CORE DATA

HUMAN RESOURCES FOR HEALTH

Stocks and Flows - Education - Management

ANGUILLA

2011

Tracking
Regional Goals
for Human
Resources
for Health

A Shared Commitment

Pan American Health Organization
Regional Office of the World Health Organization

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General Introduction

Background

In its 2006 annual report, the World Health Organization (WHO) described the Human Resources for Health (HRH) situation among its 192 member states.[1] This report recognized the widely varying data availability, with many non-OECD nations having limited access to information on their health workforce. National data were collected as part of this effort, using three approaches: WHO national surveys conducted through its regional and country offices, contacting various national administrative sources, or data "compiled from a previous version of the WHO's global database on the health workforce".[2] Data from many Caribbean nations were collected using this third approach, which obtained very little detail, with information that had not been updated for a number of years.

To improve this paucity of information, the Human Resources for Health Unit of the Pan-American Health Organization (PAHO) has partnered with the Ministries of Health in the Eastern Caribbean Countries (ECC) to support the systematic collection and country-level analysis of HRH data as part of the Region's 10-year commitment to health workforce development.

The purpose of this data collection project was to establish a Core Data Set for the countries of the Caribbean region comprising the required information to establish the current status of HRH in each country. This core data investigation took place in Barbados in November 2007, and following on from this, a number of the Eastern Caribbean Countries conducted the same project study.

There are seven Eastern Caribbean countries involved in this project (Barbados, Dominica, Grenada, Saint Lucia, Saint Vincent and the Grenadines, Anguilla and Montserrat), which has proceeded in two work phases: Phase 1, Data collection for Core Data Set, and Phase 2, Data collection to establish baseline indicators for the 20 Regional Goals for Human Resources in Health.

This report describes the first initiative in Anguilla and its result.

1. World Health Organization. The World Health Report 2006: Working Together for Health. WHO Press, Geneva.
2. Antigua and Barbuda, Bahamas, Barbados, Dominica, Grenada, Guyana, Haiti, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago.

Core Data Set

The project's core data set was collectively defined through consensus among the participating Caribbean countries at the Data Management Project Orientation Meeting in Bridgetown, Barbados in September 2007 (see Appendix 1). This data set is divided into three sections: Stocks & Flows; Regulatory Framework & Management Practices; and Education System. The report reflects these subdivisions.

Anguilla Notes

Anguilla is a British Dependent Territory and is the most northerly of the Leeward Islands in the Eastern Caribbean. It is 91 km^2 (35 sq. miles) and has a population density of 171 people per square kilometer.[3] At the 2001 census Anguilla had a population of 11,561 (3,233 of which were under 15). Accounting for population growth, it may be estimated that there is a population of 15,236 in 2011 based on migration of 300 per year.[4] From the Labour Force Survey, the work force in 2010 was estimated to be 9,025. The Statistics Department does not have a definition for "urban" and "rural" and census population data are only provided by enumeration district which is not appropriate for use in this report. At the 2001 census Anguillan population was primarily of African descent (90%) and so data stratifications by race or ethnicity were not applied. However, it should be noted that in 2001 27% of the country's population were non-Anguillan.

The Health Authority of Anguilla (HAA) is a Statutory Corporation that was established by a law in 2003 and began to function in 2004. The HAA comes under the auspices of the Ministry of Social Development. The HAA comprises the following "units": the Princess Alexandra Hospital, Community Health Care (including nursing & dental services), Miriam Grumbs Senior Citizens Home, Administration and Support Services.

3. Population density: http://esa.un.org/unpp.
4. Statistic Department. Government of Anguilla. http://www.gov.ai/statistics/census/index.htm Accessed 08/Dec/2010).

1. Core Data Set Introduction

1.1. Objectives of the Project

The overall aims of the Data Management Project for Human Resources in Health are (A) to assess and analyze human resources in health, and (B) To support countries in their efforts to establish information systems and networks for knowledge exchange and evidence-building that are sustainable. The specific objectives for the two parts of this project will be discussed in the relevant section of the report.

1.2. Types of Potential HRH Data Sources

There was no centralised data source containing information on the three health-care sectors (private healthcare, public healthcare and Non-Governmental Organizations —NGOs), and data were collected on a sector by sector basis. Consequently, each sector has different data sources.

There are various sources from which quantitative data pertaining to HRH can be collected. The sources that are directly involved in HRH management can be broadly divided into the following types:

- Type 1 - Public Sector (Defined as public finance / provision of health care services) Consisting of Ministry of Health (MoH) controlled facilities. Data from this source was always the most accessible.
- Type 2 - Private Sector (Defined as privately funded / provision of services on a cost basis to the patient) Consisting of private physician offices, private laboratories, private imaging centres, private nursing services and private treatment centres. No detailed data were available for this sector.
- Type 3 - NGOs (Defined as not-for-profit non-governmental organizations that are related to disease areas or healthcare. In Anguilla no significant input (requiring MoH staff) from NGOs was declared.
- Type 4 - Educational Institutions. Anguillians have access to both the University of the West Indies and overseas Universities as well as an off-shore school of medicine (St. James). The island does have a Community College, but at present it does not provide training for any professions related to health service delivery.

2. Methods

2.1. Background

The success of health services depends critically on the size, calibre and commitment of the health workforce.

However, relevant information on health workers remains widely dispersed and un-standardized. These limitations impede the ability to make informed decisions on resource allocation in the health sector. In Anguilla, quantitative data on human resources for healthcare (HRH) and education have been assessed and collected from a wide range of sources. These sources can be grouped into the following areas:

- Socioeconomic and demographic: Census and household labour survey information.
- Administrative registers: Health Authority of Anguilla (HAA) personnel databases, college databases for graduation information.
- Other sources: HAA health accounts.

Defining occupational groups

To summarize occupations among health workers, this project highlights 11 professional categories, which are described in Appendix Two. All health sector jobs were mapped to these broad categories.

Non-health trained workers in health industries

There are many non-health trained workers in health industries, such as managers, computing professionals, trade, clerical, and service workers. They provide managerial and infrastructure support, without which a healthcare system could not function —they are a valid component of the healthcare workforce.

2.2. Education for HRH – Data Source Details

The primary data sources are the administrative databases/records held at the education institutions.

Administrative databases

The University of the West Indies (UWI): The UWI maintains statutes on all ratified undergraduate and postgraduate degree programmes, and produces annual aggregate data on the number of student admissions and the number of graduate and postgraduate degrees awarded.

The St. James School of Medicine: This is a new institution (established 2009) therefore limited data were available.

3. Results

3.1. Data Set Limitations

No data sources could provide complete information on the important stratification variables of health worker age and gender combined. The ability to stratify into public and private healthcare workers is also an important one, but this was not possible with this data set. However, many clinicians work in both sectors, and the relative time spent in each sector cannot be ascertained.

3.2. Stocks and Flows

Public-sector HRH workers by facility type

Anguilla has a public-sector health service that requires fee payment at the point of care. However, exemptions can be made through the Social Development Department for persons with HIV and those who are deemed unable to pay: these individuals are issued with a card detailing their payment status. Public workers are provided with health insurance which requires them to pay 20% of the cost at point of service (Government pays 80%). Persons working in the private sector pay the full price. Fees for services at the hospital are greater than those at the clinic.

The healthcare workers are documented and maintained via the Schedule of Personal Emoluments. For national comparisons, these jobs have been grouped into 11 occupational categories defined at the inception of this HRH data management project.[5]

Information on the number of public-sector HRH workers by “facility” is presented in Table 3.1. Details of the professional categories of within each “facility” are detailed in Table 3.2.

5. The 11 occupation categories are: Medical doctors, Nurses and midwives, Dentists and allied trades, Pharmacists and allied trades, Social workers, Rehabilitation workers, Laboratory Technologists, Public health practitioners, Nutritionists, Mental-health practitioners, and Other health workers.

Table 3.1: Summary of HRH workers in each public-sector facility group

Facility	Number of workers (%)
Princess Alexandra Hospital	81 (66%)
Community	28 (23%)
Miriam Grumbs Senior Citizens Home	13 (11%)
TOTAL workers	122 (100%)

The hospital is the largest employer of healthcare workers, with 66% of the entire public-sector HRH workforce. The community primary care services employ another (23%) of the HRH workforce (Table 3.1). Tertiary referral services are sought overseas.

Table 3.2: Numbers of HRH by facility and professional category

Occupation	Number of workers per facility[a]		Total
	Hospital	Community	
Medical doctors	11	2	13
Nurses + Midwives	27	10	37
Dentists and allied	3	0	3
Pharmacists and allied	4	0	4
Rehabilitation workers	2	0	2
Technologists	18	0	18
Public health practitioners	0	6	6
Nutritionists	2	0	2
Mental-health practitioners	2	0	2
Other health workers	12	10	22
ALL health workers	81	28	109

[a] Miriam Gumbs Senior Citizens Home employs 13 care assistants.

Public-sector HRH workers by major occupational category

Anguilla has 122 public-sector healthcare workers, and the numbers are presented by the project's occupational categories in Table 3.3. Clinical doctors represented eleven percent of the total public sector HRH workforce, nurses, and midwives represented 32 percent. All support workers represent 25% but this does not include those in management. In 2006 the World Health Organization reported that the world average for proportion of management and support workers was 33 percent.

In Table 3.3 HRH counts have been used with population data from the population estimates based on the Anguilla 2001 census to present health professional density per 10,000 population. In the public sector, there are 8.5 physicians per 10,000 population (or 1 doctor for every 1,172 Anguillans). With 37 nurses (nurses/midwives) in

the public-health system (a density of 24 per 10,000) there is one nurse for every 411 Anguillans and roughly 3 nurses for each doctor.

Table 3.3: Public-sector HRH workers per 10,000 population by the project's occupational groupings (Population =15,236; 2011 estimates)

Occupation	Number of workers (%)	Density per 10,000 population
Medical doctors	13 (11%)	8.5
Nurses and midwives	37[a] (30%)	24.2
Dentists and allied	3 (2%)	2.0
Pharmacists and allied	4 (3%)	2.6
Rehabilitation workers	2 (1%)	1.3
Technologists[b]	18 (15%)	11.8
Public health practitioners	6 (5%)	3.9
Nutritionists	2 (1%)	1.3
Mental-health practitioners	2 (1%)	1.3
Other health workers[c]	35 (29%)	23.0
Doctors, nurses and midwives	50 (41%)	32.8
ALL health workers	122	79.9

[a] Includes 8 midwives, 3 public health nurses & 1 mental health nurse. Note that all midwives are also nurses. So the number represents both nurses and midwives combined. All nurses are not midwives.

[b] Includes paramedics & EMT staff.

[c] Includes 13 workers at Miriam Gumbs Senior Citizens Home.

Of the 13 doctors 7 are specialists and the remainder are General Practitioners.

Table 3.4 presents the numbers of healthcare workers stratified by gender. There are broadly equal numbers of male and female technologists, pharmacists and psychiatric aides. However, on closer inspection of the technologists it can be seen that there are no male medical laboratory staff. A gender disparity is most apparent for nursing and "other" staff (ancillary workers). Density - women: 57.8 per 10,000; men: 15.7 per 10,000) and this is the main contributor to an overall ratio of 3 women in healthcare for every man.

Table 3.4: Public-sector HRH workers per 10,000 population by major occupational category and gender

Occupation	Total	Women	Men
	Number (%)	Number (%)	Number (%)
Medical doctors	13 (11%)	3 (2.4%)	10 (8.2%)
Nurses and midwives	37[a] (30%)	35 (28.9%)	2 (1.6%)
Dentists and allied	3 (2%)	1 (0.8%)	2 (1.6%)
Pharmacists and allied	4 (3%)	2 (1.6%)	2 (1.6%)
Rehabilitation workers	2 (1%)	2 (1.6%)	0
Technologists	18 (15%)	10 (8.2%)	8 (6.5%)
Public health practitioners	6 (5%)	6 (4.9%)	0
Nutritionists	2 (1%)	2 (1.6%)	0
Mental-health practitioners	2 (1%)	1 (0.8%)	1 (0.8%)
Other (ancillary workers)	35 (29%)	32 (26.2%)	3 (2.4%)
Doctors, nurses, midwives	50 (41%)	38 (31%)	12 (9.8%)
Doctors, nurses, midwives, nursing assistants	56 (46%)	44 (36%)	12 (9.8%)
ALL health care providers	87 (71%)	63 (52%)	24 (20%)
All health workers	122 (100%)	88 (72%)	28 (24%)

[a] 8 midwives, 3 public health and 1 mental health nurses.

No details were available regarding profession category by age and gender combined but Table 3.5 details the age distribution of the health care workforce in Anguilla

Table 3.5: Age distribution of HRH

Age range	Number (%)
20-29	11 (9.0%)
30-39	41 (33.6%)
40-49	45 (36.9%)
50-59	17 (13.9%)
60- 69	1 (0.8%)
70 - 79	1 (0.8%)
Unknown	6 (4.9)
TOTAL	122

Public-sector HRH workers and the Anguilla workforce

Within the public health sector there are 125 posts, of these 3 are currently vacant. The healthcare workforce comprise 1.4% of the total Anguilla workforce (n=9025). Women in healthcare represent 0.98% and men 0.3% of the total workforce. As a per-

centage of the employed workforce, women far exceed men in the healthcare sector. This excess is primarily driven by the gender disparity seen in nursing and ancillary staff ("other").

3.3. Regulatory Framework and Management Practices

For the public sector much of the regulatory tools concerning health employment are described in the HAA Human Resources Policy and General Orders. Legislation is also in place for unionization and dispute resolution; however this is not the case for professional registration/licensure. Table 3.6 details which legislation is associated with the various items of the core data set (ITEMS 3A to 3K).

Table 3.6: Descriptive data required concerning public sector management practices of human resources in health, and categories of potential information sources

Item	Descriptive Data	Source	Reference	Comments
3a	Regulatory tools concerning University training programmes, accreditation, approval and financing.		See Section 3.5	
3b	Main regulatory tools for health employment: career paths selection systems, performance management and evaluation.	Anguilla Law	General Orders HAA Human Resources Policy Public Service Commission Act & Regulations The Constitution	
3c	Main regulatory tools regarding licensing of professional practice	HAA HR Department	HAA HR Policy	

Continues on next page...

Continuation of Table 3.6...

Item	Descriptive Data	Source	Reference	Comments
3d	Regulatory and Licensing requirements for foreign workers	Government of Anguilla Website	Work permits Posts must be advertised before an application can be submitted. Completed application forms are returned to the Department and must be accompanied by: Copy of the advertisement Birth Certificate and Passport Police record covering the last ten (10) years - Certified certificates as evidence of academic or professional qualifications - Recent medical examination report - Four (4) passport-sized photographs - Certificate from Social Security Contributions stating that the employer is registered and/or his/her Social Security contributions are up to date - Business Licence - Tax Clearance	Foreign workers employed in the Public Service on temporary terms (not on contract), for at least 5 years are eligible for formal (favorable) consideration to be transferred to a permanent contract. Foreign workers employed in the Public Service who are married to Anguillans are eligible for favorable consideration to be transferred to a permanent contract , without having to serve for at least five years continuously. The appointment of such persons remains subject to the recommendation of the Public Service Commission and the approval of the Governor.
3e	Main regulatory framework regarding unionization and collective actions	Anguilla Law	Trade Unions Act Trade Dispute Arbitration and Enquiry Act	
3f	Contracting models (Is the permanent tenure in the public service vs flexible, short term contract	HAA Human Resources (HR) Department Government of Anguilla Website	HAA Human Resources Policy Immigration	For Anguillians both permanent and short-term contracts exist. For non-Anguillians (known formally as “non-belongers”) Immigration Policy indicates that the foreign worker will not be placed on a permanent contract - instead being placed on a short-term contract (or “precarious” post). Hence, if an Anguillian subsequently has the requisite qualifications for one of these precarious posts, the foreign worker will only be allowed to continue working until the end of the specified short-term contract. The short-term contract details for foreign workers are as follows: Doctors and diagnostic staff are allowed three 2 year contracts, and nurses are allowed two 2 year contracts. When these periods expire, professionals have two options (a) to leave their employment or (b) to be included on the “Establishments list”, where they would work on monthly contracts. Permanent tenure is also available to foreign workers under certain conditions (see 2d above).

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Continuation of Table 3.6...

Item	Descriptive Data	Source	Reference	Comments
3g	Selection process (Is there any selection process established or is the discretional appointment the norm?)	Anguilla Law & HAA HR Dept.	Public Service Commission Regulations General Orders HAA Human Resources Policy HAA Human Resources Policy	Pay scales are equivalent across ministries. In other words, physicians do not have higher salary scales than other government workers.
3h	Performance measurement: Is there any formal process of evaluation?	General Orders	Section 2.27	Yes - an annual appraisal should take place and be submitted before December.
3i	CSME regulatory and accreditation requirements for free circulation and contracting of personnel.			Not applicable. Anguilla is a British Overseas Territory and only an Associate member of CARICOM.
3j	Any data on migration		Immigration Department – Chief Minister's Office.	Unknown

3.4. Education System Related to HRH

Education system related to HRH - Context and quantitative data

There is only one education institution for HRH training, and that is St. James School of Medicine, an off-shore, private university. Therefore, residents of Anguilla access one of the following options for training; The University of the West Indies, various off-shore private universities such as St.. James, or various universities overseas, in particular, the UK.

Public University: The University of the West Indies

The system is complicated somewhat by the five campus model of the University: three main campuses in Barbados (Cave Hill), Jamaica (Mona), and Trinidad & Tobago (St. Augustine), one further campus in Bahamas, and the Open Campus dedicated to distance education. The majority of health-sector training is offered in Jamaica and Trinidad & Tobago with Cave Hill now offering the MBBS (medical degree). The UWI admissions process is organized at the campus-level, and so information on applicants, admissions, and graduates requires access to three administrative centres.

At the completion of this report, two centres have provided information (Barbados and Jamaica).

Education system related to HRH

Table 3.7: Information from education institutions (items 3a - 3m)

Item	Item description	Details for St.. James School of Medicine	Details for the University of the West Indies
3a	Number of schools to train HRH	St. James School of Medicine (only 1 on-island).	See Section 3.5.
3b	Regulatory tools/ accreditation	Source: http://anguilla.sjsm.org/index.php/welcome/accreditation Saint James School of Medicine is approved and recognized by a variety of agencies, organizations, and governments. As a result, students and graduates are eligible for residency training and licensure in the United States and Canada. The curriculum at Saint James has been designed to prepare students for the United States Medical Licensure Examination (USMLE). By completing the program at Saint James School of Medicine, students are eligible to become a doctor in the United States or Canada. The Anguilla campus was granted a charter in 2008 and received provisional accreditation from the United Kingdom and the Caribbean Authority for Education in Medicine (CAAM-HP).	UWI's MBBS has been accredited by the Caribbean Accreditation Authority for Education in Medicine and other Health Professionals (CAAM-HP). CAAM-HP is also responsible for the accreditation of dental schools.
3c	Number of programs	One	See Appendix 3.
3d	Off-shore/ private/ public	Off-shore-private	Public
3e 3f	Number of seats in each School and in each Program Number of Entrants	Figures for all nationals unavailable. Anguillians - 2 scholarships are offered every academic year since the Medical School's inception in 2009.	See Appendix 3 for UWI figures for ALL nationals. Between 2006-2008 one Anguillan registered for an health care- related course (post-registered degree in nursing). At Cave Hill one Anguillan student applied and was accepted to the medical program (MBBS).
3g	Number of . Graduates	Not applicable as school opened in 2009.	See Appendix 3 for UWI figures of all nationals The one Anguillian MBBS student is not due for graduation until 2011.
3h	Course duration	4 years	See Appendix 3.

Continues on next page...

Continuation of Table 3.7...

Item	Item description	Details for St.. James School of Medicine	Details for the University of the West Indies
3i	Entry criteria	Source: http://anguilla.sjsm.org/index.php/admissions/process/eligibility A Baccalaureate/Bachelor's degree or a total of 90 credit hours, (approx. 3 years of undergraduate education, at an accredited college or university) Premedical studies should include: Biology: 1 academic year of general biology or zoology. Chemistry: 1 academic year of general inorganic + 1 year of advanced Chemistry. Physics: 1 semester of physics is recommended. English: 1 academic year. Other: A broad background in humanities/social sciences is recommended. Applicants from Other Countries: All applications will be evaluated on an individual basis. The admissions department will evaluate applicants from countries with an educational standard comparable to U.S. medical programs. Each applicant should have a minimum of 12 years of education in the country of origin.	See Appendix 3.
3j	Number applied: Number Accepted	One Anguillan applied and was accepted.	See Appendix 3 for regional data and item number 3e/f for Anguillians.
3k	Tuition cost	USD Basic Science Program Tuition per semester 6,500 Total Tuition for 4 semesters 26,000 Clinical Science Program Tuition per semester 7,500 Annual Liability Insurance 800 Total tuition for 6 Semesters 46,600	See Appendix 3.
3l	Average age on entry	Unknown	Unknown
3m	Gender ratio	Figures for all nationals unknown 1 Female Anguillan	See Appendix 3 for regional figures.

Items 3n to 3s - Professional Training

No data were available from The University of the West Indies regarding these items. For the St. James School of Medicine only minimal data were available, due to its only recent opening, and these are detailed below.

Table 3.8: Core Data Set Items 3n to 3s. Professional training

Item	Brief item description	SJSM
3n	Professional programs that include ethnic/ social sensitivity as part of the training	None
3o	Shortages in faculty members	No
3p	Curriculum matched to epidemiological profile	No. General bio-medical model
3q	Are there socio-cultural training components	No
3r	Curriculum renewal process	New curriculum
3s	Lines of communication between curriculum development and HRH needs	Not as yet

Table 3.9 - Professional Development Training

In Anguilla doctors, nurses and pharmacists need continuing education activities for registration/licensure renewal. In-service training covers a range of topics, below is a list of the courses with contact hours.

Table 3.9: Professional Group Courses and contact hours

Year	Professional group	Course title	Contact hours
2009	Nurses	Supervisory Management and Human Relations	25
2010	Doctors, Nurses, EMTS + Midwives	Mass Casualty Course	50
	National Influenza Pandemic Training for Trainers		16

However, the credits and “value” associated with this training are unknown.

Fellowships

Scholarship programmes are run by PAHO and the Commonwealth Scholarship (UK). Additionally, St. James School of Medicine offer two fellowships a year.

4. Conclusions and Recommendations

Strategic HRH planning involves four distinct stages:

(1) Situational analysis.

(2) Forecasting demand for HRH.

(3) Analyzing the supply of HRH.

(4) Developing action plans to close any gap between HRH supply & demand.

This project forms the first Stage. To be a valuable tool in HRH planning, data from the situation analyses need to be accurate, complete, accessible, easily made anonymous and relevant to policy makers. Ongoing successful data collection requires those collecting the data to understand that without complete and accurate HRH data, HRH planning cannot be useful.

Continuing data collection will enable accurate forecasting, while stronger links with the education institutions will enable stage 3.

In addition to the quantitative information needed for HRH planning, a framework of supporting policies is also needed to manage processes such as recruitment and performance management. Analysis of data pertaining to length of service can often be used as indicator of the appropriateness of this framework, but in an environment that offers tenure regardless of performance, the value of this type of analysis is diminished.

4.1. HRH Data - Stocks and Flows

Data from the public sector came from Health Authority of Anguilla. As all health professionals must register to practice, this information could be extremely useful as a secondary source. This would require the collation and updating of the data ideally. In addition to the above sources, alternative sources of data such as unions and professional associations are also potential resources. Although not key to primary data collection, these sources could provide useful data for validation purposes.

Table 4.1: Recommendations for Policy-Makers and Users

Recommendations for policy-makers	Recommendations for users
■ Utilise full functionality of payroll system within the public healthcare sector. ■ Encourage those responsible for monitoring registration to establish and maintain electronic records to enable estimation of individuals in the all sectors. ■ Expand the information collected by "registration office." ■ Establish a mechanism for data sharing with unions and professional associations.	■ Design and offer a data management training seminar to describe how organizational data can feed into HRH estimates, and how they can best manage their data using simple process improvements. ■ Develop method for electronic mapping of "government occupations" to standard classifications described in section 2.3.

4.2. HRH Data - Regulatory Framework and Management Practices

Much of the public healthcare sector regulatory framework and management practices are described in legislation.

Table 4.1: Recommendations for Policy-Makers and Users

Recommendations for policy-makers	Recommendations for users
■ Utilise payroll system more effectively as a data source. ■ Develop mechanism to monitor and control professional registration with appropriate consequences for practising without registration.	■ Conduct survey to determine management practices of non-public sector healthcare providers.

4.3. HRH Data - Education

There is only one educational institution on-island - St. James School of Medicine. Alternatives for tertiary education are either regional (the University of the West Indies -UWI) or international. UWI comprises three campuses: Mona (Jamaica), Cave Hill (Barbados) and St. Augustine (Trinidad and Tobago), all offering a different selection of courses. The bulk of the health care training takes place in Mona and St. Augustine, while Cave Hill primarily runs courses pertaining to the Professional Categories of Social Work, Medicine and Mental Health. However, it should be noted that only two Anguillians have attended UWI in the last 10 years.

Table 4.1: Recommendations for Policy-Makers and Users

Recommendations for policy-makers	Recommendations for users
■ Encourage professional development as part of on-going registration process.	■ Contact the admissions office at all institutions responsible admissions for training Anguillian HRH with a view to developing links. ■ Establish methods/processes for future data collection. ■ Long-term: Conduct in-depth situation analysis for in-service training. ■ Identify where training is taking place to upgrade clinical and technical skills.

APPENDIX ONE
CORE DATA SET FOR ANGUILLA DATA MANAGEMENT PROJECT

Developed through discussions with four research teams (Barbados/Eastern Caribbean, Belize, Jamaica, and Trinidad & Tobago) in Barbados, November 2007.

1. Stocks and Flows

1A. Number of workers in health activities

Numbers of workers reported in each professional group (check and footnote differences with ISCO 88 —see below— if necessary) and are to be reported in the following categories:

1. Total head count
2. Total head count in active practice
3. Total hours worked
4. A definition of full time equivalent for the profession in the country (if exists)

Numbers in the above three areas must be also shown for:

- Combined totals
- Gender specific totals
- Age specific groupings (it is recommended to report age groupings by decade: 20-29 years; 30-39 years; etc. This grouping will match most census reports).

1B. Distribution of workers in health activities

- Distribution according to geographical units (i.e., regional health authorities, parishes, etc.).
- Distribution by population size (i.e., numbers per 10.000 pop.).
- Distribution by urban vs. rural areas (group recognized that there is a common understanding of the terms “urban” and “rural” but that specific definitions vary —please footnote general description).

- Distribution working in hospitals vs. non-hospital settings (clinics, etc.) (footnote or specify those that work in both when possible).
- Distribution working in public practice vs. private practice vs. NGO's (footnote or specify those that work in both when possible, or quote studies showing evidence of double or multiple employment with estimates of relative weight of this condition).
- Distribution by geographically distinct minority populations (this should be gathered through secondary data sources).
    - In this study, minority populations are defined by ethnicity, language and religious groups that are in smaller numbers than the majority population group. In addition, and socio-economic status?
    - In this study, minority populations that are included are only those living in distinct geographic areas.
- Distribution by socio-economic level (recommended through proxies, such as human development index).

1C. Professional and subsets of workers in health activities:

The following professionals and subsets should be included in the core data set. Standard definitions of each professional category and subset to be included can be compared to the international guideline of the International Labour Organization (ILO) in the International Standard Classification of Occupations (ISCO 88) and point out those professions that differ from the ILO classification:

Http://www.ilo.org/public/english/bureau/stat/isco/isco88/major.htm

Individual country teams may expand this set to suit specific interests of each country.

- Medical doctors - general practitioners and specialists.
- Nurses - registered nurses and other types of nurses (titles and brief qualifying description).
- Dentists and allied professions in the "family" of dentistry.
- Pharmacists and allied professions in the "family" of pharmacy.
- Social workers (optional: to report total number of social workers, and then any significant subset).
- Rehabilitation workers (physical therapists, occupational therapists, etc.).
- Technologists (laboratory, radiation, etc.).
- Public health practitioners (e.g., public health officers, health educators, environmental health officers/workers, etc.).

- Nutritionists
- Mental health ***other than*** psychiatrists (e.g., psychologists).
- Traditional/alternative health practitioners (e.g., traditional healer, acupuncturist, etc.).
- Other relevant groups.

Additional data information to include in Stocks and Flow

a. Number of health workers as a percentage of the whole workforce in the country/region.

b. Number of positions in health services (e.g., hospitals, health centers, etc.).

c. Number of positions that are unfilled or vacant (for 90 days or more), and the percentage of total positions that this number represents (vacancy rate). If other definition or measure is used, please explain.

d. Projected public budgets (salaries and benefits) for health and projected budget for HRH over the next five years.

e. Approved loans or donors' projects involving scaling-up health facilities that will require staffing in the next 5 years.

2. Regulatory Framework and Management Practices (Descriptive)

a. Main regulatory tools concerning university training programs, accreditation, approval, and financing.

b. Main regulatory tools concerning health employment: Public sector regulations, private sector, NGO's specifically: selection systems, performance management, career paths, incentives and evaluation.

c. Main regulatory tools regarding licensing of professional practice (through professional boards, periodic register).

d. Regulatory and licensing requirements for foreign workers.

e. Main regulatory framework regarding unionization and collective actions.

f. Contracting models. (Is the permanent tenure in the public service the norm? Is the flexible, short term contract the norm?)

g. Selection process. (Is there any selection process established? Or is the discretional appointment the norm?)

h. Salary and payment scales and relative values. (Are there important differences between the medical and non-medical workers? The wage scale in the health sector is competitive with employment in other sectors?)

i. Performance measurement: Is there any formal process of evaluation?

j. CSME regulatory and accreditation requirements for free circulation and contracting of personnel.

k. As per suggested in the workshop, if there are data on migration that can be quoted, please do it here.

3. Education System (Descriptive)

The assessment of the Education component of the HRH field calls for review not only of professional training, such as Medical or Nursing schools, but also of the multiple continuing education, in-service, and life-long training activities.

a. How many schools and programs to train health professionals are in the country?

b. How many are accredited?

c. Within the schools and programs, how many degree levels are offered/required?

d. How many universities are public/private/off-shore?

e. How many seats are in each school and in each program? (Per year, and, if possible, for each year over the last five years).

f. How many persons enter each school and program each year? (Per year, and, if possible, for each year over the last five years).

g. How many graduates in each school and program? (Per year, and, if possible, for each year over the last five years. Also proportion of graduates from identified minority populations).

h. Number of years of training needed for each profession.

i. Requirements for applying for entry to each profession.

j. Number of candidates who apply to the programs, and how many are accepted, and what percentage of the applicants are actually accepted into the programs. For those that are denied, is the denial due to requirements, number of positions available, or shortages in professors, etc.?

k. Tuition cost of education for each profession.

l. Average age when students graduate from each program.

m. Gender ratios in each program.

n. Professional programs that include ethnic/social sensitivity as part of the training.

o. Are there shortages in faculty members?

p. Is the curriculum content of the various university or training institutions related to the health situation (such as matching the epidemiological profile needs and/or health priorities) of the country?

q. Are there socio-cultural training components within the health curricula? If so, what type of training for what type of sensitization?

r. Description of curriculum renewal (process, frequency, etc.).

s. Are there processes and lines of communication between curriculum developers/academic leaders to coordinate curriculum design, academic priorities, and research focus with national strategic plans for health and/or health human resources development?

t. Description of in-service training activities.

u. Estimates of the total number of hours and persons in in-service training.

v. Estimates of credits offered and required in each profession for advancement. Which of those credits are also eligible as credits toward advanced degrees?

w. How many fellowships/bursaries are offered annually in each of the academic program areas?

x. Professions requiring continuing education/license renewal.

As per suggested by participants, please include any significant program/funding for scholarships.

APPENDIX TWO
PROFESSIONAL CATEGORIES

Mapping eleven occupational categories to health professions (traditional healers is not included for Anguilla).

Table A2.1: Professional Categories and Their Examples

Core Data Set Professional Categories	Examples of Specific Profession Types
Medical Doctors – General Practitioners and Specialists	General Practice Paediatrics Obstetrics & Gynaecology General Surgery
Nurses	Registered Nurses Mental Health Nurses Midwives
Dentistry	Dentists Dental Nurses Dental Assistants
Pharmacy	Pharmacists
Social Work	Not applicable
Rehabilitation Work	Physiotherapists Occupational Therapists
Technologists	Laboratory Technicians Radiographers
Public Health Practitioners	Health Promotion Officer Health Education Officer Public Health Nurses Environmental Health Officers
Nutritionists	Nutritionists Dieticians
Mental Health	Mental Health/Psychiatric Nurse Warden
Other Relevant Groups	Nursing Assistants Care/Health Aids Professional, e.g. Accountants + Health Planning Officers Administrative, e.g. Stenotypists and Clerical Officers Ancillary, e.g. Maids and Orderlies

Appendix Three
Education Data (Regional)

Table A3.1: Number of HRH worker training degree courses offered across the three main campuses of the University of the West Indies

Professional Category	Faculty	Campus	Postgraduate	Degree	Certificate/ Diploma
Doctor	Medical Sciences	Mona	29	1	
	Medical Sciences	Cave Hill	6	1	
	Medical Sciences	St. Augustine	26	1	
	Grad School	Mona	1		
Nursing	Medical Sciences	Mona		4	2
	Medical Sciences	St. Augustine	6	1	
Dentistry	Medical Sciences	St. Augustine	1	1	
Pharmacy	Medical Sciences	St. Augustine	2	1	
Social work	Social Sciences	Mona		1	1
	Social Sciences	Cave Hill	1	1	
	Social Sciences	St. Augustine	2	1	
Rehabilitation	Medical Sciences	Mona		1	
Technologists	Medical Sciences	Mona		1	
Public health practitioners	Medical Sciences	Mona	5		
	Medical Sciences	Cave Hill	2		
	Medical Sciences	St. Augustine	4		
	Humanities & Education	St. Augustine	1		
	Pure & Applied Sciences	Mona	2		
	Grad School	Mona	1		
Nutritionists	Medical Sciences	Mona	3		
	Science & Agriculture	St. Augustine		2	
	Grad School	Mona	1		
Mental Health	Social Sciences	Mona	2		1
	Social Sciences	Cave Hill		1	
	Social Sciences	St. Augustine	5		1

Table A3.2: The number of applicants and the percentage admitted for 9 course groups for ALL applicants

Training	2006-2007		2007-2008	
	Apply	Accept	Apply	Accept
	All	All (%)	All	All (%)
Medical undergrad	805	186 (23.1)	1,089	232 (21.3)
Medical postgrad	110	55 (50.0)	131	48 (36.6)
Nursing undergrad	716	385 (53.8)	1,034	532 (51.4)
Nursing postgrad	58	28 (48.3)	74	46 (62.1)
Public Health	78	40 (51.3)	94	50 (53.1)
Physical Therapy	83	20 (24.1)	177	51 (28.8)
Nutrition	27	11 (40.7)	35	22 (62.9)
Counselling	3	3 (100)	6	3 (50)
Radiography	45	31 (68.9)	205	27 (13.2)
TOTAL	1925	759 (39.4)	2,845	1,011 (35.5)

Table A3.3: Entry requirements for each professional qualification

Profession	Faculty	Campus	Course Name	Degree	Entry Requirements
Doctors	Medical Science	Mona, Cave Hill, StA	Medicine & surgery	MBBS	SCHEME A Passes in two (2) units of Chemistry, Biology or Zoology, and Physics at CAPE or GCE A-level equivalent Pass in CSEC (CXC) General Proficiency or GCE O-level Mathematics is also required SCHEME B Passes in two (2) units of Chemistry, Biology or Zoology, and Mathematics at CAPE or GCE A-level equivalent Pass in CSEC (CXC) General Proficiency or GCE O-level Physics is also required SCHEME C Passes in both units of Chemistry, Physics, and Mathematics at CAPE or GCE A-level equivalent Pass in CSEC (CXC) General Proficiency or GCE O-level Biology is also required
Nurses	Medical Science	Mona	Advanced nursing administration	Certificate	Unavailable
	Medical Science	Mona	Advanced nursing education	Certificate	Unavailable
	Medical Science	Mona	Generic Nursing	BSc.	5 CXC subjects or O-levels Applicants' academic qualifications must include the following subjects/levels: English language, Mathematics, Physics or Statistics One subject from: Biology, Human & Social Biology, Integrated Science Two or more subjects from:: Agricultural Science, Geography, Caribbean History, a modern language, Social Studies, Religious Education, Food & Nutrition, Home Economics Management, Principles of Accounts, Principles of Business, Information Technology or Chemistry. No Applicant can have more than 2 subjects at CXC General 3 or at GCE level C or a combination of both.
	Medical Science	Mona	Nursing education	BSc	Unavailable
	Medical Science	Mona	Post registered nurse	BSc	Unavailable

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Continuation of Table A3.3...

Profession	Faculty	Campus	Course Name	Degree	Entry Requirements
	Medical Science	Mona	Nursing administration	BSc	Unavailable
	Medical Science	StA	Nursing	BSc	Passes in at least five (5) subjects at CXC (CSEC) General Proficiency (Grades I or II and from 1998 Grade III) or GCE O-level or approved equivalents Passes in at least two (2) subjects at CXC (CAPE) or GCE A-level or approved equivalents OR Passes in four (4) GCE subjects or approved equivalents, of which at least three (3) must be at the A-level or equivalent
Dentistry	Medical Science	StA	Dental surgery	DDS	See MBBS
Pharmacy	Medical Science	StA	Pharmacy	BSc	SCHEME A Passes in two (2) units of Chemistry, Biology or Zoology, and Physics at CAPE or GCE A-level equivalent Pass in CSEC (CXC) General Proficiency or GCE O-level Mathematics is also required SCHEME B Passes in two (2) units of Chemistry, Biology or Zoology, and Mathematics at CAPE or GCE A-level equivalent Pass in CSEC (CXC) General Proficiency or GCE O-level Physics is also required SCHEME C Passes in both units of Chemistry, Physics, and Mathematics at CAPE or GCE A-level equivalent Pass in CSEC (CXC) General Proficiency or GCE O-level Biology is also required SCHEME D Passes in both units of Chemistry, and one other from Biology, Zoology, Physics or Mathematics at CAPE or GCE A- Level equivalent Passes in CSEC (CXC) General Proficiency or GCE O-level Mathematics and Physics also required

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Continuation of Table A3.3...

Profession	Faculty	Campus	Course Name	Degree	Entry Requirements
Social Workers	Social Science	Mona	Social work (special)	BSc	Passes in five (5) subjects including English Language at CSEC (CXC) General Proficiency, Grades I or II and from 1998 Grade III) /GCE O-level AND passes in at least two (2) subjects at GCE A-level OR other approved Associate degrees, Diplomas and Certificates, including the two-year certificate in Social work from the UWI
	Social Science	Cave Hill	Social work (special)	BSc	
	Social Science	StA	Social work (special)	BSc	
Environmental Health	DSC	FHS	Environmental Health	Associate Degree	4 CXC Ordinary Level or GCE O' level subject passes including English Language
Rehabilitation Workers	Medical Science	Mona	Physical therapy	BSc	CXC General Proficiency Examination Five (5) subjects - Compulsory - English Language, Mathematics Caribbean Advanced Proficiency Examination (CAPE) / Other Requirements Any two 2-unit CAPE, or tow GCE Advanced Level passes from the following list of subjects: Physics, Chemistry, Mathematics, Biology
Technologists	Medical Science	Mona	Diagnostic imaging	BSc	Possess a minimum of six(6) CSEC CXC subjects, grades 1-3 or equivalents in the following: English Language, Mathematics or Physics, Biology or Human Biology, one other science subject, and two other subjects.
Nutritionists	Science and Agriculture	StA	Human nutrition and dietetics (Special)	BSc	Passes in a minimum of five (5) subjects at CSEC (CXC) General Proficiency (Grades I – III) or GCE O-level, or their equivalents, which must include: English Language, Mathematics and any two (2) of the following: Chemistry, Biology, Agricultural Science, Physics, Geography AND Passes in at least two 2-unit CAPE courses or two GCE A-level subjects, at least one of which must be a Science subject OR A Diploma or Associate degree in Agriculture, Nutrition and Dietetics, or Science from a recognized tertiary level institution, with normally a minimum average of B or GPA of 2.75
	Science and Agriculture	StA	Institutional and community nutrition	BSc	

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Continuation of Table A3.3...

Profession	Faculty	Campus	Course Name	Degree	Entry Requirements
Mental Health	Social Science	Mona	Psychology	BSc	Passes in a minimum of five (5) subjects at CSEC (CXC) General Proficiency (Grades I – III) or GCE O-level, or their equivalents, which must include: English Language, Mathematics and any two (2) of the following: Chemistry, Biology, Agricultural Science, Physics, Geography AND Passes in at least two 2-unit CAPE courses or two GCE A-level subjects, at least one of which must be a Science subject OR A Diploma or Associate degree in Agriculture, Nutrition and Dietetics, or Science from a recognized tertiary level institution, with normally a minimum average of B or GPA of 2.75
	Social Science	Cave Hill	Psychology (Special)	BSc	
	Social Science	StA	Psychology	BSc	
Alternative Health Practitioners	Not applicable				
Other Relevant Groups	Not applicable				

Mona = Mona Campus, Jamaica.

StA = St.. Augustine Campus, Trinidad.

Cave Hill = Cave Hill Campus, Barbados.

Table A3.4: Duration of course and tuition costs for the University of the West Indies

Profession	Faculty	Campus	Course Name	Degree	Duration (years)	Tuition (ECDS) (for Nationals)
Doctors	Medical Science	Mona, Cave Hill, StA	Medicine & surgery	MBBS	4/5	145,973[a]
Nurses	Medical Science	Mona	Advanced nursing administration	Certificate	Unavailable	Unavailable
	Medical Science	Mona	Advanced nursing education	Certificate	Unavailable	Unavailable
	Medical Science	Mona	Generic Nursing	BSc.	3	Unavailable
	Medical Science	Mona	Nursing education	BSc	3	Unavailable
	Medical Science	Mona	Post registered nurse	BSc	3	Unavailable
	Medical Science	Mona	Nursing administration	BSc	3	Unavailable
	Medical Science	StA	Nursing	BSc	3	Unavailable
Dentistry	Medical Science	StA	Dental surgery	DDS	4	Unavailable
Pharmacy	Medical Science	StA	Pharmacy	BSc	3	Unavailable
Social Workers	Social Science	Mona, Cave Hill, StA	Social work (Special)	BSc	3	46,592[b]
Rehabilitation Workers	Medical Science	Mona	Physical therapy	BSc	3	Unavailable
Technologists	Medical Science	Mona	Diagnostic imaging	BSc	3	Unavailable
Nutritionists	Science and Agriculture	StA	Human nutrition and dietetics (Special)	BSc	3	46,592
	Science and Agriculture	StA	Institutional and community nutrition	BSc	3	46,592
Mental Health	Social Science	Mona	Psychology	BSc	3	46,592
	Social Science	Cave Hill	Psychology (Special)	BSc	3	46,592
	Social Science	StA	Psychology	BSc	3	46,592

[a] For those from contributing countries only up to 83842 ECDS may be paid by the national's government.

[b] For those from contributing countries only up to 45428 ECDS may be paid by the national's government.

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