, sexuality etc. Such a stance derives from a profound ethical principle. It does not therefore have to be justified on grounds other than ethics. A pragmatic assertion of this in the context of employment holds that these characteristics are irrelevant to job performance (with some very circumscribed exceptions such as pregnancy or height) and that, on grounds of fairness, employees and would-be employees must be protected against discrimination.

The second direction arises from arguments of cost-effectiveness and efficiency: discrimination represents a cost to employers as they do not necessarily get the best person for the job. There is also a broader argument that there are social and political costs to discrimination that society as a whole has to bear.

The third direction is a form of human capital argument: diversity adds value to a workforce by bringing in a wider range of perspectives and experiences. These latter two propositions are difficult to test empirically, as is the counter argument that anti-discrimination measures constitute an extra cost on employers. Is the appropriate unit of measurement the individual employer, employers as a whole, the national economy? And how can such – often intangible – benefits be measured?

Despite these difficulties, it is probable that a majority of advanced market economies do intervene in some way to promote greater employment equity. Intervention appears to be much less common in poor countries. It is not clear why, but it may be that when set against other social and economic problems and the small size of the formal sector labour force this type of intervention is perceived as a relative luxury.

Approaches to Equity/Anti-Discrimination in Employment Policy

There are several different and to some extent competing schools of thought on how to achieve equity. Some focus more strongly on direct forms of discrimination (e.g. refusal to employ or promote individuals from minorities). Others focus more on indirect forms of discrimination (e.g. unacknowledged assumptions or stereotyping). The main ones are summarized very briefly hereafter:

Equal Opportunities

Discrimination in employment is unfair to those who are not treated on the basis of merit, leads to a waste of resources and can lead to social problems (2). Since the impact and costs of legislation to employers are unknown, action should preferably be by non-legislative means. Preferred actions are: public education and the application of voluntary codes of conduct. Legislation is a resort if these fail. Equal opportunities legislation in some countries (Britain) also disallows unequal treatment of non-minorities, such as men.

"Business Case" Approach

This approach emphasizes the fit between business goals and equality goals. Ethical and cost-effectiveness considerations go together. Equal opportunities policies are bureaucratically cumbersome and too focused on "equal rights". It stresses the "value added" of diversity in the workforce (women's experience in managing multiple responsibilities simultaneously as an excellent basis for management). It stresses the importance of equal opportunities for retaining and motivating qualified staff. Policies reflect a pragmatic concern to retain valuable skilled workers (who may have been trained at considerable cost, or who may be scarce). This approach may involve thinking more imaginatively about the different constraints faced by women in formal employment and about how to provide more employee-friendly terms and conditions. For the public sector, an argument has emerged that the "business case" approach should be transformed into a "quality" approach.

AFFIRMATIVE ACTION

Affirmative action – in which employers take measures to ensure that unintentional discrimination against any group of persons does not occur – is argued to be more proactive than equal opportunities (6). Organisations document the degree to which the availability of qualified people within a certain job category matches their utilization. If an organisation falls short in a category, goals and timetables for reaching those goals are set. Studies of affirmative action have found programmes to be successful at meeting employment targets for minorities, but less so at addressing their retention through equitable career development and reward systems and at tackling more subtle forms of discrimination.

There is some evidence from North America that continuing discrimination and backlash from whites have contributed to job dissatisfaction and turnover among affirmative action groups – but see the defence by Plous (7).

MANAGING DIVERSITY

Organisations should embrace diversity in their workforce and work towards achieving it. Diversity means creating a culture where difference can thrive, rather than working simply for representativeness and assimilation. Managing diversity is concerned mainly with changing individual attitudes rather than with changing organisational structures or processes.

Diversity training programmes have been criticized for focusing on differences between individuals and ignoring institutional structures of discrimination and power relations between majorities and minorities. Diversity management programmes may be most appropriate in contexts where relatively equal groups from different national or cultural backgrounds work together (e.g. pan-European Organisations).

BARRIERS TO ACHIEVING EQUITY IN EMPLOYMENT POLICY

Many barriers are cited in the literature and are relevant to the health sector. In the context of gender, there is a stress on both structural and cultural barriers (11): traditional stereotypes of women and minorities and of what constitutes good managers that hinder progress of the former; work cultures that do not take sexual and racial harassment seriously; general

social attitudes regarding the division of labour that impinge on the workplace; the "gendered" nature of work in the health sector that splits tasks into "female" caring and nurturing ones and "male" technical and managerial ones; the practical problems of lack of childcare; the lack of a "life cycle" perspective on women's needs for flexibility in working hours and career progression (12); where equal opportunities policies are in place, a lack of knowledge of their content and a low level of managerial commitment and resources geared to making these opportunities work; in addition, low pay continues to be a cause of shortages for nursing and paramedical staff, which are heavily dominated by women and often have higher than average numbers of minority employees.

Evidence on Links Between Achieving Equal Opportunities in Employment Practice, Staffing Costs and Outcomes

Three themes emerge from the literature: links between specific employment benefits and staff retention and productivity; links between organisational practices and patient outcomes; indirect links between gender, health providers and health outcomes.

Cox and Blake (13) provide evidence of the benefits to be achieved from what they call 'organisational accommodations' to diversity (i.e. flexibility).

They cite the following results from the United States of America (USA) and the United Kingdom UK (13): absenteeism was reduced by the provision of childcare; both short-term and long-term absenteeism significantly decreased as a result of flexitime; a major UK bank that found investing in childcare led to higher retention rates for staff and that this was cheaper than continually recruiting and training new staff; a UK supermarket chain reported that the number of employees returning to work after maternity leave increased from 42% in 1989/1990 to 74% in 1991/2 as a result of flexible working options. In view of the large sums invested annually in training, there are obvious financial advantages in keeping this trained workforce; in 1989 a pharmaceutical retail chain found that only 4% of their shop assistants returned after maternity leave. By introducing a range of flexible working options the proportion had risen to 49% in 1993.

McKee *et al.* (14) raise issues on the relationship between organisational change and the quality of health care, particularly as regards reforms in the functions and staffing of hospitals. They find that the relationship between staffing and patient outcomes in hospitals is influenced by organisational features affecting what nurses do. For instance, one piece of research identified 39 "magnet" hospitals that were widely regarded by nurses as offering a good environment in which to practice nursing. They were characterised by greater nursing autonomy and better relationships between doctors and nurses and were initially identified in a process that explicitly excluded outcomes. After adjustment for severity of cases, the "magnet" hospitals showed an a lower in-patient mortality rate that was statistically significant (4.6%).

Some work explores a broader set of questions about the relationship between health outcomes and health service provision, which may have an indirect gender component. Robinson & Wharrad (15) use United Nations (UN) data sources to look at the relationship between infant and under-5 mortality rates and the distribution of health professionals. They find a positive association between numbers of health personnel and child survival rates. However, the data do not allow a disaggregation by personnel.

Gender is an important indirect factor in quality of care. In many parts of the world, women users express a wish or need for female practitioners, particularly for MCH level services. This is tacitly recognized in many primary health care programmes and in the recruitment of community health workers. There is scattered evidence that gender plays a role in improving health outcomes. An Ethiopian study notes a statistical correlation between the presence of female members on Local Government Assemblies and female enrolment in schools, immunization of children and antenatal visits by women (16). In Northeast Brazil, the Agentes de Saúde Program (17) employs local female auxiliary health workers very cost effectively to manage basic health care. Since the introduction of the programme in the context of decreased financial support to the public sector, the area has witnessed a rapid decline in infant mortality, a rapid rise in immunization, and the identification of bottlenecks limiting the utilization of other medical resources.

These broader linkages have implications for human resources policies in poor countries in particular and deserve serious exploration.

THE USE OF PERFORMANCE MANAGEMENT TECHNIQUES, PERFORMANCE INDICATORS AND TARGET-SETTING IN RELATION TO ACHIEVING EQUITY IN EMPLOYMENT PRACTICE.

A recent study points out that, whether in private or in public sectors, formal performance management systems have shown very little relationship with quality or patient outcomes (18). Few attempts were found to use performance management explicitly for equity purposes. Hayles (19) describes organisational interventions in other sectors which link managerial pay to diversity actions and results. These interventions reward actions (e.g. training, mentoring, supporting employee resource groups) and measurable results (e.g. improved hiring and retention, positive employee attitudes, reduction in litigation costs) through salary incentives for senior staff. Recent studies are said to have shown a strong correlation between good management diversity practices and profits (19).

Hayles (19) puts forward five key diversity areas for which measurement should be developed: programme evaluation (to link the activity as closely as possible to desired organisational outcomes), representation (the population of the organisation should be studied with respect to the flow of people in, up and out of the organisation and with regard to demographic factors), climate (to determine whether or not the quality of work-life is equitable across groups and individuals), best practice/benchmarks (success in diversity is supported by benchmarking with other organisations to identify best practices) and a link to the overall performance (measurement systems should incorporate elements that examine the relationship between the specific diversity work undertaken and the desired organisational outcomes).

McCourt (20) reviewed the experience of target setting in the UK National Health Service, which was specifically aimed at achieving equitable representation of minority ethnic groups at all levels in order to reflect the ethnic composition of the local population. In 1994, a survey of 285 private and public sector employers found target-setting to be the least successful of all affirmative action initiatives. Although progress was made, targets were not met and key political stakeholders, such as black consultative groups, were alienated.

The UK Department of Health has now produced an equalities framework consultative document for the National Health Service (21). This aims to develop a system-wide approach to planning and evaluating equality. It sets out a common set of standards for equality priorities and targets within an overall performance management framework (see Annex 2 for equalities framework and indicators). Relevant initiatives already in progress include: Sheffield University Early Outreach Scheme – 20 additional places allocated to widen access to medical education for students from schools in deprived areas (no evaluation available); Bradford Job Shop located in an area of ethnic minority concentration to increase representation of ethnic minorities in health work. A "rise" in applications and in workforce representation was noted in the first year; a system-wide rather than single-organisation commitment; backing and resources accompanied by sanctions at senior management level, constitute the most probable factors in success.

Workforce Planning and Workforce Projection Modeling in Relation to Determining and Achieving Gender and Equity Targets

It was not possible to locate many studies or practical examples of health workforce planning and projection models explicitly addressing gender, other minorities and equity targets. Several frameworks acknowledge the need for such targets to be included. For example, Mathews (22), building on the work of Dresang, states that "when used correctly, workforce planning analyzes the skills, retirements, turnover and retention of employees, while considering the balance of social representation and affirmative action.". Attention has mostly been paid to nursing, as a quintessentially female occupation. Buchan (23) examines the role of nursing workforce planning in the context of the UK NHS. He identifies three elements: assessing how many and what type of staff are needed (demand side); identifying how these staff will be supplied (supply side); achieving a balance between the two.

A range of methods is available, none of them exact, as many externalities must be taken into account. Davies (24), also writing about nursing in the NHS, points out that far more is known statistically about doctors than about nurses and that planning models are fairly well

advanced in medicine. In comparison, nurses have been neglected and left to be managed at local level. The statistical base is poor. She attributes this directly to gender bias and the under-valuation of nursing as a female occupation. Both Buchan and Davies concur that workforce planning methods do not recognize the importance of
qualitative differences in the employment patterns and lifetime career needs of women employees (12). Davies provides a critique of the male bias in current planning models (Box 1).

Box 1. Assumptions Built into the Process of Manpower Planning that Give Rise to Difficulty When We Consider Nursing

Entry will follow training; nurses have traditionally been an important part of the labour force while in their initial training…the system is driven by present need for labour, not by any strong notion that labour once trained is a valuable resource to be nurtured; continuous participation; Losses due to a career break and gains due to those returning after a career break will be substantial parts of the overall staffing equation; Losses to the system will be due to retirements (which can be predicted), to job moves (which can be influenced) and to sickness (which will be minimal); commitments to home and family will at certain times in the life-course take priority, the incentives that can be taken for granted for many men - their interest in promotion, their willingness to move and to move their families for career reasons - cannot be assumed to operate in the same way for women; full time working is essential for efficiency and quality; 40% of the NHS nursing workforce is part time – planning should recognize this reality and not treat it as "second best" or women as a "problem".

Davies (24) puts forward the following elements of a woman-friendly approach to workforce planning in nursing: reorganized work schedules/individualized contracts, rather than simply more part time jobs; cost-benefit analysis of different forms of childcare in relation to the real costs of turnover and failures to return; introduction of a concept of the "extended nursing labour force" through the collection of routine data on those working elsewhere and those not working at all, in order to provide accurate information on flows in and out of the pool, nationally, regionally and locally.

Issues of staff retention must be part of workforce planning and projection. For example, there is a very high drop-out rate from nursing in

Zimbabwe among women staff with over 15 years experience. This represents a serious loss of experience and expertise. Planning must examine the reasons for this high exit rate and what is needed to reduce it (25) (Box 2).

Box 2. Data Collection Needs for Gender Equity in Human Resource Planning

Gender blind HRPP can produce discrimination and reduce the effectiveness f human resources. The following areas of potential discrimination are considered in terms of the data collection needs they would generate. For all of them, gender and age disaggregated data on the health sector workforce are required in order to understand its demographic structure, and thus provide a basis for taking account of life cycle factors in the disposition of the workforce.

Terms and conditions for existing staff which set requirements which one sex is less able to meet than the other because of structural or familial constraints (e.g. a promotion requirement for overseas training).

Data on the gender composition of personnel taking up different types of training or career opportunity, data on gender/age of those leaving a) the public sector, b) the health sector. Qualitative data on female and male provider views of opportunities and constraints and on how barriers might be dealt with.

In workforce restructuring, such as the retrenchment of particular cadres of staff who happen to be mainly female.

Data on the gender composition of different categories and grades of workers. Consultation with user and provider stakeholder representatives on implications for service delivery.

In recruitment, where there are significantly lower numbers of women taken on than men.

Quantitative and qualitative data on educational and other barriers to female recruitment. Data on the proportions of men and women in senior positions. Qualitative data from stakeholders on reasons for gender imbalance.

A "category bias" in which a whole group of workers, which happens to be predominantly female, is treated less favourably than another group, which happens to be predominantly male.

Consultation with provider stakeholders on implications of restructuring policies for specific groups and potential for indirect disadvantage, e.g. policies on private practice and professional regulation

SOURCE: Standing H, 2000 (12).

A recent NHS policy document addresses the issue of female "returners" (26). It describes a recruitment drive to get those nurses no longer working in the profession to return. Surveys found that four out of

five nurses no longer working as nurses would come back under the right circumstances. Top priorities for them were personal support and accessible refresher training. Extra money was provided for free "return to practice" courses. This produced a large response. For example, one health care trust provided a 3-week free course, which ran during school hours and attracted returners from a number of hard-to-recruit areas. A majority of the attenders went on to take jobs in the trust, which provides family-friendly employment options, including flexible hours and shifts and school term working, compassionate leave for family emergencies and a workplace nursery.

Some UK NHS Trusts have developed workforce monitoring systems that link information on employees to equal opportunities policies. Key points include the need to have a commitment by senior management, making participation of employees in workforce profiling either compulsory or highly participatory, and ensuring that senior managers and non-executive Board members discuss the information regularly (21).

Canadian policy on employment equity has shifted from an emphasis on meeting numerical targets in "equal opportunities" workforce planning to the provision of fair employment systems and a supportive organisational culture for women, racial minorities, aboriginal peoples and persons with disabilities (27). The new policy requires employers to demonstrate that they are taking action to comply with their own equity plans, that unions and employees are part of the implementation process; it also gives an enforcement role to the Canadian Human Rights Commission.

Methods of Achieving Equity in Career Structures, the Identification of Individual Training and Development Needs and Promotion Opportunities

One gender equity theme recurs over and over in relation to this set of issues. It is the need for flexibility in career planning, coupled with flexible working arrangements for female staff and those with caring responsibilities. Although the documentation of initiatives comes mainly from high income countries and addresses the particular life stage circumstances of women in those countries, the expressed need appears to be universal.

Career structures can be indirectly discriminatory. For instance, imposing a requirement for overseas training created career blocks for

female doctors in the Sudan who were not able to leave husbands and family at that stage in their lives (28). This study found that nearly half of the female medical graduates in the sample were not undertaking postgraduate training. Common forms of discrimination are career paths which penalise those who work part time or those taking time out for family reasons (Box 3).

Box 3. Gender Discrimination in Career Structures

A UK case study of nursing provides an illuminating account of the ways in which the restructuring of a profession dominated by women, without regard to possible gender implications, can operate to disadvantage them. In Britain, nursing historically was not a linear, bureaucratic ladder of opportunity, but a command hierarchy presided over by a (female) matron. This was essentially a female chain of command within the (male) doctor dominated institution of the hospital, which gave the matron sole jurisdiction over her staff of ward sisters and staff nurses.

The health service reforms of the mid-1970s replaced this with a career hierarchy of posts from ward level up through the hospital and through the newly constructed administrative tiers to the Regional Nursing Officer. One result of this was that by the mid-1980s, senior nursing management was increasingly masculinised. Nearly 50% of these posts were held by men, despite the fact that men constitute only 10% of the profession.

This new career hierarchy is described as "stratification on the basis of motherhood." It occurred because of the clash between women's need for career breaks when their children were born, and the rigid logic of career progression where qualifying time periods were built into progression, and "time out" sent a nurse back into a lower grade. There was no allowance for them to remain on the same grade but to work part time. Returning mothers got shunted into what are seen as the "dead zones" such as night work. As night sisters were placed at lower grades than day sisters, it was then difficult to move from nights to days. As a result of this indirect discrimination, whilst men took 8 years on average to reach Nursing Officer grade, women who took career breaks took 23 years.

However, even women with no career breaks took an average of 15 years, suggesting that there were also other discriminatory factors operating. Comments from respondents in the survey suggested a great deal of gender stereotyping. Female nurses were seen as intrinsically not good at management, and as less motivated or concerned with their careers than men. This fed through into e.g. differences in the numbers of women and men applying for promotion at given points in their careers.

SOURCE: Halford S, 1997 (29).

A further kind of indirect discrimination occurs through the setting of rigid boundaries between occupational groups and intra-occupational statuses, for instance, by not allowing paramedical or "certified" staff to improve their skills with formal recognition (30). These groups are mainly female and are more likely to have suffered educational disadvantages related to gender . The strong training and professional divide between doctors and nurses reinforces gender-based stereotyping and discrimination (Tables 1 and 2).

Table 1. Malawi Enrolled and Registered Nurse-Midwives' Perception of the Effect of Being a Woman on Their Careers.

Responses	*RNMs*	*Nurse (N = 145)*	*ENMs*	*Nurse N = 87)*
	Number	Percentage	Number	Percentage
Conflicting maternal and nursing roles	25	17.2	6	6.9
No problems at all	25	17.2	17	19.5
Role overload	14	9.7	7	8.0
Multiple roles; tiresome for nurses; marginalization; decisions not respected; exploitation by men	13	8.9	34	3.9
Enhances a caring attitude	9	6.2	0	0
Gender imbalance on decision making	8	5.5	1	1.1
Professional oppression	5	3.4	3	3.4
Lack of a united voice	5	3.4	0	0
Positively enhances nursing	4	2.8	6	6.9
Depends on reproductive responsibilities	2	1.4	2	2.3
Role confusion	3	2.1	0	0
Not applicable	4	2.8	0	0
Lack of empowerment	2	1.4	0	0
Limited choice, always follows husband	1	0.7	3	3.4
Lack of recognition as nurses	0	0	1	1.1

Table 2. Enrolled and Registered Nurse-Midwives' Perceptions of the Most Pressing Issues in Nursing Today.

Pressing Issues in Nursing Today	*RNMs*	*Nurse (N = 90)*	*ENMs*	*Nurse (N = 100)*
	Number	Percentage	Number	Percentage
Risky work environment	62	68.8	53	53
Scarce material resources	45	50.0	20	20
Heavy workload	44	4.8	53	53
Scarce human resources	38	4.2	35	35
Poor or low salaries	36	3.8	64	64
Poor promotion strategies	28	2.5	19	19
Poor recognition for nurses' contribution to health care	23	2.5	4	4
Limited career development	23	1.7	18	18
Effects of working conditions	16	1.7	4	4
Poor professional image	15	1.6	10	10
Long unsociable hours	14	0.3	6	6
Other reasons	3		3	3

SOURCE: Kaponda C, 1999 (31).

The Ugandan Government's current human resources strategy proposals do not address gender issues directly but their emphasis on creating more open career structures is likely to benefit women. Enrolled nurses are to be upgraded to registered nurse/midwives to enable them to continue providing primary level nursing care. They will be able to develop careers in public health nursing. They can now also be upgraded to medical assistants (who currently are mainly men). Similarly, nursing aides found to be effective will be allowed to enter enrolled nurse training, even though they lack formal educational qualifications. (32).

Current proposals on equal opportunities within the NHS (26) lay down a new career framework for nurses, midwives and health visitors that is designed to provide an open structure with stepping-on and stepping-off points and associated training and professional and personal development (Box 4). These proposals address the fact that the majority of nurses are women and that working conditions need to recognize their roles as primary careers.

The NHS proposals also offer a comprehensive set of measures regarding several aspects of career development and discrimination. These include the significant number of nurses from ethnic minorities, particularly

in the older age groups, together with the very low levels of senior nurses from ethnic minorities; the need to tackle racial and sexual harassment; the need to involve staff in policy-framing. The proposed Framework for Action (21) includes equality standards, indicators and performance management measures for good practice and outcomes (Box 4).

Box 4. A New Career Framework for Nurses, Midwives and Health Visitors for the UK NHS

	Typically people here will, at a minimum be competent...	Typically posts will include…	Typically people here will have been educated and trained to…
Health care assistant	…to provide basic and routine personal care to patients/clients and a limited range of clinical interventions routine to the care setting under the supervision of a registered nurse, midwife or health visitor	…cadets and health care assistants and other clinical support workers	…National Vocational Qualification levels 1,2 or 3
Registered Practitioner	…to do above and exercise clinical judgment and assume professional responsibility and accountability for the assessment of health needs, planning, delivery and evaluation of routine direct care, for both individuals and groups of patients/clients; direct and supervise the work of support workers and mentor students	…both newly registered nurses and midwives and established registered practitioners in a variety of jobs and specialties in both hospital and community and primary care settings.	…higher education diploma or first degree level, hold professional registration and in some cases additional specialist-specific professional qualifications.
Senior Registered Practitioner	…to do above and assume significant clinical or public health leadership of registered practitioners and others, and/or clinical management and/or specialist care	…experienced senior registered practitioners in a diverse range of posts including ward sisters/charge nurses, midwives, health visitors and clinical nurse specialists.	…first or masters degree level, hold professional registration and in many cases additional specialist-specific professional qualifications
Consultant Practitioner	…to do the above and provide expert care, to provide clinical or public health leadership and consultancy to senior	…experienced and expert practitioners holding nurse, midwife or health visitor	…masters or doctorate level, hold professional registration and additional specialist-

	registered practitioners and others and initiate and lead significant practice, education and service development.	consultant posts.	specific professional qualifications commensurate with standards proposed for recognition of a 'higher level of practice'.

SOURCE: (33).

Family-friendly and carer-friendly policies are identified as crucial in retaining and managing staff; Sunderland UK National Health Service Trust, for instance, has a policy called Supporting Carers in Employment, which includes special leave, sickness leave, career breaks, flexitime and job sharing.

Few policies explicitly tackle the issue of promotion, perhaps assuming that if flexible employment policies are in place women and minorities will be promoted more readily. But other barriers are not addressed. For example nurses in Malawi wanted equal opportunities among all health professionals in authoritative positions, so that a nurse or a doctor could both be eligible to head an institution (25).

Entrenched institutional and status barriers between medical and nursing professions continue to be problematic. It is also unclear how decentralization will affect career and promotion opportunities. The Zimbabwe nursing report (31) notes that traditionally work within the public service was always seen as being very secure with a fairly clear career mobility. It provided various career mobility options, such as moving upwards through the districts, and provinces to national level. The decentralized health services do not have the same career mobility prospects. This could make nursing less attractive.

Another less tractable problem is how to tackle the causes and effects of gender stereotyping. The study in Sudan (28) reports complaints of pervasive discrimination against women in promotions and in the award of scholarships for overseas study, with a general assumption that women do not want, or are unable, to advance their careers because of family responsibilities and that women doctors are "inefficient" and lack motivation because they are more likely to work part time or take career breaks (see also 34, 35 on discriminatory selection practices in medicine). This can only be addressed in a much longer timeframe to address and through a concerted effort to move more women into senior management positions. However, Maddock (35) offers a model selection process for all

stages of the selection process, dealing with common forms of discriminatory questioning and methods of discarding candidates, and with ways through which to develop objective person specifications.

This approach could be adapted to other areas of the health sector. Some recent initiatives on widening access to medicine by nurses and others, and on the training together of nurses and doctors may assist in breaking down these more deep-rooted problems (36).

Stereotyping is a symptom of the implicitly "male" nature of career structures and pathways in the health sector. For example, problems of recruiting qualified staff to rural areas and retaining them there are common across the developing world (32). Women health staff are seen as a particular problem in relation to working outside towns or cities. Most attempts to deal with this assume a) that it is best to concentrate on getting staff to spend time in rural areas at the beginning of their careers, and b) that financial incentives or incentives base on career progression work best in motivating employees to move to or stay in rural areas. These assumptions are based on "typical" male career patterns. Yet, in contrast to men, women in early career are generally precisely those most constrained by family and marital demands, or by cultural difficulties in living away from families. A more imaginative approach might test whether and with what incentives older women with no dependent children might be prepared to work for a time in rural areas. There appears to be general agreement that the practical application of equity policies in this broad area is highly dependent on the training and sensitivity of managers who implement them (Box 5).

Box 5. Issues in Managing an Equal Opportunities Policy in a Devolved Setting

These extracts from a case study of an equal opportunities policy for female ethnic minority staff in a UK hospital trust illustrate many of the practical dilemmas of equal opportunities policies in devolved organisations.

General effects of decentralization on equal opportunities

There has been a shift from central bureaucratic control to the devolution of management and budgets to sections and department. Blakemore and Drake (1996) argue that there is evidence that this growth in management discretion can lead to an increase in discrimination, with 'more appointments being made arbitrarily, to greater scope for favouritism in staff promotion, and to the erosion of company-wide equal opportunity standards'.

However, Mason and Jewson (1992) suggest that, despite reservations about increased discretion for individual managers, there may be potential for equal opportunities in this new environment. If equal opportunities policies can be adapted and made to work in devolved units, through winning over senior managers to their merits or ensuring their compliance through incorporating them in their performance targets, then the policies may be more effective and responsive to local conditions and priorities.

Managers and equal opportunities policies in practice

The general uncertainty among managers concerning the hospital's official sexual and racial harassment policy, coupled with a lack of precision about the extent of such harassment and the desire of managers to deal with such matters informally wherever possible, risked leading not only to inconsistency in the handling of cases, but also to a failure to signal to all staff (and patients) that such behaviour will not be tolerated. The overall lack of training in and expert knowledge of equal opportunities among managers only serves to reinforce the restricted attempts that are made to implement innovative and effective equal opportunities policies. Moreover, managers lacking abilities and experience in this area find it especially difficult to raise the profile of equal opportunities policies in general and to press for organisation-wide solutions to related problems.

Training, promotion and career development

Despite being viewed as of great importance by the ethnic minority women employees, in-service training, career development and promotion were marginalised on the equal opportunities agenda by managers.

The women identified a number of barriers to promotion, including structural factors, such as a flat hierarchy, family responsibilities and a lack of confidence in their own abilities. In contrast, the managers in our sample reported that they appointed individuals on ability and that they did not feel that there were any barriers to the promotion of suitably qualified ethnic minority women, and therefore no equal opportunities issues were involved…It is important that the hospital should be as proactive as possible in identifying and encouraging ability, and should not rely alone on individual initiative in seeking promotion.

While for ethnic minority female staff the chief problem associated with training was getting timely information, managers focused on staffing and financial constraints… Behrens (1993) suggests that merely providing training for ethnic minority staff can set them up to fail, unless it is also linked to change in the environment and culture of the organisation.

In general, career advice was offered to those with a 'career' and rarely, if at all, to those with a 'job,' but there was an interest among ethnic minority women currently employed in lower-grade work to progress to work of a higher status.

The 'quality case'

The Commission for Racial Equality, whilst advocating a business case for equal opportunities to the private sector, has modified this to a 'quality case' in the public sector (1995). The 'quality case' consists of enhancing local democracy, accountability and customer satisfaction, understanding customers' needs, using people's talents to the full, becoming an 'employer of choice', enhancing partnership with the private sector and the relationship with central government, and finally, avoiding the legally imposed costs of discrimination.

Recruitment of ethnic minority women

While many [managers at the hospital] favoured increased recruitment of ethnic minority women through advertisements in the local media, particularly the Asian media, there was some resistance towards other examples of positive action and the idea of positive action in principal…Many interviewees argued that greater use should be made by the trust of Asian radio stations and newspapers, as well as advertising in community centres, libraries and shops. Moreover, there was a general feeling among respondents that the trust could do more to provide information to potential applicants about the hospital, its employment conditions, the nature of the job under discussion, and the other kinds of jobs available within the organisation.

SOURCE: Bagilhole B, 1997 (38).

ACHIEVING AND MAINTAINING "GENDER-NEUTRAL" NON-DISCRIMINATORY SYSTEMS FOR THE DETERMINATION OF PAY

Male health personnel have higher average incomes than their female counterparts (39). This is compounded by the high degree of gender segregation in the health workforce, in so far as figures are available. However, this picture does vary internationally (Box 6).

Box 6. Nurses' Remuneration: Female Pay Levels Compared to Male Pay Levels

Job Category	*Sweden*	*United Kingdom*	*Australia*
Health Auxiliary	+ 4%	- 45%	-
Assistant Nurse	+ 0.5%	- 45%	-
Registered Nurse	-	- 21%	+ 1%
Certified Nurse	-	- 21%	+ 23%

SOURCE : Tabulated from Birhaye A, 1994 (40).

The reasons put forward for male advantage include: greater average seniority, faster rates of promotion and wider access to training, longer work hours and greater availability for overtime. This is often in the context of an ostensibly neutral pay system. Clearly, therefore, simply focusing on pay systems will not adequately address differences in remuneration, as these are often tied to the indirect ways in which women are disadvantaged in health employment. There are also intrinsic difficulties in determining what constitutes "non-discrimination" where a high degree of gender segregation exists. Are the generally acknowledged low rates of remuneration in nursing a consequence of the predominantly "female" nature of the occupation, rather than any objective evaluation of the tasks performed? Would increasing the proportion of men in nursing act to raise payment rates, and/or produce widening differentials between men and women within nursing?

Again, whilst a number of countries have broad equal opportunities legislation prohibiting direct discrimination, little evidence was found linking pay systems to equity goals in the health sector. Three issues are potentially relevant to equity: the effects of type of payment system; the linked question of incentives; the implications of decentralized pay and bargaining systems.

McCourt (20) notes that payment systems can be based on job evaluation or on employee performance, or on a mixture of both. Traditionally, health sector pay has been determined by evaluating jobs and tasks (itself a subjective process, given the gender divisions within the health workforce) but there has been increasing interest in many countries in some element of performance-related remuneration. This is linked to recent debates about the lack of incentives linked to improved performance within public sector organisations.

Reviews of performance-related payment systems (28, 41, 42) are equivocal about the benefit of such systems and generally negative about their impact on organisational performance – no link was found between performance-related pay and organisational performance. Concern about gender and the treatment of minorities in such systems relates to the large element of subjectivity entailed in the identification of good performance. Ullrich (41) notes that performance appraisal systems tied to the allocation of merit payments are extremely difficult to render objective and may reinforce existing gender biases in payment systems. This leads to the view

that the critical determinant of performance management success is not the design of the system or the link with pay, but the skill of the managers who operate it, and that organisations should devote their energy to developing managerial skills rather than elaborate payment and appraisal systems. Presumably this should include equal opportunities training and awareness. Again, the evidence on this is lacking.

Whilst the use of incentives for health staff has received some attention in health sector reforms, little attention has been paid to any possible gender dimension. Yet the example of the frequent lament about the difficulty in many countries of getting female staff in particular to work in rural areas suggests that it may be important to find out whether a different incentive structure is needed to attract or retain women. A study in Sudan (28) notes that the primary concern for women doctors in moving to rural areas is adequate housing and security, not salary compensation.

The impact of decentralized payment and bargaining systems on equity does not appear to have been investigated. Nurses in Zimbabwe (31) raised general concerns about the impact of decentralization on nurses' conditions of service. The hypothesis to be tested might run as follows: centralized pay and bargaining systems are more likely to produce equity, since there are greater checks and balances at national level, such as anti-discrimination and human rights legislation, and greater transparency and accountability to key stakeholders such as professional associations.

The counter hypothesis may be; decentralized pay and bargaining can benefit women and other minorities as it encourages disaffected staff to move to areas where pay and conditions are better.

Other Key Organisational Issues

Stakeholder Participation

The importance of consultation and participation by health workers in human resource planning is noted in a number of commentaries, but models to achieve this are lacking. This is an issue not just for individual employees in relation to their organisations, but also for occupational groups as a whole. A recent speech by the Director of Nursing in Zimbabwe makes plain the concerns of nurses: "Any health policy affects the basic operation of all nurses and yet the policy formulation process is an area from which nurses are often excluded. This leads to the development of

feelings of isolation and gender disempowerment." (43). The Director goes on to state that nursing associations have generally found it difficult to assert professional autonomy vis-à-vis the much more powerful doctors' associations, or to be heard in any negotiations. Gender has been an important dynamic in the politics of professional representation, reinforcing the lack of voice of this critical group of health workers. She suggests that influence on policy formulation can be achieved through the following: initiating policy dialogue with stakeholders in the private and public sectors and society at large; conducting policy research to determine future directions in nursing.

HEALTH WORKERS IN THE PRIVATE SECTOR AND INTERNATIONALLY

Most health workforce planning is based implicitly or explicitly on the public sector as the dominant provider, whether of training or of employment. Yet in many countries, particularly low and middle income ones, the private sector is large or even dominant in service provision. This raises many issues from the point of view of equity concerns.

There is much less information on private sector workforce flows, conditions of service and employee experiences of private employers.

The private sector is extremely diverse, encompassing established for-profit providers, non-profit providers such as non-governmental organizations (NGOs) and missions, independent practitioners, and a range of hybrids (e.g. in China where governments fund infrastructure but health workers raise much of their own salaries from service users). We know very little about the implications of this diverse range of provision for managing equity. Is the market a better or worse arbiter of equity? The answer will probably depend on the tightness of labour market conditions.

In countries where the public sector is in financial crisis, there is evidence of an increasing flight to the private sector (25,31). This is not only because of higher salaries but because working conditions are perceived to be better.

There continue to be large-scale movements of health staff across national boundaries. Again, little is known about the equity implications of this. Diversity of employment structures is increasingly likely to be the norm in many countries. More attention will be needed to conditions within these different employment relationships.

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Améliorer les relations entre formateurs et utilisateurs des ressources humaines dans le secteur de la santé

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INTRODUCTION

Depuis plusieurs années l'on s'interroge sur l'amélioration des relations entre l'enseignement médical et le système de santé. Ainsi, en 1977 le Conseil des Organisations Internationales des Sciences Médicales (CIOMS) a organisé une table ronde sur le thème «Société et Santé: l'enseignement médical face à un défi ». En 1984, la 37.ème Assemblée Mondiale de la Santé a consacré ses discussions techniques au rôle des Universités dans les stratégies de la santé pour tous, et a passé une résolution sur le sujet.

L'évolution de l'état de la santé dans le monde nous montre que des améliorations sont nécessaires pour assurer la pertinence, la qualité, l'équité et la rentabilité dans les systèmes de santé. Ces améliorations sont d'ordre politique et organisationnel d'abord et doivent prendre en compte les ressources humaines pour la santé, sur les plans de leur formation et de leur mode de pratique. Les professionnel(le)s de la santé en particulier ont une formation biomédicale poussée, ce qu'accentue le développement de la science et de la technologie. Or la formation en sciences sociales s'avère aussi importante pour mieux considérer et utiliser les forces politiques, sociales, économiques et psychologiques qui affectent la santé des individus, des groupes et des communautés.

Il apparaît donc nécessaire d'être attentif à l'amélioration de la relation – plus exactement de la collaboration – entre formateurs et utilisateurs des Ressources humaines pour la santé afin d'orienter positivement l'enseignement et la pratique des soins de santé en faveur de la santé pour tous.

LA SANTÉ

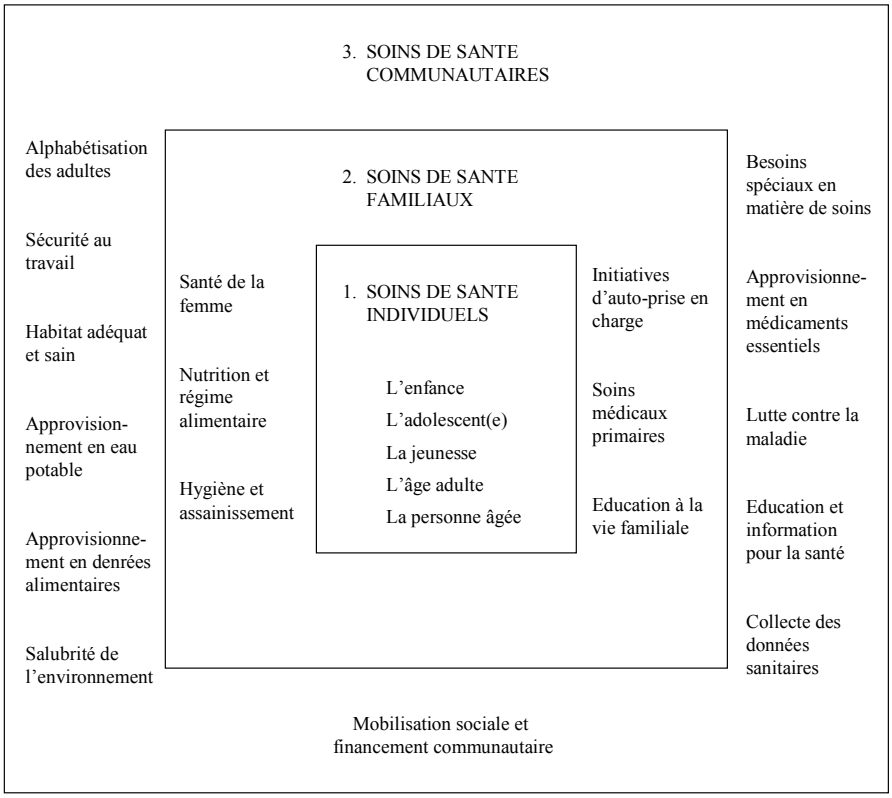
La santé est considérée par l'Organisation Mondaiel de la Santé (OMS) comme «un état de complet bien-être physique, mental et social». Il s'ensuit que les personnels de santé doivent assurer efficacement les soins promotionnels, préventifs, curatifs et réadaptatifs, tant pour les individus que pour les groupes et communautés.

C'est en 1977 que l'Assemblée Mondiale de la Santé a formulé l'objectif «Santé pour tous». Le résultat attendu est de faire accéder tous les habitants de la planète à un niveau de santé qui leur permette de mener une vie socialement et économiquement productive.

Les soins de santé primaires ont été définis à Alma-Ata en 1978 comme une stratégie de développement des «soins de santé essentiels fondés sur des méthodes et des techniques pratiques, scientifiquement valables et socialement acceptables, rendus universellement accessibles à tous les individus et à toutes les familles de la communauté avec leur pleine participation et à un coût que la communauté et le pays puissent assumer à tous les stades de leur développement dans un esprit d'auto responsabilité et d'auto détermination.

Les concepts précédemment présentés et l'expérience acquise depuis Alma-Ata permettent de représenter, de façon opérationnelle, la santé pour tous par la figure 1.

Figure 1. Composantes de la santé



(Adapté de ALIHONOU, dans OMS/CIDMEF : «La Faculté de Médecine et le Médecin praticien du XXIème siècle», 1998.)

LE CONTEXTE DE LA SANTE DANS LE MONDE

Le contexte de la santé dans le monde peut être décrit selon différents aspects (Figure 2).

Sur le plan de la géographie physique, divers problèmes sont liés à l'écologie et à l'environnement, à la pollution, au climat.

Sur le plan politique, l'extension des processus de démocratisation, de mondialisation et aussi de décentralisation, avec différents aléas

entraînant des foyers de violence (guerres, violences inter ethniques) ou d'instabilité. Ces éléments ont un impact négatif sur l'organisation et le fonctionnement des services de santé et aussi sur les problèmes de santé et les mouvements de population. Il faut ajouter les aspects nouveaux des droits de l'homme et des droits des enfants. Enfin, les processus de démocratisation et de décentralisation ont favorisé, à des degrés divers, la participation des communautés à la gestion du système et des services de santé.

Sur le plan économique, on assiste dans certains pays à un gaspillage de ressources. Dans plusieurs d'autres, le fardeau de la pauvreté est de plus en plus pesant, en augmentant les inégalités entre les pays et à l'intérieur des pays, en soulignant la nécessité d'améliorer la solidarité et l'équité et en faisant une plus grande place à la bonne gouvernance. L'impact des activités des autres secteurs de développement sur la santé implique la nécessité d'une collaboration intersectorielle.

Sur le plan socioculturel, il faut signaler une certaine déshumanisation que différentes ONG s'efforcent de corriger. Notons aussi les problèmes du chômage, du niveau insuffisant d'alphabétisation et de scolarisation, en particulier pour les femmes. Des modes de vie néfastes pour la santé se développent toujours tabagisme, alcoolisme, toxicomanie, alimentation déséquilibrée ou insuffisante. Il faut ajouter le phénomène des enfants de la rue.

Sur le plan démographique, il y a des variations importantes entre pays industrialisés et pays en développement quant à l'espérance de vie, aux taux de natalité et de mortalité, en particulier maternelle et infantile. Il faut, cependant, noter une tendance croissante au vieillissement des populations avec l'émergence des problèmes relatifs à la santé des personnes âgées. La santé de la reproduction focalise davantage l'attention, depuis quelques années, pour la résolution de certains problèmes de démographie.

Sur le plan sanitaire, malgré l'amélioration des taux de couverture pour différentes composantes des soins de santé primaires, il faut toujours faire face aux maladies transmissibles et non transmissibles, et aussi aux maladies émergentes (dont le SIDA) et réémergentes. Les taux élevés de mortalité maternelle et infantile, les problèmes de santé mentale, de traumatismes avec leurs séquelles demeurent préoccupants, ainsi que la pathologie liée aux migrations des populations, que les causes en soient politiques, économiques ou écologiques.

Sur le plan scientifique, il faut considerer: d'une part, l'important développement de la pharmacologie et de la biotechnologie ces dernières années, ses conséquences sur le diagnostic et le traitement des affections et son impact sur le coût des prestations de service; d'autre part, le développement de la recherche biomédicale dans les pays industrialisés et l'effort mondial consenti pour la recherche en santé et développement dans les pays en développement.

Enfin, les progrès biotechnologiques et leur impact économique, les mécanismes de prise en charge de la douleur, le génie génétique, les greffes et l'euthanasie, sont parmi les nombreux facteurs qui attirent davantage l'attention des personnels de santé et du public sur les questions éthiques. L'éthique n'a qu'une dimension individuelle, axée sur l'intérêt du malade, les données scientifiques, les droits et les libertés des individus. Elle a aussi une dimension sociale à considérer : les intérêts des sociétés avec la diversité de leurs modèles culturels et de leurs croyances, leurs ressources limitées, et la quête constante et croissante de l'équité, ainsi que la dimension éthique dans la gestion des soins et des systèmes de santé.

Toutes ces caractéristiques et tous ces facteurs sont à prendre en compte lorsqu'on considère l'état de la santé des individus, des groupes et des communautés ; ils expliquent aussi bien les difficultés à établir un système de santé efficace que les mutations en cours dans les systèmes de santé. Un système de santé ayant pour but de promouvoir, restaurer, entretenir la santé, en utilisant les ressources de façon efficiente, est appelé à des adaptations constantes.

LES DEFIS POUR LES SYSTEMES DE SANTE

Le rapport de 1999 de l'OMS sur la santé dans le monde indique les principaux défis à relever par les systèmes de santé pour un réel changement de l'état de santé dans le monde. Il s'agit de: réduire la surmortalité et la surmorbidité dans les pays pauvres; la pauvreté elle-même devrait être considérée comme une maladie, dont les femmes et les enfants apparaissent partout comme les premières victimes; contrer à l'avance les menaces potentielles sur la santé liées à une situation économique en mutation parfois mal contrôlée, à l'environnement malsain, aux comportements à risque; mettre en place des systèmes de santé plus efficaces offrant une couverture efficace, intégrant mieux les activités de soins individuels et de

santé publique, développant une démarche d'assurance qualité dans leurs prestations.

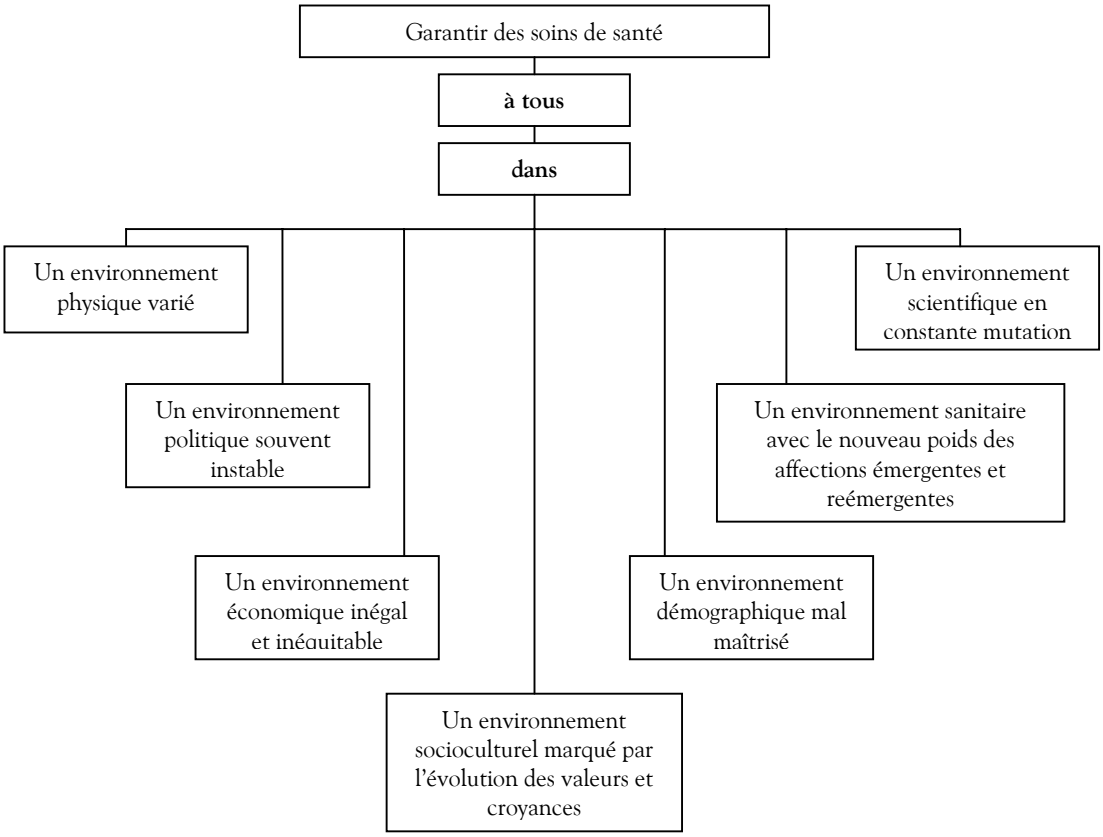
Relever ces défis suppose de: définir les rôles des acteurs-clés (Etat, prestateurs de soins, bénéficiaires, organismes de financement; trouver des mécanismes de financement qui génèrent des ressources additionnelles; trouver une meilleure adéquation entre le secteur public et le secteur privé.

Investir dans le développement de la base de connaissances, en particulier dans la recherche sur les causes courantes de morbidité et de mortalité et sur leur prise en charge dans les pays développés et dans les pays en développement, dans la recherche en sciences sociales et du comportement, la recherche sur le système de santé (politique, organisation, financement, performance), la recherche biomédicale (y compris les thérapies traditionnelles).

Coordonner sur le plan mondial les activités en rapport avec la santé, y compris les aspects de l'aide au développement.

De nombreux pays ont senti la nécessité d'opérer des réformes, et les mutations en cours dans les différent systèmes nationaux de santé soulignent la nécessité de développer la recherche sur les systèmes de santé pour identifier des modèles d'organisation fondés sur les principes suivants: pertinence des services ,qualité des services; efficience (coût/ efficacité); equité;solidarité (entre pays, à l'intérieur des pays); partenariat entre les acteurs directs et indirects de la santé; identification de nouveaux modes de pratique;couverture sanitaire satisfaisante.

Figure 2 . Le contexte de la santé dans le monde



LES RESSOURCES HUMAINES POUR LA SANTE

Trois aspects vont être considérés: (i) les questions fondamentales relatives à la formation des ressources humaines pour la santé et au rôle des utilisateurs dans le processus de formation ; (ii) les principales compétences attendues en ce qui concerne les ressources humaines pour la santé ; (iii) les principes fondamentaux de la formation des RHS.

LES QUESTIONS FONDAMENTALES

Un important effort de renouveau pédagogique pour améliorer la formation des professionnels de santé a eu lieu dans la plupart des institutions de formation. Au cours des deux dernières décennies une attention particulière a été portée à la planification systématique de l'enseignement et de l'apprentissage ainsi qu'au développement et à l'utilisation de technologies nouvelles pour l'information et la communication dans le domaine de la formation. Cependant, il est apparu que cette démarche avait un impact limité sur la résolution des problèmes de santé des individus, des groupes et des communautés. Une collaboration plus étroite entre le secteur de la formation des professionnels de santé et le système de santé s'est révélée indispensable pour assurer effectivement la pertinence, la qualité, l'équité et la rentabilité dans le système de prestation des soins de santé aux niveaux de la promotion de la santé, de la prévention et du traitement des maladies, de la réadaptation des sujets à leur milieu selon leur handicap mental ou physique éventuel.

On peut considérer cinq volets à explorer en ce aui concerne l'implication des utilisateurs dans la formation des personnels de santé: le processus d'élaboration et d'actualisation des programmes de formation et le rôle qu'y jouent les utilisateurs des RHS ; les modalités de détermination des compétences professionnelles en vue d'une formation axée sur l'acquisition des compétences ; les besoins de développement des RHS et l'interaction entre formateurs et utilisateurs pour la satisfaction de ces besoins; les mécanismes d'accréditation des institutions de formation et la place qu'y tiennent les utilisateurs des RHS; le rôle du secteur de l'éducation pour l'intégration de nouveaux groupes de travailleurs de la santé.

L'étude de ces volets nécessite la démarche présentée au Tableau 1. Des contraintes de temps et des difficultés de communication n'ont pas permis au groupe de travail de faire le point de la situation en termes de publications, mises au point et méta-analyse. Un certain nombre de tendances apparaissent à néanmoins l'observateur attentif, et ce sont elles qui vont être présentées.

En ce qui concerne le processus d'élaboration et d'actualisation des programmes de formation : il faut signaler la relative autonomie des institutions de formation. C'est l'étude de Flexner (1910) sur la formation médicale aux Etats-Unis et au Canada qui, en Amérique du Nord et

progressivement ailleurs dans le monde, a permis de développer: une orientation scientifique à la formation médicale; le développement de deux cycles dans la formation médicale: un premier cycle axé sur les sciences dites fondamentales, un second cycle axé sur les sciences cliniques.

Signalons que le rapport Flexner a aussi permis aux institutions de formation d'être plus attentives à la standardisation dans le recrutement des étudiants et l'évaluation de leurs apprentissages; l'existence de deux composantes du processus de formation: enseignement (par les enseignants) et apprentissage (par les étudiants).

L'actualisation des programmes est liée soit à un mécanisme d'auto-évaluation institutionnelle dans la plupart des Facultés de Médecine, soit à un mécanisme d'évaluation externe associée pour l'Amérique du Nord. Il faut signaler pour les pays francophones l'effort de mise en place, au cours des dernière années du vingtième siècle, d'un mécanisme d'évaluation interne et externe des Facultés de Médecine par la Conférence Internationale des Doyens des Facultés de Médecine d'Expression Française (CIDMEF).

Tableau 1. Aspects de l'implication des utilisateurs dans la formation des RHS

Volet a explorer	*Informations a recueillir*	*Sources a consulter*
Volet 1 i) Processus d'élaboration et d'actualisation des programmes actuels	Catégories de professionnels formés Institution ou école de formation Mécanisme mis en place	Institutions concernées Documents existants Représentants OMS/pays : HIP Ministères concernées, surtout de la Santé
ii) Rôle des utilisateur ssouhaitables possibles	Organe Attributions et activités de l'organe Périodicité Rôles effectivement joués Organe mis en place Attributions et activités Effets sur le processus Rôles souhaitables à concevoir	Documents existants Personnes ressources.

Volet a explorer	*Informations a recueillir*	*Sources a consulter*
Volet 2 Modalités de détermination des compétences professionnelles comme sources d'information pour l'éducation et la formation des travailleurs de la santé	Descriptions de postes/Enumération de tâches Organes mis en place Mixte (formateurs/utilisateurs) Attributions et activités Compétences professionnelle formulées (Institution de formation)	Ministère de la Santé Institution de formation Documents existants
Volet 3 Besoins de formation et de développement Modèles efficaces d'analyse et de prestation de partenariat utilisateur/éducateur	Organes existants de partenariat Rôles joués par les partenaires Résultats obtenus	Ministère de la Santé Institution de formation Autres institutions UNICEF, OMS, USAID, GTZ
Volet 4 Mécanismes d'accréditation des institutions de formation Rôle effectif et souhaitable des utilisateurs dans le processus	Organes existants d'accréditation Attributions et activités Rôles joués Rôles souhaitables	Ministère de l'Education Nationale Ministère de la Santé Institut de formation Organismes nationaux, régionaux et internationaux, EX : CAMES, CIDMEF Documents existants
Volet 5 Rôle du secteur de l'éducation en matière d'intégration des « nouveaux » travailleurs de la santé (assistants médicaux, aides soignants « génériques »)	Catégories de nouveaux travailleurs Rôle joué par l'Education Organes existants facilitant l'intégration	Ministère de l'Education nationale Ministère de la Santé Institution de formation Organismes de Coopération : OMS, USAID, GTZ, UNICEF

Pour les autres professionnels de la santé, un mécanisme national ou institutionnel d'élaboration et de révision des programmes a été mis en place.

En ce qui concerne les modalités de détermination des compétences professionnelles à faire acquérir aux étudiants: les enseignants sont aussi des professionnels de la santé. Leur expérience personnelle associée à l'étude de l'expérience d'autres institutions, a permis l'élaboration des programmes de formation. Des approches novatrices ont eu lieu au cours des décennies écoulées, en particulier l'apprentissage centré sur la résolution de problèmes et la formation orientée vers la communauté. En fait, peu d'institutions se sont profondément engagées dans ces innovations, compte tenu de la forte résistance au changement des Universités en général.

En ce qui concerne les besoins en matière de développement des ressources humaines pour la santé: c'est à ce niveau que transparaissent les problèmes de collaboration entre le Ministère chargé de l'éducation, le Ministère chargé de la santé et le Ministère chargé de la fonction publique.

En ce qui concerne les mécanismes d'accréditation: a l'exception de l'Amérique du Nord où le Council of Medical Education joue un rôle dans l'évaluation et l'agrément des Facultés de Médecine, les écoles de formation des Facultés de médecine et les autres écoles de formation résultent de décisions gouvernementales et sont, donc, rarement sujettes à caution.

En ce qui concerne les nouveaux travailleurs de la santé: selon les pays et les époques, il y a eu des catégories non conventionnelles de professionnels de la santé, ce qui traduit la recherche constante d'une pertinence des soins et de l'équité dans le système de santé.

Citons, par exemple, les « médecins africains» lors de la période coloniale en Afrique francophone, les «assistants médicaux [feldshers]» en URSS, les « médecins aux pieds nus» en République Populaire de Chine, les agents de santé communautaire avec le développement de la stratégie des soins de santé primaires dans les pays en développement, les assistants dentaires, etc.

Il apparaît difficile d'établir une liste des catégories de professionnels de santé: elle dépend des pays et des époques. Les problèmes importants posés par les categories nouvelles sont leur reconnaissance institutionnelle, leur formation et leurs relations avec les autres personnels de santé.

Les Principales Competences Attendues des RHS

Les principales compétences attendues des ressources humaines pour la santé et qu'il faut considérer pour mieux préciser le profil des catégories de RHS sont: les compétences cliniques pour la prise en charge diagnostique et thérapeutique des patients, en tenant compte des principes de l'humanisme en santé; l'usage approprié des nouvelles technologies et possibilités de la médecine; les compétences en santé publique pour contribuer à promouvoir des modes de vie sains dans des environnements sains; les compétences gestionnaires, nécessaires pour; le travail en équipe; le partenariat avec les autres acteurs directs ou indirects de la santé; la gestion efficiente du système de santé selon le niveau d'implication; l'évaluation des programmes et systèmes de santé; les compétences en matière de communication, tant inter personnelle (avec les autres personnels, avec les patients, avec les autres secteurs) que dans le domaine plus vaste de l'information et de l'éducation pour la santé; les compétences sur le plan de l'éthique; les compétences dans le domaine de la recherche.

Les Principes de Base de Formation des RHS

La formation des différentes catégories de ressources humaines pour la santé, selon les compétences attendues pour chaque catégorie de ressources, devra reposer sur les bases suivantes, mises en évidence par les progrès en sciences de l'éducation et diverses expériences d'innovation pédagogique pour une formation mieux adaptée du personnel de santé: une formation axée sur l'acquisition de compétences, ce qui nécessite de meilleures relations entre les formateurs et les utilisateurs des ressources humaines, pour identifier les compétences nécessaires à la prise en charge des besoins et problèmes de santé des communautés; un programme de formation caractérisé par un contenu de base et des unités ou des modules optionnels qui tiennent compte de la croissance rapide du volume des connaissances et des caractéristiques des pays; une meilleure intégration ou coordination des enseignements; une place accordée à la formation à l'humanisme médical.

Des stratégies de formation, en faisant une place plus importante à: l'apprentissage de la résolution de problèmes prioritaires des communautés; l'apprentissage en milieu professionnel; l'autonomie d'apprentissage et la formation centrée sur l'étudiant; la formation dite «pluri-professionnelle»,

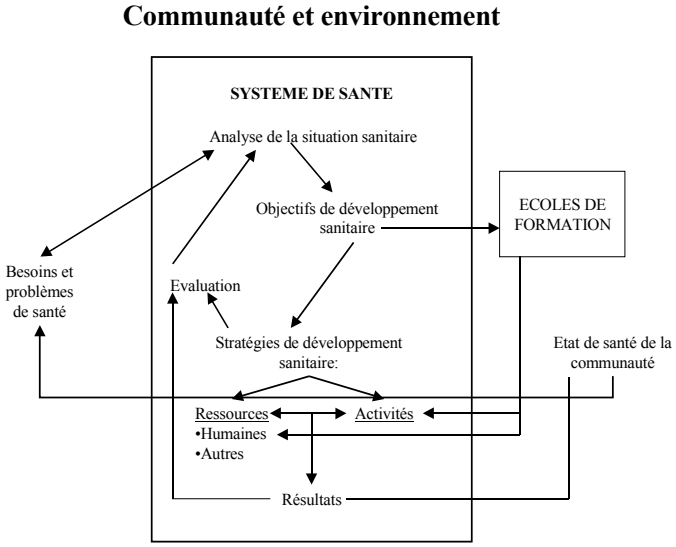
regroupant différentes catégories de personnels en formation pour l'apprentissage du travail en équipe.

LES RELATIONS ENTRE LES SYSTEME DE SANTE ET LE SYSTEME DE FORMATION DES RESSOURCES HUMAINES POUR LA SANTE

Ce qui précède indique la nécessité d'une plus grande interaction positive entre le système de santé et les écoles de formation des personnels de santé. Les écoles de formation devront être associées à l'analyse de la situation sanitaire et à la définition des objectifs de développement sanitaire. Ces derniers devront aussi servir de base aux objectifs éducationnels des écoles de formation. En plus de produire les ressources humaines pour la santé, ces écoles devront participer aussi, ainsi que le montre l'exemple de certains pays, aux activités de développement sanitaire dans leur zone d'implantation.

Cette collaboration contribuera à accélérer le développement sanitaire des pays. La Figure 3 résume cette analyse des relations entre le système de santé, les écoles de formation et l'état de santé au sein d'une communauté.

Figure 3 . Système de santé – Ecoles de formation et santé de la communauté



Le Tableau 2 présente une étude plus approfondie de l'implication du système de formation dans la vie du système de santé et montre qu'une interaction importante peut et doit se développer entre le système de santé et le système de formation, en considérant certaines fonctions principales du système de santé.

Tableau 2. Liens entre les fonctions du système de santé et le système de formation

Système de santé	*Système de formation*
Identification des problèmes de santé	Recherche évaluative
Définition de la politique et des programmes de santé	Démarche de résolution de problème
Organisation du système de santé	Recherche sur le système de santé
Développement des ressources humaines	Formation des personnels de santé
	Types d'écoles
Catégories de ressources	Programme d'études
Activités	Capacité d'accueil
Quantité	Programme de formation continue
Amélioration de performance	
Amélioration des services	Recherche en santé
Agrément des services de santé	Accréditation des écoles
Evaluation de la situation sanitaire et de l'impact de la formation des RHS	Recherche évaluative
Modification éventuelle de la politique et des programmes de santé	Révision éventuelle des programmes de formation de base ou de formation continu

LES PARTENAIRES DE LA SANTÉ

Les partenaires directs du système de santé sont: les décideurs politiques; les gestionnaires du système de santé; les professionnels de santé; les institutions de formation; les communautés.

Les décideurs politiques sont la clé de la réorientation des systèmes de santé: ce sont eux qui élaborent les textes, mettent en place les mécanismes et les ressources, prennent les décisions stratégiques.

Les gestionnaires du système de santé s'occupent de l'organisation et du financement des services de santé pour la mise en œuvre des décisions.

Les professionnels de la santé relèvent de catégories variées et prennent part à la prise en charge des patients à différents niveaux.

Les institutions de formation ont classiquement un triple rôle : formation, recherche, prestations de service. Elles sont ainsi en position de jouer un rôle fondamental dans la définition et la mise en œuvre des stratégies de la santé pour tous. Cela suppose une attention particulière à la question de la pertinence sociale des institutions de formation pour inspirer les décisions et guider les activités en matière de formation, de recherche et de prestations de service. Il est donc indispensable que les écoles de formation et le Ministère de la Santé identifient des mécanismes efficaces d'interaction. Les relations institutionnelles entre les institutions de formation et le Ministère de la Santé se situent à différents niveaux.

Niveau politique, décisionnel: collaboration dans le processus d'analyse de la situation sanitaire et de définition des objectifs de développement sanitaire.

Niveau opérationnel: relation entre la formation des personnels de santé et la situation sur le terrain – les institutions de formation devront s'impliquer davantage dans les activités de développement sanitaire des communautés et mettre les apprenants en situation réelle dans les communautés.

Les communautés: la communauté est un groupe de taille variable d'individus vivant ensemble dans des conditions spécifiques d'organisation et de cohésion politiques, économiques, sociales et culturelles.

Les partenaires indirects du système de santé sont nombreux. On peut citer les secteurs de l'éducation générale, de l'environnement, de l'hydraulique, de l'agriculture, par exemple. Ces secteurs devront élaborer des politiques et des programmes spécifiques destinés à promouvoir la santé et, pour certains, à prévenir les effets pervers des activités de développement sur la santé.

L'ETABLISSEMENT DU PARTENARIAT DANS LE DOMAINE DE LA SANTE

La diversité des partenaires dans le domaine de la santé oblige à présenter quelques considérations générales sur le partenariat puis à aborder de façon plus spécifique le partenariat entre utilisateurs et formateurs des ressources humaines pour la santé.

On peut identifier huit facteurs de base à l'instauration du partenariat dans le domaine de la santé: le climat de confiance en considérant toutes les parties prenantes comme de véritables partenaires; l'approche de collaboration intersectorielle face aux problèmes de santé; la claire définition des rôles et responsabilités des parties en présence ; l'établissement de mécanismes d'interaction à toutes les étapes du processus gestionnaire ; l'élaboration de programmes communs d'activités basés sur les besoins communautaires; la participation communautaire; l'identification des sources de financement des activités; l'évaluation des résultats des activités et, à long terme, de leur impact.

L'ETABLISSEMENT DE PARTENARIAT SUPPOSE QUE L'ON SOIT ATTENTIF.

Au développement d'un plaidoyer, en mettant l'accent sur la santé (plutôt que sur les maladies), sur la pertinence, la qualité et l'efficience des services, et sur l'équité; a l'étude de l'expérience acquise dans le pays ou ailleurs; a l'analyse des champs de forces: certaines sont favorables au développement du partenariat (contact étroit avec les communautés, par exemple), d'autres défavorables (focalisation sur des groupes spécifiques, volonté d'autonomie).

On peut distinguer trois principaux niveaux de partenariat: niveau un organisation d'échanges d'information selon les centres d'intérêt respectifs; niveau deux, établissement et mise en œuvre de projets communs à durée limitée; niveau trois implication et vision à long terme du gouvernement à propos de la santé, avec un comité interministériel pour la santé.

STRATEGIE POUR DEVELOPPER LES LIENS ENTRE UTILISATEURS ET FORMATEURS DES PERSONNELS DE SANTE

Il faut envisager la mise en place de liens entre utilisateurs et formateurs des personnels de santé aux plans national et international.

Au plan national, il faut considérer les composantes suivantes: politique, technique et d'information.

Composante politique
Plaidoyer en direction des acteurs concernés qui met l'accent sur: la santé pour tous, la pertinence, la qualité, l'efficience (coût/efficacité) et l'équité des services; le rôle du partenariat dans le secteur de la santé; l'importance et l'utilité de l'interaction entre utilisateurs et formateurs.

Composante technique
Des commissions de travail mixtes réunissant utilisateurs et formateurs permettront une meilleure compréhension réciproque et une meilleure collaboration pour atteindre l'objectif santé pour tous.

Composante d'information
Il y a lieu de diffuser davantage les expériences existantes et de favoriser les échanges.

Au plan international, un mécanisme de suivi, d'organisation de rencontres et d'échanges d'expériences et de mise en place d'une banque de donnée est souhaitable.

CONCLUSION

Comme toute activité de développement, le développement sanitaire d'un pays nécessite des ressources humaines.

L'analyse de la situation sanitaire permet: de déterminer les besoins en RHS et de fixer les bases des programmes de formation; de proposer un programme de développement sanitaire.

La mise en œuvre des programmes de formation relève des institutions de formation et celle du programme de développement sanitaire relève du système de santé.

Cependant il apparaît capital qu'une interaction efficace et permanente se développe entre le système de santé et le secteur de la formation afin de: mieux former des RHS plus compétentes dans la prise en charge des problèmes et des besoins de développement sanitaire des individus, des groupes et des communautés; mieux utiliser l'expertise des institutions de formation dans le fonctionnement du système de santé; mieux impliquer les institutions de formation dans le développement sanitaire du milieu où elles sont impliquées.

Cette interaction, compte tenu de la dimension multisectorielle de la santé, ne saurait se limiter aux secteurs de la santé et de la formation.

L'organisation et le développement de cette interaction suppose la mise en place d'un système de partenariat dont l'importance et la gestion dépendront des conditions propres à chaque pays et de l'appui des mécanismes de coopération existant de par le monde.

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Life-Long Learning and Continuing Education Assessing Their Contribution to Individual and Organisational Performance

Sharifah H. Shahabudin

WHAT IS CONTINUING MEDICAL EDUCATION (CME)?

Continuing medical education (CME) is the process which is concerned with the learning, adaptation and application of knowledge and skills by health professionals, by which a standard of desirable behaviour and professional performance for service to patients, the public or the profession can be maintained or developed. It occupies the longest span of the health professional's life, beginning with graduation and goes on through postgraduate education and the entire professional life until the health professional retires – about 40-50 years of practice. Hence the emphasis on life long self-directed learning skills as an intrinsic way of life for professionals who wish to maintain quality and currency in their practice (1-4).

The fundamental precept that health professionals have always been expected to follow a personal plan for progressive learning in order to build and refine their practice is based on two reasons. Firstly, CME satisfies the desire for intellectual stimulation with its attendant social and personal pleasure. Having an expanded intellect and security in knowledge induces self-confidence, satisfaction and exhilaration. Among outstanding doctors, a driving force is their pride in performance - a desire never to be or seemed to be inadequate (5). The responsibility of a good doctor is rooted in professionalism with commonly held standards or personally set ones that are far higher because of the desire to excel (6). CME also nurtures curiosity - that indispensable ability to ask questions each time a new phenomenon occurs (7). Life-long learning through the habit of reading, reviewing, consulting, teaching and writing instils self-discipline and fosters diligence and determination. Secondly, CME is even more crucial now because it has to respond to a number of forces that have been pushing reforms in many aspects of health care, particularly in the last 30-40 years (Box 1).

Box 1. Forces for Health Care Reform

The explosive growth of information and communication technology which is changing the way knowledge is created, shared, distributed, adapted and applied globally and locally. The myriad of electronic networks and rapid speed of communication have greatly facilitated access to knowledge, enabling remote consultation, teaching, diagnosis, monitoring and treatment and communication with patients. Virtual libraries of medical books and journals and sites for CME are sprouting on the Web. A signal that the Internet is becoming a major factor in the health care world was the appointment of George Lundberg, former JAMA editor, as editor-in-chief of Medscape Inc.(8).

The phenomenal growth of medical knowledge and the technological advancement for screening, diagnosis and treatment. The half-life of knowledge especially in newly emerging disciplines such as molecular biology and immunology is becoming shorter as discovery after discovery is announced.

Other technological developments that are making substantial changes in the way health care is delivered with implications for the skill mix and roles of the staff. A European Commission study found that almost all surgical procedures are being replaced by less invasive alternatives (9).Care is moving from acute hospitals into primary care settings, new specialised acute procedure centres, new recovery and day care centres as well as the home. Some community hospital beds are managed by nurses and some purchasing authorities support hospital at home schemes (10).

Thus professional roles and boundaries are changing rapidly especially between nurses and doctors and new occupational groups such as cardiac surgeon's assistants and transplant assistants are steadily being formed. Because of minimally invasive surgery, it is surmised that surgery will eventually disappear as a specialty and gradually be merged with internal medicine so that specialists will deal with organ systems (9).

Better-informed patients who demand more information and greater involvement in decisions about their treatment. The rise of consumerism confronts the health professional with a myriad of problems for which there may not be any ready answer. The interaction of consumerism and communication technology is transforming a substantial amount of the health care delivered in person to a computer-mediated mode. Patients are pushing doctors into cyberspace to validate the information they are obtaining from various websites.

Changing demographics that demand health professional be equipped to deal with the costly care of frail or ill dependent elderly patients.

Health care financiers who are demanding evidence-based medicine for quality services and cost effectiveness. Using

methods such as peer review, audit of resource utilization and quality assurance, they identify effective and efficient practices that are implemented through practice

guidelines, policies, protocols, credentialing, accreditation, and computerised decision support systems. Liberalization of services and globalisation intensify this demand for quality in order to maintain the competitive edge. Litigation threat that pushes health professionals to be up to date with their knowledge and skills.

PURPOSE OF CONTINUING MEDICAL EDUCATION

CME is for the purpose of gaining knowledge and skills in order to bring about CHANGE both for the individual health professional as well as for the organisation. The changes include implementing a new policy, a new programme, introducing something new into existing practices, maintaining or upgrading the quality of existing practices, achieving life and career goals, intellectual stimulation, reducing professional isolation and occasionally as a response to unwelcome pressures of modern times (11). Thus the content of CME is that body of knowledge and skills generally recognised and accepted by the profession as within the basic medical sciences, the discipline of clinical medicine and the provision of health care to the public (12), thus also encompassing areas such as ethics, computer literacy, appraisal, management and evidence based medicine. It also means facing the challenges of inter-professional collaboration and making team work a reality (13). The broad definition of CME acknowledges that CME is related to the various professional roles in which a health professional may serve, such as provider, educator, researcher, administrator, and that CME is not merely limited to clinical medicine and public or preventive health. Thus sometimes the preference for the conceptually broader term of continuing professional development (CPD) which is rooted in self directed reflection and learning in practice involving multidisciplinary and organisational as well as individual learning (14).

One area CME should not be used for is as a tool to identify "incompetent" practitioners. The term "incompetent itself with its implications for re licensure and re certification is itself an inherent difficulty. It is a major impediment to the development of a regular means by which health professionals will readily subject themselves to an assessment of their clinical abilities. Education should be supportive and encouraging, not punitive. There are other systems in place to help doctors who do not perform well (15). In a bold course for CME the American Medical Association (AMA) Council on Medical Education makes six

recommendations on physician competence. One of them reads "That the members of the profession of Medicine discover and rehabilitate, if possible, or exclude if necessary the incompetent physician, and that all physicians fulfill their responsibility to the public and to the profession by reporting to the appropriate authority impaired or incompetent physicians" (12).

USES OF CONTINUING MEDICAL EDUCATION

In many countries doctors are required to show evidence of CME based on "recognised" educational activities for a set number of hours per year as proof of competence in re-licensure and recertification. In some countries the requirements are mandatory and in others they are nominally voluntary because doctors must get recertified if they want to retain the status of being "board certified" (16). Although mandatory CME is controversial because "fulfillment of State mandatory CME requirements does not necessarily fulfill the physician's ethical obligation to maintain his or her medical expertise" (12), specialty colleges on all continents agree that formal schemes are necessary if they are to retain their self regulatory privileges.

Recertification became established in 1969 when the American Board of Family Practice began issuing time limited certificates. Time limited certification is also legally required of specialists in Australia and New Zealand. British colleges are piloting credit systems based on the Australian model. The General Medical Council of Britain has also made proposals for revalidation of doctors' registration so that the register becomes an up to date statement of each doctor's fitness to practise (17). In Canada recertification is required for members of the College of Family Physicians. Some specialty boards in the USA recertify by using a snapshot assessment every 7-10 years, comprising examinations, CME attendance, letters of recommendations from chiefs of health care organisations and independent assessment by peers and other health professionals. Outside the USA most specialist colleges do not incorporate examinations into their recertification procedures on the ground that legally defensible examinations assess a limited range of competencies but they conduct CME programmes. The College of Family Physicians of Canada for example, requires 50 hours of CME per year to maintain certification as a Family Physician.

Managed care organisations require CME for credentialing. Health corporations use "board certified specialists" as an indicator of quality of the service provided. Certification is also used by Consumer Reports to rank hospitals and health care plans. Patients too consult directories such as the official ABMS Directory of Board Specialists to determine a doctor's certification credential. Doctors who do not get recertified get paid less, may lose admission rights to hospitals and are less favoured by patients. Due to this tremendous pressure to produce evidence of competence, about 150 self designated "certifying boards" have mushroomed in the USA (18).

FORMAL CONTINUING MEDICAL EDUCATION

The incentives for CME credits have spawned the growth of a CME industry with programmes geared towards helping doctors pass recertification examinations. In an editorial in the British Medical Journal (BMJ), Richards (19) stated that costs are hard to measure but are estimated in billions of dollars in the USA alone. There are over 2500 CME providers in the USA ranging from medical schools to major specialty societies and subspecialty-oriented groups, to hospitals of all sizes as well as voluntary health agencies (12). The AMA has also launched an American Medical Accreditation Program which allows non certified doctors to obtain "accreditation: as a specialist even if they have not completed their training programme (20). In some countries, pharmaceutical and medical device manufacturers have also become accredited providers of CME, with their inevitable emphasis on diagnosis and treatment. To maintain some form of quality, CME sponsors or providers are usually accredited. In the USA they are accredited by the Accreditation Council for CME (ACCME) which in turn is sponsored by seven major organisations[*]. The accredited CME providers designate credits for specific purposes (e.g. credentialing, membership qualifications, certificate programmes) and verify the participation of the doctor. Apart from its accrediting functions the ACCME also develop or foster the development of methods for evaluating CME, particularly its relationship to patient care and the continuum of

[*] American Medical Association (AMA), American Board of Medical Specialties, American Hospital Association, Association for Hospital Medical Education, Association of American Medical Colleges, Council of Medical Specialty Societies and the Federation of State Medical Boards of the US Inc.

medical education and ensuring its responsiveness to public and professional needs (12).

In addition the AMA publishes guidelines to assist doctors to identify continuing education that is of high quality that is responsive to their needs.

Effectiveness of Formal Continuing Medical Education

Formal CME providers organise mostly didactic or lecture-style activities such as courses, workshops, lectures, symposia, scientific sessions and so on, usually as a CME enterprise. Such programmes are often considered to be good if the information was valuable, the lecturer skilful, and the setting comfortable (21). The approach is based on the premise that education is instruction and change is an effect. Thus formal CME consisted of the application of appropriate resources and methods to fulfill a set of instructional objectives.

A criticism often levied at traditional methods of CME is that they are provider driven, with group goals rather than focusing on the individual and specific behavioural objectives.

Marshall (22) reported that there is a general mismatch between what general practitioners want from specialists and what specialists are providing in CME. For example general practitioners (GP) wanted information that was directly applicable to their clinical work whereas specialist preferred to concentrate on new developments in their subject. Specialists prefer traditional formal teaching methods whereas GP prefer informal problem oriented learning. Access to formal programmes is another problem. A national survey of Malaysian doctors found about 22% do not participate regularly in formal CME due to geographical distances and lack of time because of a busy practice and family commitments. They are also more likely to be GPs practising in small towns which are far away from sites of CME activities. More than 90% stated their preference for problem-based methods with ready access to consultation and related self-learning materials (23). Some doctors such as interns and residents work in very trying conditions. Improving the learning experience of these doctors is dependent on getting a better balance between service commitment and education (19).

Evaluation of formal CME has shown that it is good for transferring information but may not lead to changes in individual and organisational performance which are directed toward improving patient outcomes or health care. In a study of family practitioners Dunn et al (24) could not correlate quality of care with participation in traditional CME. Sibley et al (25) concluded that formal CME makes no difference whilst Stein (26) concluded that it does under certain conditions. Similarly, Lloyd and Abrahamson, (27), Bertram (28) Haynes et al (29) and Beaudry (30) said sometimes it does, sometimes it does not. A review of 50 randomised controlled studies by Davis (31) concluded that, while there was some evidence that formal CME alters doctors' competence, there was less solid evidence for the translation of these skills or knowledge into performance in practice. Another review of studies conducted by Davis showed that didactic interventions do not change performance whilst interactive CME showed some evidence that it can effect change in professional practice and, on occasion, health outcomes. What emerged from the myriad of studies measuring the impact of CME was that there were many variables that affected change in doctor's behaviour and some are unaccounted for and difficult to control.

CONTEMPORARY CME THEORY

The failure of formal CME to produce change in practice spurred thinking about why people change, how do they do it and the role of learning in the process, and what are the changes that occur. Theories about adult learning abound in the literature (Box 2).

Box 2. Continuing Medical Education (CME) Theories

Motivational theories revolve around the distinction between intrinsic-extrinsic forces and affective arousal. Nowlen described the interaction between cultural and individual factors as two intertwined strands that influence learning and functions. McClelland proposed that "affect is the basis of motivation in that it precedes, energizes and directs behaviour. Cross developed a more longitudinal characterization of learning which begins with a person who has certain self-evaluation and a set of attitudes about education. These combine with the individual's estimate of the importance of certain goals and expectation of success, to motivate learning. Cross's theory takes into account an evaluation of the unique circumstances in the individual's life, including barriers and opportunities for learning, to estimate whether learning should be undertaken. Cross's theory is

similar to Vroom's path-goal model of motivation. This is a model of the way adults assess the value of achieving their goals (valence) and their level of expectancy (the estimated probability of achieving the goal) as away of deciding how much of their resources to expend in an effort to achieve these goals.
Knox's proficiency theory holds that a person assesses the level of proficiency required for given situation, compares it to the existing level, and then takes measures to reduce the discrepancy. This model is at the heart of many CME programmes which are based on an assessment of needs. However it does not tell how much a gap there must be between the present and desirable proficiency to stimulate learning. Too small a gap may not provoke action and very large gaps may create anxiety, leading to denial, avoidance, or a shift in ones estimate of what ought to be. Similar to Knox's proficiency theory, Bandura's social cognitive theory has the concept of reciprocal dynamic interaction among three elements as its fundamental tenets: the individual (attributes, values, attitudes) continually interact with the individual's behaviour which in turn continually interact with the environment. This theory holds that the individual has the inherent capability to self-regulate and hence to set goals for learning.

Some theories deal with the forces or motivation for change, whilst others deal with learning as a process. Most of these theories offer an account of what goes on inside the learners head with very little attempt to elucidate relationships among variables involved in the change process. For example, when a doctor learns something new about a drug why is it not always incorporated into clinical practice? If he/she does try the new treatment, why does it not automatically lead to change in patient's outcomes? It is evident that change in one area may or may not lead to changes in another.

In the 1990s the perspective on CME shifted to education as a means of facilitating learning with emphasis on the performance of doctors as the target of CME strategies. Performance is what a doctor actually does in day-to-day practice under the scrutiny of his or her own professional conscience shaped by attitudes and beliefs. This new perspective links education to practice. It emerged from contemporary studies of change and learning that was commissioned by the Society of Medical College Directors of Continuing Medical Education (SMCDCME) in 1984. By analysing the reasons doctors change their practice and the means by which they learned in order to make the changes Fox et al (21) derived the theory of change and learning through an inductive theory building approach. Key points from the theory include:

Doctors are influenced by a collection of forces that they perceive as the reason they changed their practice. The forces arise from their personal lives, professional aspirations and the social and cultural milieu of their practice settings (11). They include curiosity, sense of financial and personal well being, stage of career, desire for new or enhanced competence, pressure from patients and colleagues and pressures form the healthcare institution in which they work.

The changes that doctors make appear to vary with the types of forces perceived. Professional forces, which are the most common, gave rise to small and simple incremental differences in some elements or aspects of the doctor's life or practice. These small changes usually entail the doctor's feelings that the change was appropriate. Personal forces were associated with larger and more complex structural changes such as switching to a new specialty. Social forces such as regulations were also associated with small changes or accommodations, often accompanied by resentment.

Change only occurred if the forces were perceived or interpreted as personally important and the doctors can imagine what it would be like to perform differently and how the role of their staff may change. They use this image of change to make a self-assessment of the abilities they needed in order to make the change by comparing their current knowledge and skills with the knowledge and skills necessary to bring about the change. The discrepancy between what is and what ought to be is an estimate of the learning need. The drive to reduce anxiety associated with the learning need is the motivation to learn and change.

Large or complicated changes are difficult to imagine and therefore harder to achieve; smaller simpler changes are easier.

Changes are not automatically achieved and new knowledge and skills must usually be acquired. Doctors pursued learning in order to find the best steps to take to solve a concrete problem (problem specific learning) or to gain broad understanding for developing the intellect and creating a better defined and more organised ideas and thoughts (conceptual learning). The learner identifies and utilises resources drawn from three broad categories: human, especially colleagues and co-workers; material resources, especially journals and other sources of information; and formal continuing education programmes.

IMPLICATIONS OF CME THEORY FOR CME PRACTICE

BASED ON THE THEORY, SEVERAL IMPORTANT POINTS MUST BE NOTED FOR EFFECTIVE CME:

The stimulus for CME is originating from practice and the aim is to change practice. The performance of the practitioner is the target of CME strategies. Therefore we must construct a system of practice based learning to systematically intervene and support the learning that facilitates change in practice. This means that CME should be based on the natural processes learners use to change, which is mostly self directed and individualised or done with a group, utilising a variety of resources, with the purpose of improving individual as well as organisational performance. Thus three interconnected systems must be used in making changes - self directed learning, learning in groups and learning within learning organisations. They must be integrated in new ways that will be powerful and sensitive enough to respond to patients, practitioners and health care systems (11).

Clarity is an important step in the change process and it is related to needs assessment and motivation to learn as well as likelihood of adoption of an innovation for change (33). Altering the doctors' perceptions of where they are, where they believe they ought to be, and the size of the discrepancy, can alter their perception of the need and extent of the motivation to learn and change. Lack of clarity may be related to the disinterested or negative response to adaptations or changes which are characterised by forced compliance. Shahabudin (34) found that GP who were assisted to achieve clarity about the gap in their ability to diagnose and manage generalised anxiety disorder (GAD) by subjecting them to a problem based learning session on GAD, followed by a process of reflection on their abilities, showed significant improvement in their clinical performance when they were visited by standardised patients 6 months later, compared to a control group. Practice based CME must include techniques to enable doctors to be aware and clear about their learning needs.

The change to be achieved must be perceived as easy. Rosser (35) found that simpler changes like prescribing a new drug are easier to imagine and thus the process of change that leads to adoption tends to be shorter, more efficient and more easily achieved. When the image is unclear, especially when the required change is large or complicated, change takes

longer, follows a more erratic course or it may not happen at all (33, 36) said that an innovation is more likely to be adopted if it is simple, has relative advantage over existing practices and procedures, the learner has an opportunity to observe its use before adoption, it is compatible with other similar products and procedures already in the professional's practice and the learner has the opportunity to try it before adopting it. When change is being adopted in the context of an organisation , such as a group practice or hospitals, the environment and social culture must also be considered (37).

Since change entails learning, making information available and developing skills for seeking information are important strategies in practice based CME. Studies have shown that doctors need a lot of information as they improve their practice. Williamson *et al.* who did a telephone survey of over 600 office-based doctors and opinion leaders in 1989, found that primary care doctors need substantial help in meeting current science information needs. Covell *et al.* (38) demonstrated that on the average doctors had two questions related to specific facts in all medical specialties for every three patients seen. Only 30% of the information needs were met usually by another doctor or health professional.

However, many health professionals lack access to an appropriate source of information. Lack of access could be due to lack of knowledge about an appropriate source of information, lack of time to find the desired information, poor information management system, geographical distance or lack of information infrastructure. Covell *et al.* (38) found that less than 1 in 3 doctors personally searched the literature when information was needed and 2 in 3 said the volume was unmanageable. Print sources were hardly used because of the age of the textbooks, poor organisation of journal articles, and inadequate indexing of books and drug literature. A study of GP in Wessex, England showed that many had low level of awareness of sources of evidence-based medicine such as extracting journals, review publications and databases (only 40% knew of the Cochrane Database of Systematic Reviews), and even if aware, may not use them. Only 20% had access to bibliographic databases and 17% to the Internet (39). A benchmark study on physician's use of the world wide web (40) also showed that only 20% use the Internet. With the explosion of information on the Internet, access is potentially made easier but the huge challenge is information overload. Doctors simply do not have the time to

visit over 20,000 different websites to get information (8). Eitel *et al.* (41) found that with equal access, urban physicians were more likely to use the Internet than rural physicians. He also found that younger doctors who graduated within the last ten years considered the Internet a valuable medical resource and female physicians use the Internet less often than male physicians although the gender difference was not so pronounced. Lack of information infrastructure in developing countries is widening the information divide between health professionals in rich and poor countries. The problem is magnified when there is geographical separation by wide expanse of water as experienced in the Pacific island countries.

Making information available is a crucial strategy to facilitate information seeking and learning, particularly at the point of need (34). However, she also demonstrated that that the provision of information alone is insufficient to change practice behaviour. In two groups of GP who were given information packages on GAD, only the group that underwent problem solving and reflection improved their clinical abilities and information seeking behaviour. Information can be given in the form of traditional methods such as the lecture, symposium, conferences; group learning methods which range from journal clubs to morbidity and mortality reviews; and information to enable self study in print or electronic forms. In addition practitioners have to be taught how to access the Internet because most medical literature are now provided on-line. Other services such as email, bulletin boards and discussion groups open up an entirely new way of approaching CME. There have been many CME programmes on the use of the internet. Projects such as the Physician Accessing the Internet (PAI) have demonstrated increased use of the Internet (42). Distance education strategies have to be combined with practice based methods in order to make CME effective for practitioners in geographical isolation.

TWO DIFFERENT FACETS OF PRACTICE BASED LEARNING HAVE EMERGED

Self directed learning focuses on the individual practitioner

The learner identifies and utilises resources from various sources and since the selection and use of resources are under the control of the learner, the "curriculum" is self directed – it is developed and managed by the learner. It is divided into three stages.

Stage 1: learning is directed toward understanding and estimating personal levels of need to learn in order to adopt a change in practice.

Stage 2: energies are applied to learning the new competencies needed to practise differently.

Stage 3: learning is organized around problems of using new skills, altering the practice environment, or adapting the new way of practice to increase the goodness of fit.

Organisational learning recognizes that the knowledge of every individual in the organisation has the potential power of adding together to create some new way for the organisation to perform its functions more effectively and establish its place in society (43). In organisational learning systems are developed to review and change organisational behaviours to comply with set standards either established internally or by external organisations. It is the epitome of multi professional education where individuals not only learn from their work but also from other health professionals, on teams and in consultation with colleagues. The organisation makes changes to its structure and climate to support and enhance such evaluative learning experiences, transforming them into knowledge relevant to the organisation's core purpose and making them accessible to the whole organisation. In doing this the organisation provides continuous learning opportunities for all health professionals, support collaboration within the organisation and foster links between the organisation and other relevant organisations and individuals outside the organisation (44). Each health setting from primary care to tertiary referral units does this adjusting to changes in the environment in its own unique way, moulded by its own beliefs, norms, and ways of thinking and learning.

Health care has used ideas from organisational learning to develop systems to review and change organisational behaviours (11). Hospitals, clinics, group practices, accreditation bodies, social service agencies and government are beginning to reflect societal needs and demands in different ways. By gathering and processing information and feedback, learning organisations create some of the standards that govern practice and modify others to fit the local problems and needs (45). They also provide opportunities for health professionals to learn how to adapt to these standards successfully. Outside resources are sometimes brought in for the reviews. Methods that use standards for reviewing and changing organisational behaviour include practice review procedures, patient care

audits, audit of resource utilization and quality assurance reviews. Some methods such as case reviews, quality of care reviews, surveillance of infection control and measures of patients' satisfaction are continuous quality improvement techniques. Informal activities such as clinical rounds and case presentations further support organisational learning by defining standards for behaviours appropriate to the culture. Effective and efficient practices are identified and implemented through practice guidelines, policies, protocols, credentialing, accreditation and computerized decision support systems. Financial incentives are also used to effect change.

Since effective practice based CME integrates self directed learning with organisational learning, a combination of methods should be used. Wensing and Grol (46) have argued that a combination of methods are superior to single methods of intervention and whether an intervention succeeds depends on the circumstances in which it is used as well as the management support given to it. The chosen intervention must be appropriate for the desired change. For example education is appropriate when there is lack of knowledge but are unlikely to alter practices that emanate from financial incentives, patient's preferences or lack of facilities.

New ways of recognizing practice based CME have to devised. A weighted credit system for CME has been introduced in Canada. The American Medical Association introduced a Physician Recognition Award (PRA) called the Certificate with Special Commendation for Self-Directed Learning beginning January 1993. The certificate is issued to doctors who have met the AMA PRA Category 1 (provider-type) requirements and in addition have completed 20 hours of Category 2 (mixed provider and self-directed) for each application year and who certify that they read the medical literature for at least an additional 50 hours.

EVALUATING THE EFFECTIVENESS OF PRACTICE- BASE DEDUCATIONAL INTERVENTIONS

Having understood why and how doctors change, the role of learning in the process and some of the methods used, how do we know what works, in what context, with which groups, and at what cost? There are no simple answers to these questions just as it is difficult to evaluate a complex treatment on a group of people who each have different needs, circumstances and personalities. Evaluation of educational interventions is

compounded by even more groups of people – the practitioners as well as patients. Even rigorously designed studies, both qualitative and quantitative, suffer from issues of reliability and validity. Hutchinson (47) gave three reasons for the problem: first, educational interventions are complex, with multifaceted interactions occurring in a changing world and involving complex subjects. Thus factors that have been shown to be effective in one setting may not translate to other settings; second, the number of subjects that can be enrolled in a study may not be large enough to allow researchers to achieve statistically significant quantitative results and comparable control groups may be susceptible to cross contamination from access to some of the elements of the interventions under scrutiny; and lastly, it is very difficult to make the link between the intervention and its impact on patient care as well as its sustainability although patient reports are found to be useful in improving care (48). The complexity of the behavioural change increases as the evaluation strategies ascend to higher levels (49).

Despite the difficulties, the need for evidence base in the practice of continuing medical education is essential. This is to help the targeting of limited resources, for informing development strategies, for creating professional training for continuing education professionals and for developing a research agenda that includes questions on whether the quality of health care depends only on the performance of practitioners or whether the contribution of patients and the health care system are also important. A growing consensus is being built on what methods are effective although much of the published information remains descriptive rather than evaluative. The methods given below are adapted from Greco and Eisenberg (50), who suggested six broad categories after reviewing control trials conducted between 1986-1993.

MAKING INFORMATION AVAILABLE

Providing information is an important prerequisite but is a weak intervention unless coupled with interactive strategies that will reinforce the knowledge and attitudes to enable the desired behaviour.

Clinical practice guidelines have gained popularity as a means of informing practitioners about optimal strategies for diagnosis and management. Clinical practice guidelines have been remarkably

unsuccessful in influencing doctors' behaviour and even when doctors appear to have acquired the knowledge, change in behaviour is not necessarily a consequence (25, 50-52). They appear to make a difference when the protocols are enhanced by focusing on areas of practice that need improvement and follow-up programmes at various levels (53, 54) or disseminated by "opinion leaders". Mozes *et al.* (55) found that guidelines combined with laboratory ordering forms requesting justification of the test to be performed resulted in a reduction of the ordering volume. Combining guidelines with utilization audit has also been effective (56, 37). Several explanations have been offered by Greco and Eisenberg (50) for the relative ineffectiveness of practice guidelines when used in isolation: (a) practitioners have difficulty applying the guidelines to specific patients because they focus on the current state of scientific knowledge (b) practitioners depend more their own experience and colleagues' recommendations when adopting innovations than on "national experts", (c) financial incentives or fear of malpractice.

Journal articles and validated reviews specifically designed for CME have been introduced by Colleges and specialist societies. Many include an element of interaction between readers and the topic which helps validate the learning. The Royal College of Obstetrician and Gynaecologists has two paper based distance learning resources PACE (personal assessment in continuing education) and LOGIC (learning in obstetric and gynaecology for in-service clinicians) which provide up to date reviews written by experts and self assessment tests. The Royal College of Pathologists offer similar exercises and allows participants to compare their performance anonymously with their peers (51). Computer-generated information such as the medical knowledge self assessment programme of the American College of Physicians is available on CD ROM, and interactive case based CD ROMs are also distributed. Computer conferencing is increasingly being used and educational programmes delivered by satellite are also on the Internet.

Internet healthcare companies try to help doctors handle the information overload by bringing all the electronic services into one place. Companies such as Healthon and WebMD offer virtual medical information and a complex array of transactions that include real time insurance verification and referral authorisations. Physician Online is free to physicians and bills itself as the "world's largest Internet community of

doctors" that provides access to medical databases, clinical symposia with peers and CME. Medcast Networks puts computers in physicians' offices and provide them with concise information, including medical news, one minute consults for patients, expert advice on the clinical and business sides of medicine and CME. Medscape offers free clinical content to all health professionals and consumers in the form of clinically focused summaries of medical meetings, CME programmes and expert-written interactive treatment guides and updates (8). Specific Websites of medical associations, medical schools and related organisations also provide locally relevant clinical protocols, practice guidelines, consultations and CME. The use of computers as a decision support aid and reminder system during consultations have been shown to be effective in initiating and maintaining behaviour change by Johnstone *et al.* (59) and Lobach (60). The biggest challenge for practice based CME is provide Internet access to practitioners in developing countries and geographically dispersed small island countries.

KEEPING LEARNING PORTFOLIOS

Prior needs assessment is important for informing and directing the educational process. Learning portfolios such as keeping a record of instructional patients or indexing cases by conditions enable practitioners to profile their practice and identify deficiencies that need correction. In Canada the innovative voluntary maintenance of competence programme (MOCOMP) of the Royal College of Physicians and Surgeons encourages clinicians to manage their own continuing education using learning from practice. PCDiary software is used by the participants to define learning needs and to keep a portfolio of learning experiences generated from practice, reflection on clinical experiences, CME meetings, journal reading and "hallway" consultations. The searchable database produces a "question library" that allows doctors to compare with peers their learning needs and practices. Users report that MOCOMP motivates them to take professional development seriously and to organise their attendance at educational activities more selectively (18). The Royal Australasian College of Pathologists has also embarked on a similar software programme. Stage one of the proposed validation of doctors in Britain (17) expects doctors to maintain a folder of information about their performance which include pattern of performance, critical incidents, patient complaints and

compliments, results of external assessments and continuing professional development activities.

GROUP LEARNING AND EXPERT NETWORKING

In 1987 Manning *et al.* (61) described a method of self-directed learning which integrates doctors self-formulated learning plans (contract learning) with consultants and other community resources (information-brokering) through discussion groups (collegial networking) thus promoting identification of educational objectives and interaction with colleagues in a study group. More than half found the method effective in updating knowledge and about 50% completed their learning plans with achievement of goals. Moran *et al.* (62) reported that a group of poorly performing GP who learned as group for 10 sessions improved in clinical care, preventive care and the use of drugs as well as a control group at 6 and 18 months. About 70% of Danish GP are enrolled in group based CME funded by the national insurance company, with tutors trained by the Danish Medical Association (63). Through such associations with stimulating colleagues, mentors and students, curiosity can be promoted by engaging in academic interests and relating knowledge to experience. Recognising the important educational role of senior doctors, recommendations have been made to set up trust funds to train them in skills of mentoring, supervising and teaching.

PROVIDING FEEDBACK ABOUT PERFORMANCE

Feedback is a reinforcing factor that involves giving health professionals information about how their practices or patient outcomes compare with those of others or with an external standard (e.g. practice guideline). Feedback by itself without appropriate educational input does not seem to alter behaviour. Worse, unsolicited and non-personalised feedback was completely ineffective as found by O'Connell *et al.* (64) who studied the effect of feedback on GP' prescribing behaviour in Australia. Feedback about performance that is coupled to identification of areas that need improvement, definition of learning needs, provision of appropriate information in a way that helps integration with practice (e.g superiority of the innovation) appear to be an important condition for helping doctors to change their practice behaviour (34). When feedback is accompanied by activities such as providing information relevant to the problem (65) or discussing relevant issues with a mentor (66) and providing practical

information for changes in behaviour (67), the changes seemed to endure. Feedback is also effective when given to practitioners who are in a position to act on it and when they are followed up with reminders. A study that showed the importance of reinforcing learning is the intervention to improve doctor's management of depression and thus reduce suicide rates on the island of Gotland near Sweden. Rutz *et al.* (68) reported that three years after the intervention, the doctors' management had deteriorated and suicide rate had returned to almost pre intervention because no reinforcement was done. The ways feedback can be done are presented in Box 3.

Box 3. Sustaining doctors` learning

Practice performance data where doctors are required to submit computerised summary reports on patients. Practice performance data is already required by four members of the American Board Medical Specialties-Family Practice, Plastic Surgery, Obstetrics and Gynecology and Orthopaedic Surgery (18).

Peer review visits as pioneered by the Canadian College of Physicians and Surgeons of Ontario (69) and the Royal Australian College of Physicians (70). Stage 2 of the GMC revalidation of doctors also include an appraisal. The visits are manifestly of value to both the reviewed and the reviewers. Initial fears that they might prove hostile or intrusive have largely been dispelled. Combined with dissemination of guidelines, peer visits are very successful in helping practitioners who need change. Several British specialties are pursuing the idea (71, 72). However the site visits as well as training of the opinion leaders are labour intensive and expensive and in the United States the cost has been prohibitive (19).

Assessment results which are increasingly being obtained from computer based tests. The recertification examinations of the American Board of Paediatrics and American Board of Pathology are distributed on computer diskettes and are also conducted in computer *centres (73).*

Audit of practice that involve setting standards by local or national consensus (67). Audits are very effective when used together with practice guidelines (75).

INVOLVING HEALTH PROFESSIONALS IN EFFORTS TO CHANGE

People tend to oppose changes which they perceive as threatening to their livelihood, self esteem, sense of competence or autonomy. Changes imposed by outsiders may not be sensitive to these concerns. Involving practitioners to effect change makes change less threatening but it must be seen to be beneficial (or at least not harmful) to patients and health care.

Box 4. Involving Health Professionals in Efforts to Change

Giving health professionals a role in developing standards, such as criteria for the management of common illnesses like hypertension (76) by which their practices will be judged; or introducing indicators for the assessment of quality, developing software to simplify the collection of data and generation of reports (63).

Involving them in continuous quality improvement which entails needs assessment, consensus building, targeted behaviour change and continuous reassessment. In many countries practitioners are involved in Interventions that use continuous quality improvement has been reported to be very effective in inducing behavioural changes in the health care setting but do not seem to indicate better outcomes for patients (77).

Providing opportunities for experimenting. Advanced multimedia computer technology is providing virtual reality environments for health professionals to practice procedures including invasive surgical techniques and endoscopic procedures. This technology can also be used to provide training in patient-doctor interactions (78).

ADMINISTRATIVE INTERVENTIONS

Interventions that force practitioners to alter their practices are in widespread use, especially when all other efforts have failed. They are often seen as "hassles". They take the form of creating barriers to undesired practices, reducing barriers to desired practices or in extreme cases through institutional policies or regulations and laws. By themselves, administrative interventions such as utilization audits cause resentment. When combined with educational methods, some interventions appear to work e.g altering order forms to reflect dosing intervals for antibiotics, elimination some diagnostic tests from order forms or presentation of laboratory charges (79, 80). Interventions that first educate physicians as to the optimal diagnostic practice and then gave them detailed comparative utilization data also produce change (87). Utilization review has succeeded in reducing the amount of resources used in inpatient care but has not had a clearly beneficial effect on overall utilization or costs. Administrative interventions can also harm patients as seen in the Medicaid program where the number of prescriptions decreased because of limited reimbursement but more admission to nursing homes resulted (50).

LEARNING VISITS

Learning visits to experts or centres of excellence can be of great practical help. Longer segments, particularly if the doctor need to take new skills are useful. The Raven department of education at the Royal College of Surgeons of England teaches specialist skills to postgraduate and established consultants.

FINANCIAL INCENTIVES AND PENALTIES

Observational studies suggest that differing methods of reimbursing doctors as well as financial incentives directed at hospitals do result in different styles of practice. Doctors in HMOs were less likely to hospitalise their patients if they were paid by salary or capitation or if they were at financial risk for their treatment decision. The introduction of Medicare prospective payment system based on diagnosis-related groups have reduced by 24% the average length of stay for certain diagnosis. Financial incentives are based on the popularly held economist's model of physician behaviour that at any level of demand, physicians will always behave so as to maximise the hourly net income that they can extract from the practice (82). However, studies have shown that in making changes, professional norms for best interest of the patient supersede financial incentives (83). Grossman (84) reported that rewarding physicians for improving practice, such as ordering of laboratory tests, may result in short-term behaviour change only. Thus change is more likely to be adopted willingly and sustained when the practitioner is convinced that it to the best interest of the patient or health care or at least "no harm" is done.

IMPROVING RE- CERTIFICATION CRITERIA

The Royal Australian College of Physicians has led the way in incorporating criteria that relate more closely to doctors' performance. These include participation in quality improvement activities such as practice audits and the physician assessment programmes in which ratings from peers are sought on a range of personal and professional attributes in the practice setting. The American Medical Accreditation programme is also an initiative to move away from single "snapshot " events. The MOCOMP programme in Canada is also an initial step in providing summarised

electronic documentation of practice experiences for periodic evaluation that can facilitate continuing learning and performance enhancement (85).

IMPROVING UNDERGRADUATE EDUCATION

Most actions for addressing new issues in health care need to begin with basic education, be refined during postgraduate training and maintained or updated during continuing medical education (86). She argues that even with effective CME programmes, it is more difficult to change attitudes and patterns of thinking in practising health professionals than to get it right with undergraduate students from the beginning. Since students are strongly influenced by the behaviour of their teachers, neither basic education nor postgraduate training can be divorced from CME. Amongst the challenges facing health professional education are the promotion of the use of information technology (87), adapting to the changing health professional-patient relationship, helping health professionals to shape and adapt to change, promoting multi-professional teamworking and care and helping health professionals handle broader responsibilities. Most importantly the education system which is driven largely by examinations that reward memorisation and teachers who perceive their role as dispensers of content must transform to a system that will prepare health professionals for a world that demands the ability to acquire, appraise, and use information in order to solve clinical and other problems efficiently.

CONCLUSION

To be effective, Continuing Medical Education, the third and most important phase of medical education, can no longer be seen solely as a unidirectional education system delivered by qualified and entertaining speakers. CME has come under closer scrutiny as recertification and quality assurance programmes have increased. Contemporary CME has to respond to the changing educational needs of health professionals, fostered by technological innovations, demand for evidence based practice and the re organisation of the health care delivery. The theory of change and learning has shifted the perspective of CME to a role facilitating learning which is practice based, where the aim is to achieve continuous improvement of practice through continuous learning both for the individual and the organisation. The health care environment being multidisciplinary, it is

appropriate that practice based CME takes the form of multiprofessional education. It also should be based on the natural processes learners use to change - self directed programmes, small group interactions and organisational learning. Since no particular type of intervention has been shown to be inherently effective, particularly when it is used in isolation and nearly every strategy has had both successes and failures, all three facets of practice based learning should be integrated with multidimensional interventions that also target the distance learner. Efforts to inculcate self directed learning must begin from undergraduate education. Specialty societies, because of their traditional responsibilities for accrediting CME and maintaining professional standards, should continue to lead reforms in CME and to reward practice based CME. Only in this way can CME systems complement and support practice based learning and evidence based medicine in order to facilitate change in new ways that will be powerful and sensitive enough to respond to patients, practitioners and health care systems.

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Continuing Education and Lifelong Learning: Contributions to Individual and Organisational Performance in Latin America

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INTRODUCTION

The need for "continuous learning" in the life of health professionals is undeniable. Nevertheless, the promotion of highly efficient and impact production learning processes continues to require special attention from both the conceptual and operational standpoints. The quality of the training provided to health workers is the subject of continuous discussion and debate in the context of efforts to formulate and implement policies on human resources development in health.

"Lifelong learning" and "continuing education" are expressions that denote two different aspects of education and respond to the need for professional updating, development, and career progress throughout an individual's lifetime of professional practice (1). Lifelong learning suggests willingness to learn and to direct one's own learning. In this sense, it can best be understood as a professional characteristic or attitude of the individual, who demonstrates commitment to his or her own development. Continuing education refers more concretely to the formal and informal activities in which professionals can participate in order to acquire new knowledge after completing their basic training (2,3).

As an instrument for updating and expanding professional competencies, continuing education has been subject to many criticisms that are based on its evident low level of response to needs in the context of health services delivery (4-6). In Latin America and the Caribbean, there is a need to implement mechanisms capable of improving learning as an essential part of services in order to respond to specific service needs and at the same time fulfill the personal and academic expectations of health professionals. This need has led to the establishment of an important initiative for the continuing education of health workers from the standpoint of the demands of health sector reform. This initiative can be

thought of as an important movement; it has guided many projects and is known in the Region as the *Programa de Educación Permanente del Personal de Salud* (Permanent Continuing Education Programme for Health Workers or PCEPHW). It is an ongoing participatory process the aim of which is to articulate learning with ongoing delivery of health care within health sector reform.

This report analyses several issues and trends related to efforts to improve the individual, collective, and organisational performance of health professionals in the light of experiences with continuing education in the Americas. From this perspective this paper could not be thought of as trying to assess teaching methods as an isolated aspect of the continuous education processes or a systematic evaluation of the results of these processes in the current literature. It is an account of a process of the search for meaning and strategic answers according to needs emerging from the Health Reform projects in Latin America. The literature review upon which it is based mainly includes general articles about the process, its conceptual frameworks, strategies and assumptions; it also includes internal reports of working groups held by the countries and the Pan American Health Organisation (PAHO/WHO), who can be regarded as the principal creator and promoter of this movement (7-9). The articles and reports were selected on the basis of their contribution to the definition of principles and fieldwork strategies.

The first part of the paper addresses basic information and background foundations of the movement; this is followed by a section that reflects project experiences in the context of health sector reform. A third section puts forward considerations about continuing education programmes and organisational performance seen as the center of contextual problems emerging from health reform. The conclusion points to the urgent need for design and implementation of more reliable evaluation tools and the conduct of research enabling comparison and further development of these experiences.

BACKGROUND: EDUCATIONAL CHANGE PROJECTS IN THE HEALTH SERVICES

The effort to revamp the continuing education of health workers is aimed at developing an ongoing process that is articulated with health work and the main purpose of which is to transform health practices with a view to health sector reform. This project began in the 1980s as a collective effort by the Region, with the participation of several countries (10-15).

The central issues discussed in the launching documents were the health labour process as a whole, the specific needs for service development, the prevailing health problems, local or regional, the need to take into account reform principles such as universal access under the pressure to expand services and maintain the desired equity. The proposal also sought to strengthen the multidisciplinary professional teams by increasing their autonomy in the decision-making process that affects services and performance. The basis for achieving these goals was the construction or reconstruction of knowledge through a critical review of practice as a whole.

All the literature generated since the onset of the movement, whether monographs, reports, analyses of experiences, or studies, took a matrix of strategic and methodological alternatives including in-service training, short-term updating, training in priority areas, short and midterm professional formal training, as well as advanced training in health (16).

A 1991 report on continuing education presents the first discussions of concrete experiences in Brazil, Colombia, and Cuba, as well as some initiatives carried out under PAHO's regional programmes (malaria, environmental health, maternal and child health, and health services development). Brazil's experiences are diverse, ranging from institutional projects developed within health care units to projects on a national scale and including the training of direct care providers, auxiliary health workers, and managers (17-19). In Brazil too, the *Larga Escala* project for training health technicians and nursing aides emerges as an important example of an educational process that is part of a much broader endeavor to reorganize the health sector (20). Brazil's experience with this project is adapted and applied to the training needs of service personnel in several countries in the Region. In Colombia the main thrust is a primary care programme in the departments of Valle, Cauca, and Nariño, where the

multidisciplinary teams receive their training (21). Cuba launched its efforts within the framework of a programme of family physicians and nurses as part of its National Health System Agenda known as *Salto Cualitativo* (22). Initiatives carried out under the PAHO regional programmes included helping Brazil to provide critical training to the multidisciplinary team that carried out its anti-malaria programmes; a series of training activities for environmental health workers; support for countries in the strategic administration of local services; and training projects in maternal and child health in some countries (23). The School of Health Sciences of the *Universidad Autonoma de Santo Domingo*, in the Dominican Republic, extends these efforts to teacher education with a view to strengthening practices that integrate teaching and service delivery (24). Those accounts do not describe specific programmes or make any assessment of the results; they only focus on changes in the conceptual and structural framework of continuing educational projects.

As a result of this first analysis, the PAHO Advisory Group for Continuing Education recommended a series of monitoring and reorientation strategies for the PCEHW: to provide advance support for "nuts and bolts" definitions of continuing education based upon specific needs of the health care delivery system; to develop specific research in order to analyse and assess the processes and favor the advancement of a new conceptual and methodological framework; to enhance the articulation between continuing education processes and strategic planning in health.

Between 1991 and 1995, several countries reviewed their projects through qualitative assessment procedures based only on a description of PCEHW´s advancement; it was possible to consolidate some of the basic principles and underscore the importance of a participatory and dynamic approach to health care (25-27).

The principles that emerged were: work is the pivotal element that unites and connects performance and knowledge; thus, new knowledge (learning) is generated from this base; learning in this process implies a dynamic continuum of action, reflection, and new action; the assessment of training needs must be a participatory process.

The definition of training needs through a participatory approach has made it possible to establish priorities, goals, and strategic objectives for a set of actions. These include the transformation of practice based on the criteria of coverage, objective, and flexibility, linked to the specific context

within a vision of viability. PCEHW practices requires a thorough context analysis, both from a broader perspective and in relation to the specific health situation, aligned with a concrete health service delivery proposal that considers work and population demands. The need for greater conceptual precision was also apparent (28).

The literature points out an increase in job motivation, enhanced quality of primary care services, and renewed interest of health professionals in reaching a higher level of technical and professional development (29-31). It is important to note that these statements (the ones in the literature related to the matter in this paragraph) are not supported by empirical evidence.

Nonetheless, it was only in 1995 that the literature started to systematize the theoretical contributions as well as some of the PCEHW project experience. This point in time marked the turning point of this movement as a concrete response to change; recurrent observations presented in the literature even though of a scattered nature provided evidence of discontinuity, lack of direction, low institutional priority, and low coverage of these programmes; most important of all, the failure to identify the knowledge and abilities needed to give the necessary response to real health care needs, for the provision of higher-quality service delivery, the basis for the educational doctrine undergirding most continuing education programmes.

The experience gained laid the foundation for some important theoretical contributions in the areas of adult education, health labour process, and health institutional development (32-35). Continuing education is understood as being "a technical-political intervention by virtue of its capacity to broadly distribute knowledge and power" – a vision that raises important issues for human resources management (36-38).

Davini (39) maintains that the PCEHW project contributions add up to a strategy for changing the technical and social practices of health workers. When the health labor process is taken as the core of the learning process, the result is the generation of a new pedagogical model in which questioning and critical thinking play a major role, in contrast to the traditional practices of transmission of knowledge.

Understanding the regulatory, social and technical dimensions of the health labour process also makes it possible to rethink the institutional mission and move forward to improve quality. Accordingly, continuing

education becomes an instrument for the critical review of institutional culture, the appropriation of knowledge and the strengthening of the professional team (39).

From the standpoint of adult education, participatory methods can ensure active involvement from all individuals and self-guided learning; this in turn advances and mobilizes strong leadership thus making it possible to highlight the importance of criticism for the transformation of practice (40). Critical learning is considered indispensable for the understanding of global processes and the development of cognitive abilities that are essential if health workers are to function adequately in the complex and changing environments of the health services (40,41).

The theoretical and methodological framework of PCEHW is based upon the elements of critical pedagogy proposed by Apple, Ardoino, Ausubel, Bernstein, Bleger, Bourdieu, Bruner, Candau, Freire and Chosson, among others (42-52). Adult education aims at increasing responsibility and self-reliance, and uses the learning principles of active participation. The pedagogical method is rooted in problem-solving and linked to the realm of the learners, taking into account their life histories and critical learning tools for knowledge building. Critical thought is a tool for learning and for capacity building.

The analysis of the health labour processes is a key step to diagnosing the work situation; the methods of action research help build the group consciousness and teamwork necessary to the learning process. In this sense, PCEHW processes create a new meaningful learning paradigm strongly molded by social interaction where learning means waking up and understanding a reality which previously lacked meaning for the individual (52-56).

By the late 1990s, PCEHW had spread throughout Latin America as a movement to reorient continuing education. Changes observed in the social context because of political and economic pressures have dictated new moves and the reorganisation of health systems and of health services delivery. These reorganisation have affected continuing professional education projects, even though the guiding principles put forth by the movement have been maintained (57-59).

CONTINUING EDUCATION IN THE HEALTH SERVICES IN THE CONTEXT OF THE REFORMS

Health sector reforms have produced a new scenario for PCEHW development. Investment projects for development and strengthening of the health sector have led to changes in the orientation, possibilities, and conditions of use for educational strategies within the system. This new scenario was present in almost all the countries of Latin America. Some of these projects had international financing.

Most of the projects included in-service training components. At first, these training components posed an enormous challenge to the institutions because of these institutions' past history or sporadic, reactive and vertical experience in the management of learning processes. The culture of a highly bureaucratic central process, usually managed with very few resources, was the challenging factor.

For many countries external financing was a first opportunity to have specific training funds available. Never before had so much money been available for training so many people under such time constraints and in such a complex and changing political-institutional context. For the human resources groups at national level the biggest challenge was to be able to show the impact of training in the reform process.

The review of experiences in the Andean Area and Central America in past years has identified some common features of training proposal components: target populations of trainees were large (hundreds or thousands), heterogeneous (different professional categories), scattered at various levels of service, and, in some cases, there was even an attempt at nationwide coverage; personnel cannot be moved to a training centre away from the services where they work, either because work demands in a changing situation will not allow this or because of the huge numbers of personnel involved and because of the costs that such transfers would entail; the educational objectives and content are defined considering specific changes in services targeted; new educational approaches and dynamic methods must be appropriate to the condition of the personnel and the situation and dynamic of the services. Traditional concepts and practices related to education in the health services are considered ineffective; in many cases those who identify the needs and plan the educational activities are not (or will not be) the same persons who

implement these activities; and local service personnel are seldom involved in this process. This is a new context for the Ministries of Health, where training traditionally moved from the centre to the periphery, under the direct responsibility of the central units; in practice it is apparent that the capacity for managing project components is just as crucial as educational capacity, given the objectives, time frames, resources and actors involved.

A key aspect of the regional experience is the need to improve the capacity for comprehensive assessment of these components of all projects. Indeed, the most important problem in the management of educational projects is precisely the lack of assessment, which affects the entire project cycle. There is no practical approach towards assessing the outcomes and impact of training activities (60).

The above outline was used to evaluate 13 health sector reform projects containing a relatively significant human resources development component (61,62).

Most training contents related to skill development for leadership and for the management of local services, as well as for the delivery of direct patient care at primary level. Some projects also included regional and central policy management, as well as direct patient care at secondary level and specialized care.

Project development managers stated that training objectives were fulfilled and, from the perspective of services transformation, results were positive. In addition, there was unanimous consensus regarding the improvement of interpersonal communications and the strengthening of teamwork. Nevertheless, at this point there is no empirical concrete evidence of significant changes in the work process or of increases in management capacity, except in the area direct care to the population.

Preliminary analysis showed some indication of the usefulness of the research instrument (questionnaire) for the purposes defined by the Human Resources Observatory. This allows for recollection of rich and precise data and allows additions of supplementary material, such as reports and other project documentation that can facilitate in-depth analysis of each project. Investigators believe the instrument will play an important role in the launch of an information system for the Human Resources for Health Observatory.

The main findings of this preliminary report can be summarized as follows.

General Characteristics of The Projects

Projects fit within the framework of health sector reform. Four of them were concluded in 2000, and the remaining nine are in the intermediate or initial phase. Programmed financial resources ranges from US$700 000 to US$350 million, and it is expected that implementation costs should match the programmed sums. World Bank and the Inter-American Development Bank are the major financing agencies and all projects have significant national counterpart financing. All reviewed projects except one have a well-defined training component. The projects include both investment and institutional development, which are considered complementary.

The projects' central objects are: direct maternal and childcare, specific training of health workers, health services management, direct primary care delivery and management of primary care services.

Orientation of the Training Component

Training components are consistent with general and specific purposes as well as with the objectives identified for training activities. Stated purposes reflect the importance of training components for the reform project as a whole, even if in some cases this declaration of principles stays at the level of discourse. Training activities focus on leadership and management of local health services, on aspects of policy and programmes at the regional or central level and on direct care at the secondary and tertiary levels. Development of abilities towards a better performance of current functions is the primary training focus, orientation of new personnel is the secondary focus; training for changes of function or upgrading of categories of personnel is seldom present. It is considered an essential aim to improve the quality and efficiency of care delivery to the population. It is also expected that training should affect political-institutional aspects of the reforms on the assumption that this can contribute indirectly to improving service delivery.

Educational Approach

Only three of the projects stated the educational concepts used, this suggests that training managers may find it difficult to identify the paedagogical approach to be used.

METHODS, INSTRUMENTS, FIELDS AND STRATEGIES

The educational objectives were defined at local level with the participation of the project coordinator and were expected to be consistent with government policy. The project coordinators and supervisors identified educational needs. In addition to visits and observation, focus groups were the methods most commonly used to identify needs. The process involved problem analysis and the search for solutions to concrete problems in the context of specific competency development. Training processes were implemented on-site as in-service activities. Strategies included capacity-building supervision, study groups, internships, workshops, study days and independent study. The projects also generated specific instructional materials.

EDUCATORS

Professionals with different educational backgrounds participated in the training programmes. These professionals were linked to the projects in different ways; in most cases, project coordinators were hired through special contracts. Teaching was shared with in-house professionals who acted as facilitators or supervisors. Projects also led to specific training for tutors, facilitators and supervisors. The staff who took part in the formulation of projects did not always participate in their implementation.

RECIPIENTS

Leadership and service manager training brought together inter-services groups while direct provision of health care was organized by service and professional category. Participants were mainly public sector workers; only one project dealt with community-based staff from nongovernmental organisations and with personnel from the Social Security system. The number of participants per project ranged from 600 to 160 000. Selection criteria were described as appropriate, attendance at activities as continuous and high, but the high mobility of health workers, especially those involved in direct care, limits results and impedes formative evaluation of the process and of its impact (62).

EVALUATION

The majority of the projects reviewed included evaluation procedures; covering the complete educational process, training management and impact on health care delivery. Evaluation procedures were present in all projects funded through reimbursable bank loans. Evaluation instruments were designed for external evaluation, self-evaluation, and mixed processes. In the Chile project, for instance, the department of sociology of a Chilean University conducted a study of participants' views. The results indicate that trainees thought that training led to an improvement in their job performance, improved the quality of their work and introduced new principles, approaches and values. They said that the most important impact was on the improvement of their individual performance and also the increase of interest for one's own work. Those aspects reported as weakest were the lack of impact on upgrading of wages and the advancement of professional careers.

OBSTACLES AND LIMITATIONS

The study highlights the need to identify the nature of the problems before adopting intervention strategies. Training processes cannot be an answer to every challenge or problem in the health services. The analysis suggests, explicitly or implicitly, that one of the principal shortcomings of the project's educational component is the limited capacity of training to affect those dimensions that need other approaches to be addressed.

In addition, it is often expected that changes will occur immediately, that one can "apply what has been learned" even when institutions do not supply the conditions for using the new abilities and skills. These are persistent drawbacks, even in projects where the educational component has been defined beforehand as part of a series of activities aimed at investing in and developing personnel.

Other significant limitations and obstacles include those of a political nature – the authorities may have facilitated or impeded the process by blocking meetings, rotating personnel in the teams, hindering specific activities, etc. In many cases, weak management is evident: there is no strategic analysis, marketing of the training component within the organisation, or identification of the political gains that can be expected from the training. Other weaknesses are: a low level of competency among

the coordinators for the management of the training processes, poor communication mechanisms and deficiencies in the methods used to identify problems.

RESULTS

Preliminary analysis indicates that the objectives proposed have been or are being achieved. However, it important to bear in mind that some positive results can only be observed in a medium and long-term time range. Evaluation respondents in all projects acknowledged a significant increase of specific work abilities and skills. There is also mention of positive institutional changes. The major question remains whether the institutions will be able to take advantage of these new abilities and skills in order to maximize their efficient and quality aims. This would ask for continuity in targeting the development of authentic and permanent learning communities.

This study can be considered the first systematic evaluation of PCEHW projects in the Region. The preliminary report does not allow for the analysis of all empirical evidence collected. There is a need to further analyse these findings and to evaluate the capacity of the instrument in exploring the impact of training interventions. From the preliminary report it is clear that the instrument provides a very broad overview of the projects and allows the analysis of training context and development conditions. The report also points out the need for preparation of project leaders and management. Facilitators and supervisors need capacity building not only in management but also in terms of educational process.

The analysis of these projects shows that PCEHW processes bring about important challenges and raise a variety of questions, such as, to name but two: what are the strategies that can be used to create environments that facilitate learning? This refers to spaces that encourage learning within the actual work setting by identifying problems and questioning existing practices; how and physicians and other reluctant groups of professionals as well as leaders be integrated at all levels of the process? Action research methods make it possible to use evaluation as an instrument for institutional learning and for the development of true learning communities. Including the entire team in the process implies crossing the boundaries between groups and service units to create the

conditions for an exchange of experiences and the formation of learning networks within the system.

This preliminary report should be used as a generative tool for an evaluation model for PCEWH training in the context of health sector reform. There is a need to improve control and to be aware of the heavy reliance on self-reported behaviour change conveyed by the instrument; in addition, the validity of findings must be assessed critically. Nevertheless, it can be said that PCEWH has developed capacity to build up, systematize, maintain and expand its core knowledge base.

Training in the context of health reform needs to ensure effectiveness as an instrument for the transformation of practice. In this regard, health sector reform will only have meaning when one can confirm its impact through the improvement of quality of life and health of the population. Health workers' continuing education can only be justified if it covers all the workers, competencies, and levels of performance required to achieve this aim within the budgetary, resource and time constraints of health systems and new profiles of practice.

In summary, continuing education in the context of health sector reform should ensure: performance improvement for all personnel; management of the enhancement of training processes; systematization of evaluation processes to reorient training and generate new knowledge; expanded knowledge of the work process, with deeper understanding of its complexity; promotion of changes in institutional culture; creation of the conditions for health promotion.

CONTINUING EDUCATION AND ORGANISATIONAL PERFORMANCE

The experience of the continuing education project as an instrument for health services development within the framework of health sector reform in Latin America has led to important reflections on the conditions and circumstances affecting the organisation of health services and the need to create conditions to facilitate the development of human resources. Efforts are currently under way to develop more comprehensive projects using organisational learning approaches developed by researchers such as Argyris and Schön, Bateson, Drew and Smith, Pedler *et al.*, Revans, and Senge (63-68).

The central issues are how to change institutional practices and to what extent the context can be an element that facilitates lasting change. Health systems, seen as organisations, are complexes that adapt dynamically to social demands and identified health needs. Ultimately, the political arena plays an important role and is pressured by immediate events, ad-hoc solutions and unforeseen or last minute developments. The extraordinary growth of knowledge and information as a whole observed in recent years especially in health, together with the pace of technological and scientific advances, provides a unique opportunity to develop new ways to deliver health care and organize health systems. An intensive knowledge base mediated by new communications and information technologies should soon gear health sector reform in the Region.

There is a need for flexible organisations capable of leading processes of change. Organisational transformation requires an intense and critical debate, both internal and external, capable of producing new knowledge and learning. As Grieves (69) points out, credibility and learning will be the dominant elements in the future of organisations.

From this perspective, an entrepreneurial approach, decentralization and motivation are essential for the health reform process; all of these elements influence the continuing education of health personnel (70).

Davini (71) observes that implementing or modifying organisational practice has implications for the onset of specific new skills and also reinforces the cultural substrate that is sustaining and encouraging maintenance of previous practices. Thus, organisations can generate, preserve, and expand the level of individual and collective learning in order to improve the performance of the system.

In the case of health systems, the need to change the essence of organisations in their contexts implies recognizing training processes as real instruments of institutional intervention (72), the design of which incorporates both criticism and questioning of knowledge and learning strategies. Furthermore, if learning is to have individual meaning, there must be a process for "coordinating behaviors with others." This requires a rethinking of the standards and rules of the organisation and necessarily leads to institutional change (73).

In organisational learning processes, it is important to create conditions for reflection on the construction of a network of logical

reasoning based on the identification of concrete problems through a cycle of action-reflection-research-action. This makes it possible to deepen understanding of the problem through access to specific data, specialized references and other sources of pertinent information. With the participation of the entire team, it further facilitates the definition of specific new competencies for problem solving. In this regard, organisational learning is less prescriptive than intuitive as an attempt to solve problems of individual alienation and isolation and to promote the attainment of institutional objectives.

To consider continuing education processes tied to institutional development, as envisaged by the continuing education movement proposed by the PAHO, requires conceptual and methodological adjustments to reverse our deeply rooted tendency to organize training processes according to traditional paedagogical models of simple knowledge transmission and activities.

Organisational learning implies: an integration of the teaching/learning process into the day-to-day experiences of the health services; a change in paedagogical strategies by taking concrete practice as a source of both knowledge and problems in order to ensure a continuous process of critical investigation; an understanding of health workers as active actors, thoughtful and critical as regards their own practice, with the capacity to build their own knowledge and to propose alternative courses of action for the solution of institutional problems; a vision of the team or working group as the basic structure for interaction.

This requires that health systems be equipped to identify, develop and evaluate workers' performance according to specific competencies defined in the institutional context and based on the needs for programme response. It implies developing the capacity to motivate and support workers so that they can maximize their productivity and improve the quality of their practice. It is also important to develop skills to facilitate the processes of transition to new organisational forms.

As Grieves indicates, health system authorities must come to understand the keys to learning in the process of human resources development, which include: communication and interaction with organisational learning processes in other entities and contexts; research and action with the participation of working groups or teams; an organisational climate based on tolerance that fosters motivation for work

and promotes the sharing of experiences, producing an environment of mutual trust where workers can express themselves openly; an institutional commitment to monitor and support continuous learning; the development of planning methods that encourage strategic thinking and learning.

In short, organisational learning (73) can be regarded as the systematic response to operational issues that present themselves in the day-to-day context of the health services and that cause dysfunctions in the work process.

CONCLUSIONS

In the last two decades there have been important conceptual and operational changes in the training of human health resources. These changes fit within the framework of the continuing education movement and the context of health sector reform. Many of the projects have received help and support from agencies and from the countries involved. Evaluation shows that it is possible to adopt new strategies to control and evaluate human resources training. In addition, systematization of evaluation methods will permit a much greater theoretical and methodological knowledge of the pedagogical processes carried out by the health system.

Preliminary research has confirmed important changes in the conception of personnel training processes. Countries are developing definitions of continuing education that are much closer to reality, stating real needs for developing specific competencies that are meant to have an impact on health system results and thus benefit the population. In all the countries studied, health sector policies acknowledge the importance of training, at least officially, and their plans of action include budget allotments for human resources development.

All previous discussion points to an ever-increasing need to closely examine the training of human resources in health as an ongoing process necessary to set priorities according with the needs and advances of the system. For health institutions to become learning communities and to ensure their continuous improvement, they must take up a transformation challenge. Institutional and individual capacity building depends on the level of the competencies that the workers achieve (74).

This paper is an attempt to analyze a movement of continuing education within the health sector reform in Latin America. The

continuing education impact debate seems to be endless and still legitimate questions, problems and side issues can be raised anew, irrespective of previous conclusions, findings and experiences. Without a doubt, there is a healthy part to it theory building and testing – and this is an open end of the experience.

The evidence so far only highlights some elements for successful projects. There is still a need for evidence to show that continuing education is a crucial element in change and development; evaluation indicators must be better-defined, quantitative as well as qualitative aspects must be considered in order to unveil what continuing education interventions have helped to achieve. Experiences must be validated, data cross-examined and methods compared.

The literature reviewed did not always provide empirical data obtained through methods and procedures of evaluation research. Project descriptions and theoretical construction made through the CEWH movement show that continuing education within the health sector reform can be effective as a transformation tool and anecdotal accounts have an important value for further development.

The influence or impact of the continuing education process and its results in the health care delivery system are obvious. The evidence from research, using the process of evaluation, analysis and meta analysis undertaken in other contexts points to another important question: What makes programmes work better? What methodological tools, practices and strategies bring best results? How much does continuing education influence behavior vis-à-vis other interventions". Those are open questions and must be answered under the realm of educational theoretical and methodological frameworks of professional continuing education. Continuing education problems should not be seen in isolation; the broader spectrum of its context and practice are important elements to be considered.

Edgar Morin (75) has stated that recently there is a need to underscore "teaching fragmentation" in formal education. Applying this idea to the continuing education projects, we also must "replace thinking that separates and reduces with another way of thinking that distinguishes and connects." Taking the complexity and uncertainty of health systems into account, we must forge a connection between the population's real health care needs and the skills that can respond to these needs and

establish that connection, in turn, as the guiding force for training processes.

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Continuing Professional Development in the Health Sector

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INTRODUCTION

As Prophet Mohammad (PBUH) said "Seek knowledge from cradle to grave", the concept of continuing education (CE) has been promoted in the last few decades to provide the means whereby people can develop to their maximum potential and to improve well-being and to ensure a high quality of life for all.

It is well stressed that the new millennium will be "knowledge-based". Those who can acquire, understand and apply knowledge will prosper and those who cannot will lag behind (1). Therefore, the importance of lifelong learning and CE in all kinds of formal, non-formal and informal education systems is evident.

CE for health personnel represents a crucial challenge for the development of a health system, which is culturally and socially relevant and economically efficient.

It is also crucial to the improvement of the health status of the people and to the quality of life in general (2). Internationally, there is a move from continuing medical education (or clinical update) to continuing professional development (CPD), including medical, managerial, social, and personal skills. There is no sharp division between CE and CPD, as during the past decade CE has come to include managerial, social, and personal skills, topics beyond the traditional clinical medical subjects. The term CPD acknowledges not only the wide-ranging competences needed to practice high quality medicine but also the multidisciplinary context of patient care (3). It is also a recognized fact that the management of the health system can be made much more effective if all categories of health personnel undergo CPD and if the supervision of health workers becomes part of the educational process. Appropriate CPD should provide a bridge between basic training and practice. When integrated with supervision, it helps to raise the standards of health care and leads to more efficient work conditions (4).

The importance of CE has also been illustrated by imagining what would happen if the health workforce had no access to CE programs after completion of the initial training. The topics which should be considered include: inadequacy of initial training for provision of optimal health care; forgetting and deterioration of skills with time; negative influences present in everyday clinical practice; and ignorance of developments in health care techniques. Taking these four lines of argument together, there can be no doubt that effective provision of CE is absolutely essential in any health care system (5).

TYPES OF CE ACTIVITIES

Continuing education is any activity or event, which is designed to improve the knowledge, skills or attitudes of health workers. A consultative meeting on CE arranged by the World Health Organization (WHO) at Srinagar in 1983 (6) designed a comprehensive list of methods (Table 1).

CE activities may be divided into three categories (3): "live" or external activities (courses, seminars, meetings, conferences, audio and video presentations); internal activities (practice based activities, case conferences, grand rounds, journal clubs, teaching, consultation with peers and colleagues); and "enduring" materials (print, CD ROM, or web based materials).

Table 1. Comprehensive List of Activities in Continuing Education of the Health Workforce

On the Job Methods	*Off the Job Methods*
Health care audits	Distance learning
Job rotations	Academic studies
In-service training	Training courses
On-site supervision and guidance	Self study
Journal article review club	Guided studies
Team assignments and projects	Seminars and workshops
Review of patient records, monthly reports	Conferences
Colleagues	Meetings of professional organisation
Telephone conferencing	Meetings of scientific societies
Staff meetings and conferences Distance learning	Computer softwares, Internet

SOURCE: Adapted from Abbatt F, 1988 (6).

In most countries there is some kind of CE system. This system consists of all the organisations and people who are involved in managing and providing CE, the relationships between the organisations and people and the regulatory or legislative framework within which they work.

In many countries, the relationships are weak and poorly defined. There is inadequate understanding of the concept of CE as an opportunity to engage in lifelong learning, inadequate appreciation of the role of CE in personal and socio-economic development, poor co-ordination and lack of networking among the varied agencies providing CE, and low level of co-operation between government agencies, non-government agencies and the private sector in the provision of CE. The consequence is that the actual continuing education, which takes place, is piecemeal and fragmented. Inevitably the impact of CE on the way in which health care is provided in this type of system is limited. In some countries, the relationships are clearer and there is much greater co-ordination. Here the impact is greater. In this kind of situation one can define a National Training Activity (NTA) or a National Programme of Continuing Education (NPCE). This does not mean that all activities are implemented by a single organisation, not that there is a single source of funding: it merely means that funds and activities are coordinated towards achieving a common purpose in an effective way.

There exist systems for professional development in many developed countries. In Europe, There is a diversity of systems operating for CPD. Save for Netherlands, no European country has followed the US model of examination or recertification (7). However, variable incentives are introduced by Belgium, Norway, Italy, Luxembourg, Portugal and United Kingdom (3). In Canada, the maintenance of competence program and innovative self-learning programs encourage clinicians to manage their own CE. Specialists are required to report their activities for CPD every five years (8). Continuing medical education in the United States is closely related to recertification (9). Recertification may be required, for example, by medical societies and associations, health maintenance organisations, insurers, and partners in medical practice. Programs in Australia and New Zealand are managed by the respective medical colleges and faculties and provide self-directed learning for CPD members (10). Available information on CPD in developing countries are scarce (11,12). Most activities are on

ad-hoc basis and do not operate within a specific framework of national plan. Countrywide program of CPD has been reported in some of developing countries for all health personnel (11) or for defined specialties (13).

EFFECTIVENESS OF A CE PROGRAM

There are two major aspects of CE which determine whether it is successful or not. The first is the quality of the CE methods themselves: the assessment of needs, the design of the course of individual session, the quality of the teaching learning materials, and the techniques used by the teacher or facilitator. These factors determine how much is learned during the CE activities. The second aspect is the context or system in which the CE takes place. It is, in general, the context or system, which determines whether learning during a CE activity is translated in improved work performance in the field situation.

EVALUATION OF A CE PROGRAM

According to a WHO definition a national training activity (NTA) is a measurable short-term educational activity, relevant to priority health needs, carried out within a country, which aims to upgrade the knowledge, skills, and attitudes of the participants, improves health care delivery, and builds up the capacities of health and health-related personnel at all levels of the health care system. Evaluation of a CE program may be directed towards the change in knowledge, attitude and practice of participants or towards complete assessment of effectiveness of the CE system.

EVALUATION OF THE PARTICIPANTS

Different methods have been used for evaluation of participants in CE systems, including administration of pretests and posttests to assess the change in knowledge of the participants, and evaluation of the performance of the health workers after participation in the CE program. Although these two methods have been widely used for evaluation of effectiveness of CE programs in different settings, some concerns have been raised about their optimal function, because the results of the former approach is shown to be inconsistent with the practice of participants in the field, whereas the latter is influenced by numerous factors other than CE program input and,

therefore, can not be a reliable indicator of the effectiveness of the program (14).

EVALUATION OF THE CE SYSTEM

Conflicting pieces of evidence exist about CE of physicians in the current literature (14-16). It has become evident that didactic sessions or traditional CE approaches such as lectures are not effective in changing physician performance (17). However, interactive CE sessions that enhance participant activity and provide the opportunity to practice skills certainly bring about change in professional practice and, on occasion, health care outcomes. Abbatt has proposed eight principles underlying an effective CE program (18). We have slightly modified Abbatt's principles by addition of two other principles (19) (Table 2).

Table 2. The Principles of an Effective Continuing Education System

There should be a national policy on CE
There should be a single agency with overall responsibility for managing CE
There should be a network of partner organisations with clearly defined roles.
The amount of CE should be appropriate
The objectives of the CE must be prioritized and stated in terms of improved work performance
The capacity to develop materials and implement CE activities should be matched to the need
The innovative, active and appropriate methodology of education should be employed
CRISIS (convenience, relevance, individualization, self assessment, interest, speculation and systemic) should be considered in CE program[20]
CE should be linked to management/supervision support
CE activities and the overall system of continuing education should be regularly evaluated

COUNTRY EXPERIENCES

The author has reviewed CE programs in two countries of eastern Mediterranean region of WHO, and has used the Abbatt-Azizi principles to evaluate both systems.

Although CE has always been recognized as an essential strategy for maintaining the effectiveness and high quality performance of all categories of health personnel, the first Continuing Education for Health Professionals Act was passed in 1991 by the Islamic Consultative Assembly (i.e. the Parliament). From 1991 to 1996, the act covered the following five categories of health personnel: physicians, pharmacists, dentists, laboratory specialists and public health physicians. In April 1996, the act was made permanent, covering all other categories of health personnel, notably nurses, midwives, laboratory and X-ray technicians, dental technicians, optometrists, and many others. It is now mandatory that all health personnel undertake approved CE programs as a prerequisite for relicensing.

The act also established a national council and provincial councils for CE and entrusted these councils with the planning, conducting, and evaluating all CE programs. The unique feature of the Iranian health care system that has helped the development of CE system is the integration of medical education and health services in one ministry.

In 1985, after considerable discussion and debate, the Ministry of Health and Medical Education was established. This merger has undoubtedly benefited the two systems and has resulted in the production of new categories of health personnel who are well trained and sensitive to community health needs (21). The backbone of the system is a network of health houses and primary health care centers (rural and urban) that provide basic health care services at the community level. Health houses and primary health care centers are supported by district health centers and district hospitals. The regional health organisation supervises co-delivery of health services at the provincial level. In all provinces, the chancellor of the medical university is also the executive director of the regional health organisation. At the national level, the Ministry is in charge of policy-making and overall planning and leadership, and also supervises the regional health organisations and universities of medical sciences and health services (22).

The integration of education and delivery of service and the enactment of the law concerning CE are essential backbones of the Iranian health care system. The creation of a department of medical education and the subsequent organisation of activities at the university level are important positive features of the program (11). More than 2000 CE

activities occurred between 1991 and 1996, and analysis has shown that the numbers increase year after year (Table 3).

Table 3. Continuing Education Activities in the Islamic Republic of Iran,1991-96

Type of activity	*Number*
All programs	2140
N°. of participants	428000
N° of locations	190
Composed programs	35
Seminars and congresses	627
Workshops	392
Preventive	227
Research methodology	39
Educational	126
Conferences	275
Short-term courses	117

In order to evaluate the effectiveness of this system, Abbatt-Azizi Principles were applied to evaluate the CE program in I.R. Iran (Table 4).

Table 4. Evaluation of CE program in I.R. Iran using Abbatt-Azizi Principles

Principle	*Score**
National policy	10
Responsibility	9
Network of CEHP†	9
The amount and extent of CEHP	10
Priorities	6
Appropriateness	7
Methodology	4
CRISIS	7
Support by the government	10
Evaluation	5
Total	77

* For each principle scoring of 0 to 10 was used.

† Continuing education for health personnel.

Considering that national CE activities started in Iran about 9 years ago, achievement of such a high score would be considered a remarkable success of the program. Certain deficiencies exist in needs assessment, using

state-of-art educational techniques, and evaluation of the impact and outcome of the programs. There is a need to introduce more innovations into the teaching methodology used in many training activities, i.e. to deviate away from the lecture-type training and use recent approaches in education such as case studies, problem-solving and self-learning methods. Advantages and strengths of this program should be used as a model for formation of national CE programs in other countries.

THE STATUS OF CE IN ANOTHER COUNTRY OF THE REGION (NAME NOT STATED)

In this country, the Ministry of Health has recognized the importance of on-the-job training and has increased the number of such activities in recent years. But it has been observed that most of these activities were performed on an ad-hoc basis and did not operate within a specific framework or national plan. There are no uniform guidelines, administrative or legal basis to control the process of CE at a national level. Additionally, participation in CE programs is voluntary and therefore no clear incentive exists for health personnel to undertake CE at any point in their professional career. Participation in CE programs is by no means a prerequisite for career development, professional advancement, or renewal of medical practice license. The Ministry of Health has not dedicated a separate budget line for CE, and adequate funding is usually available from WHO and other international and non-governmental organisations. Abbatt-Azizi principles were used to evaluate the CME program in this country and the results are shown in Table 5.

Table 5. Education of CME program in a country of Eastern Mediterranean region

Principle	*Score**
National policy	10
Responsibility	9
Network of CEHP†	9
The amount and extent of CEHP	10
Priorities	6
Appropriateness	7
Methodology	4
CRISIS	7
Support by the government	10
Evaluation	5
Total	77

* For each principle scoring of 0 to 10 was used.
† Continuing education for health personnel.

CONCLUSIONS

CPD has been viewed as an effective mean of successful management of any health system and mandatory professional development programs are employed in many countries internationally. While the importance of CE has always been recognized, the need for it now is more crucial in order to respond to unprecedented challenges resulting from new health problems, new technology, and a completely different health scene. The rapidly increasing cost of health care and higher public expectations are additional pressing factors. In economic terms, investment in CE is an assurance that the investment in basic education will bear fruit. With all advantages of CPD, its effectiveness depends on many factors. The impact of CPD may be improved by applying principles that ensure the appropriate change in knowledge, attitude and practice of health workers.

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When staff is underpaid. Dealing with the individual coping strategies of health personnel ‡

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INTRODUCTION

It is fashionable to blame governments and civil servants for the public sector's poor performance as a health care provider. Doctors and nurses in government employment are labelled 'unproductive', 'poorly motivated', 'inefficient', 'client unfriendly', 'absent' or even 'corrupt'. Widespread 'demotivation' is said to be due to 'unfair public salaries' which are presented as the *de facto* justification of 'inevitable' predatory behaviour and public-to-private brain-drain (1,2). In many countries, developed and developing alike, this has eroded the implicit civil service values of well-functioning public organisations. Public sector responses fail to acknowledge the need for a new style "psychological and social contract" that takes into account the individual perspective of the employment relationship (3). There is a stark contrast between the apparent easiness of victim blaming and the reluctance of official discourse to face up to the problem.

It is common knowledge that predatory behaviour of public sector care providers is rampant in many countries: under-the-counter fees, pressure on patients to attend private consultations, sale of drugs that are supposed to be free, etc. (4-14). On top of that many underpaid public sector clinicians switch between public and private practice to top up their income, whether the public services regulations formally allow this or not (15).

Health system managers have fewer opportunities for predatory behaviour than clinicians, but also have to face a working environment that does not live up to their expectations – financially and professionally. Some

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may abuse their position for corruption or misappropriation; many resort to teaching, consulting for development agencies, moonlighting in private practice, or even dabbling in non-medical work to provide extra income. Others still manage to get seconded to non-governmental projects or organisations, or concentrate on activities that benefit from donor-funded per diems or allowances (14,16,17).

Together these practices constitute a set of individual "coping strategies": the health professionals' ways of dealing with unsatisfactory living and working conditions. In many countries their prevalence has increased over recent years. Not all of them can be characterised as predatory behaviour, and their effects on the way the health care system can be positive as well as negative. But they do play an increasing role in how health services function and are perceived: they cannot be ignored.

It has long been considered politically incorrect to address these delicate issues explicitly. Recently, however, there have been some (timid) attempts at bringing the debate out in the open, beyond public service rhetoric and ritual condemnations of 'unethical behaviour' (18). This provides a better understanding of how individuals create and take advantage of opportunities for pursuing their own interests – an understanding that is the key for developing adequate strategies to deal with the consequences.

Beyond Predation: Competition for Time, Brain-Drain and Conflicts of Interest

With current salary levels in many countries, it is actually surprising that so many people actually do remain in public service, even when they could earn much more in private practice. Money is clearly only one element: other 'motivators' include social responsibility, self-realisation, access to medical technology, professional satisfaction and prestige (19). Still, income remains fundamental. Individual income topping-up strategies allow professionals a standard of living that is closer to what they expect. In one study it more than doubled the median income of managers, and brought it up from 20 to 42% of that of a full time private practice (17). The upside is that income topping-up helps to retain valuable expertise in public service (7,20). But there is a downside too.

The predatory behaviour of individual clinicians constitutes, in many cases, a de facto financial barrier to access to health care (4,21). More important, on the long run, is that it deligitmises the public's expectations about public health service delivery and jeopardises the necessary relation of trust between user and provider.

Other (non predatory) coping strategies also affect access, but through competition for time. In many countries civil servant medical staff is only nominally available to fulfil a full-time task (14,18). Moonlighting in private practice, or training sessions attended for the per diem evidently eat into their availability and hence limit access to care. This also results in a net flow of resources out of the public sector. In many countries low salaries thus paradoxically lead to high costs per unit of output. Competition for time does not only affect access to clinical services. Managers who provide expertise to or participate in other activities of development agencies are less available to run services and programmes (17). Many agencies are aware of this, and, in theory at least, try to emphasise task-specific and short term reliance on national staff (22-25). But in actual practice concerns for short-term effectiveness often outweigh considerations of long-term sustainability (18).

More insidious than predation or competition for time is the problem of conflicts of interest. When health officials set up a business to improve their living conditions – or merely to make ends meet – this may not interfere with their work as civil servants (although it is likely to compete for time and to reinforce rural-to-urban migration). When they take up an extra job teaching that may actually be beneficial to the public agenda as it reinforces the contact of trainees with the realities of the health services. However, when they engage in private practice the potential conflict of interest is obvious (26); it is also a real possibility when managers moonlight with development agencies: the institutional interests and policies of these organisations are not necessarily congruent with national health policies or the agenda of the public sector (15,17,27).

Looking for opportunities is part and parcel of developing individual coping strategies. This directly fuels the brain-drain. Brain drain of health professionals is often thought of only in terms of inter-country migration (28). However, failure to post and retain the right person at the right place is not merely a question of a Congolese doctor deciding to move

to South Africa or a Philippine nurse to the United States. It is also a question of internal – and at first rural-to-urban – migration.

Countries have attempted to retain and deploy professional staff in rural areas through a variety of instruments. They have decentralised the location of training institutions (29); introduced recruitment quotas to ensure that the most peripheral areas are represented among medical students (29); made rural field experience during medical training compulsory (30). Results are mixed. Indonesia, for example, used access to specialist training as an incentive to attract doctors to under-served areas. Initially this appeared to work, but it proved expensive and attracted providers with the "wrong" skills and attitudes (31).

Ultimately the main constraint is the inequitable socio-economic development of rural compared to urban areas, and the social, cultural and professional comparative advantages of cities. But cities also offer more opportunities to diversify income generation (26,32). The need to make up for inadequate salaries – and for being in a setting where there are opportunities to do so – thus fuels rural-to-urban migration and resistance against redeployment (2,15,16,33,34). Professionals who have successfully taken advantage of these urban opportunities increase their market value over time, until they are ready for leaving public service. Rural-to-urban brain drain is then compounded by public-to-private brain drain.

Training, especially overseas, is a highly prised opportunity: to increase one's market value to complementary employers, and to migrate to the cities or internationally. International development agencies, even when they do not have formal, explicit policies regarding this matter, have become more sensitised to the problem over recent years. The World Bank, for example, has made recommendations to tie the access to professional education to a commitment to practice a certain number of years in the country or else to reimburse the real costs of training; to limit the training opportunities abroad; to finance professional education through loans to students that must not be reimbursed when one accepts to work in an under-served area (41). To limit the brain-drain consequent on their own activities, organisations such as NORAD, GTZ or the WHO in principle implement human resources recruitment policies that emphasise the employment of task-specific and short term consultants, with a commitment of national institutions to retain such staff (21-24).

In practice many of the best clinicians end up in private practice and many of the best civil servants in development organizations. What starts as a job-on-the-side to complement an inadequate salary then quickly becomes a matter of professional and social prestige: leaving civil service turns into a sure sign of professional success.

DEALING WITH COPING STRATEGIES

Most public responses to individual coping strategies fail to acknowledge the obvious: that individual employees are reacting individually to the failures of the organisations in which they work, and that these de facto choices and decisions become part of what the organisation is. Pretending that the problem does not exist, or that it is a mere question of individual ethics does not make it go away.

At the core of the reliance on individual coping strategies is a very strong motor: the gap between the professional's financial (but also social and professional) expectations and what public service can offer. Closing the salary gap by raising public sector salaries to 'fair' levels is unlikely to be enough to break the vicious circle. First, because it is not a realistic option in many of the poorest countries. In the average low income country salaries would have to be multiplied by at least a factor five to bring them to the level of the income from a small private practice (17). Doing this for all civil servants is not imaginable; doing it only for selected groups politically difficult. Second, because a mere increase in salary would not automatically reinstate the sense of purpose that is required to make public services function: as such it would not be enough to make moonlighting disappear spontaneously.

Downsizing central bureaucracies and de-linking health service delivery from civil service would make it possible to divide the salary mass among a smaller workforce, leaving a better individual income for those who remain. However, experience shows that such initiatives often generate so much resistance among civil servants that they never reach a stage of implementation (35). Where retrenchment becomes a reality it is rarely followed by substantial salary increases, so that the problem remains and the public sector is even less capable of assuming its mission.

Prohibiting civil servants from complementing their income is equally unlikely to meet with success, certainly if the salary scales remain

blatantly insufficient. In situations where it is difficult to keep staff performing adequately for want of decent salaries and working conditions; those who are supposed to enforce such prohibition are usually in the same situation as those who have to be disciplined. As an isolated measure restrictive legislation, when not blatantly ignored, only drives the practice underground and makes it difficult to avoid or correct negative effects (17).

Openly addressing the problem of moonlighting and brain drain, on the other hand, may create the possibility of containing and discouraging those income generating activities that represent a conflict of interest, in favour of safety valves with less potential for negative impact on the functioning of the health services. Besides minimising conflicts of interest, open discussion can diminish the feeling of unfairness among colleagues (36). It then becomes possible to organise things in a more transparent and predictable way. There are indications that the newer generations of professionals have more modest expectations and are realistic enough to see that the market for developing coping strategies is finite and to a large extent occupied by their elders.

This gives scope for the introduction of systems of incentives that are coherent with the organisation's social goals (36). Where, for example, financial compensation for work in deprived areas is introduced in a context that provides a clear sense of purpose and the necessary recognition, this may help to reinstate lost civil service values (37). The same goes for the introduction of performance linked financial incentives (36). These can, in principle, address the problem of competition for working time, one of the major drawbacks of moonlighting. However, such approaches require well functioning and transparent bureaucracies, making the countries most in need also those where they are a priori most difficult to implement on a large scale (38,39). A relatively untried area, at least in developing countries, is that of team-based incentives, with some successful experiences being reported from Spain (40).

It makes no sense to expect health workers to perform well in circumstances where the minimal working instruments and resources are blatantly deficient. Improving working conditions, however, is more than a mix of adequate salary and the right equipment. It also means developing career prospects and providing perspectives for training (19). Perhaps most important, it requires a social environment that reinforces a professional

behaviour free from the clientelism and the arbitrariness prevalent in the public sector of many countries.

Piece-meal approaches may work to redress the situation, at least partially or temporarily. But what is obvious is that legislation and regulation are not enough. However ill defined they may be, the value systems of the professionals are a major determinant in making the difference between a good service to the public and a bad one. It would be naïve to think that this could be achieved through mere bureaucratic regulation by governments or donor agencies. Without building up pressure from peers as well as from users, disinvestment by civil servants is more likely to increase than to diminish. One way to increase pressure would be to include a formal "Human Resources Impact Assessment" as a condition for the approval of health projects or components of sector wide approaches. This could force governments and their partners to address the problems caused by individual coping strategies and brain drain before they are part of the public organisation's culture. That would not guarantee that these problems would be effectively dealt with, but it would help limit the damage.

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Part III- Towards a Global Health Workforce Strategy

Human Resources Impact Assessment[‡]

Wim Van Lerberghe, Orvill Adams and Paulo Ferrinho

INTRODUCTION

For decades, discussions on human resources in health have ended with a ritual call for more and better manpower planning. But this traditional wisdom has been discredited by unrealistic or vague targets, based all too often on inaccurate and outdated information and unrelated to the policy agenda. Nevertheless, in as labour-intensive a domain as delivering health care, reform does entail far-reaching adjustments in the workforce and a new definition of the roles of health workers Meanwhile, globalization adds impetus to the migration of health workers with its destabilizing effect on health care delivery (1).

Many decision-makers readily point to human resource problems as the chief bottleneck they face in attempting to scale up health systems. Yet time and again the reform agenda neatly skirts around the sensitive and difficult issues involved not least because there are major gaps in the knowledge base required for a realistic workforce strategy [a].

Today's emphasis is no longer on the mechanics of optimizing the quantities, skills and distribution of manpower. The 'new' concerns claiming most attention in discussions are: the implications of the public/private debate; decentralization and civil service reform; performance management; and staff retention.

In health workforce planning in most countries training and employment used to be regarded as an essentially public sector affair. Nowadays, however, it is hard to imagine a debate on human resources that does not refer to the private sector. Partly because we have more docu-

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[a] Papers on these topics and others referred to in this Editorial were prepared for WHO's Global Health Workforce Strategy meeting in Annecy, France, December 2000, available at: URL: http://www.who.int/health-services-delivery/human/workforce/index.htm.

mentation on it now, we talk more readily about what was still a taboo subject in the 1990s: the fact that throughout the world public sector health staff boost their grossly inadequate incomes with private practice, often in an ambiguous context that compromises their public responsibilities (see Ferrinho *et al.* on pp. XX–XX of this issue). On the whole, however, the wealth of opinions on health workers in the private sector contrasts strikingly with the lack of empirical information, particularly in developing countries.

Response to human resource problems – particularly those related to income and performance – is often piecemeal and improvised. Few countries propose structural responses other than decentralization. There have been situations in which the greater managerial freedom made possible by decentralization has helped to improve things. On the whole, however, there is no evidence for an automatic link between decentralization and more effective management of human resources or greater efficiency. Health workers themselves tend to be the most skeptical about decentralization. It can reduce job security and limit upward career mobility. It brings in the destabilizing prospect of being hired, disciplined or fired by local authorities or committees which are less predictable than the national ones. More often than not, this has met with stiff resistance among health workers (2).

As decentralization brings human resources management closer to the actual operations, increased client pressure pushes managers towards performance management. The principle is deceptively simple: explicit objectives and targets steer individual performance, linking it to broader service and organisational goals. Once performance in relation to the set targets is measured it becomes possible to promote desired behaviour through financial or other incentives and disincentives.

The drive towards formal performance management has certainly improved the information base for human resource planning and helped to institutionalize continuous medical education. But there is very little evidence that formal performance management systems actually affect quality or patient outcomes, and none to show that any gains in efficiency outweigh the costs of setting up the systems. To be fair, there is no evidence to the contrary either, but it would be naive to look upon performance management as the magic solution for problems that planning failed to solve.

What then can one do? The challenge is not unlike that of getting the environment onto the development agenda a decade ago. Like the environment then, human resources for health now are recognized as a major problem. Like concerns about the environment until recently, these are rarely, if at all, translated into policy interventions. The problems are similarly complex, context-dependent, and often unexpectedly made worse by well-intentioned projects or reforms.

Environmental concerns are now more systematically taken into account partly because decision-makers started to ask as a matter of course for explicit environmental impact assessments whenever major development plans came up for approval. Very often, such exercises were no more than an administrative formality, but as a whole they played no small part in getting environmental concerns into the mainstream of policy-making.

Policy-makers and donors concerned with human resources problems may want to go down a similar road. They may request those proposing a major new project or policy to make a systematic and formal 'human resource impact assessment' during its preparation. Such assessments would examine the likely effects of the proposed project or policy on the health workforce. This would yield a triple benefit. First, it would draw the attention of decision-makers to the potential consequences of their decisions for the human resources in their health system. Second, it would help steer organisational and financing decisions towards minimizing negative effects on the workforce and enhancing positive ones. And third, it would help to build up documentation on how human resources are affected by new policy initiatives – information that is sorely lacking at present.

Major initiatives such as the Global Fund to Fight AIDS, TB and Malaria could only benefit from asking applicants to assess the likely consequences of their proposal on the situation of human resources. That would be no substitute for a global workforce strategy, but it would be a start.

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Human Resources the Political and Policy Context[‡]

Gillian Biscoe

ASSUMPTIONS

The first assumption is that within countries' health systems there are competing and conflicting goals. Three of these are society's desire for equitable distribution of health care irrespective of socioeconomic status; clinical freedom of providers to organise health care as they see fit, and economic freedom to charge prices they deem appropriate or to be paid a salary reflecting their own perceived value; and economic and budgetary controls, with health benefits at the margins justified by costs, and households, insurance agencies and governments being able to budget for the coming year and beyond (1).

The second assumption is that there is knowledge, values and attitude dissymmetry between different categories of health providers, between providers and consumers, and between providers and governments (2,3) which skew equality and rationality of communication and information exchange and subsequent policy development, including human resources (HR) policies. This dissymmetry creates a market which is unlike other markets, with public sector production failure,(4) and health systems consequently sometimes responding a-typically to some human resource and other strategies that are effective in non-health markets.

The third assumption is that the goals of a country's health system are, or should be, good health, responsiveness to people's expectations, and fairness of contribution to financing the health system. And that to achieve these goals, a country needs to have effective service provision, resource generation, financing and stewardship (5).

The fourth assumption is that HR is more than simply education and training, pay, working conditions, and performance and career development. HR is multi-dimensional, involving interdependency between

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an individual and the organisational culture, policies and structures, and enabling strategic capacity for linkages between a myriad of issues such as information, ethics, awareness, motivation and behavior(6). HR also addresses the reality that basic knowledge is becoming obsolete at an unprecedented rate, requiring ongoing learning, updating and adaptation as new working styles and labor markets develop(7). Implicit in this fourth assumption is the author's experience that HR complexity is ill-understood with HR strategies often weak as a result and that, while health sector reform is 'sweeping the developing world, its wider implications for human resources have been largely ignored'(8).

The fifth and final assumption is that the competing and conflicting goals, dissymmetry, and sociohistorical values which underpin each country's health system, create health systems that are inherently resistant to system change. HR strategies are a key vehicle to achieve system change, with maximum effect when strategically linked to appropriate management, policy and financing strategies.

Global Context

The usual dot points of global trends need to be presented. However, this is done with some caution. The danger always is that because a label or concept is familiar, there is an assumption that there is shared understanding of the real issues and potential implications. If environmental scanning and analysis is not repeated regularly within organisations, is it safe to use concepts and labels learned five or eight or ten years ago and assume a shared understanding? There is a need to apply ongoing intellectual rigor to understand new or potential implications, when times continue to change apace.

Thus, with caution, some key global trends are presented below. The question is, for all of us, what do they actually mean in terms of their potential impact and influence, over time?

And importantly, if these are global trends, implying that 'sooner or later' they will happen in most countries, then what are the most effective strategies to adapt and manage these trends successfully within individual countries and organisations? Some key global trends are: economic globalization and integration; technology and its impact; structural adjustment and privatization; ensuring sustainable development; emerging

new work systems; the shift from personnel administration to strategically focused HR efforts; changes in leadership style from bureaucracy to entrepreneurship (9); changes in organisational culture from risk averse bureaucracies to innovative and effective organisations.

Added to these are the increasing global challenges of keeping abreast with new health knowledge and its implications, from the explosion of knowledge in the genetic field to communicable and non-communicable diseases. While sophisticated technological advances continue, we are faced with the paradox of growing resistance of infectious diseases to antibiotics and the potential for uncontrollable epidemics. For this and other global health challenges, globalization provides a platform for solutions, given the magnitude of many of the challenges is greater than the capacity of one nation to successfully address.

Globalization is defined, for the purpose of this paper, as "the process whereby nations increase their interrelatedness and interdependency through the spread of democracy, the dominance of market forces, the integration of economies in a world-wide market, the transformation of production systems and labor forces, the spread of technological change and …the media revolution" (10).

In this new world of global competitiveness, the ideal scenario is a dynamic equilibrium between wealth creation and social cohesiveness, with governments balancing the need for local, social, value-added policies (e.g. health policies) against the need for developing a comparative advantage for their country to actively participate in the global integration of the value chain. While local, social, value-added policies are seen by some to be relatively market and cost-inefficient they are essential for social development. There seems little point in a country being transiently wealthy while civil society crumbles around the pot of gold.

The policy issues that governments, and thus society, grapple with are how to finance these social policies, whether privatization and 'free' market forces will reduce the cost burden, and how to manage the social cost of increased efficiency (e.g. unemployment). Even where governments have sound social policies, globalization is resulting increasingly in the internationalization of previous domestic markets such as supermarkets and hospital chains, with some authors saying that this diminishes the direct power and control of government in the domestic market (9).

We see some countries with health workforce policies focused on both the global and domestic markets, e.g. the Philippines' overproduction of doctors and nurses, stimulating their 'export'. Overseas-earned income is thus provided to the Philippines because of strong family ties and money being sent home. In other countries, there are barriers protecting domestic markets, e.g. in Australia registration for Australian-resident foreign trained doctors has traditionally been achieved with some difficulty, while there are now some changes in progress.

The migration overseas of 50% of new medical graduates from Thailand in 1965 resulted in the government implementing a three-year compulsory contract for public sector services for all new medical graduates. In 1997, as privatized, competitive health services reached their peak in Thailand, giving choice of employer to medical graduates, 22% of new medical graduates resigned from the public sector to join the private sector, even though the financial penalty for breaking their three-year contract was $US10,000 to US$15,000 in fines. The reasons for resignation included mismanagement of human resources (11).

In other countries, e.g. Fiji, increased outward migration of the health workforce has resulted from internal political changes. In South Africa, an acute shortage of registered nurses is being exacerbated by a similar shortage in the United Kingdom, with the latter heavily recruiting from the former.

HEALTH SYSTEM REFORM AND DEVELOPMENT (HSRD)

Health systems are thus neither immune nor divorced from the impact of the new global order. Attempts are being made in most countries of the world to adapt or transform health finance and service delivery structures accordingly. While health professionals may see merit in learning about new health technology, HR is more often seen as something that other people do elsewhere in the health system, and that is related to health workers only for "personnel administration functions" (e.g. pay), or formal and continuing education.

HR as a complex suite of strategies with the potential to strengthen a health system, including organisational and individual performance and job satisfaction, is not commonly understood (12).

There have been many lessons learned over the last decade in HSRD. Paradoxically there is little information in the literature on how HR policies and strategies relate to government and health sector reforms (13). Perhaps the one thing that is clear is that, as with computer systems, a turn-key solution, that is, one country's human resource development approaches unilaterally applied to another country, is not the answer, both because of sociopolitical, economic and cultural differences and because of differing national internal capacity and capability. However, best practice principles can be applied with specific strategies adapted.

While precise definitions of HRDS are not internationally agreed, for the purposes of this paper a definition is proposed, given that simplistic human resource development strategies (HRDS) need to be avoided in the complex area of health systems.

HRDS can incorporate both health management reforms and health market reforms and it is useful to distinguish the differences (although some countries, e.g. New Zealand and the UK, undertook both concurrently in the late 1980s), given that appropriate HRDS strategies differ markedly between them.

Health management reforms generally include structural changes (e.g. decentralization), health financing reforms (e.g. health insurance), policy process improvements, and strengthened management accountability through financial and HR delegations (e.g. to hospitals from the health ministry or central government agencies). HR is a key component for successful health management reforms.

Health market reforms, on the other hand, are aimed at creating market forces in the health system, through internal markets of limited or more open competition. Thailand is currently pulling back from a perceived over-competitive health system and developing instead health management reform approaches, as is New Zealand, while the specifics in each country differ. Nepal, on the other hand, is encouraging the further development of largely unrestricted internal markets as it pursues health market reforms.

The usual global pattern over the last 15 years has been health management reforms followed by health market reforms. In those countries where the latter precedes the former, e.g. Nepal, the proliferation of the private sector in the absence of the elements of health management reforms, creates inequities, quality and cost dilemmas, and policy, HR and management dilemmas, because of inadequate capacity and capability.

The starting point for HRDS in most developing countries, at macro-policy level and institutional policy level, is a diversity of non-harmonized policies, policy gaps and capacity and capability challenges. Developing countries have the additional burden of embracing medical and other technological advances in a restricted economic environment. In developed countries, the very policies that led to success, e.g. Japan, may turn into liabilities as priorities change and institutional inertia prevents people adapting to the new requirements (e.g. Japan's care of the elderly and pursuit of higher quality).

To respond to the impact of global trends, HRDS need to be comprehensive and address priority setting, public/private mix, organisational design, research, values, information systems, productivity, performance and incentives. For HRDS to be achieved and sustained, a cross-cutting approach to modern and integrated HR strategies are essential. HRDS need to address values and attitudes, as well as skills, competencies and organisational culture, to support changes in health policy and the health system.

STEWARDSHIP

As countries face the challenges of structural adjustment and transition to market economies, countries and regions are competing with each other to expand or maintain economic capacity. The International Labor Organisation (ILO), recognizing that the efficiency of the public service is a key variable to success and that the image of public service personnel has been on the decline for many years, included human resource development in its 1998-99 programme of sectoral meetings.

The ILOs deliberations were based on the reality that there has been weak analysis of how the various factors contributing to successful HRDS are linked and interact. "Public service personnel" is defined by the ILO as those employed in ministries and other public administration agencies and also those working in services in the public or general interest, including health services. The ILO concluded "without qualified, committed and motivated staff, the State cannot play the role assigned to it in a rapidly changing and globalize economy"(6).

In 1996 the OECD concluded, on the basis of country surveys, that more effective management of people would lead to more efficient and

effective public service administration (14). In 1997 the World Bank stated the issue succinctly: "...whether making policy, delivering services or administering contracts, capable and motivated staff are the lifeblood of an effective state" (15). This is not always recognized in health systems in developed or developing countries. Even where it is, where overall stewardship is weak, the political and public service climate may not be conducive to its achievement.

HR responsibility within health systems is traditionally placed within a corporate services structure. While there has been for at least the last 15 years, a clear understanding at international level of the difference between the old 'personnel administration' approach and the 'new' strategic HR approach, ministries in both developed and developing countries, have been slow to adapt.

In the author's experience, HR or personnel staff frequently do not clearly understand the health ministries' core business, the complexity of its delivery, the complexities of the various sub-cultures within health, nor modern generic HRDS. Where this is the case, they are not in a strong position to develop, argue for, and implement the sort of strategic HR approaches needed to facilitate systemic strengthening of stewardship, service provision, financing and resource generation, ultimately leading to a health system satisfactory to the community and to those who work in it.

Equally, senior health managers often see HR and professionals as something separate from the mainstream activities of health. When HR practitioners are perceived as 'personnel administrators', strategic consultation between senior health managers and professionals with the HR practitioner is not usually part of that health systems' culture.

However, when senior managers and health professionals have HR training integrated with best practice leadership and management development training, and are given management accountability, then some remarkable change can happen in HR approaches that support wider government and health system change. An example is during New Zealand's first wave of socioeconomic reforms from 1989 where there was considerable government investment in experiential, multidisciplinary leadership and management development, the impact of which is still being seen (16).

DONORS

A criticism of the donor community in some countries is that it is proliferate, uncoordinated, and follows its own agenda rather than focusing on a country's needs. On the other side of the coin, some developing countries have no national agenda of priorities to guide donor activity, and weak donor coordinating mechanisms [14]. This is compounded by "...too many governments know(ing) far too little about what is happening in the provision of services to their people" (5).

Donor agencies could be a significant force for systemic change. The majority of project designs do not, however, incorporate best practice HR principles and strategies. The more usual donor focus is on specific health issues, addressed often within a short time-frame (e.g. three years) with training programs tailored accordingly. While training is one aspect of HR, unless a long-term, sustained, technical assistance approach is taken with integrated, cross-cutting HR strategies, the health system impact of training is not high.

The problem is further compounded by there being little global agreement on what constitutes best practice HR. Some countries have developed comprehensive national HR plans (e.g. Bangladesh). Bangladesh and other countries (e.g. Tanzania, Kenya, Oman) are embracing activity standards for various staff categories, while to date no study has been conducted in any country to demonstrate the usefulness of activity standards for HR management and planning (17).

The relative vacuum in best practice HR strategies in donor project designs may be for several reasons.

First, for those expert in HRDS, it is a clear, obvious and essential, while complex, approach if health systems are to function anywhere near their potential. However, it appears that while insufficient people understand this, HRDS will continue to be absent from requests to donor's for funding, and government and donor interest in, and funding for, HR will remain problematic.

Second, addressing a discrete health issue is more tangible, more easily understood than a cross-cutting HR approach, and therefore is usually more attractive to donors. Third, the political context of governments facilitates their responding to donors wishing to fund high profile health issues rather than seeking funding for the more diffuse,

seemingly more abstract, and certainly longer-term, HR and system change approach.

A case history of one developing country has elements similar to many other poorer developing countries. It highlights the complexity of determining both the appropriate starting point for HR that will facilitate sustainable HSRD and the complexity of determining the relative responsibility of donors and governments.

In this country, there are more than 250 NGOs supporting health projects. Their activities are not currently strategically coordinated. There is little private or NGO focus on the most poor areas. It is in these same areas that publicly provided services are most weak. The quality of NGO services varies and they, and the private sector, are largely unregulated.

In this country in 2000, the aim for the health system is decentralization but, despite, legislative changes, actual decentralization is minimal. While, structurally, fairly even access to health services across (country) appears assured, the reality differs. There is weak capacity for strategic planning, policy development, leadership and management, finance and other resource disbursement, analysis and decision-making at all levels. The geographical location of health facilities is not always ideal to meet population health needs. Staff availability is inconsistent and absenteeism is high.

Centralized management continues. Personnel administration, including staff deployment and transfer, is centralized. Family, economic, social and security disadvantages of working in rural and remote areas make staffing problematic. Problems in drug and other supplies, transport and financial disbursements, together with low or absent staff, compromise services including outreach services. There are over 40 health worker cadres in (country); the majority of them have limited training.

There is a shortage of absolute numbers of nurses. There is an over-supply of doctors with increasing production of both doctors and nurses in the pipeline through private medical colleges. There are perceptions that standards of new medical, nursing and other health worker graduates are uneven. There is no overall health workforce planning to facilitate the balance between supply and demand.

There is geographical maldistribution of all health workers in favor of urban areas. Staffing levels are further compromised by poor motivation and widespread absenteeism because of poor wages in the public sector, higher

wages and incentives in the private and NGO sectors, and staff not taking up positions when transferred to rural and remote areas with which they are not familiar.

Most health workers supplement their incomes in the private sector. For nurses, this often means dual employment. For doctors, it often means public sector employment and private practice, even where some private providers provide financial incentives for them not to concurrently run a private practice.

Donors emphasize training. This translates into a myriad of discrete and non-integrated training courses, usually directed at the less-educated health cadres who frequently must leave their health center unattended and travel long distances, including on foot, to attend them.

The higher wages paid by NGOs and the proliferating private hospital sector attract the talented and able away from the public health system.

Finances are a major constraint in improving health services. Because of the weak administrative and management capacity, strategies to strengthen aspects of the health system follow an ad hoc pattern.

Staff reluctance to serve in remote areas far from home and families, where there are no financial incentives to do so, usually no accommodation (provided for doctors but not for other health workers), and security fears, means that health facilities may have no staff or ad hoc staffing patterns, constraining access. Illiteracy and poverty in a user-pays system further constrains access. Travel distance and the terrain, and perhaps no staff, no drugs and no other supplies when one arrives, complete the access constraints.

For staff, their low wages have recently been increased to a minimum living wage. This has yet to be paid. Despite the low wages, there are more applicants to study medicine and nursing than there are student positions. It is very attractive to staff to attend donor-supplied training courses, and to be paid for them, whether or not they are a priority or perceived to be relevant to their day-to-day work.

Absorptive capacity is low. 1999 data indicates that around two-thirds of external development resources allocated was released and about 60% utilized, and about 20-40% of the Ministry of Health (MOH) development budget has not been utilized. The MOH budget is heavily

reliant upon donor funding including for recurrent costs, with no strategies apparent to reverse this situation (18).

STEWARDSHIP AND DONORS

Leadership has been described as the ability to remove barriers, enabling people and organisations to maximize their effectiveness to achieve a common goal (19). Where it is clear that stewardship needs strengthening, either at the political or public service level, or both, then stronger leadership should be exercised by the international donor community to develop strategic alliances needed to support strengthened overall government stewardship, as well as that of health ministries.

Donor activity would achieve much greater return on investment if it was conducted within a clear strategic framework set by government, where priorities were determined, including HR priorities and principles, and where there was active management and coordination within government of donor efforts.

However, where stewardship is generally weak, the myriad of training programs for specific health issues will not achieve sustainable results in the absence of higher-level HR activity. Higher-level HR activity needs to focus on national policies that address priority public service system weaknesses, as well as health system needs. Lessons learned lead to the conclusion that HR strategies should vigorously focus on strengthening national health ministries as a precursor to, or concurrently with, HR focused on strengthening health service delivery [(19)]. In many environments, ministries of health have little flexibility to respond to and embrace new HR approaches. This creates a bureaucratic environment of 'administering the rules' when 'managing innovation' is needed for health systems to be successful (20).

The bureaucratic demarcations that characterize national public service structures are repeated at the international level. Thus international donor health organisations, focus on health and health systems, when the starting point for HR development and health system change in a country may need to be the lead government agency responsible for civil service reforms (often called something like the public service commission). This leads to the conclusion, that strengthened strategic alliances and partnerships are needed between 'health' and 'non-health' international

agencies and donors, to conduct joint situational analyses with countries, developing a coherent strategic approach to public sector reform. Within this framework, HSRD in health can be facilitated.

Cambodia provides an illustrative case history. HSRD is proceeding apace. Progress has been considerably assisted by the strengthened capacity and capability of the MOH through HR strategies, implemented with WHO support. However, progress with HSRD is now being constrained because overall public sector reform is lagging behind HSRD achievements (21).

In a climate of tightening health budgets, it can be difficult to persuade governments to spend money on health system strengthening, such as through HR strategies, when there are high profile health challenges to which to respond e.g. malaria, TB, maternal and infant mortality. In the same way as technical experts in health often have little understanding of HR and its importance, this is true too with politicians. International health agencies need to find better strategies to strengthen political understanding of the potential return on investment, social and economic, of sound HR strategies.

HR CHALLENGES

HR IN OTHER SECTORS

The health system is not renowned for actively engaging with other industries to share stories and lessons learned for mutual benefit. And the reverse is true. While there are some changes at international level, cross-sector collaboration at national level is not the norm. While the health 'market' may be atypical to other markets, there are many best practice HR practices and principles that are generalizable. Some of these are present in some health systems. However, as most health systems tend to work in isolation from others sectors, and they from health, it is not surprising to note their relative absence.

Lessons learned from other, non-health sectors include the central premise that developing the workforce has a positive economic impact by improving the economic condition of the individual, as well as his/her family and community. Other lessons learned are summarised in Box 1.

Box 1. Intersectoral Lessons on the Benefits of Investing in the Workforce

Understanding that transparency and accountability play a key role in building public trust, equity, access and the social partnerships required among stakeholders for HR development (e.g. the Miami-Dade Community College in the USA);
The importance of experiential learning in contrast to the Taylorist-like principle of knowledge and training being presented in discrete bits to be assembled together at a later date (e.g. New Zealand's former Health Services Management Development Unit);
Developing systems thinking in ways that allow stakeholders to learn from one another and connecting systems and strategies at points that promise highest leverage for mutual benefit (e.g. Australia and New Zealand's Learning Sets);
Understanding the basic concept of customer-oriented learning and helping people to learn skills they want to learn because they can see the potential benefits (e.g. micro-financing for poor women in Ahmedabad, India; the military retraining program in the Ukraine);
Ensuring HR strategies are demand-driven, tied into local, regional, national and/or international needs and being able to minimize gaps between the demand and supply of skills;
Ensuring transparent criteria for access to education and other HR strategies; seeking out groups who have not previously participated (e.g. more women in medicine; more men in nursing; those disabled being recruited into health, etc.);
Basing HR strategies on improving competencies rather than on length of training;
Creating multiple entry points for education programmes instead of the usual one-entry-point found in most health professional training;
Ensuring portability of skills: local, regional or international geographic portability and portability across occupations (e.g. Schluesselqualifikionen in Germany);
Developing generic skills for portability across occupations include learning how to learn, plan, effectively communicate in a variety of media, budget, problem solve and generate alternatives with traits such as leadership, flexibility, curiosity and 'coachability' being even more portable (e.g. from clinical medicine to health ministry leadership; from health into other industries); and, finally, exploring public-private partnerships and the linking of multiple stakeholders, key for HR development (22).

There is little evidence that these principles are widely understood by international organisations and governments across many sectors, including health. Where health experts have accountability and responsibility for either seeking donor funding, or for leadership and management of health issues in-country, the absence of HR knowledge in project design and implementation is apparent (23).

Two among many case histories support the premise that there is a lack of HR knowledge and expertise. In Guinea, maldistribution of health workers and low staff morale are the critical HR issues. The HR strategies in Guinea, however, are focused on in-service training. In Costa Rica, the health sector reform plan recognizes the lack of HR policies, standards and procedures but strategies are focused on worker productivity and short-term contracts, contributing to greater grievances among public sector employees.

INTERNATIONAL STRATEGIC ALLIANCES: TURNING DELIBERATIONS INTO ACTION

Strategic alliances among international agencies is becoming more apparent as is the swing away from the hard edge of economic rationalism to include a greater social and people focus. (For example, the World Bank and Asian Development Bank announcements in the last two years in response to the wide-spread perception that development efforts had been successful only in narrowly defined terms, with often inadequate human relevance and impact, and, the Jakarta Plan of Action on Human Resources Development in the ESCAP Region, to which WHO contributed (24).

The challenge now for international agencies is to understand best practice HR and its application, not just within the HR area but also among programme directors (or similar), ensuring that expert HR design is included in all project designs for donor funding and/or national agreement. This would require internal organisational education in best practice HR and consistent best practice HR design in all donor funding requests and project designs, and their evaluation post-implementation. External to the organisation, it requires a high-level collaborative network of public and private sector partners, who together analyze organisational successes and failures across many sectors, the contribution or otherwise of HR strategies, and the lessons learned for the health sector.

The lessons learned need to be communicated consistently over time through multiple channels. Given the health system and workforce challenges many countries are currently experiencing, countries may, for example, find helpful frank discussions of case histories at World Health Assembly and WHO Regional Meetings each year, to assist their own HSRD and HR efforts.

At national level, the same principles apply. Relative marginalization of HR areas will continue as long as the perception remains they are not integral to the success of the core business of programme areas, either in planning or implementation. The leadership of, and expertise within, corporate services areas are therefore key to changing both the perception and the reality. Also key is strengthening the HR capability of health ministries among senior health managers, across programmes, and incorporation of best practice, expert HR strategies, in health system planning.

DECENTRALIZATION

It is interesting to note the frequent emphasis on strengthening financial management skills for decentralization, with the HR emphasis more often being confined to the simple mechanistic step of decentralizing delegations.

Governments across the world are reassessing their role in the health sector, with the general trend being towards various models of decentralization. Decentralization provides a potentially excellent platform for HRDS. Ideally it enables the national level to establish best practice standards and principles to guide HR management and development, requiring accountability from managers while enabling innovation. To achieve this however, the national level must have best practice HR practitioners, there must be leadership from senior management at central level to ensure HR is both organisationally integrated and emphasized, and the HR capacity and capability of managers in a decentralized environment must be strengthened, within an organisational development (OD) framework.

In the view of the author, after extensive study in many countries over the last 15 years (e.g. Egypt, Iran, Australia, Cambodia, China etc.) and at regional level it is the national level that should be responsible for HR policy, standard setting, regulation and monitoring, and for basic education of, and macro HR strategies for, health professionals and health workers. This should include responsibility for national policies for balancing supply and demand, qualitatively and quantitatively.

The national level should also provide leadership to facilitate appropriate linkages to enable greater complementarity and partnership within the health system. Local level HR management is then key for local

attraction, recruitment, and retention, with all the system, organisational and management complexity that these imply.

Whether other HR strategies are developed and/or implemented nationally or locally depends on the purpose and type of strategy, and each country's structural levels of responsibility (e.g. centralized vs. decentralized, purchaser-provider arrangements etc.).

Ultimately there is a simple test of which level should do what. HR strategies should be initiated at the national level where it is in the national interest to do so. The national interest may range from the earlier New Zealand example of leadership and management development to support national reforms, to facilitating licensing of health professionals, to establishing policies for pay equality between the private and public sectors to reduce brain drain.

LICENSING

Licensing of health professionals is one aspect of HR. Most countries have domestically focused licensing policies, e.g. for medical doctors that enables management of the supply of medical doctors and national consistency of standards. In some countries the Ministry of Health is the licensing authority for health professionals (e.g. Jordan, Myanmar). In others autonomous or relatively autonomous councils have the responsibility (e.g. South Africa's Interim Medical and Dental Council).

HR strategies by licensing authorities vary widely from little or none to, for example, the Spanish Association of Colleges of Physicians establishing the Professional Institute of Medical Education, an accreditation body for institutions offering continuing medical education. Licensing bodies can potentially be a key vehicle for HR strategies, including regional bodies, such as the European Union of Specialist Physicians (25).

It can be argued that the European Union has, ipso facto, abolished geographical professional boundaries. In September 2000 a nursing conference of members of the Asian Productivity Organisation proposed a phased approach from early to mid-21st century, for global licensing, discipline and nursing education requirements (26).

Those countries which responded early to the impact of global trends, in the late 1980s, focused strongly on multidisciplinary best practice leadership and management development strategies for their most senior managers and for health professionals (e.g. the UK and New Zealand). The positive impacts of these strategies are still being felt more than a decade later (16). In South Africa, the Oliver Tambo Leadership Development Program aims similarly to strengthen leadership and management capacity and capability. Implicit in this is developing HR expertise. The International Council of Nurses, funded by the W. K. Kellogg Foundation, has a global initiative and conducts leadership and management development program for current and 'next generation' nurse leaders across the world. WHO is developing leadership and management development programmes which will initially commence in Egypt.

The increased awareness of the importance of sound leadership and management is heartening. However, the design and execution of leadership and management programmes is critical. Process is as important as content if participants are to genuinely, and sustainably, move beyond the status quo and achieve change. Also key is that programmes are multidisciplinary and that current and potential leaders are the participants. One group of participants in a 'health leadership programme' made a study tour to another country. The question of the host country was: "Why do you have people on such programmes that do not have now, and clearly will never have, the capacity or capability to be leaders?" (1).

The magnitude of the leadership and management task in health is high. The interest in, and understanding of, best practice leadership and management development to ensure real expertise in senior and middle level managers in the health sector, is uneven.

As well, discrete and disparate leadership and management development programs may assist individual capacity building but do not necessarily strengthen organisational or health stewardship capacity or capability. Organisational development (OD) strategies are as ill-understood as HRDS, notwithstanding the plethora of available literature. At the end of the day it is improved system capacity and capability that should be the aim, and OD provides the framework to achieve this. Maintaining the relative capacity and capability is also critical as the pace of change continues.

CONCLUSIONS

HR STRATEGIES: BUDGET AVAILABILITY

There appears to be no correlation across countries between sound and relevant HR strategies and economic status and health budget availability. Rather, the correlation seems to relate to sound and relevant national HR policies, and their official adoption by central government (either parliament of central agency) within which complementary HR policies for health are developed and implemented. This reinforces the hypothesis that targeting health systems in isolation from whole-of-government reform reduces chances of sustainable success through system change.

HR STRATEGIES: STEWARDSHIP

Where stewardship is weak, HR strategies to strengthen national HR policy development, and within that, health ministries, is essential to success. Without strong HR leaders with skills in managing change, the required credibility for HR is absent, political leadership is unpersuaded, and the required linkages between HR and policy and planning is weak or absent. This reinforces the hypothesis that single-issue donor and international agency support (e.g. for malaria, maternal and infant mortality etc.), in the absence of HR strategies to strengthen health ministry capacity and capability, will always struggle to achieve sustainability and influence system change. It also reinforces the hypothesis that WHO and others need to form stronger strategic alliances for country situational analyses where general stewardship is weak. Also needed, are strategies to strengthen whole-of-government HR approaches, within which context HRDS in health ministries has greater chance of success.

HR STRATEGIES: WHO AND DONORS

Donor projects are more often single-health-issue focused, emphasize single-health-issue training, and do not often focus on HRDS and health system change. Health experts in international agencies and national governments also having little expertise in HR and therefore not requiring its inclusion in project designs, and policy and planning probably inadvertently reinforce this weakness. Senior technical health experts need to be educated and envisioned, if more strategically oriented HR strategies

are to be achieved in donor-funded projects. Donors also need education and envisioning.

Where there is much to be done from a low base in a complex environment, a realistic time line is also needed to develop and implement HRDS to achieve system change. More realistic time-lines for donor technical support to countries should therefore be encouraged.

HR Strategies: the Learning Curve

Given the challenge of change management that many countries are experiencing with HSRD, WHA and WHO Regional Meetings, and other critical international meetings, should provide better fora for countries to frankly share lessons learned from HSRD case histories, following the principle that people learn what they see they have a need to learn.

HR Strategies: Organisational Cultures

In-country, best-practice, experiential leadership and development programmes for senior and middle managers, which incorporate HR expertise, should be designed and implemented to develop organisational cultures of innovation, and provide the mechanism for strengthening health ministries and integrating HR in policy and planning. Rigid bureaucracies remain the norm in most health ministries, a far cry from the global trend of moving to organisational cultures of flexibility and innovation.

HR Strategies: The Public/Private Sector and Access

While there is ample literature on aspects of HR there is little on HSRD in environments of health system reform, nor is there obvious cross-fertilization on knowledge between other public sectors, the private sector and health. There needs to be better international and national leadership in convening public/private sector global, regional and national management groups, not only of HR practitioners but also of senior general managers from the public and private sectors, to meet over, say, the next three to five years, to analyze best practice HR strategies across sectors, and widely disseminate findings for the mutual benefit of all parties.

Given that many WHO and other international publications reach national ministries but do not reach further, and given that HR practitioners tend to talk to other HR practitioners, more innovative

strategies need to be found to increase access to new HSRD knowledge by other people working in health.

Conversely, HR practitioners need to be exposed routinely to the thinking of other groups who work in health. The Internet is one obvious media. Another is for HR experts to both listen and learn, and present HSRD issues and findings at the multiplicity of health conferences convened for other health purposes (e.g. specialist orthopaedic conferences, physiotherapy conferences, public health conferences, professional organisation conferences, licensing board conferences, etc.). Health management education programmes, conferences and meetings should also be targeted. In particular, health ministry leaders need to gain strategic level expertise and interest in HRDS.

HR Strategies: Country Experiences

An analytical framework for HRDS should be developed and globally agreed, to enable robust country situational analysis leading to real in-country understanding, quicker development of a body of knowledge in HRDS, for in-country application, inter-country comparative analysis and research.

And so…

The conclusion drawn is that health leaders, managers and others do not understand well enough the strategic importance of HR in strengthening health system capacity. It still seems to be perceived by some as being at the "soft and fluffy" end of the spectrum in health (other than perhaps some formal and continuing education programmes), instead of something that is as essential to a strong health system as sound health financing, and which requires a similarly rigorous approach. There is little evidence that enough key players understand the key role of strategic HR approaches in achieving sustainable organisational change. While there are case histories of innovation and system change experiences using HR strategies, there is little evidence in the literature (Box 2).

Box2. Some Conclusions on HSRD

Appropriate, system-oriented HR strategies are as critical to achieving a quality health care system as health financing and health policy strategies.

Strategic HR is ill-understood, including often by those holding formal HR positions in health organisations, with more evidence of traditional personnel functions being prevalent than cross-cutting HR strategies.

Strategic HR is also ill-understood by managers in the health system: where they have a management challenge with staff, with team building, or with their organisational culture, they too often do not know there may be a solution, on which a skilled HR practitioner can advise. Alternatively, the manager may know there is a strategy to assist, but finds skilled advice lacking in the HR area.

Strategic HR approaches, that target health system change, are more usually not an integral part of designs to achieve health system reform.

HR strategies often do not address the core HR issue (e.g. 'brain drain', geographical maldistribution, motivation, innovation, risk-averse organisations, productivity, quality, job satisfaction).

Donor activity often incorporates discrete training functions but there is little evidence of strategic HRDS to achieve system change.

Donor project time lines are often too short for sustainable change, even where they are strategically focused.

Weak stewardship needs to be reversed for sustainable health system reform and HRDS are key to strengthening stewardship.

HR lessons learned from non-health public sectors and the private sector are not widely evident in HRDS in-country.

To 'fill the gaps' we would do well to strengthen:

Private and public sector collaboration and frank exchange for mutual benefit.

National level HRDS capacity even in a decentralized environment.

The utilization of multi-various global, regional and national non-HR health meetings to emphasize HRs strategic importance in a focused, systematic, sustained strategic approach over the next five years, and for HR practitioners to listen and learn from these meetings, adapting their HRDS strategies accordingly.

The utilization of formal international meetings, such as WHA and WHO Regional Committee Meetings, to frankly share and discuss country case histories and lessons learned, to assist countries' efforts in health system reform and change management.

Collaborative country situational analyses to enable whole-of-government HR reform, within which health ministry HR strengthening is implemented.

HR expertise as a core competency in non-HR senior health managers and health experts, to influence countries' understanding of the essentiality and complexity of

HR strategies, in the same way as financing policies are essential and complex, and the inclusion of HRDS in national health plans.

The development of an HR analysis and implementation framework to guide global thinking, develop in-country understanding, quickly build a body of knowledge from which lessons learned can be drawn and enable strengthened in-country analysis of sustainability issues in HR, leading to HRDS being incorporated in all donor requests.

The development of global, regional and in-country, multidisciplinary, experiential leadership and management development programmes for senior and middle level health managers.

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Human Resources for Health: Developing Policy Options for Change

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INTRODUCTION

Each country has unique contextual characteristics; however, some issues appear to be priorities for all (1). Health policy-makers are under the pressure of urgent requirements that are not always amenable to a long-term approach. Investments and interventions regarding human resources for health, on the other hand, generally show results only in the medium and long term.

The WHO Corporate Strategy as adopted by the Executive Board in 1999 places human resource (HR) development in the context of health systems strengthening. The constitutional directions guiding the work of the Organization and the need for support to HR development were identified in the Corporate Strategy and endorsed by the Executive Board.

The *World health report 2000* highlighted the key contribution of health systems to improving health worldwide. Human resources are the heart of the health system.

The WHO Programme Budget for 2002–2003 defines HR objectives and expected results within the global Area of Work "Organization of Health Services". The objectives include working with ministries of health to strengthen the capacity of countries to deliver health services in an equitable manner. The results expected include the provision of evidence and best practices to define policy options for development of HR as well methods, guidelines and tools devise for planning, education, and improvement of the performance of health workers.

During the Fifty-fifth World Health Assembly, in May 2002, Dr Gro Harlem Brundtland, WHO Director-General, described an initiative to improve human resources in national health systems. This decision addresses many issues, including the damage to health systems serving poor communities that results from relentless recruitment of skilled nurses – and

other health personnel – by countries where remuneration levels and learning opportunities are better. The WHO HRH initiative will also examine options for developing stewardship and technical skills within the health professions (2).

Furthermore, at the Fifty-fifth World Health Assembly countries asked WHO: "to accelerate development of an action plan to address the ethical recruitment and distribution of skilled health care personnel, and the need for sound national policies and strategies for the training and management of human resources for health." (3).

The World Health Organization has developed initiatives with Member States in the regions and at headquarters that address human resources issues.

Human resources for health issues are a constraint to achieving the Millennium Development Goals (MDGs)[1] and to scaling up interventions on major health problems (child mortality, maternal health, childhood nutritional status, malaria prevention measures, access to clean water, HIV/AIDS). WHO's work is designed to be consistent with assisting countries to achieve the goals and targets of the MDGs.

Countries deploy their health workforce within the limits of the human, financial and material resources available, but external policies often shape their choices for training and technical capacity and for development of health policy options, with effects that are far from optimal. Countries must also deal with the loss of health workers due to emigration, pay attention to workforce demographics and plan for workforce replacement, establish remuneration levels that keep staff in the workforce, and ensure the best possible education of staff. These issues must be addressed as a matter of priority, with vigorous international interest and support.

The challenges for developing health systems include the following: to identify strategies that will work in specific country contexts, which involves generation of a strong evidence base; to build the necessary policy,

[1] Millennium Development Goals: (1) Eradicate extreme poverty and hunger. (2) Achieve universal primary education. (3) Promote gender equality and empower women. (4) Reduce child mortality. (5) Improve maternal health. (6) Combat HIV/AIDS, malaria, and other diseases. (7) Ensure environmental sustainability. (8) Develop a global partnership for development. (*United Nations Millennium Declaration*. New York, United Nations, 2000.)

institutional and technical capacity in countries to implement measures known to work.

In accordance with the Health Assembly's recommendations, an integrated framework for human resources for health is proposed. The framework is based on the role of human resources for health in each of the main functions of the health system (stewardship, financing, resource generation and service provision) (4) and its goals of health, fairness and responsiveness.

This document proposes a framework to identify important questions facing countries. Human resources cannot be regarded as an autonomous area, it has a mutual dependency relationship with health services provision and with the performance of health service providers (4). A better understanding of the outcomes of this relationship will be the basis for the development of policy options *with* countries *for* countries.

Although in recent decades efforts have been made to improve knowledge regarding human resources for health performance, (5-7) only recently has a wider and more comprehensive perspective been applied to identify and establish priorities to improve HRH performance. Understanding the education and training sector and the subsectors of the labour market for health workers is crucial in designing appropriate policy responses (8).[2] Training and management of human resources for health are inherently subject to politics because of the many actors involved and their often-competing political interests.

But with greater emphasis on national health systems, the focus must shift from education alone to understanding the dynamics of human resources for health as a workforce and their impact on the delivery of services and on health system performance. Individual health professionals are affected by problems such as insecurity of employment and inadequate pay or other working conditions. Collectively, the HRH sector is subject to issues such as migration and poor distribution. Because human resources for health – as the head, heart and hands of the health system – can significantly affect population health status, they should be approached from that perspective rather than solely, or even primarily, as a more elastic

[2] Looking at six wealthy countries Anell & Willis showed little correlation between expenditures and the stocks of human resources, but they also noticed that there are completely different historical trends in health care employment in the studied countries.

resource than others that can be easily cut in response to a budget shortfall (9). Finally, another health workforce dimension relays in its role as political actor, with enough power to formulate, implement and change the way health policies are been applied.

THE RELEVANCE OF HUMAN RESOURCES FOR HEALTH

In the *World health report 2000* (9), human resources for health are defined as "the stock of all individuals engaged in the promotion, protection or improvement of population health". This includes both private and public sectors and different domains of health systems such as personal curative and preventive care, non-personal public health interventions, disease prevention, health promotion services, research, management and support services. The classification of human resources is based on the primary intent of professional education and training. Human resources actually engaged in the health system can be referred to as the health system workforce or health workforce.

Four main arguments can be made for giving special attention to the health workforce and associated policy options.

Constrains to Scaling Up

Human resources for health are central to managing and delivering health services (10) Health services are labour intensive and are personal services (11,12). As additional funds become available from the Global Fund for HIV/AIDS, TB and Malaria or through the debt alleviation process (HIPC)and other processes, a country's ability to absorb them will be constrained without appropriate human resources. But even in difficult situations, there are examples of health interventions that work adequately at a pilot level. These can be used as demonstration sites and expanded country-wide.

Central Role of the Workforce in the Health Sector

The performance of any organization depends on the availability, effort and skill mix of the workforce. Human resources for health are therefore a strategic capital. It is human resources for health (i.e. the various clinical personnel, managers, auxiliary staff and others) who enable each health intervention to be performed. It is also they who diagnose problems and

determine which services will be provided and when, where and how. Each health intervention is knowledge-based: health workers are the stewards and users of this knowledge (13). If appropriate skills and knowledge are not present in a country, the delivery of critical health interventions will be negatively affected. It is therefore necessary to understand the extent and nature of the constraints on the health workforce and more specifically, the impact of poor distribution on access to services.

Human resources for health account for a high proportion of budgets assigned to the health sector

The health sector is a major employer in all countries (14). The International Labour Organisation estimates that 35 million persons are currently employed in the health sector worldwide.[i] Health expenditure claims an increasingly important share of gross domestic product, and wage costs (salaries, bonuses and other payments) account for more than 50% of the renewable health system expenditure (16,17) [3]. These costs are strongly linked to the ways and efficiency in which human resources for health are deployed and used (18). Today, when health organizations are faced with greatly limited resources, it would seem reasonable that particular attention be given to the resource that weighs most heavily on health system costs.

Quite apart from direct costs, health professionals also generate other costs because of the relative discretion they enjoy in deciding on the allocation of resources. Some incentives inherent in the system (e.g. payment-for-service remuneration) may encourage doctors to boost the demand for nonessential services. High numbers of certain clinical procedures, some of them very expensive, are better explained by the ways in which health professionals practise than in terms of population needs (19,20).

Economic and human costs of poor HRH management are particularly high in the health sector

The quality of health services, their effectiveness, efficiency, accessibility and viability depend in the final analysis on the performance of those who deliver the services (20-22). The performance of these providers is, in turn,

[3] While some studies place this figure at between 65%-80%, more detailed work on National Health Accounts have to be undertaken.

determined by the policies and practices directed towards guaranteeing that an adequate number of appropriately qualified and motivated staff are in the right place at the right time, at an affordable cost (23). Critical choices must therefore be made as to the number of personnel to be trained; their mix (24) and their allocation, deployment and management to ensure the productivity of personnel; technical and sociocultural quality of services; and organizational stability. Inappropriate choices at these different levels can result in inefficiencies in the functioning of health services and consequently in the ability of these services to contribute to achieve health policy objectives.

Approaches to Understanding Human Resources for Health

The health workforce can be viewed from a political standpoint or an economic standpoint. Both can contribute to a better understanding of the dynamics of the HRH area.

Political Impact of Human Resources for Health Policies

The absence of adequate HRH policies has been shown as being responsible, in many countries, for a chronic staffing imbalance with different effects on the health workforce and the health system in general: quantitative mismatch, qualitative disparity, unequal distribution and a lack of coordination between population needs and the management of the human resources available. Putting human resources issues on the political agenda would enable these disparities to be addressed. But any such action must allow for the distinctive features of human resources for health: that HRH issues are intersectoral; the relatively long interval between decision-making and outcome; that the health sector is dominated by the professions; the mutual dependencies and hierarchical relations between certain professional categories; in many countries the role played by the State as principal employer; the high proportion of women employed in the sector; and the deficiencies of the market in the sector (24).

Any analysis of how questions and options are settled must consider that the HRH labour market is also an arena of political action, in which different interests confront each other. In addition, traditions, values and pressure strategies are frequently employed by the existing stakeholders in defence of their positions and privileges (25). Then, too, political timelines

often are much shorter than those that characterize human resources for health, which influences why some options are preferred and implemented. Thus, for example, it may often be politically more desirable to show short-term effects, such as acquiring new facilities or equipment, than to try to persuade that changes in recruitment, training and paying for health personnel will improve access to health services in the long term.

Besides the impact of global political paradigms, HRH policies promoted by financial institutions and donors can be an additional influence. In addition, changes in regulations governing schools and educational programmes have led to major changes in institutional policy and management that affect health professional and technical education.

THE HEALTH LABOUR MARKET

Although the economic approach provides valuable insights for understanding the health labour market, it is not commonly used. This approach revolves around two fundamental elements: the demand and the supply of human resources for health. On the demand side, economic, sociodemographic, political and technical elements influence the demand for human resources for health (26,27). On the supply side, decisions to participate in the health labour market are influenced by factors such as wages, other monetary and non-monetary benefits and job satisfaction (27-29). In addition, the role of professional regulation, the impact of hospitals and donor agencies and the time taken to educate "new" health professionals all contribute to the complexity of the health labour market.

Changes in each of these factors will have an impact on the health labour market. It is therefore important to account for them in order to better understand the interaction of the demand and supply of human resources for health and to improve health policy planning.

The health labour market should also be placed in a broad framework that takes into account other sectors and the impact of global trends. Globalization, and in particular the emergence of a global labour market resulting from mobility in labour, capital and technology, is having an impact on the health workforce. Within the global health labour market, health professionals seem to have great mobility and appear highly sensitive to push and pull factors (30). The complexity and particularity of the health labour market should be taken into consideration when assessing health system performance.

As a consequence of global economic adjustments, the health sector in many countries has undertaken reforms. Among the elements of the recent health reforms are a more substantial separation between the purchaser and provider functions, decentralization of the health system, increased consumer choice, an emphasis on clinical effectiveness and on health outcomes, the development of the private sector and the introduction of new delivery schemes such as managed care (30-32).

After some years of experience, there are indications that these reforms have not kept all their promises. In many cases, privatization has led to lower salaries and job losses in the public sector and to a deterioration of working conditions for health workers in the private sector, with a demoralized, insecure, stressed and overworked workforce (33). Standards of care have declined at a time when patient expectations have risen (34). Meanwhile, the traditional relationship between the state-as-employer and health personnel has changed in some countries. Centralized negotiations between national unions and governments have been supplanted by management of employment relations at the local level in some countries. In the health sector reforms of the 1990s in the United Kingdom (35), for example, attempts were made to introduce local pay bargaining and shorter contracts of employment for some staff, leading to a less predictable and stable working environment; some of these reforms have since been reversed as government attempts to improve job security and motivation of staff (36). In other countries, health reforms failed because of collective resistance of workers, who in many instances had been left out of the policy-design and implementation process (37).

In addition to a good understanding of the factors affecting the demand and supply of human resources for health, monitoring health sector labour adjustment is also crucial to achieving health reforms. Changes to the health system must be accurately specified and reliable data on the health system workforce must be available in order to analyse and compare different scenarios and assess potential surpluses or shortages by locations and skill type in the health system (38). Furthermore, potential institutional barriers to adjustments should be taken into account and the costs of the required adjustment programme, such as recruiting, retraining or reallocating the health workforce, should be assessed.

The renewed interest in the health labour market also has ethical dimensions. The *Ljubljana charter on reforming health care* outlines the

elements needed to attain high-quality health services and successful health care reforms. The Charter outlines several principles driven by the values of dignity, equity and professional ethics (38,39). Health reforms should focus on quality and pursue a clear strategy for continuous improvement. There should also be sound financing: governments play a key role in ensuring and regulating the equitable financing of health care systems.

CONCEPTUAL FRAMEWORK

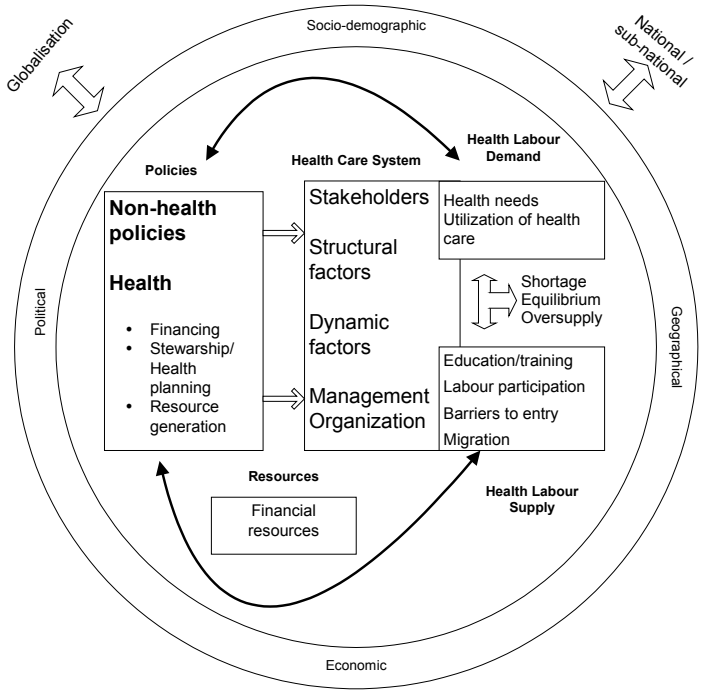
Figure 1 represents a conceptual framework that accounts for the key elements identified by a technical consultation (40). It especially underlines the importance of placing health workforce issues in a broad perspective that takes account of the influence of globalization and national and subnational factors. It stresses the direct and indirect impact of political, sociodemographic, economic and geographical factors on health workforce issues.

The roles of health and non-health policies, financial resources, health planning and health system characteristics are emphasized by the framework. Health system characteristics contribute to continuous changes over time in health labour demand and supply. The continuous iteration between policies (health and non-health) and health labour demand and supply results in a dynamic situation represented by the arrows in the model. Factors determining demand for and supply of health labour are considered as key elements of the conceptual framework.

This framework is based on the premise, arising from the consultation that population health needs constitute a "legitimate need" that the health system must meet. Based on meeting health needs, a "legitimate health labour demand" could be derived, and an imbalance would then signal a difference between health labour requirements to satisfy population "legitimate health needs" and the actual health labour supply (41).

Under this approach, one critical issue is to link human resources for health with outcomes of the health system.

Figure 1. HRH conceptual framework



HUMAN RESOURCES AND THE HEALTH SYSTEM FUNCTIONS

The development of a comprehensive analytical framework of health systems is a further step towards a strengthened WHO leadership role in global health policy formation (42). The framework defines the boundaries of the health system, based on the concept of *health action*, which is defined as any set of activities whose primary intent is to improve or maintain health. The performance of the system centres on three main goals: improving health; enhancing responsiveness to the expectations of the population; and assuring fairness in the level and distribution of financial contributions. The framework describes how each health system performs its task, in relation to how the system organizes its four key functions, which are: financing, resource generation, service provision and stewardship.

Financing

Health system financing is the process by which revenues are collected from primary and secondary sources, accumulated in fund pools and allocated to provider activities. Health system financing affects HRH in different ways. First, the level of funding has an impact on the capacity of institutions. Employment, deployment and retention of HRH are also affected by the level of funding the health sector obtains, including the availability of basic resources that allow the health workers to provide appropriate services to the population. Also, how funding is distributed inside the health system between the public and the private sectors affects their respective retention capacity, and how the health workers perceive they are recognized and motivated.

Resource Generation

Health systems include a diverse group of entities that produce inputs – particularly human resources, physical resources such as facilities and equipment, and knowledge – to the provision of services. In developing countries, poorly funded educational institutions depend on the additional effort that their teachers and students exert to achieve adequate quality outcomes. Recent efforts to improve training and quality of health personnel are important but still insufficient (43).

The production of human resources includes education, maintenance of their quality and productivity through continuous education and training, planning the size and composition of the workforce at the national, regional and local level and investment in the creation of knowledge and skills. The broad definition of human resources for health as all individuals engaged in the promotion, protection or improvement of the health of the population is supported and accepted in management and health systems literature (44,45). Including the planning, production, retention and recruitment of health personnel.

Three types of costs are associated with human resources for health: investment costs spent on their production (capital expenditures on educational facilities, expenditures on training and education); maintenance costs (continuing education); salaries and other benefits paid or offered to human resources for health. The first two can be considered part of the *resource generation* function, on the premise that both are means of maintaining productivity and quality of human resources (46).

Service provision

Deployment of human resources, selection of an appropriate skill mix for the production of health services, distribution of the workforce between different levels of the health service provision system, setting up incentive structures for health personnel and human resources management can be considered elements of the *service provision* function. In this case, human resources could be regarded as inputs into the *health production* function, as human resources for health are acknowledged to be "the most important input to health systems." (46). Improving the performance of the health system ultimately depends on improving the knowledge, skills, motivation and availability of the health workforce.

This function refers to the combination of inputs into a production process that takes place in a particular organizational setting and that leads to the delivery of interventions. Organizational structures of health systems are usually highly concentrated at the central level, as are the main services and their human resources; this imbalance affects the way HRH are trained, supervised and paid. Attempts to correct this by means of different types of incentives must be studied in order to achieve a better understanding of personnel motivations and expectations. Even in decentralized systems, the traditional predominance of the "center" remains a limiting factor for local management. In many countries policy-makers face the challenge of improving health system performance in despite insufficient financing, regulation and organization that affect HRH morale and productivity (47).

Stewardship

This involves three key aspects: setting, implementing and monitoring the rules for the health system; assuring a level playing field for all actors in the system (particularly purchasers, providers and patients); and defining strategic directions for health systems as a whole. Government intervention in the health sector also contributes to ensuring that the market of health services remains consistent with the goals of the national health system. Without regulation oriented to the welfare of the population, fragmented markets could be developed, contributing to additional exclusion of vulnerable sectors of the population. But for HRH, government intervention also means to regulate health professionals and ensure that their training and service provision capacity respond to adequate quality standards. Regulation can be accomplished by public, private or

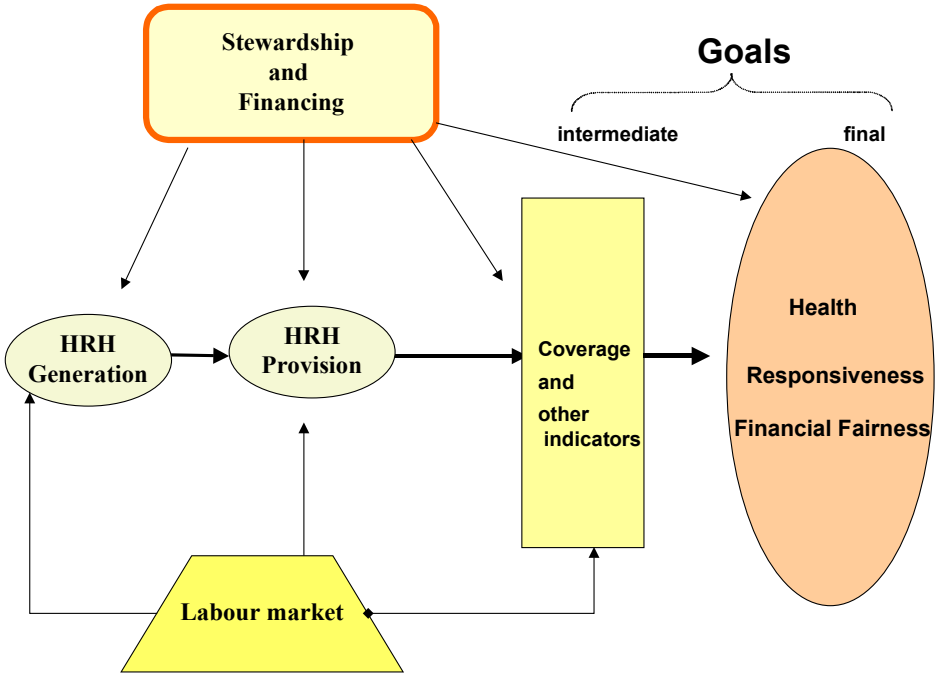
independent agencies. These agencies typically are responsible for licensing health workers, through procedures to determine whether potential providers meet the established criteria. A new type of social participation is occurring in some countries by involving the public on professional boards, increasing the transparency and legitimacy of these bodies.

Some aspects of the *stewardship* function require a strong government commitment to intervention, but in other fields the State's role can be shared with other social actors. In the area of human resources for health a lack of clear direction, regulation or legislation can result in undesired consequences in terms of quality and level of educational institutions, working conditions of the health workforce and imbalances in the health labour market.

The ongoing debate around restoring public trust in institutions, experts and authorities or reinforcement of arms-length supervision through audits, codes and monitoring (49) is related to the stewardship function but also to the other three functions, because it affects the goals of the health system (health, financial fairness and responsiveness). Greater involvement of the public in governance is being seen in a number of developed countries.

As shown in Fig. 2, human resources for health are closely related to each health system function and also to the interactions between the functions. Human resources can be understood as a "field of interactions" in the sense that besides the relationship with the health system, it implies a labour market, educational institutions, corporate interests (unions, professional and public organizations and institutions), and a diversity of political and economic interests.

Figure 2. HRH in relation to health system functions



SOURCE: Based in (49).

HRH POLICY ISSUES

Some crucial issues in human resources for health have been identified as a first stage in improving the interaction between human resources and the health system.

CONSTRAINTS TO SCALING UP

To strengthen existing national health systems so that they can effectively absorb additional resources to fight the diseases of poverty requires evidence-based policy options, increased capacity of health system professionals, technical support of high quality and better cooperation between the many agencies supporting these processes. Human resources for health are one of the major constraints to scaling up health

interventions. Providing better working conditions, enhancing and expanding skills and fostering equitable geographical distribution are some of the policy options to be addressed to solve constraints.

IMBALANCES

Imbalances in the health workforce are a major concern and are reported in both developed and developing countries and for most of the health care professions (50). Mutizawa-Mangiza mentions serious staff shortages in all health profession categories in Zimbabwe (51). Shortages of doctors have been reported in Botswana, Ghana (52) and Guinea Bissau (53).

Imbalances, and in particular shortages, are reported to have a number of adverse consequences. In the United States of America, about 38% of hospitals report overcrowding in emergency departments and 19% report an increased waiting time for surgery (54). In terms of nursing quality of care, estimations of higher nurse-to-patient ratios were associated with a 3% to 12% reduction in the rates of outcomes potentially sensitive to nursing, such as urinary tract infection and hospital-acquired pneumonia (55).

The types of imbalance include profession/specialty imbalances, geographical imbalances, institutional and services imbalances, public and private imbalances, and gender imbalances. Policy responses to imbalance will vary according to the type of imbalance.

Policies can be developed to influence factors affecting imbalance, such as education choice, profession and specialty choice and geographical location. In that context, laws and monetary and non-monetary incentives are important.

Imbalances represent a major challenge to health policy-makers. Using an analytical framework is a means to foster better comprehension of the characteristics of the health workforce and to allow for better policy decisions. Adopting this approach and building on the consultation discussions, WHO proposes the following definition for imbalances:

> *Imbalances in human resources for health exist when the composition, level and use of the health workforce do not permit optimal realization of health system goals.*

The associated operational definition considers that *imbalances exist when the composition and use of health workers does not lead to the attainment of effective coverage of health interventions*. Coverage of health interventions is a measurable intermediate variable that can be used by policy-makers. Coverage is defined as the probability of receiving an intervention conditional on the presence of a health problem that can benefit from the intervention (56).

MIGRATION

Migration refers to the flow of people from one place to another. Internal migration includes the movement of skilled health workers from rural to urban areas. External migration means that skilled workers cross national borders, generally from developing countries to more developed ones.

Highly skilled professionals represent an increasingly large component of global migration flows. This is thought to be costly for developing countries, not only in terms of deepening skill shortages but also in terms of fiscal costs for educational subsidies when these are available (57,58). Migration threatens the functioning of the health system if there is a net loss of human capital, which has become a cause of concern in some developing countries. There may be a general loss if a large proportion of the health workforce leaves the country, or distributional imbalance if there is migration from rural to urban areas. Losing part of the professional mix may result in either absence of some services or in professionals' having to adapt their roles to deliver services normally outside their scope of practice. This can result in poor service provision or inefficient use of resources. On the other hand, remittances from emigrates are seen positively which may lead some countries to be reluctant to act to stop emigration of health personnel.

In a 1998 survey (59) of seven African countries, vacancy levels in the public health sector ranged between 7.6% (for doctors in Lesotho) and 72.9% (for specialists in Ghana). Malawi reported a 52.9% vacancy rate for nurses. In some developing countries the shortage of nurses and physicians is thought to have resulted in rural clinics' being staffed by aides trained to deal only with uncomplicated conditions. This affects not only coverage and access of communities but also health outcomes, if conditions are present that are not adequately treated (60).

Although medical practitioners and nurses make up a small proportion of all migrating professionals, for developing countries the loss of health human resources represents a loss in the capacity of health systems to deliver health care equitably.

PUBLIC HEALTH

The effective functioning of any health system requires an effective public health service for two main reasons: the public health perspective – the population-wide view of health systems – is central to the stewardship function, and the public health workforce has prime responsibility for overseeing and delivering non-personal health services.

The organization and delivery of public health services are inadequate for many of the new health challenges. In particular, the development and ongoing training of the public health workforce has been neglected and the public health infrastructure is underdeveloped in both developed and developing countries.

Many policy-relevant questions can be raised about the public health workforce in developing countries, but the key question is: Should governments invest more in the public health workforce to ensure the more effective functioning of a health system? An effective public health workforce is usually assumed to be linked to improved performance of health systems, given the broad mandate of a modern public health workforce, its unique population-wide perspective and its long-standing and continuing contributions to health improvement. But it is necessary to review the evidence base for this assumption. Other questions fall into several domains: the nature and role of the public health workforce; the size, composition and performance of the workforce; and many issues related to the training of the public health workforce and accreditation/quality assurance of these training programmes. The evidence available to shed light on these policy issues is limited.

WORKING CONDITIONS AND HEALTH WORKERS: THE CASE OF HIV/AIDS IMPACT

The impact of HIV/AIDS on the delivery of health services is thought to be reaching alarming levels in many high-prevalence countries, particularly in sub-Saharan Africa. A vicious cycle has been emerging since the early 1990s: morbidity and mortality among service staff affected by HIV/AIDS

are said to reduce service provider numbers to below critical levels in some countries most affected, although empirical data on the size of the problem are missing. Insufficient replacement staff and the inroads into whole age groups and professionals such as nurses, doctors, pharmacists and teachers, combined with increasing demand for higher care needs, is likely to have a serious impact on societal development in countries most affected by HIV/AIDS. The lack of teaching personnel will reduce the capacity to train replacement staff. From another perspective, statistics of the Food and Agriculture Organization of the United Nations indicate that some countries already face a loss of more than 20% of agricultural workers (61), and similar losses have been quoted for nurses (62).

At the same time, some studies cite hospital-bed occupancy rates that have reached 190% since the epidemic started to unfold (63). Increased need for testing and follow-up of suspected HIV-infected patients has also been noted as an additional burden on already over-stretched staff, thus increasing overall workload requirements (64).

Concern in the area of occupational health has also been expressed: increased risks associated with HIV/AIDS patient care must be explored as a recruitment and retention factor. The Global Burden of Disease analysis shows that 40% of hepatitis B and of hepatitis C in health care workers is due to needle pricks. Some studies have attempted to measure the HIV infection risks for several occupational groups, but no systematic review has been undertaken to assess the impact on workforce losses and the need to adjust planning targets (65).

These are the objectives for a systematic approach to assessing the impact of HIV/AIDS: to provide information on the extent to which HIV/AIDS affects staffing levels necessary for the health system to respond appropriately to the unfolding epidemic; to provide data on additional staffing needs caused by increased HIV/AIDS workload requirements; to provide planning data for staffing needs resulting from new strategies to reduce mother-to-child transmission of HIV/AIDS and accompanying antiretroviral therapy goals; to identify staff training and re-training needs to implement new strategies.

In addition to HIV/AIDS, there are other important risk factors for health workers: violence in the workplace; harmful environmental conditions; lack of appropriate material. This risk factors are frequent in

many institutions and are a source of dissatisfaction and absenteeism among the health workers.

EDUCATION

Education of the health workforce is the systematic instruction, schooling or training given in preparation for the work. Each society, even some of the poorest, invests important efforts in training the required human resources.

Throughout the world there are more than 1800 medical schools; the number of nursing schools is estimated (66) to be 6000. But the universe of educational institutions for the health workforce is much greater: it includes, but is not limited to, schools of dentistry, midwifery, pharmacy, physiotherapy and public health and schools for technicians, as well as programmes for the basic and social sciences, and they must also take part in global change.

Investments in human and physical capital are of a long-term nature. Investment decisions have an impact on the type of services provided, the geographical distribution of services and the political power of providers. On the other hand, the investment decisions themselves are often swayed by local politics and driven by influential groups of stakeholders.

This situation poses new challenges in the education of HRH such as: how can ministries of health and education be assisted to integrate their planning processes and targets?; how can education of human resources for health improve the performance of functions?; what are the demands of the health system directed at the educational field now and for the near future?; how can the outcomes of the educational system be measured from a health system perspective?; how can the use of external financial resources be maximized to meet national HRH needs? .

POLICY QUESTIONS IN HUMAN RESOURCES FOR HEALTH

Some technical and methodological issues appear also to be crucial problems for health system performance improvement, as evidenced by data, more accurate information and comparative analysis.

There are two main approaches to HRH policy-making: one stresses the cyclical character of decision-making by complex social organizations, and one looks at the interpersonal and contextual relations

of the policy-making process (66). The first approach is more prevalent, since it follows the vertical structure of most health institutions. The rationality of the process described by this approach implies a logical sequence, an objective evaluation of alternatives and a full use of scientific knowledge. But the reality of decision-making and public policy regarding human resources for health does not always follow this logic. Some of the limitations of the cyclical-process explanation are due to an insufficient attention to: conflicts of power and interests in decision-making, uncertainty inherent in decision-making and the limited rationality of the participants, divergences and ideological biases and the dynamic nature of interest-driven policy processes.

A complementary use of both approaches can be beneficial in the HRH field, since there is a need not only for description and explanation of the current problems, but also for advocacy for interventions. The commitment of stakeholders with the existing problems gives political weight to each of the issues of a human resources for health policy agenda. As the cycle of policy formulation is not a straight line, the perception and mobilization capacity of the different social actors involved are crucial. If policy is the deliberate action (or absence of action) taken around a specific issue in a power setting, it will then be prudent to acknowledge that not all issues have the same weight. As part of choosing between policy options, countries should analyse the political support of the different policy options.

Table 1. Policy questions related to HRH issues

	Issue	*Policy aim*	*Policy questions*
Scaling up health interventions	Constraints to absorbing new resources and expanding good practices	To increase timely HRH production	What are the cost-effective strategies for scaling up HRH?
Imbalances in the workforce	Imbalance between health professions	To deliver better health services with existing HRH	Is it more cost-effective to train and employ less-expensive substitutes to deliver health services?
	Poor health system performance	To deliver better health services with existing HRH	What is the most efficient mix of skills to achieve the desired coverage of health interventions in a country?
	Health workforce understaffing (not enough people in the workforce)	To attract more people into the health workforce and keep them in it	Will higher subsidies (loans, decreased fees, allowances, etc.) or other incentives result in more individuals entering the health workforce and remaining in it?
	Health workforce understaffing and poor performance	To retain providers in the health workforce and improve performance	Which mix of monetary and non-monetary incentives is required for different provider groups?
			What are the appropriate management interventions to improve performance?
	Delivering services to the poor and other disadvantaged populations	To attract and retain health workforce in underserved areas/getting services to the poor	What is the most efficient combination of incentives to improve equity in the geographical distribution of the health workforce?

	Issue	*Policy aim*	*Policy questions*
Labour adjustment	The impact of labour adjustment on health system performance	To minimize or control the consequences of labour adjustment to deliver better health services with existing HRH	What are the most effective strategies to minimize or control the impact of labour adjustment? What type of policy should be developed after a labour adjustment? What type of policy can be proposed to those concerned by a downsize adjustment?
Migration	Outflow of health workers creates an imbalance	To manage the outflow of health professionals To reduce the outflow of health professionals due to aggressive recruitment from richer countries	What is the most cost-effective mix of retention strategies? Can a policy of ethical recruitment be effective and be enforced?
Public health	The weakness of public health capacity in developing countries	To build public health capacity in developing countries	Should governments invest more in building public health capacity to ensure the more effective functioning of the health system?
Working conditions and health workers	Impact of specific diseases on the level, distribution and performance of the health workforce	To assess and reduce the impact of specific diseases on the health workforce	How can coverage of health interventions be maximized, given the constraint of HIV/AIDS and its impact on health workers?

	Issue	*Policy aim*	*Policy questions*
	Increasing risk factors for health workers in the workplace	To assess and reduce the impact of specific risk factors (violence, inadequate physical conditions, etc.) on the health workforce	How can risk factors be reduced in the workplace?
Education	Weak congruency between education for health occupations and the achievement of coverage	To better align investments in educational institutions and programmes with improved coverage of health interventions	What is the balance of short-term and long-term investment required to improve coverage of health interventions?
External support to HRH development	Lack of coordination of external donors' policies towards HRH development	To maximize the use of external financial resources to meet national HRH needs	How can the country best use external aid to achieve its HRH goals?

POLICY IMPLEMENTATION

In many countries, policies exist but are not implemented. The reasons for this may include the following: the policy was developed without wide support and as a consequence is being resisted by interest groups; the financing to support the policy is not available; the legislative frameworks to facilitate action to be taken in the health sector are not in place; the capacity to analyse the current situation and to negotiate change is not sufficient in the country or region; the policy requires cooperation between different government ministries that are not equipped to work together; the policy requires changes in the culture of organizations and institutions that

take a long time to achieve, providers of technical support do not agree on methods of implementation and apply incompatible approaches.

It is therefore crucial that studies to find policy options also include methods and implementation. The gap between knowledge and the implementation of knowledge must be reduced.

STRATEGIC RESEARCH ON THE HEALTH WORKFORCE

Shaping a new agenda for HRH policies requires the generation of knowledge that facilitates analysis and improves understanding of policy processes. To strengthen the evidence-based HRH information, the number and quality of HRH research projects have been increased (67,68). In several technical consultations there has been a consensus that high-quality evidence gives more credibility to HR practice, and that good data help to identify and focus on the priority issues within HRH. Some research topics that have received attention are: the nature and complexity of incentive structures and their relationship to innovations in health service organization such as managed care and blended payment mechanisms; the identification of the "push" and "pull" factors affecting movements of health personnel; the effects of financial and non-financial incentives on recruitment, motivation and performance of different groups of health workers.

MONITORING

Indicators to assess performance of human resource generation and production will follow the general framework of Health System Performance Assessment (69). They will focus on the performance of functions in terms of level of achievement, distribution of achievement (equity) and efficiency.

There is thus a need for a minimum set of indicators related to imbalance (demand in relation to supply), equity (distribution) and efficiency of human resource generation. One approach is summarized in the two tables below.

Table 2. Matrix for the assessment of HRH generation

Selected categories	*Level*			*Equity*	*Efficiency of production*
	Adequacy	Skill mix	Quality	Distribution of new entrants	
Doctors Nurses Midwives Pharmacists Physiotherapists Auxiliary nurses Auxiliary midwives Technicians Other health professionals Managerial and administrative staff Volunteers and interns, etc.	Ratio of new entrants to total stock	Ratio of specialists to generalists; Ratio of physicians to nurses, etc.	(*)	Distribution of new entrants by category/ gender/other criteria (cultural, ethnical group) (in %)	Costs of training per student (medical, public health, etc.) and training programmes

(*) indicator to be developed

Table 3. Matrix for the assessment of HRH maintenance and use

Selected categories	*Level*		*Equity*	*Productivity*
	Remuneration	Incentives	Distribution	
Doctors Nurses Midwives Pharmacists Physiotherapists Auxiliary nurses Auxiliary midwives Technicians Other health professionals Managerial and administrative staff Volunteers and interns, etc.	Income per capita; Distribution of income sources (in %); Relative income	Distribution of modes of payment	Number of professionals per inhabitant (differentiated by epidemiological regions or poverty levels)	Distribution of health professionals by hours worked per week (full-time/part-time)

To understand the trends of the health workforce, evidence-based information is needed. Capacity must be built to collect, analyse and use data to frame policies to improve the performance of human resources for health, and therefore of health systems. Strong commitment by WHO and its Member countries and the participation of a diversified and representative group of research, service and academic institutions will foster an improved capacity to regulate, predict and evaluate HRH issues in the health field.

In an effort to capture data, a comprehensive review of sources of information on the health workforce has been conducted, including labour force surveys; national censuses; household surveys; ministry of health records; professional councils and associations; and salary surveys. This strategy of gathering and analysing data includes partnership with

ministries, research centres, libraries, public health schools and national bureaus of statistics, as part of a process of capacity building in countries.

CONCLUSIONS

Human resources for health policies that improve health systems performance are especially important in order to achieve the Millennium Development Goals and to overcome the constraints that countries may have in delivering key health interventions to their populations. Health organizations depend heavily on their workforce; human resources for health account for a high proportion of budgets assigned to the health sector, and the economic and human costs of poor HRH management are particularly high**.** Human resources for health are involved with both the *resource generation* and *service provision* functions. Some aspects of the *stewardship* function also bear on human resources for health.

WHO will contribute to providing tools for assessing human resources for health needs and planning, and is building a database of HRH policies that have been shown to produce predictable, positive results. Monitoring and evaluation tools form part of the database. The results expected include the provision of evidence and best practices to define policy options for development of HR as well methods, guidelines and tools devise for planning, education, and improvement of the performance of health workers.

WHO is already addressing many of the human resources for health issues, including: migration, imbalances, education of health professionals, working conditions of health workers and the public health workforce.

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