DOMINICA HEALTH SYSTEMS AND PRIVATE SECTOR ASSESSMENT

March 2012

This publication was produced for review by the United States Agency for International Development. It was prepared by Sara Sulzbach, Kylie Ingerson, Michael Rodriguez, Taylor Williamson, Michael Hainsworth, Alan Fairbank, Shirley Augustine, and James White for the Strengthening Health Outcomes through the Private Sector and Health Systems 20/20 projects.

Health Systems 20/20 Mission

The Health Systems 20/20 cooperative agreement, funded by the U.S. Agency for International Development (USAID) for the period 2006–2012, helps USAID-supported countries address health system barriers to the use of life-saving priority health services. Health Systems 20/20 works to strengthen health systems through integrated approaches to improving financing, governance, and operations, and building sustainable capacity of local institutions.

Strengthening Health Outcomes *through* the Private Sector Mission

The Strengthening Health Outcomes *through* the Private Sector (SHOPS) Project is a five-year cooperative agreement (2009–2014) with a mandate to increase the role of the private sector in the sustainable provision and use of quality family planning, HIV/AIDS, and other health information, products, and services.

December 2011 *(Revised March 2012)*

Cooperative Agreement No.: GHS-A-00-06-00010-00

Cooperative Agreement No.: GPO-A-00-09-00007-00

Submitted to: Kendra Phillips
Health and HIV/AIDS Team Lead
USAID Eastern Caribbean/Barbados

Maggie Farrell
Population and Reproductive Health/Service Delivery Improvement
Bureau for Global Health
United States Agency for International Development

Scott Stewart, AOTR
Health Systems Division
Office of Health, Infectious Disease and Nutrition
Bureau for Global Health
United States Agency for International Development

Recommended Citation: Strengthening Health Outcomes *through* the Private Sector and Health Systems 20/20. March 2012. *Dominica Health Systems and Private Sector Assessment.* Bethesda, MD: Health Systems 20/20 and SHOPS projects, Abt Associates Inc.

Abt Associates Inc. | 4550 Montgomery Avenue | Suite 800 North
Bethesda, Maryland 20814 | P: 301.347.5000 | F: 301.913.9061
www.healthsystems2020.org | www.abtassociates.com

DISCLAIMER

The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development (USAID) or the United States Government.

DOMINICA HEALTH SYSTEMS AND PRIVATE SECTOR ASSESSMENT

TABLE OF CONTENTS

Acronyms **7**
Acknowledgments **10**
Foreword **12**
Executive Summary **14**
1. Assessment Methodology **22**
1.1 Framework for the Health Systems And Private Sector Assessment Approach 22
1.2 HSA/PSA Process 22
2. Country Background and Health System Profile **24**
2.1 Overview of Dominica 24
2.2 Demographic Trends 25
2.3 HIV/AIDS 26
2.4 Political and Macroeconomic Environment 27
2.5 Business Environment and Investment Climate 29
2.6 Health System Structure 30
2.7 Donor Contributions 32
3. Governance **34**
3.1 Overview of Governance in Dominica 35
3.2 Policy, Legislation and Regulatory Environment 36
3.3 Governance Structures 39
3.4 Citizen Voice, Responsiveness and Transparency 41
3.5 Recommendations 43
4. Health Financing **45**
4.1 Resource Mobilization and Revenue Collection 45
4.2 Risk Pooling and Financial Protection 50
4.3 Resource Allocation 51
4.4 Government Budgeting Process 54
4.5 Recommendations 56
5. Service Delivery **59**
5.1 Organization of Health Service Delivery 59
5.2 Priority service Areas 67
5.3 Service Delivery Access, Coverage, and Utilization 70
5.4 Efficiency of Service Delivery 71
5.5 Quality Assurance 72
5.6 Recommendations 73
6. Human Resources for Health **75**
6.1 Overview of Human Resources for Health 75
6.2 Health Workforce 76
6.3 Human Resources Policy and Regulation 78
6.4 Human Resource Management 79
6.5 Recruitment 79
6.6 Human Resource Development 80
6.7 Recommendations 82
7. Management of Pharmaceuticals and Medical Supplies **85**
7.1 Overview of Pharmaceuticals and Medical Products System in Dominica 85

7.2 Policy Framework 86
7.3 Regulatory System 86
7.4 Medicines and Medical products supply 87
7.5 Rational Use 91
7.6 Financing 92
7.7 Recommendations 93
8. Health Information Systems 95
8.1 Overview of HIS in Dominica 95
8.2 Health Indicators 97
8.3 Reporting Resources 98
8.4 Data Collection 99
8.5 Data Analysis 100
8.6 Use of Information for Decision-Making 101
8.7 Recommendations 102
9. Private Sector Contributions to Health 105
9.1 Overview of the Private Health Sector 106
9.2 Governance and Policy Environment 106
9.3 Private Health Service Delivery 108
9.4 Private Sector Role in the Supply Chain 112
9.5 Private Financing for Health 114
9.6 Private Sector Engagement in Health 114
9.7 Recommendations 117
10. Discussion 119
Annex A: Workshop Report: Dominica Health Systems and Private Sector Assessment 121
Annex B: Customary Fees for Private Health Services 153
Annex C: Focus on HIV/AIDS and Health Systems Strengthening 157
Annex D: Deriving Estimates of Overseas Medical Care for Dominicans 12161
Annex E: Private Sector Foundation for Health Membership 163
Annex F: Works Cited 165

LIST OF TABLES

Table 2.1 Demographic Indicators in Dominica Compared with Latin America & Caribbean Regional Average 25
Table 2.2 Mortality Indicators in Dominica Compared with Latin America & Caribbean Regional Average 26
Table 2.3 HIV Tests Administered by Government Laboratory at PMH 2002-2007 27
Table 2.4 Economic Indicators in Dominica Compared with Latin America & Caribbean Regional Average 29
Table 2.5 Donor Contributions to HIV/AIDS in Dominica 2008/09 32
Table 3.1 World Bank Indicators: Dominica....35
Table 3.2 Health Legislation in Dominica 38
Table 4.1 National HIV/AIDS Response Program Budget....50
Table 4.2 Distribution of MOH Spending by Program 52
Table 4.3 Distribution of MOH Spending by Line Item....53
Table 4.4 Distribution of Primary Health Care Spending by Population, Visits and Health District (2009/10)....53
Table 4.5 Capital Spending Commitments in Dominica, FY2010/11....55
Table 5.1 Primary Health Services Offered by Facility Type....61
Table 5.2 Summary of Health Service Provision in Dominica....64
Table 6.1 Public-Sector HRH Workers per 10,000 Population by PAHO Occupational Groupings 77
Table 6.2 Number of HRH Workers in each Public-Sector Facility Group....77
Table 6.3 Private Health Care Practice in Dominica by Occupational Category....78
Table 7.1 Financial Indicators for Medicines & Medical Products in Dominica compared to LAC region....92
Table B1 Estimated Household OOP Spending on Overseas Medical Care (2003-2007).... 154
Table B2 Calculated Overseas Spending by Year (FY2005/06 – FY 2010/11).... 154
Table B3 Projected household Spending on Health (2007-2011).... 155

LIST OF FIGURES

Figure 2.1: Dominica in Relation to Other Caribbean Islands....23
Figure 2.2: Organizational Chart of Dominica's Public Health System....30
Figure 3.1: Primary Actors in Health Governance 34
Figure 4.1: Total Expenditure on Health as a Percentage of GDP 46
Figure 4.2: Per Capita Government Expenditure on Health....47
Figure 4.3: General Government Expenditure on Health as a Percentage of Total Government Expenditure....47
Figure 4.4: Out-of-Pocket Expenditure as a Percentage of Total Expenditures on Health....48
Figure 4.5: Dominica's Budgeting Process 55
Figure 5.1: Organization of the Dominica Public Health System 60
Figure 5.2: Source of First Health Visit by Income Quintile....71
Figure 7.1: Pharmaceutical Supply Chain for Dominica....88
Figure 7.2: Average Percentage Unit Cost Reduction for a Market Basket of 20 Popular Drugs 2001/2002 Compared with Individual Country Prices 88
Figure 8.1: Proposed Organogram for Dominica Health, Surveillance, Training and Research Unit 96

ACRONYMS

A&E	Accident and Emergency Department
ADR	Adverse Drug Reactions
ART	Antiretroviral Therapy
ARV	Antiretroviral
CAREC	Caribbean Epidemiology Center
CARICOM	Caribbean Community
CEO	Chief Executive Officer
CDB	Caribbean Development Bank
CDC	United States Centers for Disease Control
CHART	Caribbean HIV/AIDS Regional Training Network
CIA	Central Intelligence Agency
CICAD	Inter-American Drug Abuse Control Commission
CME	Continuing Medical Education
CMO	Chief Medical Officer
CMS	Central Medical Stores
CNCDs	Chronic Noncommunicable Diseases
CSO	Civil Society Organization
DMB	Dominica Medical Board
DMO	District Medical Officer
DPPA	Dominica Planned Parenthood Association
EADR	Employee Assessment and Development Review
EC$	East Caribbean Dollar
E-GRIP	E-Government Regional Integration Program
EHD	Environmental Health Department
EIA	Enzyme Immunoassay
EMT	Emergency Medical Technician
EPHF	Essential Public Health Functions
EPTD	Establishment, Personnel, and Training Department
EU	European Union
FHS	Faculty of Health Sciences

GDP	Gross Domestic Product
GNC	General Nursing Council
HIS	Health Information System
HIU	Health Information Unit
HMIS	Health Management Information System
HMN	Health Metrics Network
HR	Human Resources
HRSA	Health Resources and Services Administration
HRH	Human Resources for Health
HSA	Health Systems Assessment
ICT	Information and Communications Technology
I-TECH	International Training and Education Center for Health
LAC	Latin America and Caribbean
MCH	Maternal and Child Health
MOF	Ministry of Finance
MOH	Ministry of Health
MSM	Men Who Have Sex With Men
NHARP	National HIV/AIDS Response Program
NHA	National Health Accounts
NGO	Nongovernmental Organization
OECS	Organization of Eastern Caribbean States
OI	Opportunistic Infections
OOP	Out-of-Pocket
PAHO	Pan American Health Organization
PANCAP	Pan Caribbean Partnership Against HIV/AIDS
PAS	Patient Administration System
PEPFAR	U.S. President's Emergency Plan for AIDS Relief
PHC	Primary Health Care
PLHIV	People Living With HIV/AIDS
PMH	Princess Margaret Hospital
PPA	Participatory Poverty Assessment
PPS	Pharmaceutical Procurement Service
PRISM	Performance of Routine Information Systems and Management
PSA	Private Sector Assessment

PSFH	Private Sector Foundation for Health
RDQA	Routine Data Quality Assessment
RUSM	Ross University School of Medicine
SHOPS	Strengthening Health Outcomes *through* the Private Sector
UNAIDS	Joint United Nations Program on HIV/AIDS
UNGASS	UN General Assembly Special Session on HIV/AIDS
UNDP	United Nations Development Program
US$	U.S. Dollar
USAID	United States Agency for International Development
USAID/EC	United States Agency for International Development/Barbados and the Eastern Caribbean
VCT	Voluntary Counseling and Testing
WHO	World Health Organization

ACKNOWLEDGMENTS

The assessment team is grateful for the support from the Ministry of Health in Dominica. Particularly, the team would like to thank the Honorable Minister for Health Julius Timothy, Permanent Secretary Rhoda Celaire, Acting Permanent Secretary Ruth Allport, Dr. David Johnson, Dr. Paul Ricketts, and Ms. Julie Frampton for their assistance throughout the process. The team would also like to thank Ms. Marvlyn Birmingham for facilitating access to key stakeholders and coordinating logistics during the assessment.

Numerous individuals gave of their time to provide information through key informant interviews. We are extremely grateful for the input and insight we received from individuals at numerous ministries, health facilities, organizations, and businesses, including:

- Government: Prime Minister's Office; Ministry of Health; Ministry of Finance
- Public sector health facilities: Princess Margaret Hospital; Portsmouth Hospital; Marigot Health Center; Grand Bay Health Center; La Plaine Health Center; Petite Savanne Health Center; Crayfish River Health Center; Kalinago Territory
- Dominica Social Security
- Dominica Medical Board, Dominica Medical Association, and Dominica Nurses Association
- Nongovernmental and civil society organizations
- Doctors, dentists, and nurses in private practice
- Private pharmacies
- Private insurance companies
- Private businesses
- Private medical training institutions
- Private laboratory

This assessment report was prepared collaboratively by the different members of the assessment team. Sara Sulzbach drafted the Private Sector chapter and edited the full document; Kylie Ingerson drafted the Country Overview and Management of Pharmaceuticals and Medical Supplies chapters and helped edit the full document; Taylor Williamson drafted the Governance chapter; Alan Fairbank drafted the Health Financing chapter; Michael Hainsworth drafted the Human Resources for Health chapter; Michael Rodriguez drafted the Health Information Systems chapter; and Shirley Augustine and James White drafted the Service Delivery chapter.

FOREWORD

In 2009, the United States Government supported a process to develop the United States-Caribbean Regional HIV and AIDS Partnership Framework 2010–2014 (Partnership Framework) together with 12 Caribbean countries: Antigua and Barbuda, the Bahamas, Barbados, Belize, Dominica, Grenada, Jamaica, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, and Trinidad and Tobago. Development of the Framework involved participation from Ministries of Health, national AIDS programs, regional organizations such as the Pan Caribbean Partnership against HIV and AIDS (PANCAP) and the Organization of Eastern Caribbean States (OECS), and nongovernmental and private sector stakeholders. The Partnership Framework is aligned with national strategic plans and the PANCAP Caribbean Strategic Framework.

A major goal of the Partnership Framework is to move the region toward greater sustainability of HIV/AIDS programs. Obtaining results in this area will be challenging, given that most country governments currently provide limited national budget resources to their own HIV/AIDS programs, relying to a large degree on external aid. While there are six U.S. government agencies supporting implementation of the Partnership Framework, the United States Agency for International Development/Barbados and the Eastern Caribbean (USAID/EC) provides support for health systems strengthening, with particular emphasis on health financing and private sector engagement. Both these efforts are closely linked to sustaining the HIV response in the region.

As a part of the Partnership Framework, USAID/EC asked the Health Systems 20/20 and the Strengthening Health Outcomes *through* the Private Sector (SHOPS) projects to conduct integrated health system and private sector assessments in Antigua and Barbuda, Dominica, Grenada, St. Kitts and Nevis, St. Lucia, and St. Vincent and the Grenadines. The aim of the assessments is to document existing strengths and weaknesses affecting health systems performance and to identify opportunities for technical assistance to address these gaps. Improving country capacity to effectively lead, finance, manage, and sustain the delivery of quality health services, including HIV prevention, care, and treatment, underpins the efforts of USAID/EC and its implementing partners.

As the USAID global flagship project on engaging the private sector, SHOPS has a mandate to identify opportunities to strengthen private sector contributions to health and to facilitate private sector involvement based on individual country assessment findings. As USAID's global flagship health systems strengthening project, Health Systems 20/20 identifies opportunities for improving health financing systems, ensuring the sustainability of funding for the HIV/AIDS response, and strengthening financial tracking and management procedures in the region. The integrated health systems and private sector assessment approach employed by Health Systems 20/20 and SHOPS seeks to pinpoint areas where the private sector can be leveraged to strengthen health systems, sustain national HIV responses, and contribute to improved health outcomes. The two projects collaborated closely to implement the assessments.

The assessment methodology is a rapid, integrated approach, covering six health systems building blocks: governance, health financing, service delivery, human resources for health, management of pharmaceuticals and medical supplies, and health information systems. Special emphasis is placed on the current and potential role of the private sector within each building block. An extensive literature review was conducted for each country; in-country interviews with key stakeholders were used to

validate and augment data found in secondary sources. The assessments are guided by an intensive stakeholder engagement process. Following the preparation of a draft assessment report, preliminary findings and recommendations were validated and prioritized at in-country stakeholder workshops. Stakeholders interviewed and engaged throughout the assessment process include government representatives, development partners, nongovernmental organizations, professional associations, health workers in the public and private sector, civil society organizations, and private businesses including private insurance companies.

The assessments have been conducted in cooperation with the Pan American Health Organization (PAHO), the United States Health Resources and Services Administration (HRSA), the International Training and Education Center for Health (I-TECH), and the Caribbean HIV/AIDS Regional Training Network (CHART). Representatives of these organizations joined assessment teams, contributed to the assessment reports, and have assisted with identifying opportunities for technical assistance. Health Systems 20/20 and SHOPS wish to express gratitude to these organizations, to Ministries of Health in participating countries, and to all in-country stakeholders for their intensive engagement and contributions to the assessments.

EXECUTIVE SUMMARY

PURPOSE OF THE ASSESSMENT

Dominica is one of 12 Caribbean countries joining efforts with the United States Government to sustain its HIV response, as exemplified by the United States-Caribbean Regional HIV and AIDS Partnership Framework 2010–2014 (Partnership Framework). To support the Partnership Framework, USAID/Barbados and the Eastern Caribbean (USAID/EC) asked the Health Systems 20/20 and Strengthening Health Outcomes through the Private Sector (SHOPS) projects to conduct an integrated health systems and private sector assessment to identify priorities for technical assistance. Additional partners in this effort include the Pan American Health Organization (PAHO), the International Training and Education Center for Health (I-TECH), and the Caribbean HIV/AIDS Regional Training Network (CHART). This assessment seeks to improve Dominica's capacity to effectively lead, finance, manage, and sustain the delivery of quality health services, including HIV prevention, care, and treatment. Important to the country's capacity to fulfill these roles are better understanding and catalyzing private sector contributions to health. While the functioning of the broader health system was the focus of the assessment, particular attention was paid to sustaining Dominica's HIV response.

COUNTRY OVERVIEW

Dominica is an upper-middle-income country in the eastern Caribbean with a population of approximately 72,969. Poverty and unemployment are pervasive; approximately 39 percent of the population lives on roughly EC$10/day (US$4/day) and unemployment among young people is estimated at 75 percent. The Dominican health system is characterized by a mix of public and private actors but is dominated by public provision of services. Health services are divided into primary and secondary care, with tertiary care only available off-island. The primary health care system is comprised of a network of 52 health centers, spread across seven districts and two administrative regions, and two district hospitals offering limited inpatient services in Marigot and Portsmouth. Secondary care is provided at Princess Margaret Hospital (PMH) in Roseau. There is one private hospital, approximately 12–15 private physician practices, nine private dentists, and three private nurse practices on the island. The leading causes of death in Dominica are dominated by chronic noncommunicable diseases (CNCDs) including heart, hypertensive, and cerebrovascular diseases. Dominica is also challenged by HIV/AIDS, with an estimated prevalence rate of 1 percent. However, this may be an underestimation because the epidemic is believed to be concentrated among high risk groups for which there is little data, especially men who have sex with men (MSM).

METHODOLOGY

Health systems and private sector experts from SHOPS and Health Systems 20/20, as well as I-TECH and PAHO, conducted an integrated rapid assessment of Dominica's health system according to the "building blocks" of the World Health Organization (WHO) health systems strengthening framework: governance, health financing, service delivery, human resources for health (HRH), management of pharmaceuticals and medical supplies, and health information systems (HIS). Examination of the current and potential role of the private sector in the health system was incorporated into this approach. An extensive review of the literature pertaining to the health system, and HIV/AIDS services in particular,

was conducted prior to the team's arrival in Dominica. Existing information was then validated and expanded upon through interviews with a wide spectrum of key stakeholders representing the public, non-profit and for-profit private sectors, and spanning the health system areas.

KEY FINDINGS AND RECOMMENDATIONS

Presented below are selected findings and recommendations for strengthening the health system for each of the WHO health systems areas. Full findings and recommendations, presented as short-term and longer-term actions, are presented in separate chapters for each area of the health system. A summary chapter on private sector contributions to health is also included.

Governance

Effective health governance is the process of competently directing resources, managing performance, and engaging stakeholders toward improving health in ways that are transparent, accountable, equitable and responsive. This assessment looked at state actors, health service providers, beneficiaries of services, and regional entities to understand the way that they interact to guide health service delivery. In Dominica, the Ministry of Health (MOH) is responsible for the financing, regulation, management, and delivery of all public health services. The health sector is guided by two documents that make up the National Strategic Plan for Health 2010–2019: the Health Situation Analysis, which provides the health disease profile of the population, and the Action Plan, which identifies needs and priorities in health interventions. A number of key pieces of legislation are out of date, such as the Medical Act dating to 1938 which does not regulate licensing, standards of practice, or continuing medical education (CME). The Pharmacy Act has been in draft form for several years. Gaps exist in other pieces of key legislation, such as The Hospital and Health Facilities Act which only focuses on private facilities and does not provide regulation of government clinics. The management of PMH, the pinnacle of the Dominican health system, possesses little authority in the day-to-day operations of the hospital, with decisions often deferred to the Cabinet. This emphasizes the main drawback of health sector governance in Dominica – that policy decision-making is centralized within the MOH, with relevant civil society actors, private sector stakeholders, and other ministries not sufficiently involved.

Key findings and recommendations in the area of governance are as follows:

Findings	Recommendations
• The regulatory framework for health is out of date and does not take into account the challenges faced by the current health system. • The tripartite management of the PMH does not effectively promote accountability or efficiency. • Private health facility inspection is mandated but not enforced. • Citizens voice their concerns about the health system through call-in radio programs, community forums, and meetings with government officials. • Civil society organizations play a minor role in bringing constituent concerns to the attention of policymakers.	• Prioritize updating the Medical and Nursing Acts and pass a Pharmacy Act. Instituting a policy analyst within the MOH could expedite this process, or technical support may be sought from a regional partner. • Use the building of the new hospital to rationalize management and quality assurance structures, looking to examples from other countries. • Strengthen and enforce health facility standards. • Develop standard guidelines for all health facilities in Dominica to ensure uniform quality throughout the system. • Develop a formal system for engaging clients and responding to feedback.

Health Financing

Financing of the health system – specifically mobilizing, pooling, and allocating funds to cover the health needs of the population – is a critical element to ensuring access to quality health care. Dominica prioritizes health in its national budget, as reflected by the fact that health spending represents about 11 percent of total government spending, and 6 percent of gross domestic product (GDP). MOH expenditures are financed primarily from general revenues, although the Ministry of Finance (MOF) does receive modest income from fees charged for certain services at PMH. Fees collected at PMH and Central Medical Stores (CMS) comprise less than 10 percent of the budgeted costs for those two institutions. Understanding the costs associated with delivering health services is crucial to effective planning. However, Dominica has never conducted a formal National Health Accounts (NHA) exercise which means that health expenditure data are based on assumptions and estimates. Household and employer health spending is unknown, but estimates are that private spending amounts to roughly 30 percent of total health expenditure. Private health insurance covers approximately 20 percent of the population. The lack of tertiary care on-island, increase in CNCDs, and relatively low coverage of private health insurance pose challenges for equitable financing of advanced medical care for Dominicans.

Key findings and recommendations in the area of health financing are as follows:

Findings	Recommendations
• Citizens enjoy good access to primary health care services, most of which are provided for free. • Out of pocket spending for health care is estimated at 30 percent of total health expenditure. • Private health insurance covers approximately 20 percent of the population. • Broad fee exemptions and weak fee collection systems mean that public subsidies may support those who would be able to pay for health services. • The MOH urgently needs data that links health spending, utilization, and outcomes to support evidenced-based planning and budgeting.	• Conduct a NHA estimation and build local capacity of the MOH to replicate the exercise. • Estimate the unit cost of public and private sector health services to assist policymakers in routine evidence-based planning and to inform new health financing policies. • Identify sources for future recurrent spending before initiating major policy changes. • Rationalize the allocation of funds to primary and secondary health facilities, according to patients' use of services at each site. • Consider allowing health facilities to retain some user fee revenue on-site.

Service Delivery

Service delivery systems should aim to ensure access, quality, safety, and continuity of care. In Dominica, there is a strong primary health care system providing good access to care across the island's districts and communities. There is limited secondary care and virtually no tertiary care available on the island, requiring citizens to seek such services off-island, often at great individual or government cost. HIV/AIDS counseling and testing services are being integrated into the existing health care system, with treatment provided by a single Clinical Care Coordinator at PMH. Utilization of services at PMH is high – for emergency and ambulatory care as well as inpatient care – at times leading to overcrowding. Referrals between primary and secondary care within the public health sector, and between private providers and PMH, are not always efficient, and the lack of information sharing has implications for patient care. The private health sector in Dominica appears to be growing, but operates largely in parallel to the public system, due to limited efforts to engage this sector as part of the overall health system.

Key findings and recommendations in the area of service delivery are as follows:

Findings	Recommendations
• Dominicans enjoy good access to primary health care services. • Demand for secondary care at PMH is high and overcrowding is not uncommon. • Specialized tertiary care is only available off-island, at significant cost. • Public facilities face considerable equipment and supply management challenges. • There is inadequate coordination of referrals between primary and secondary care, leading to challenges in quality and continuity of care. • Private health provision appears to be growing, but there is minimal coordination and communication with the public health sector. • There is no formal quality assurance system in place and no national quality assurance policies.	• Assess challenges currently faced at PMH and other secondary-level facilities in preparation for the creation of the new national hospital. • Explore options for securing tertiary care on-island, considering a greater role for the private sector as well as inter-island arrangements for provision of such care. • Establish and enforce a referral system from primary health clinics to secondary facilities. • Formalize the referral process between public and private providers. • Clarify the policies, procedures, and regulations for dual public-private practice. • Establish a formal national quality management system.

Human Resources for Health

HRH impacts the availability, costs, and quality of health service delivery. Evidence collected through the assessment suggests that the overall number and coverage of non-specialist health workers is considered adequate, but the quality, skills mix, and geographic distribution of health workers are not optimal. This is especially true in the case of medical and nurse specialists, as well as district-level administrative and management personnel. The Medical Act of 1938 is a key piece of legislation that regulates medical practitioners, dentists, opticians, chemists and druggists, family nurse practitioners, and dental auxiliaries. The Dominica Medical Board has done significant work on a proposed new act which goes beyond registration and addresses areas such as licensing, fitness to practice, discipline, and CME. Similarly, a new Nursing Act has been drafted and reviewed by the General Nursing Council which includes a new registration and licensure process. Both pieces of new legislation require prioritization and, once ratified, could significantly improve the regulation and quality of HRH. Migration of experienced nurses and attrition of public medical doctors due to a preference for full-time private medical practice pose further challenges to Dominica's long-term HRH planning. It is hoped that a recent change in the mandatory retirement age for Dominican nurses will reduce attrition and ensure a balanced nursing workforce of both seasoned and less-experienced nurses.

Key findings and recommendations in the area of HRH are as follows:

Findings	Recommendations
• The human resource (HR) management structure is well defined and well managed but lacks tools and data necessary for effecting HR planning and management. • MOH plans to create an HRH Unit are supported by the Establishment Department but roles and responsibilities within the unit are not yet well defined. • Public sector employment policies do not	• Provide technical assistance and training in HR planning and management to assist members of the newly formed HRH Unit, as well as other key leaders in the health sector. • Continue advocacy for hiring of proposed positions for the HRH Unit, including hiring a health planner. • Conduct training workshops for supervisors on active management of performance problems with an objective to improve health worker performance

maximize performance. Extremely liberal leave policies contribute to high rates of absenteeism among health care workers. • Staffing appears to be based on historical patterns rather than based on contemporary disease burden and workload analysis. • Continuing education opportunities for most cadres are plentiful.	in a positive manner, such as using performance improvement plans and revising incentive structures. • Support MOH to implement workload analysis methodology to determine optimal staffing levels at facilities.

Management of Pharmaceuticals and Medical Supplies

Access to high-quality and cost-effective medical products and technologies are critical to a well-functioning health system. Given the emergence of CNCDs as a major health issue in Dominica, efficient procurement, management, and equitable distribution of affordable medicines is more essential than ever. To increase efficiency, Dominica participates in the Organization of Eastern Caribbean States (OECS) Pharmaceutical Procurement Service (PPS). The PPS has assisted all OECS countries to reduce the cost of medicines and provide procurement regulation and oversight. It has also played a critical role in ensuring access to medicines in the public and, to some extent, the private sectors. However, like many countries in the region, late payments to suppliers threaten the system and Dominica's supplies of essential medicines. Public sector procurement in Dominica is centralized via CMS. The private sector procures the majority of their medicines and medical products directly from external sources, in the absence of government regulations. Antiretroviral drugs (ARVs) are currently obtained from a number of sources, including via a Memorandum of Understanding (MOU) with the government of Brazil and the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) through PPS. Funding for pharmaceuticals comes from a centralized fund but the gap between budget allocation and consumption value is widening and has been identified as a major problem for CMS. Regulations to govern Dominica's pharmaceutical sector have been in draft form for several years and until the Pharmacy Act is finalized and gazetted, there exists no Pharmacy Council to regulate pharmacies and pharmacists. This legislation is needed as a priority in ensuring rational drug use, procurement, and distribution.

Key findings and recommendations in the area of pharmaceutical and medical supply management are as follows:

Findings	Recommendations
• Though drafted, the Pharmacy Act and associated regulations have yet to be passed. • Weak legislation and a lack of regulations make governing the pharmaceutical sector difficult, especially in the private sector. • Efforts to coordinate procurements between the sectors are limited and ineffective, resulting in system inefficiencies. • Information management and data for decision-making is inadequate and has serious implications for improved forecasting. • Rational drug use is prioritized but hindered by a general lack of standard treatment protocols. • Pharmacovigilence practices are inconsistent in both sectors.	• Prioritize passing the Pharmacy Act. Technical support may be sought to expedite the process. • Explore creative solutions to strengthen coordination between public and private pharmaceutical sectors and ensure access and affordability of essential medicines. • Build capacity for an electronic pharmaceutical management and forecasting system to dramatically improve current inefficiencies. • Reinforce the existing pharmacovigilance system and encourage the active participation of the private sector.

Health Information Systems

HIS provide the basis for monitoring and evaluation of public health programs, and are essential for generating information to improve health care management decisions at all levels of the health system. The Dominican health system has long benefitted from the visionary leadership of creating a robust national HIS to produce timely, accurate, and relevant information to support policy decisions. That vision, however, has struggled to come to fruition as severe limitations of staffing and resources have slowed progress. The Dominican HIS is a predominantly paper-based system at the primary health care level. Although a variety of electronic information systems have been implemented at various points in the system, they have not been brought together under the umbrella of a comprehensive HIS strategic plan that supports the national health agenda. The Health Information Unit (HIU) continues to be the least supported unit within the MOH, receiving just 0.41 percent of the primary care budget in 2009/10. The policy and regulatory framework supporting HIS in Dominica is relatively underdeveloped and leveraging the OECS E-Government Regional Integration Program (E-GRIP) work plans and team remains a key opportunity in the development of a National HIS Strategic Plan.

Key findings and recommendations in the area of Health Information Systems are as follows:

Findings	Recommendations
• The HIU team is highly motivated and knowledgeable, although the lack of permanent positions threatens the sustainability of surveillance and reporting efforts. • Strong reporting and intersectoral review of notifiable conditions exists in spite of manually driven reporting systems. • The absence of a national HIS strategic plan hinders the development of HIU priorities as well as the measurement of progress towards these objectives, and may also limit the pursuit of adequate resources. • Delayed data consolidation and dissemination limits the effectiveness of data-driven policymaking. • Minimal private sector reporting on important health indicators results in incomplete knowledge of health issues affecting Dominica.	• Develop a formal staffing plan to support the HIU over the long term. • Leverage mobile phones for surveillance reporting. • Convene a Technical Working Group to review Health Metrics Network (HMN) and Performance of Routine Information Systems and Management (PRISM) assessment results and initiate a National HIS Strategic Planning process. • Incorporate a data quality improvement program into the supervisory process to emphasize the data feedback cycle and improve data usage. • Initiate dialogue with private health providers to enhance reporting on key health indicators.

Private Sector Contributions to Health

Despite its potential to contribute to public health goals, the private health sector is often overlooked as a partner in addressing health needs. Similar to other countries in the region, Dominica is simultaneously facing domestic budgetary constraints, growth in chronic disease, and declining donor support for health and HIV/AIDS services. Given these trends, actively engaging the private sector in a systematic manner warrants further consideration. Viewing the health system holistically as one system comprised of public and private sector elements can help to identify ways in which the sectors might complement each other to improve overall performance and ultimately achieve greater health impact. There are indications that the private health sector in Dominica is growing, as evidenced by the establishment of a private hospital, numerous private physician practices, a private lab, a private diagnostics center and several pharmacies, as well as private nurse practices. The development of the private sector belies the fact that it is largely unregulated, a point of concern for both public and private sector stakeholders. The lack of government

oversight of the private sector in the areas of service delivery, CME, and pharmaceuticals has resulted in a parallel system, operating largely outside the established public health system. Despite the apparent separation of the sectors, some informal cooperation exists. Private practitioners expressed a willingness to improve communication and collaboration with public sector counterparts in the interest of improved patient care. However, true partnership can only be achieved if the public sector shares this intent to improve relations and better engage the private health sector.

Key findings and recommendations related to private sector engagement are as follows:

Findings	Recommendations
• A small but diverse private health sector contributes to the health needs of Dominicans. • While all socioeconomic classes access private sector health services, use is concentrated among middle- and upper-income groups. • Weak professional organization and a lack of sufficient regulation and quality assurance undermine the private sector. • Examples of public-private collaboration exist, ranging from corporate contributions to health to informal arrangements between the private health sector and the MOH.	• Conduct a baseline mapping of private health sector services and resources. • Initiate a dialogue between the public and private health sectors to identify viable strategies for greater collaboration. • Engage key private sector leaders in developing public health plans and strategies, including plans for the new hospital. • Consider ways in which the private health sector can help provide needed specialty care on the island.

Cross-Cutting Themes

Specific findings within each of the six building blocks are important to address individually. However, there are a number of cross-cutting, interrelated issues that are impeding the functioning of the health system and its ability to offer sustainable, quality health services. Addressing these challenges holistically will result in positive and sustained impact, and contribute to a more effective health system in the long term. With the objectives of strengthening the health system and ensuring sustainability of the HIV response in mind, the team identified the following cross-cutting objectives for Dominica:

- Increase efficiencies within the health system to make better use of existing resources and preserve primary care in light of growing demands for secondary care.
- Seek cost-effective and sustainable solutions to address the lack of tertiary and specialty care on the island, considering a greater role for the private health sector.
- Ensure adequate staffing throughout the health system to improve MOH performance and ensure equitable access to high-quality care.
- Increase engagement of a capable and willing private sector to contribute to health needs by formalizing structures and mechanisms for public-private engagement and identifying opportunities to leverage existing relationships.
- Build on efforts to integrate HIV/AIDS services into the health system and mobilize domestic support to ensure responsiveness to the epidemic.
- Strengthen and solidify the legal and regulatory framework for health.
- Improve data availability and use to inform policy, planning, and advocacy.

Next Steps

The findings and recommendations presented in this report were intended to serve as a basis for dialogue between key stakeholders – representing both the public and private sectors – on the way forward toward strengthening the Dominican health system. As reflected by the Partnership Framework, USAID recognizes that country-led efforts to strengthen national health systems and HIV responses are most likely to be sustained over the long term. To this end, the SHOPS and Health Systems 20/20 projects convened over 40 stakeholders in March 2012 to validate the results and findings of this assessment, and to prioritize recommendations to address critical health systems gaps and sustain the HIV response in Dominica. Through a participatory process, stakeholders identified the following health systems strengthening priorities for Dominica, all of which support objectives put forth in the National Strategic Plan for Health 2010–2019:

- Strengthen the legal and regulatory framework for health through reviewing, updating, and finalizing legislation and enforcing regulations.
- Institute a more efficient management structure for PMH.
- Explore partnerships with the private sector that maximize on-island resources for health, using a newly established public-private forum as a starting point.
- Develop a National HIS Strategic Plan, including a formal staffing plan to support the HIU over the long term.
- Conduct a NHA estimation with HIV/AIDS subaccount to track heath expenditures.
- Finalize the MOH HR Development Plan and establish the HRH Unit, including hiring a Health Planner and appropriate staff.
- Establish a formal national quality management system.

Participants developed draft action plans to address each of these priorities, including identifying local 'champions' as well as necessary resources to carry the work forward. Action plans and a summary of workshop proceedings were presented to senior MOH leaders to make a determination of next steps, including the option of requesting technical assistance from USAID/EC to support specific country priorities. For a full report of workshop proceedings refer to Annex A, Workshop Report: Dominica Health Systems and Private Sector Assessment.

1. ASSESSMENT METHODOLOGY

1.1 FRAMEWORK FOR THE HEALTH SYSTEMS AND PRIVATE SECTOR ASSESSMENT APPROACH

Health Systems 20/20 and Strengthening Health Outcomes through the Private Sector (SHOPS), in collaboration with the Ministry of Health (MOH), used a combination of the Health Systems Assessment (HSA) and Private Sector Assessment (PSA) approaches to undertake a rapid assessment of the Dominican health system. The HSA approach was adapted from the United States Agency for International Development (USAID) *Health Systems Assessment Approach: A How-To Manual,* which has been used in 23 countries (Islam 2007). The HSA approach is based on the World Health Organization (WHO) health systems framework of six building blocks (WHO 2007). The PSA approach has been used in 20 countries, and SHOPS is currently finalizing a how-to guide to inform future assessments, which will be available online in 2012.

The integrated approach used in Dominica covered the six health systems building blocks: governance, health financing, service delivery, human resources for health (HRH), management of pharmaceuticals and medical supplies, and health information systems (HIS). Special emphasis was placed on the current and potential role of the private sector within and across the health system building blocks. Additionally, the health system's ability to support the HIV/AIDS response was examined throughout each dimension.

The objectives of the assessment were to:

- Understand key constraints in the health systems and prioritize areas needing attention;
- Identify opportunities for technical assistance to strengthen the health systems and private sector engagement to sustain the HIV/AIDS response;
- Promote collaboration across public and private sectors; and
- Provide a road map for local, regional, and international partners to coordinate technical assistance.

1.2 HSA/PSA PROCESS

1.2.1 PHASE 1: PREPARE FOR THE ASSESSMENT

During the preparation phase, the assessment team worked with the MOH and the National HIV/AIDS Response Program (NHARP) to build consensus on the scope, methodological approach, data requirements, expected results, and timing of the assessment. Recognizing the importance of building strong partnerships among the government, donors, private sector, and nongovernmental and community organizations, team members held a pre-assessment workshop in conjunction with the MOH to meet with stakeholders. The objectives of the half-day workshop were to: explain the methodology to be used; identify key issues for further investigation during data collection; and clarify expectations for the assessment.

A team of technical specialists in each of the six building blocks plus private sector engagement was assembled. Emphasis was placed upon priority areas that were identified in the stakeholder meetings. In

Dominica, these priority areas included health financing, planning, HIS, and private sector engagement. The team of seven consisted of representatives from Health Systems 20/20, SHOPS, International Training and Education Center for Health (I-TECH), and Pan American Health Organization (PAHO).

1.2.2 PHASE 2: CONDUCT THE ASSESSMENT

Much of the health systems and private sector data were collected through a review of published and unpublished materials made available to the team by the MOH and development partners and obtained online. Team members produced a literature review for each of the health systems building blocks to develop an initial understanding of the system and identify information gaps. Semi-structured interview guides were developed for each building block based on the noted information gaps, standard PSA interview guides, and the indicators outlined in the HSA approach. A local logistics coordinator was employed to assist in identifying informants and arranging interviews.

Key stakeholders in both the public and private sectors were engaged to provide input and validate preliminary findings gathered from secondary sources. Informants also provided additional key documents and referred the team to other important stakeholders. During the one-week data collection period, the in-country assessment team interviewed more than 100 stakeholders in over 65 interviews. Interviewees included representatives of government, professional associations, health training institutions, nongovernmental organizations (NGOs), private businesses, health providers, pharmacists, and many professionals from the MOH. Site visits included public hospitals and health centers, private providers' offices, private labs, and private pharmacies. Responses were recorded by the interviewers and examined for identification of common themes across stakeholders while in-country. The team presented a preliminary overview of the emerging findings and recommendations to the MOH prior to the team's departure.

1.2.3 PHASE 3: ANALYZE DATA AND PREPARE THE DRAFT REPORT

Following in-country data collection, the assessment team transcribed the responses of the stakeholders and reviewed the additional documents collected. The lead for each building block and the private sector lead drafted a summary of the findings and recommendations for their respective areas. The team lead, together with input from the rest of the team, identified key findings and cross-cutting issues and further developed recommendations. A final draft was submitted to the MOH for review and approval.

1.2.4 PHASE 4: DISCUSS FINDINGS WITH LOCAL STAKEHOLDERS

The assessment team used the findings in this draft report to conduct a workshop at which the MOH and key stakeholders representing the public and private sectors discussed and validated assessment findings and prioritized recommendations. The team used the results of the prioritization to identify areas of potential technical assistance for USAID.

2. COUNTRY BACKGROUND AND HEALTH SYSTEM PROFILE

This chapter provides an overview of Dominica, presenting information that will help readers understand the context in which the health system operates. Topics covered in this chapter include political organization; economic environment; demographic and health trends; and a snapshot of the key stakeholders in the health system.

2.1 OVERVIEW OF DOMINICA

Dominica is the northernmost and largest of the Windward Island chain located in the Eastern Caribbean. As shown in Figure 2.1, neighboring islands include Guadeloupe to the north and Martinique to the south.

FIGURE 2.1: DOMINICA IN RELATION TO OTHER CARIBBEAN ISLANDS

With an estimated gross domestic product (GDP) per capita of EC$28,080 (US$10,400), Dominica is considered an upper-middle-income country (World Bank 2011a). Historically an agriculture-based economy, the government has recently made efforts to diversify and promote the island as an ecotourism destination. The government is also attempting to develop an offshore financial sector and has signed an agreement with the European Union (EU) to develop geothermal energy resources. An

economic restructuring in 2003, which included elimination of price controls, privatization of the state banana company, and tax increases, fostered economic growth. By 2006, real growth of GDP had reached a two-decade high and reduced an external debt burden which now remains at a relatively constant 85 percent. Growth has slowed in recent years because of the global recession and saw only a mild upswing in 2010 (Central Intelligence Agency [CIA] 2011).

2.2 DEMOGRAPHIC TRENDS

The current population of Dominica is estimated at 72,969, which represents a minimal increase from the preceding decade. Nearly 80 percent of the population is of African descent. An additional 4 percent of the population is Kalinago, the only concentration of indigenous people in the region (MOH 2010). Recent data suggests that the proportion of the population between 0–14 years is 22.9 percent, with approximately 10.3 percent over age 65. Roughly 20 percent of the population lives in the capital city of Roseau, with an estimated annual urbanization rate of 0.30 percent (CIA 2011). Census data from 2001 indicates that birth rates are decreasing while death rates have remained relatively constant at around 8 per 1,000 population. The constant population in the face of prevailing rates of natural population increases can likely be attributed to high levels of emigration (MOH 2010). Updated population data will be made available via results of the 2011 census, which was launched in August of 2010.

TABLE 2.1: DEMOGRAPHIC INDICATORS IN DOMINICA COMPARED WITH LATIN AMERICA AND CARIBBEAN (LAC) REGIONAL AVERAGE

Health System Indicator	Source of Data	Dominica	Year of Data	LAC Average	Year of Data
Population, total	CIA Factbook-2011	72,969	2011	19,520,385	2009
Population growth (annual %)	WDI[1]-2010	0.55	2008	1.10	2009
Urban population (% of total)	WDI-2010	73.92	2008	63.05	2008
Population ages 0–14 (% of total)	CIA Factbook-2011	22.90	2011	28.09	2009
Population ages 65 and above (% of total)	CIA Factbook-2011	10.30	2011	6.77	2009

2.2.1 CAUSUES OF MORBIDITY AND MORTALITY

Morbidity and mortality indicators in Dominica are largely improving. Life expectancy at birth has increased from 74.0 years in 1992 to 76.6 years in 2002. Infant mortality was 9.30 deaths per 1,000 live births in 2008 (World Bank 2011a). The leading reported causes of mortality among children under five years are prematurity, congenital anomalies, and respiratory distress syndrome (Commonwealth of Dominica 2010a). Two maternal deaths were reported between 2001 and 2003 due to complications of pregnancy. Crude death rates have increased over the past five years, ranging from 6.73 per 1,000 population in 2006 up to 8.12 per 1,000 population in 2010 and 9.08 per 1,000 population in 2011 (CIA 2011).

[1] WDI – World Development Indicator

TABLE 2.2: MORTALITY INDICATORS IN DOMINICA COMPARED WITH LATIN AMERICA AND CARIBBEAN REGIONAL AVERAGE

Health System Indicator	Source of Data	Dominica	Year of Data	LAC Average	Year of Data
Life expectancy at birth, total (years)	WDI-2010	76.60	2002	73.59	2009
Mortality rate, infant (per 1,000 live births)	WDI-2010	9.30	2008	18.92	2009
Mortality rate under–5 (per 1,000 births)	WDI-2010	11.40	2008	22.55	2009

The 10 leading causes of death in Dominica are dominated by chronic noncommunicable diseases (CNCDs). For more information, refer to Section 5.2.1 in Chapter 5, Service Delivery.

2.3 HIV/AIDS

The Caribbean region has the highest incidence of HIV/AIDS in the Americas and the second-highest regional prevalence in the world behind sub-Saharan Africa. Regional prevalence rates range from 0.4 percent in St. Kitts and Nevis to 3.0 percent in the Bahamas. The 2010 UN General Assembly Special Session on HIV/AIDS (UNGASS) report estimates that, over the past 20 years, Dominica has maintained the trend of a concentrated epidemic with an estimated prevalence rate of 0.75 percent (UNGASS 2010). MOH estimates suggest that the prevalence rate is higher, at around 1 percent. Both estimates are presumably artificially low because the epidemic is believed to be concentrated among high-risk groups on which there is little data, especially men who have sex with men (MSM). According to the MOH, HIV/AIDS is among the communicable diseases with the greatest epidemic potential. As such, they have prioritized addressing HIV/AIDS in a cost-effective and sustained matter (Commonwealth of Dominica 2010c).

The Joint United Nations Program on HIV/AIDS (UNAIDS) estimates that over 3,000 people were tested for HIV in 2008 and 3,631 were tested in 2009 (UNGASS 2010). The vast majority of those tested were female. In total, 9 individuals were identified as HIV-positive in the former year, while 12 were identified in the latter (UNGASS 2010). Available data from NHARP indicates that a total of 329 individuals were identified as HIV-positive between 1987 and 2007. The male-to-female ratio of positive cases has remained relatively constant at 2.5:1. The combined number of HIV-positive males and females in 2007 was 30 percent lower than the peak infection year of 2000. However, the MOH believes that infection rates may be double those reported to NHARP because it is difficult to get data on some of the most high-risk groups such as MSM and commercial sex workers. The lack of solid information on the total number of HIV-positive individuals is problematic for several reasons. Most notably, health care workers do not know where these infected people are; these individuals are very likely infecting others; and it is not clear if the health system has the capacity to treat these people if and when they become sick (Commonwealth of Dominica 2010a).

Table 2.3 shows the number of HIV tests undertaken by the laboratory at Princess Margaret Hospital (PMH) between 2002 and 2007. It must be noted that this does not include testing in private facilities.

TABLE 2.3: HIV TESTS ADMINISTERED BY GOVERNMENT LABORATORY AT PRINCESS MARGARET HOSPITAL, 2002–2007

Year	# Tests – Blood Donors	# Tests – Pregnant Females	# Tests – Other Patients	Total Tests	% Tests – Other Patients to Total
2002	926	640	866	2432	36
2003	847	640	695	2182	32
2004	804	771	707	2282	31
2005	757	960	719	2436	30
2006	765	1011	1569	3345	47
2007	732	812	2059	3603	57

Source: Commonwealth of Dominica (2010a)

Identified sampling issues highlight a significant need to upgrade data recording and retrieving by the laboratory. And, while it is likely that the data is geographically representative, it is not known if the same holds true among: all age groups; most vulnerable groups; males and females; and across all socioeconomic groups. However, the report associated with the table above also indicates that testing on pregnant females is at 100 percent and overall testing has increased significantly in recent years (Commonwealth of Dominica 2010c).

2.4 POLITICAL AND MACROECONOMIC ENVIRONMENT

2.4.1 POLITICAL ENVIRONMENT

Dominica gained political independence from England in 1978, but retained a political system based on the British Parliamentary, multiparty democracy. The executive branch consists of the Prime Minister and a President nominated for a five-year term by the Prime Minister in consultation with the leader of the opposition party. The President appoints as Prime Minister the leader of the majority party in Parliament and also appoints, on the Prime Minister's recommendations, members of Parliament from the ruling party as Cabinet ministers. Dominica has a unicameral parliament, the House of Assembly, which is comprised of 21 elected constituency representatives and 9 senators appointed by the President on recommendation of the opposition leader. The country has universal suffrage and the election of representatives must be done at least every five years (MOH 2010a).

The parliamentary political parties in Dominica are the Dominica Labour Party and the United Workers' Party. Other parties include the Dominica Freedom Party, Dominica Progressive Party, and the People's Democratic Movement. The current President, Nicholas Liverpool, is in his second term and was initially appointed in 2003. Roosevelt Skerrit became Prime Minister after the death of Pierre Charles in January 2004. Skerrit also serves as Minister of Finance, Minister of Foreign Affairs, and as the political leader of the Dominica Labor Party (MOH 2010a).

Local government bodies are comprised of councils, with the majority being elected. These local councils are sustained through property taxes and government grants and are charged with regulating markets, sanitation, secondary roads, and other municipal amenities. The Kalinago Territory has its own ruling council and greater autonomy (MOH 2010a).

2.4.2 MACROECONOMIC ENVIRONMENT

The country continues to maintain a free market and liberal economy and is a member of two important regional bodies, the Caribbean Community (CARICOM) and the Organization of Eastern Caribbean States (OECS). These entities play a vital role in developing policy, including health policy, and are often the recipients of resources or assistance for the region. The former, established in 1973, creates a vision for common political, economic, and legal policies but does not have supranational political powers. The freer movement of people in the region, as envisioned by CARICOM, is viewed as an opportunity for countries to more easily gain access to skilled labor; however it is also feared that it will put a strain on the resources of more well-off countries, such as free health care, and siphon off the most skilled workers to larger islands. The latter was formed in 1981 and has developed common foreign, defense, and security policies among the six smaller island nations of CARICOM. The organization has also created common strategies to deal with regional concerns such as education, health, agriculture, tourism, and the environment (MOH 2010a).

Dominica's economy is primarily based on agriculture, with small tourism and manufacturing sectors. The country has followed a series of mono-crop booms and busts in sugar, coffee, limes, vanilla, and, at the moment, bananas. However, the current economic environment has seen a downturn in the banana market. This decline has led to the development of an increased reliability on the tourism sector, especially as it pertains to foreign exchange earnings. The island is ideally positioned to develop an eco-tourism industry around its diverse flora and fauna and as a UNESCO World Heritage Site (Morne Trois Pitons National Park) (CIA 2011).

Similar to other countries in the region, natural disasters threaten the island's fragile economy. Damages to agriculture and infrastructure caused by Hurricane Dean in 2007 were estimated at 20 percent of GDP. However, a 2008 report by the International Monetary Fund (IMF) suggested that Dominica has recovered better than expected and growth rates increased by 2.5 percent and 3.0 percent in 2008 and 2009, respectively (MOH 2010a).

2.4.3 INCOME DISTRIBUTION, POVERTY, AND INEQUALITY

According to the 2011 Human Development Index, which ranks countries by level of human development as measured by life expectancy, literacy, education, and standards of living for countries worldwide, Dominica ranks high at 81 (United Nations Development Program [UNDP] 2011). However, poverty and unemployment are pervasive throughout the country. A 2010 Country Poverty Assessment estimated household poverty (EC$3,400 [US$1,259] per year) at 19 percent and population poverty at 26 percent. An estimated 3.1 percent of the population was deemed to be indigent (EC$2,435 [US$902] per year). The highest incidence of poverty was found to be in St. Joseph, where over 47 percent of residents were deemed to be poor. Seventy-five percent of poor households live in rural areas where 50 percent of households are poor. The remaining 25 percent are in Roseau and Portsmouth (Kairi Consultants Limited 2010). However, the World Bank indicates that only 2 percent of the population lives on less than US$1/day, which is low in comparison to other nations in the region. Unemployment was identified as a serious problem in a 2010 Participatory Poverty Assessment (PPA), with rates estimated at over 25 percent. Young people are the most effected by unemployment, with 75 percent of the demographic being without work and representing 50 percent of the total rate. The PPA also concluded that workers in poor households are engaged in unskilled labor at rates that do not meet financial needs (MOH 2010a).

In 2008, the Gini coefficient, which is a measurement of inequality based on a 0–1 scale (with a coefficient closer to 1 reflecting greater inequality), was estimated at 0.44. This suggests greater equality

than the region as a whole, which has a Gini coefficient of 0.51, but less equality than the global average of 0.36 (Kairi Consultants Limited 2010).

Migration is significant in Dominica. A recent Survey of Living Conditions assessment concluded that 55 percent of Dominican households have at least one close family member living overseas; 75 percent of these individuals are adults of prime working age (20–34 years). The PPA confirmed this and found significant levels of out-migration of working-age adults. Much of this is due to poverty and unemployment (MOH 2010a).

Table 2.4 highlights current economic indicators in Dominica in comparison with the LAC regional average.

TABLE 2.4: ECONOMIC INDICATORS IN DOMINICA COMPARED WITH LATIN AMERICA AND CARIBBEAN REGIONAL AVERAGE

Health System Indicator	Source of Data	Dominica	Year of Data	LAC Average	Year of Data
GDP per capita	WDI-2010	$10,400	2008	$4,823	2009
GDP growth (annual %)	MOH 2010a	3.0	2009	-2.0	2009
Per capita total expenditure on health at international dollar rate	WHO-2011	$337.00	2008	$383.10	2009
Private expenditure on health as % of total expenditure on health	WHO-2011	37.5	2008	43.4	2008
Out-of-pocket expenditure as % of private expenditure on health	WHO-2011	84.2	2008	79.3	2008
Gini index	Kairi Consultants Limited, 2010; WDI-2010	0.44	2008	0.51	2007

2.5 BUSINESS ENVIRONMENT AND INVESTMENT CLIMATE

The Heritage Foundation ranks Dominica 72nd of 179 global economies and 15th in the region in terms of economic freedom. This score is virtually unchanged from 2010, including relatively high marks for a dynamic entrepreneurial environment that provides equal treatment to foreign and domestic investors. Dominica's low financial freedom score is a reflection of problems with bank supervision and regulatory frameworks (Heritage Foundation 2011). Dominica faces shallow markets and a lack of available financial instruments required to give access to credit. The recently implemented Financial Services Unit Act seeks to strengthen regulatory frameworks for nonbank financial institutions, including for insurance companies and credit unions.

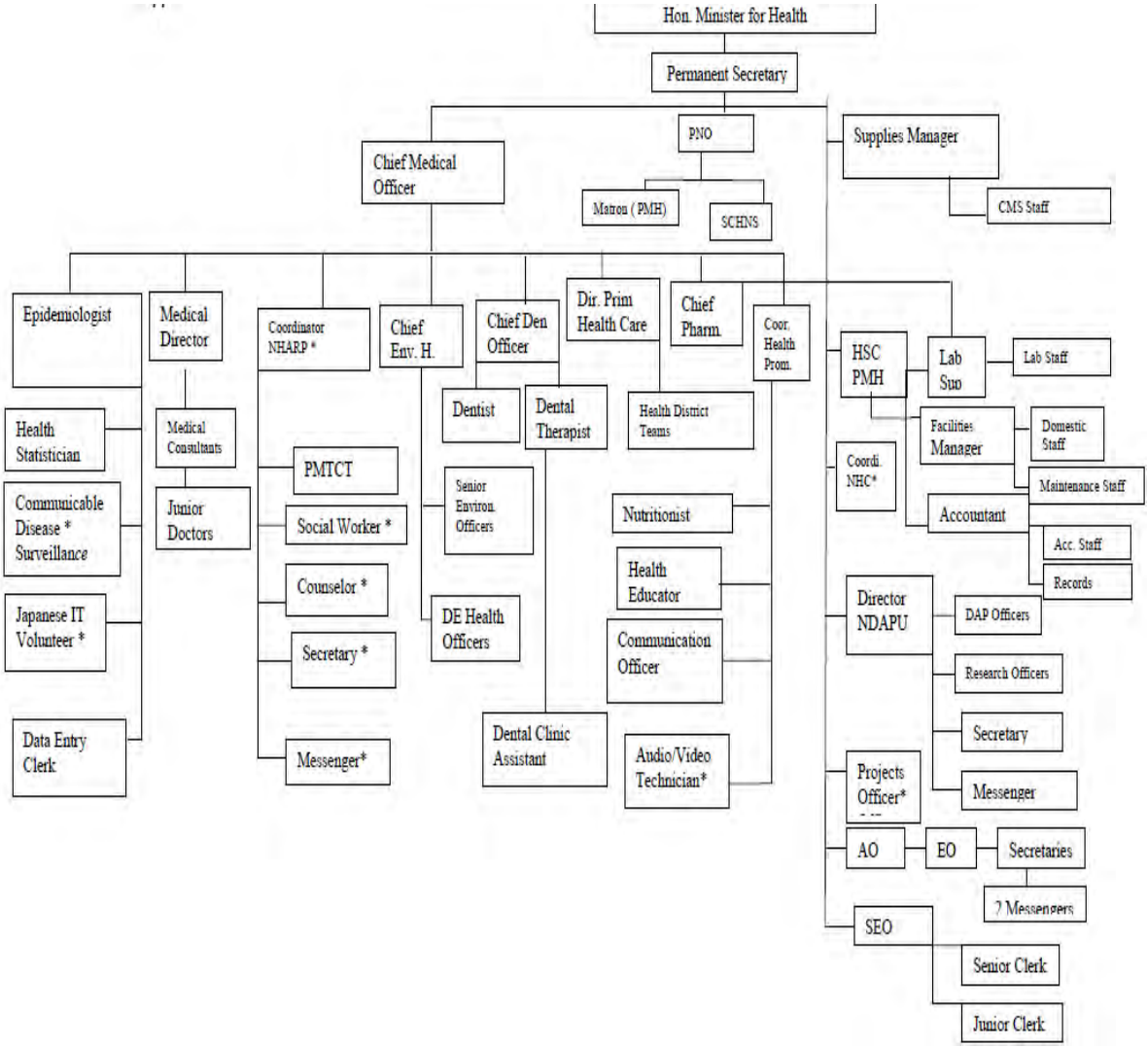
Dominica struggles to compete on the international market because the cost of goods and services is often much higher due to small economies of scale and the remoteness of the island. Tourism remains less financially significant than on other islands, but efforts are being made to increase the number of eco-tourists. Nearly one-third of the labor force works in agriculture. The government has tried to

diversify by increasing investments in coffee, patchouli, aloe vera, exotic fruits, and cut flowers. In 2008, Dominica's government joined the Venezuela's Bolivarian Alternative for the Americas socialist trade agenda after Venezuela promised millions in funding for agricultural and industrial development. However, this has the potential to undermine regional economic integration under CARICOM (Heritage Foundation 2011).

2.6 HEALTH SYSTEM STRUCTURE

The health sector in Dominica is characterized by a mix of public and private sector actors, but is dominated by public sector provision of services. As illustrated in Figure 2.2, the MOH is charged with providing, governing, and financing public health services in Dominica. The Permanent Secretary has general oversight over all programs. The delivery of health services, both public and private, falls under the Chief Medical Officer (CMO). The Health Information Unit (HIU) oversees the management of health information and epidemiological surveillance of health services (Commonwealth of Dominica 2010c). The NHARP was established in 2003 with funding from the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund), the Government of Dominica, other donor agencies, and local contributors, to coordinate the national HIV/AIDS response (PAHO 2007).

FIGURE 2.2: ORGANIZATIONAL CHART OF DOMINICA MINISTRY OF HEALTH



Source: MOH (2010a)

The delivery of health services is divided into primary and secondary care. Tertiary care is not available and must be sought off-island, typically in Martinique, Guadeloupe, Barbados, Antigua, Jamaica, or Trinidad. Dominica has a network of 52 health centers and two district hospitals spread across seven districts in two administrative regions. Region I includes Roseau, St. Joseph, and Grand Bay health districts. Region II includes Portsmouth, Marigot, Castle Bruce, and La Plaine health districts. Each district has multiple Type I health clinics and one Type III health center. The clinics are meant to serve as the first point of contact with health services to minimize demand on secondary facilities. Two district hospitals, Marigot and Portsmouth, offer limited inpatient services and are part of the primary health care system. Primary care is fully decentralized and provided free of charge. Managerial responsibility for the facilities lies with the Director of Primary Health Care and Senior Community Health Nurses (PAHO 2007). Secondary care is provided at PMH, which offers an array of curative and rehabilitative services including: medical; surgical; obstetric and gynecological; pediatric; neonatal; hemodialysis; ambulatory; and referrals to overseas tertiary care (MOH 2010).

Like in many other countries, contributions of the private health sector are not well known. Private services are predominantly available in Roseau and Portsmouth, and include private physician practices, private nurses, a laboratory, a diagnostics center, and an 11-bed hospital. The expansion of the private health sector, especially the hospital, has prompted the MOH to update existing laws and regulations to promote quality care and protect patients in that sector.

2.7 DONOR CONTRIBUTIONS

The health system is minimally dependent on donor funding, with HIV/AIDS programming receiving the bulk of funds in recent years. Some of the development partners working in Dominica do so through regional mechanisms, such as through the UNDP based in Barbados. Assistance from the United States is primarily channeled through multilateral agencies such as the World Bank and the Caribbean Development Bank (CDB), as well as through the USAID office in Bridgetown, Barbados. The Peace Corps provides technical assistance to Dominica, and has volunteers on the island working primarily in education, youth development, and health. In 2001, France, through the OECS Secretariat, financed a health sector reform project to improve the health system. The project was implemented by PAHO and focused on: strengthening the MOH; reorganizing the health system; quality assurance and quality improvement; and regional sharing of health services. The project failed to meet the desired objectives. The Private Sector Foundation for Health has contributed over EC$1,160,000 (US$430,000) for equipment and assistance with overseas treatment in the past two years. In 2005, the Global Fund committed EC$29.7 million (US$11 million) to OECS countries, with EC$4.5 million (US$1.7 million) allocated to Dominica (UNGASS 2010).

Table 2.5 outlines approximations of foreign assistance in terms of technical support and monetary contributions to HIV/AIDS in recent years.

TABLE 2.5: DONOR CONTRIBUTIONS TO HIV/AIDS IN DOMINICA, 2008/09

Donor	Monetary Contributions (EC$)	Monetary Contributions (US$)
Global Fund	$304,536	$112,791
PAHO	$81,664	$30,058
Dominica Social Security	$20,000	$7,361
Government contributions	$147,000	$54,106
First Caribbean International Bank	$2,700	$994
U.S. Centers for Disease Control	$407,535	$150,000
Total	$959,337	$355,310

Source: UNGASS (2010)

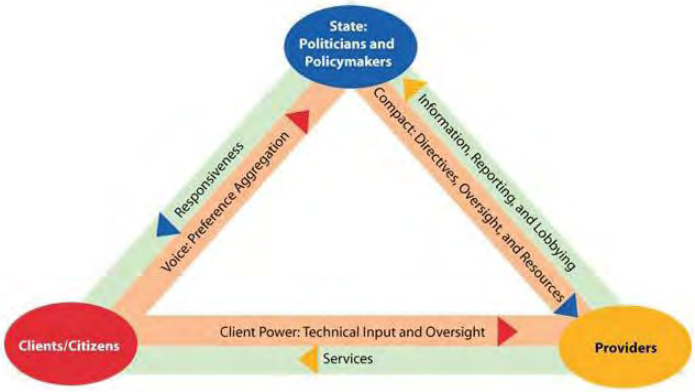
3. GOVERNANCE

Key Findings

- Dominica has developed a comprehensive National Strategic Plan for Health for 2010–2019, based on an in-depth Health Situation Analysis.
- Dominica's regulatory framework is out of date and does not take into account the challenges faced by the current health system. Priority legislation includes revising the Medical Act and passing legislation around nursing and midwifery professions. Passage of the Pharmacy Act is also needed.
- The tripartite management structure of PMH does not effectively promote accountability or efficiency.
- Oversight and management of the primary health care system is adequate. Private health facility inspection is mandated but not enforced.
- Citizen input includes radio talk shows and meetings with government officials and Parliamentary Representatives.
- Civil society organizations (CSOs) play a minor role in bringing constituent concerns to the attention of policymakers.

The quality of overall governance in a country directly affects the environment in which health systems operate and the ability of government health officials to exercise their responsibilities. Effective governance for health is the ability to competently direct resources, manage performance, and engage all stakeholders toward improving the population's health in ways that are transparent, accountable, equitable, and responsive to the public. This chapter examines a variety of factors between the three primary actors in the health sector – the state, health providers, and citizens, as presented in Figure 3.1 – and proposes strategies to improve health governance.

FIGURE 3.1: PRIMARY ACTORS IN HEALTH GOVERNANCE



Source: Brinkerhoff (2008)

3.1 OVERVIEW OF GOVERNANCE IN DOMINICA

3.1.1 WORLD BANK INDICATORS

In order to study health governance, it is helpful to locate the health sector within the larger governance environment. The World Bank Worldwide Governance Indicators are composite indicators that draw on a wide variety of sources to create scores of six different elements of governance. The data sources used include survey institutes, think tanks, NGOs, and other international organizations. For the most part, these data sources use surveys, as well as qualitative measures like interviews and document review, to develop their scores. These scores are then put together to develop a composite score. The percentiles show the percentage of countries in the world that scored lower than Dominica on the selected indicators. These indicators can be instructive for looking at health governance as they give an overall picture of the strength of governance structures in Dominica.

TABLE 3.1: WORLD BANK INDICATORS: DOMINICA

Governance Indicator	2000	2003	2005	2007	2009
Voice and Accountability	81.3	84.6	78.4	81.7	75.8
Political Stability	62.0	67.3	73.1	75.0	71.1
Government Effectiveness	67.3	63.9	67.3	70.4	72.2
Regulatory Quality	66.7	74.5	71.6	74.8	67.9
Rule of Law	65.1	71.3	67.5	71.3	69.7
Control of Corruption	64.9	72.2	73.2	73.8	74.6

Source: World Bank (2011b)

Dominica has performed fairly well on governance indicators, and some indicators have shown remarkable improvements. Despite a small setback in 2009 indicators, Political Stability has increased significantly in the past 10 years, following a contentious election in 2000 where the ruling party was

voted out of office. Additionally, Control of Corruption has also improved significantly and Dominica is now close to being in the top quartile of all countries in the world on this indicator. The weakest indicator is Regulatory Quality, which is a continuing challenge for many of the countries in the OECS.

3.1.2 HEALTH GOVERNANCE

The health sector in Dominica is guided by two documents that comprise the National Strategic Plan for Health 2010–2019: the Health Situation Analysis and the Action Plan. These documents provide far more detail than the typical strategic plan. The Health Situation Analysis characterizes the health disease profile of the Dominican population, including illnesses, injuries, and other health problems and their determinant factors. The Health Situation Analysis also identifies needs and priorities in health, interventions and appropriate programs, and possible health impacts of those interventions (MOH 2010a). The Action Plan follows the six WHO building blocks of the health system, rather than the Caribbean Cooperation for Health strategy, and outlines the way forward for each of these areas from 2010 to 2019. Specific focus was placed on developing strategies for combatting CNCDs (MOH 2010b).

According to these documents, health policy is developed by senior managers within the MOH; various technical staff also provides input as necessary. Regional and international health institutions support policy development. The MOH especially noted the involvement of PAHO. The Cabinet and Prime Minister are supportive of these efforts. The MOH has strong processes in place for strategic planning, as the Health Situation Assessment clearly identifies health challenges and proposes context-specific solutions to those challenges. One drawback to the processes now in place is that the decision-making process appears to be centralized within the ministry. External stakeholders, such as relevant civil society actors, health provider associations, and other ministries, are not involved.

While policy development is a clear strength for the MOH, implementation of the developed plans was identified as a weakness by the Health Situation Assessment. The Assessment noted that there were often not enough people in key positions to carry out work identified in the Action Plan. Therefore, understanding how staffing efficiencies can be found to implement these plans should be a key focus (MOH 2010a).

3.2 POLICY, LEGISLATION, AND REGULATORY ENVIRONMENT

Legislation contributes to the proper functioning of a health system by ensuring that stakeholders, such as providers, clients, and health managers, can understand and follow the set of rules that guide the health system. Revising and updating laws to match changes in the surrounding environment is important to guaranteeing that legislation is responsive to health system needs. Solely having legislation in place, however, is not enough. Enforcing the legal framework, through regulatory bodies, is also critical to ensuring that the health system is effectively governed.

In 2010, PAHO carried out an assessment of Dominica's Essential Public Health Functions (EPHF), defined as "the indispensable set of actions, under the primary responsibility of the state, that are fundamental for achieving the goal of public health which is to improve, promote, protect and restore the health of the population through collective action" (MOH et al. 2010). According to assessment findings, the country has experienced a marked decline in its ability to develop essential policies and build institutional capacity for planning and management. Dominica also struggles with its capacity to strengthen institutional capacity for regulation and enforcement in public health. More specifically, it was noted that more work is required to systematically enforce existing health laws and ensure that draft laws are actually enacted.

The findings from the 2010 EPHF largely align with those of the assessment team. Currently, most legislation that governs the health system is outdated, as many pieces of legislation were drafted and passed before Dominica became an independent nation. Some elements of legal reform and legislative updates were outlined in the Action Plan, most notably a desire to update the Mental Health Act and develop laws on workplace safety (MOH 2010b). Even with these updates, there will still be a number of gaps in the legislative framework. Notable examples include the regulation of pharmacists and pharmacies, since no pharmacist-specific legislation is currently in force, and updating the Medical Act, which is 73 years old and requires revision to address many of the core challenges facing the medical profession in Dominica.

3.2.1 MAJOR LEGISLATION

The list of major health legislation currently in force in Dominica can be found in Table 3.2. From this table, it is clear that a number of pieces of legislation are outdated, most notably those related to the regulation of medical professionals. Revision of legislation is necessary to keep up with emerging trends in both the health sector and workforce development.

Within this list, the most important pieces of legislation are the Environmental Health Services Act, the Hospitals and Health Care Facilities Act, the Medical Act, and the various laws and rules that govern nursing and midwifery. The Environmental Health Services Act repealed the Public Health Act of 1968, allowing for more specific environmental health language to take effect. This act outlines the roles and responsibilities of different actors in environmental health, such as the minister, the CMO, and the Environmental Health Board and Committees. It not only provides the structure for ensuring good environmental health, but also lays out the rules, restrictions, and penalties for noncompliance.

The Hospitals and Health Care Facilities Act was enacted to regulate private health facilities in Dominica and provides for a board, inspections, and licensure. There are, however, two major gaps in the design and implementation of the law. First, the act does not regulate government clinics; it only provides the MOH with a mechanism to regulate private facilities. Government-run health facilities should also have enforceable standards and guidelines to follow as a part of ensuring service quality. Second, the inspection process outlined in the act makes yearly inspections mandatory. Interviewees noted, however, that inspections were quite infrequent, potentially jeopardizing quality control in private facilities.

The Medical Act, which was passed in 1938, is a piece of legislation that is standard throughout the former British colonies of the OECS. As such, the Medical Act provides for the registration of a wide variety of health professionals, including doctors, pharmacists, dentists, and opticians. It also provides for a Medical Board that oversees the registration of all of these professions, even though the board consists mostly of physicians. The existing Medical Act does not regulate licensing, standards of practice, or continuing medical education (CME) requirements in Dominica.

The Mental Health Act of 1987 lays the foundations for the country's mental health system, including the admission and release of patients from psychiatric care, and the management of property and affairs of psychiatric patients. It outlines the differences in admissions and treatment for voluntary patients, medically recommended patients, and hospital-order patients, including the process of verifying the patient's status, the length of time that they can be kept in a psychiatric facility between psychiatric evaluations, and the appeals process to the Mental Health Review Board. It also describes the authority given to High Court to make decisions for psychiatric patients. The act includes legal punishments (both fines and imprisonment) for those found guilty of forging psychiatric forms, or mistreating psychiatric patients. It also creates the Mental Health Review Board and grants the Minister of Health the authority

to make regulations regarding the treatment of psychiatric patients. Although some respondents indicated that the legislation needs to be modified to address the discretionary authority of mental health practitioners, no plans were noted at the time of this assessment.

Regulations for the nursing profession are found in four documents: the Nurses Registration Ordinance (1954), the Nurses Rules (1956), the Midwifery Ordinance (1931), and the Midwifery Rules (1936). These legislative efforts are old, but still provide the framework for registering nurses and laying out the rules under which they may practice. Like the Medical Act, the Nurses Registration Ordinance provides for a board, called the Nursing Council, to maintain a registry of nurses and enforce the Nurses Rules. These acts, like the Medical Act, do not provide for continuing nursing education requirements, ongoing licensing procedures, or standards of practice. Updating these laws should be a priority to bring legislation in line with current realities, including the burdens being placed on the health system due to new educational methods, new diseases, an expanding private sector, and rising costs.

TABLE 3.2: HEALTH LEGISLATION IN DOMINICA

Legislation	Year	Summary
Midwifery Ordinance	1931	Provides the framework for registering midwives
Midwifery Rules	1936	Rules governing the midwifery profession
Medical Act	1938	Rules governing health professionals and the practice of medicine
Roseau Hospital Ordinance Act	1942	Defines the structure of PMH
Nurses Registration Ordinance	1954	Provides the framework for registering nurses
Nurses Rules	1956	Rules governing the nursing profession
Roseau Hospital Rules	1956	Rules governing the operation of PMH
Mental Health Act	1987	Rules governing care and treatment of persons with mental illness
Environmental Health Services Act	1997	Outlines the roles and responsibilities of different actors in environmental health, such as the minister, the CMO, and the Environmental Health Board and Committees
Hospitals and Health Care Facilities Act	2002	Regulates private health facilities and provides for a board, inspections, and licensure
Accreditation Act	2006	Framework for accrediting institutions of higher learning

3.2.2 PROPOSED AND NEEDED LEGISLATION

The MOH recognizes the challenges faced by an outdated legislative framework. For example, the Health Situation Analysis states:

> "The expansion of the health sector in Dominica, particularly the private sector, has forced the Ministry to seriously consider updating many of its laws and regulations to promote quality of care and protect consumers. This will expand the role of government in developing and enforcing regulations in several areas of the health sector such as private health facilities, medical and nursing practice" (MOH 2010a).

As part of the process to update the regulatory framework, the Health Situation Analysis identifies a few critical areas, in addition to a new Mental Health Act and workplace safety. These include:

- Enhanced regulation of the medical and nursing fields through updated legislation;
- New laws governing public health emergencies; and
- Pharmacy regulations (MOH 2010a).

So far, the Dominica Medical Board (DMB) has developed a proposed update to the Medical Act that goes beyond registration and adopts many of the needs identified in Section 3.2.1. The MOH recently solicited comments on proposed changes to the Medical Act, which is currently with the CMO. From there, it will go to Legal Affairs to be drafted. The Nursing Council has done the same thing for nursing legislation, and the new Nursing Act is currently with Legal Affairs for drafting. Each of these pieces of proposed legislation will require continuing education and regular registration, and outlines disciplinary procedures.

Public health emergency legislation would help the MOH outline the roles and responsibilities of different stakeholders in responding to public health emergencies, such as influenza outbreaks. The Health Situation Analysis states that legislation is needed to outline how quarantine, testing, treatment, immunization, and a host of other aspects of outbreak management would be handled (MOH 2010a).

Finally, the need for a new Pharmacy Act is also highlighted in the Health Situation Analysis. While some laws provide a legislative framework for pharmaceuticals, such as the Antibiotics Act, pharmacists and pharmacies are not regulated. The process of developing a new Pharmacy Act is ongoing. Currently, the proposed legislation has been drafted by Legal Affairs and is with the CMO. The next step is for the CMO to send it to the Cabinet. The provisions in the draft law will establish a Pharmacy Board, require specific qualifications for pharmacists and pharmacy technicians, and regulate the dispensing of pharmaceuticals at private pharmacies.

The lack of a policy analyst within the MOH was noted as a key reason for the lack of forward motion on health-related legislation by senior health officials. Finding resources to support such a position within the MOH, or securing assistance for this function from a regional or international partner, may relieve current legislative bottlenecks and contribute to implementation of pending revisions and legislation.

3.3 GOVERNANCE STRUCTURES

In Dominica, Type I health clinics provide basic primary health care services. Several Type I centers are grouped together into a health district, each of which has a Type III health center. There are seven health districts in Dominica. At the top of the health system pyramid is PMH, which provides secondary care for the entire island. For a complete explanation of the different levels of health care in Dominica, see Chapter 5, Service Delivery.

Different levels of authority exist at each level of the health system. At the Type I level, the primary health care nurse has little control over the services provided or the budget allocated to their center. They can make requests to the health district, but little independence exists at this level.

Type III health centers provide a greater range of services than Type I health clinics and serve as health district offices. There is some overlap between health districts and Type III health center staff; the District Medical Officer (DMO) and the Community Health Nurse have clinical duties at the Type III health centers and oversight duties of the Type I health clinics.

As a result of the push to promote primary health care in Dominica, health districts exhibit a moderate degree of discretion. They report to the MOH but have some latitude to determine their budgets and corporate plans. The DMO, who is the head of the health district, reports directly to the Director of Primary Health Care at the MOH. Local government has little say in the management of the health districts, though collaboration on health promotion activities between local government and the health districts does exist. While the budgets for health districts do not include staffing or capital costs, the management team does have the latitude to budget for transportation costs, furniture needs, and health promotion activities. Corporate plans are developed by the management team at the health district and highlight where the district would like to go with future activities and services.

It appears that employees at Type I health clinics and Type III health centers understood their roles and responsibilities in making the health system function. Reporting lines appear well known and ongoing supervision of the Type I health clinics is a frequent activity. For the most part, budget requests from health districts were granted, once justification for certain needs are provided. One interviewee noted that she had been requesting an oxygen tank for a number of years and that she had just received it in 2010.

Box 3.1 Health Governance in the Kalinago Territory

The Kalinago Territory in the east of Dominica is governed by a local council that represents the Kalinago people. This council has more autonomy than other local government structures in Dominica, especially over land use. They do not, however, have any statutory authority over health services.

One of the issues that the local council identified was that the Type I health clinic in their territory was not meeting their needs and that their territory was split between two health districts. In addition, the closest Type III health center, Castle Bruce, was quite far from the territory. In order to remedy this situation, the Kalinago Council built the equivalent of a Type III health center on their territory with the support of external donors; it was completed in 2008.

Following the completion of the building, however, the structure went unused. It was not until April 2011 that the Kalinago Council signed a Memorandum of Understanding with the MOH to staff and equip the health center. Currently, the health center provides the services that a Type I health clinic would; it does not provide the range of services for which it was designed. In the future, the Kalinago Council would like to bring in more foreign doctors and persuade the MOH to staff the health center like a Type III facility.

While it is admirable that the Kalinago Council tried to improve the health of the people in the territory, their reliance on external financing and expertise, as well as their willingness to go around normal government channels, led to infrastructure being built that is underutilized. Increased engagement with the MOH to explain the social and health needs of the Kalinago People would go a long way to getting expanded services at the health center, especially if a cost share mechanism with the Kalinago Council's external funders could be arranged.

3.3.1 OVERSIGHT OF PRINCESS MARGARET HOSPITAL

PMH serves as the main source of secondary care on the island. The hospital is scheduled to be replaced in 2014 by a new national hospital funded and constructed by the Government of China. The hospital is currently managed by three people: the Hospital Services Coordinator, the Matron, and the Medical Director. Each of these staff members is responsible for a different aspect of the hospital's operations and report directly to the Permanent Secretary. The Hospital Services Coordinator oversees all nonmedical aspects of the hospital, including facilities maintenance and accounting. The Matron oversees

the nursing staff and the Hospital Medical Director oversees the physicians. This structure provides the MOH with direct oversight of the hospital and decisions about both the day-to-day management and the strategic direction of the hospital are made within the MOH, rather than at the hospital itself.

The hospital faces a number of ongoing management challenges. First, the current system does not allow for managers with authority over the hospital to be intricately involved in the day-to-day operations of the hospital. In fact, many hospital decisions are referred to the Cabinet. Second, user fee collection at the hospital is inefficient, especially for clients who get billed, as there is no recourse for payment once the patient has left the hospital. Third, revenue collection is not rationalized to meet the demand for services. For example, EC$28 million (US$10.4 million) was spent on hemodialysis in 2009, but only EC$1.5 million (US$555,556) was collected in user fees from the service. Fourth, no system exists to rationalize the purchase of new equipment and determine which services will be offered. Many interviewees noted that the hospital should acquire new pieces of equipment. Without determining if the demand exists or if the hospital has the capacity to operate the equipment it is impossible to know if the new equipment will actually improve health services or just drain resources from an already overstretched system.

The building of a new hospital to replace the PMH poses both challenges and opportunities. Currently, planning for the new hospital is at a preliminary stage and construction is slated to begin in 2014. A hospital building committee has so far focused on the technical specifications for building the hospital, but not management and structural issues.

Since the hospital accounts for about half of the MOH's budget, rationalizing the management and financial authority of the hospital is a top priority. According to the Health Situation Analysis, proposals to appoint a Chief Executive Officer and provide the hospital with varying degrees of autonomy have been made in the past. In 1998, KPMG undertook a "value for money" audit that determined that the current structure is the "root cause of many of the areas of inefficiency and effectiveness in the delivery of services. It was judged by many managers to impact significantly on the quality of services provided" (MOH 2010a). The same audit recommended that the hospital become more autonomous from the MOH. In 2002, a CDB advisor agreed with these recommendations. To date, these recommendations have not been implemented, and it appears that there is some political resistance to implementing any recommendation that promoted hospital autonomy because of the implication that autonomy could lead to eventual privatization.

3.4 CITIZEN VOICE, RESPONSIVENESS, AND TRANSPARENCY

3.4.1 VOICE

Citizen voice in Dominica is primarily driven by personal interaction. Dominica is a small island nation, with a population of roughly 73,000 individuals. As a result of this small size, people often know their Parliamentary Representative or other government officials personally and feel free to voice concerns about the health system. It is not uncommon for patients to bring payment disputes with the hospital to their Parliamentary Representative. In addition, citizens can get meetings with the MOH with relative ease.

Citizens often take advantage of call-in radio programs in order to obtain a public forum for their concerns and grievances. These call-in programs serve as a two-way street for health communication. Health officials will appear on call-in programs to answer questions and respond to feedback. Callers, for the most part, are concerned about where to access services and how to get the resources to pay for needed treatments. Common health systems issues raised on these programs include long wait times at

hospitals, attitudes of health workers at public facilities, access to medication, and the lack of specialized equipment.

In addition to direct advocacy to government, citizens have opportunities to interact with health care providers in their community. These opportunities are mostly informal, through Parent Teacher Association meetings, community forums, and town hall meetings, and are often coordinated with the village council in order to get local government input. Most issues concern service delivery; one specific concern is that Type III health centers are not open 24 hours in case of off-hours emergencies. Even though these informal structures exist, they all require direct interaction with health providers and are organized by third parties; there is no formal complaint mechanism within the health system, such as client/provider committees, health center days, or suggestion boxes.

In theory, the role of civil society is to be the voice of their constituents and advocate for change based on their needs and wishes. As noted above, Dominicans have a relatively direct line to decision makers, as well as their health providers. As such, the role of civil society is appropriated, to some extent, by citizens themselves. Civil society in Dominica also faces a set of challenges that is not dissimilar from other small island nations, in that most organizations are small, volunteer-based, and service delivery-oriented. There is little overseas support for civil society, though some local NGOs have relationships with church-based international organizations or regional partners. For the most part, organizational funding is provided through fundraising efforts, private sector donations, and small grants from such government ministries as the MOH. Some NGOs related to health are disease-specific, such as the Dominica Cancer Society or the Dominica Diabetes Association. Others focus on support services for specific populations, such as the Dominica Council on Aging, or a wide range of different interventions such as the Red Cross. A third group provides donations of materials or money to health-related causes, such as the Rotary Club and the Private Sector Foundation for Health. Regardless of the specific focus of the organization, few conduct health-specific advocacy to policymakers or the MOH.

Representing health providers in Dominica are the Dominican Medical Association, the Dominica Nurses Association, and the Dominica Pharmaceutical Society. Representatives from these organizations have been instrumental in developing, drafting, and commenting on the draft legislation that will regulate all three professions. Beyond the draft legislation, however, the strength of each organization is very different. The Dominica Pharmaceutical Society has not met in two years, primarily because its members are busy and do not see the value in holding regular meetings. The Dominica Medical Association is more active. It has provided CME opportunities for members, organized workshops on the new Medical Act, and advocated to improve working protections at the PMH. The Dominica Nurses Association is the most organized and active, arranging training opportunities for nurses and occasionally taking an adversarial stand toward the government; they protested at PMH in February 2011.

3.4.2 RESPONSIVENESS AND TRANSPARENCY

As noted earlier, citizens have a number of avenues to engage government officials on health issues. These opportunities, however, are meaningless unless officials take the information and opinions of citizens and respond to them in an appropriate manner. In Dominica, government officials respond to citizen demands in a number of ways. At the community level, health center workers respond to citizen requests by passing requests to the MOH through budgets or corporate plans and answering health questions during consultations at the health center. At the national level, responses to questions and inquires about health services typically come through one-on-one meetings or radio programs.

Direct citizen requests can also get very complicated, because of the political nature of going through a Parliamentary Representative to get resolution to a request. For example, when patients have a difficult

time paying for services at PMH, they often go to their Parliamentary Representative to have their medical bill cancelled, claiming indigence. Parliamentary Representatives often honor these requests, waiving user fees for citizens, but also denying PMH the opportunity to collect needed fees.

In addition to fee-related requests, citizen feedback often takes the form of malpractice complaints. There is no formal, hospital-specific system for mediating these cases. Instead, these complaints are handled on an ad-hoc basis. The hospital attempts to settle as many cases as possible out of court, through waiving user fees, issuing apologies, and paying settlements. Occasionally a patient will take the hospital to court to obtain compensation. In addition to the lack of a formal system for registering complaints, no documents exist to inform clients what their rights and responsibilities are when they seek services at the hospital. A Patient's Charter would make health services more transparent by allowing patients and doctors to understand what the expectations for service are at PMH.

Ministry engagement with CSOs and citizens are mostly directed by the Health Promotions Unit. During promotional events, such as the Caribbean Wellness Day, the MOH will ask NGOs to provide services at the events, especially if the MOH does not have a specific technical expertise. Normally this service consists of blood pressure screenings, diabetes and cancer education, and exercise demonstrations. Additionally, the Health Promotions Unit holds monthly meetings with a few CSOs, highlighting common issues and asking them to present successes and lessons learned from their work. While civil society in the health sector does not appear to have a strong advocacy role, some organizations raise concerns that are brought up by their membership. For example, the Dominica Cancer Society often advocates for improved access to chemotherapy.

While this structure works well for those organizations that work directly with the Health Promotions Unit, some organizations work with other parts of the ministry or even other ministries. For example, Life Goes On, an organization that supports people living with HIV/AIDS (PLHIV) through counseling, palliative care, and occupational therapy, receives a small grant from the Ministry of Community Development to operate a transitional living home. They also advocate directly to NHARP, especially on stigma-related issues and improving Prevention with Positives efforts. In their opinion, these advocacy efforts are not as successful as they could be, as stigmatization of PLHIV is still high in Dominica and most prevention work is aimed at the general population. On more general HIV policies, the National Steering Committee on HIV includes CSOs in its membership. As part of this committee, civil society partners play an active role in the development of Global Fund work plans and the National HIV Strategic Plan (UNAIDS 2010).

3.5 RECOMMENDATIONS

3.5.1 SHORT-TERM RECOMMENDATIONS

- **Strengthen the regulatory framework for the health sector**. The first step to this goal is prioritizing the passage of new legislation that is currently in the system, such as the Pharmacy Act and the revised Medical Act. Both of these laws have been in the system for a long time and are relatively far along in the development process. Concerted action from the MOH could move these pieces of legislation forward. A dedicated policy analyst within the MOH would help in this regard. If this is not feasible, potential assistance may be available from PAHO, in the form of a time-limited consultant.
- **Reform the management structure of Princess Margaret Hospital**. The three-person team forces the hospital to be managed as three separate entities, rather than as an integrated institution. This report agrees with the two earlier recommendations from KPMG and the CDB,

to overhaul the management structure of the hospital. Instituting a board that would be responsible for the strategic direction of the hospital and a Chief Executive Officer (CEO) who would be responsible for the day-to-day management of the hospital are the two cornerstones of this reform. This structure would promote management accountability through the CEO, with MOH leaders, technical experts, and community leaders comprising the management board. This would also remove the hospital from political influence. Decisions would have to be made about the exact composition of the board, the degree of latitude given to the hospital with regards to human resources decisions, revenue enhancement, and service provision, as well as the roles and responsibilities of the CEO.

- **Cost the NSPH 2010-2019**. Dominica produced a comprehensive National Strategic Plan for Health, including a detailed Action Plan articulating strategies to address challenges and indicators for measuring progress. The Plan notes that the NSPH will be costed, and the assessment team agrees that this would be a useful exercise, particularly to help prioritize action steps to address identified gaps.

3.5.2 LONGER-TERM RECOMMENDATIONS

- **Develop a formal system for engaging clients and responding to feedback.** PMH, Type III health centers, and Type I health clinics all have informal systems for garnering client input. Formalizing structures and improving response mechanisms will help to engage citizens in health system decisions and challenges. This system could include some combination of the following mechanisms: a Patient's Charter; a suggestion box; a hotline; a specific address to which people can write; health center fairs; a community committee with local government, citizens, and providers; or office hours for a patient relations specialist or senior manager to respond to inquiries.
- **Enforce health facility standards.** The current Hospitals and Health Care Facilities Act only applies to private facilities, not to government facilities. Even in the private sector, regular inspections are rarely enforced. While Type I health clinics are overseen by the Community Health Nurse from the Type III health centers, there are no national standards for how services will be provided at any level of the government sector. Developing a set of inspection procedures that are implemented and have standard guidelines for all health facilities in Dominica would ensure uniform quality throughout the system.
- **Solicit broad stakeholder input to ensure that the proposed new hospital functions optimally and is responsive to the needs of the population.** The development of the new hospital is an opportunity to rethink how to address the challenges facing secondary and tertiary care in Dominica. While a hospital building committee has begun planning for the new hospital, this committee is currently comprised of government officials. Expanding the level of stakeholder involvement, through town halls and community forums, and through private sector engagement, would give citizens more of an opportunity to express their views on the new hospital while soliciting ideas for optimal design and management from private health providers and business leaders. The building of the new hospital also gives the opportunity to rationalize certain procedures, such as how user fees are set, the overall management structure, and the purchase of new equipment.

4. HEALTH FINANCING

Key Findings

- Dominica prioritizes health in its national budget, but budget shortfalls have posed a challenge to the public health sector.
- Citizens enjoy good access to primary health care services, most of which are provided for free and funded through general tax revenues.
- Out-of-pocket (OOP) spending for health care is estimated at 30 percent of total health expenditure.
- Private health insurance covers approximately 20 percent of the population, primarily through formal employment.
- Broad fee exemptions and weak fee collection systems and enforcement mean that public subsidies may support many who would be able to pay for health services; user fees amounted to less than 6 percent of government spending on health in recent years.
- Large and rising costs attributable to CNCDs could be reduced through enhanced prevention and health promotion efforts at the primary health care level.
- The MOH urgently needs data that links health spending, utilization, and outcomes to support evidenced-based planning and budgeting.

The WHO defines health financing as the "function of a health system concerned with the mobilization, accumulation and allocation of money to cover the health needs of the people, individually and collectively, in the health system." The purpose of health financing is to "make funding available, as well as to set the right financial incentives to providers, to ensure that all individuals have access to effective public health and personal health care" (WHO 2000). Major challenges associated with financing health care include designing and implementing technical, organizational, and institutional mechanisms that are able to carry out these functions and protect people from catastrophic health expenditures.

Health financing has three key functions: revenue collection (raising sufficient money for the health system); risk pooling (combining funds raised so that individuals are protected from catastrophic costs and the burden of health costs is distributed equitably); and purchasing of services (allocating funds efficiently and effectively to health service providers). This chapter addresses each key health financing function in turn.

4.1 RESOURCE MOBILIZATION AND REVENUE COLLECTION

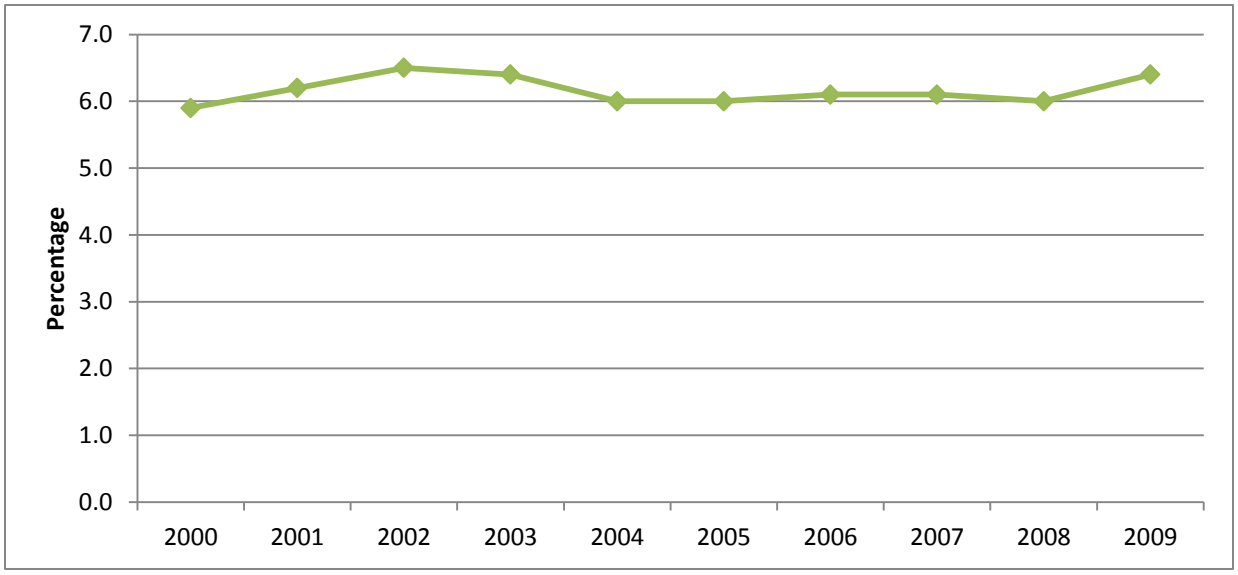
The actual flows of funds through the health sector are most easily illustrated by means of National Health Accounts (NHA). NHA is a tool for comprehensively tracking resources for health care, including public, private, and donor contributions. It follows the flow of funds through a country's health care system, making it possible to answer questions such as: How much money was spent?; What are the sources of health financing?; Who makes decisions about health spending?; and Where and how is the money spent?

The NHA approach may be applied to a particular area of health care, such as HIV/AIDS, in what is known as an NHA "subaccount." However, Dominica has never conducted a formal NHA estimation. This means that health expenditure data are estimates – based on government reports, broad assumptions about health spending in the public and private sectors, and WHO calculations – and should therefore be treated with caution.

4.1.1 HEALTH EXPENDITURES

As shown in Figure 4.1, Dominica's total health expenditure as a **percentage of GDP** was estimated at 6.4 percent in 2009. This is slightly lower than the average for countries in the Latin America and Caribbean (LAC) region (6.7 percent) and upper-middle-income countries globally (6.6 percent) (Health Systems 20/20 2011). However, this is an increase from the previous four years (2005–2008) where total expenditures as a percentage of GDP remained around 6 percent.

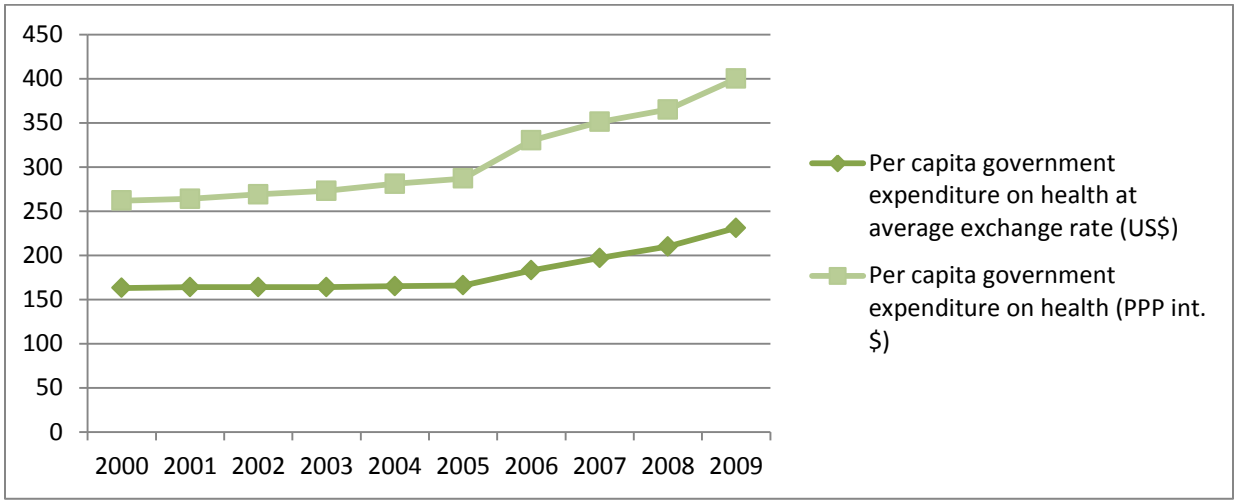
FIGURE 4.1: TOTAL EXPENDITURE ON HEALTH AS A PERCENTAGE OF GROSS DOMESTIC PRODUCT



Source: WHO (2011)

Total health expenditure per capita was estimated at EC$975 (US$361) in 2009 (Figure 4.2); there has been a steady increase in total health spending per capita since 2000, driven by growth in GDP and total government spending. Because Dominica uses the Eastern Caribbean dollar, whose fixed exchange rate with the US dollar keeps inflation low, this upward trend over the past decade represents a real increase in the resource envelope for health.

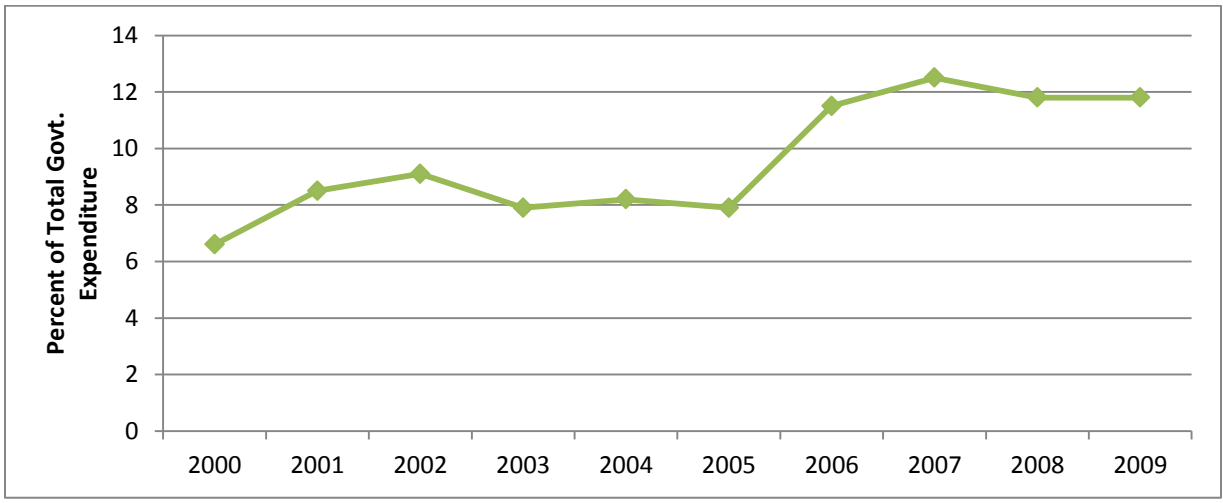
FIGURE 4.2: PER CAPITA GOVERNMENT EXPENDITURE ON HEALTH[2]



Source: WHO (2011)

Government health spending in Dominica was approximately EC$624 (US$231) per capita in 2009, a 10 percent increase from 2008 (US$210) (WHO 2011). Recurrent health spending by the MOH was an estimated EC$45 million (US$17 million) for 2010/11. This is an increase from an estimated EC$29 million (US$10.7 million) in 2005/06. According to the WHO, government expenditures on health as a percentage of total government expenditures were approximately 11.8 percent in 2009 (shown in Figure 4.3). Data collected in-country for 2011/12 show total health spending at 11.2 percent of total government spending. In relative terms, government spending constitutes an estimated 64 percent of total health expenditure. However, the true level of private spending on health is unknown because private health spending data are not collected through surveys or routine information systems.

FIGURE 4.3: GENERAL GOVERNMENT EXPENDITURE ON HEALTH AS A PERCENTAGE OF TOTAL GOVERNMENT EXPENDITURE



Source: WHO (2011)

[2] PPP – Purchasing Power Parity

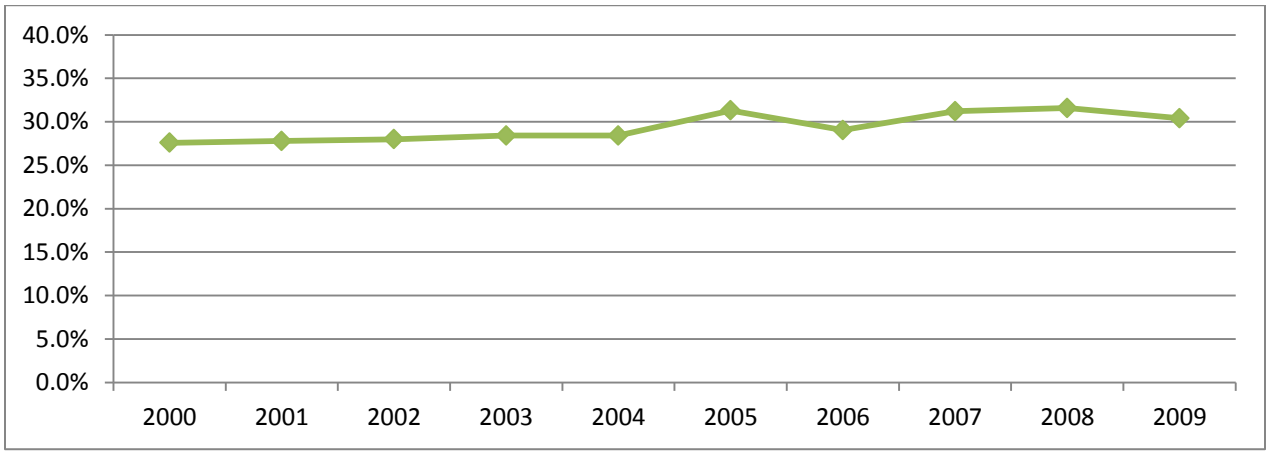
MOH expenditures are financed primarily from general revenues, including fees charged for certain services at PMH and Central Medical Stores (CMS). The government began to charge fees for its hospital services and prescription drugs in 1994. The objectives of the fees were to raise additional revenue, decrease unnecessary use of services, and increase public awareness about the high costs of medical care. However, the introduction of higher fees has not led to increased revenue. This is largely due to the fact that patient demand was suppressed by the higher charges, and fee collection was not strictly enforced – even after a lengthy list of hospital fees was published in 2000. Refer to Section 4.2.2, Plans for National Health Insurance, for more details regarding fees charged and collected at PMH.

Additional sources of government funding for health include the Welfare Division of the Ministry of Social Services, Community Development and Gender Affairs, and the Social Security Fund. The Welfare Division provides cash assistance for health services to qualifying individuals. In 2006, they paid out EC$5.0 million (US$1.9 million) in benefits. The Social Security Fund provides members with employment-related injury benefits.

4.1.2 PRIVATE HEALTH SPENDING

The predominant sources of private funds for health in Dominica are households and private employers. The total amount of money spent on health from these sources is unknown. However, a household survey conducted in 2007 is one source for information on private health spending in Dominica and, to some extent, on health spending overseas. Based on the findings from that survey, we derived crude estimates of private spending by households and employers, as well as estimates of total premiums received by private health insurers. We conclude that private health spending is a very important source of financing for health and medical services, and this is corroborated by estimates published by the WHO. OOP spending as a percentage of total health expenditure is presented in Figure 4.4. The percentage has remained steady over the past decade at about 30 percent. Out of total household spending on health, more than 80 percent of the estimated EC$24 million (US$8.9 million) is spent OOP; the remaining EC$3.5 million (US$1.3 million) is spent on private health insurance premiums.

FIGURE 4.4: OUT-OF-POCKET EXPENDITURE AS A PERCENTAGE OF TOTAL EXPENDITURES ON HEALTH



Source: WHO (2011)

A portion of the fees paid by households and private insurers is paid to government for various services provided. Fees are collected for hospital, x-ray, lab, medical school, mortuary, and nursing home services. Amounts collected have been declining in the past two years, especially from hospital service fees. It is estimated that user fees amount to less than 6 percent of the total amount of government

spending on health – ranging from 5.5 percent in 2008 to a projected 3.5 percent in 2011. While services provided through the primary health care system are free, there are a large variety of fees for services provided at PMH. There is also a charge of EC$5 (US$1.85) per prescription at CMS. While some charges are paid for by private health insurance, either directly or through reimbursement of patients' payments, there is limited collection of fees from patients who have no insurance. Fee revenue goes directly to the Ministry of Finance (MOF) general fund; it is not dedicated to any health-related functions and cannot be directly programmed by the MOH. As such, there is little incentive for the PMH to require strict adherence to the fee schedule.

A unique source of private health financing in Dominica is the Private Sector Foundation for Health (PSFH) – an organization which collects donations from private businesses and appropriates funds in response to health sector needs, as identified by the MOH, and to requests from individuals for medical assistance. To date the foundation donated over EC$902,666 (US$334,321) to the health sector and individuals. See the Chapter 9, Private Sector Contributions to Health, for more information on the PSFH.

4.1.3 EXTERNAL AID

As a percentage of the total health resource envelope, international donor funding currently constitutes only a small fraction of health financing in Dominica. In 2009, external resources for health were estimated at approximately 0.5 percent of total health expenditures. This is equal to the share reported in 2008 and a sharp decline from 2007, when external resources for health were estimated at roughly 3.9 percent (WHO 2011).

During this assessment, senior health officials made reference to plans for constructing a new hospital, to replace the aging PMH. The Government of China has offered to fund the construction of the hospital, which will commence upon completion of the current road project financed by China. According to interviewees, a hospital building committee has been established and has begun discussing plans for the new hospital structure. A plan has reportedly been submitted to Cabinet for approval. While planning for the new facility is still in its early phases, it will be important to dedicate considerable thought to long-term operations and sustainability. Key to this will be costing current and projected services, staffing, size (in terms of numbers of beds), and whether the hospital will offer tertiary care. Considering the feasibility of incorporating telemedicine capabilities may also be warranted, especially if the new hospital will not directly offer tertiary care. To avoid overuse of a new hospital facility for primary health care needs, which would drive up health costs, it will be important to simultaneously ensure the efficiency, quality, and availability of services at Type I and Type III facilities at the community level.

4.1.4 RESOURCE MOBILIZATION FOR HIV/AIDS PROGRAMS

Antiretroviral treatment (ART) is provided free of charge by the Global Fund. There is also likely some private spending for ART for PLHIV – payments made to private pharmacies, private doctors, and to overseas medical care providers. However, data on private spending is not available by disease.

Direct donor funding for HIV/AIDS-related activities is minimal in Dominica. Along with the other OECS countries, Dominica also benefited from a multicountry Global Fund Round 3 grant (totaling US$8.3 million across the six countries) that ended in 2010. The grant was used for prevention, care, and treatment, with a particular emphasis on voluntary counseling and testing (VCT) as well as behavior change campaigns. The country continues to receive free antiretroviral (ARV) drugs through the OECS Pharmaceutical Procurement Service (PPS), with funding from a multicountry Global Fund Round 9 grant

to the Pan Caribbean Partnership Against HIV/AIDS (PANCAP). Phase 1 of this funding is slated to end by December 31, 2012.

Dominica is a member of the Partnership Framework, a five-year collaborative effort of the United States Government and 12 Caribbean countries. The Partnership Framework is meant to facilitate efforts by U.S. government agencies and the 12 countries to combat HIV/AIDS, with funding from the U.S. President's Emergency Plan for AIDS Relief (PEPFAR). PEPFAR funding mainly supports the provision of technical assistance for laboratory strengthening, improved surveillance, enhanced prevention efforts, stigma reduction, and health systems strengthening.

Table 4.1 shows the total NHARP budget as estimated by MOH personnel. According to the 2010 UNGASS report, Dominica spent approximately EC$959,337 (US$355,310) through NHARP. This is approximately 96 percent of the total available budget for the HIV/AIDS program – funding which largely came from external donors like the Global Fund, PAHO, and the United States Centers for Disease Control (CDC). The government's domestic contribution to the HIV/AIDS program was reported at approximately EC$145,800 (US$54,000). For a full list of NHARP funding sources, please refer to Table 2.6 in Chapter 2, Country Background and Health System Profile.

TABLE 4.1: NATIONAL HIV/AIDS RESPONSE PROGRAM BUDGET

Year	Monetary Contributions (EC$)	Monetary Contributions (US$)
2008/09	$995,735	$368,791
2009/10	$532,383	$197,179
2010/11	$346,296	$128,258

Source: Interviews with MOH personnel (2011)

4.2 RISK POOLING AND FINANCIAL PROTECTION

Given the estimated level of OOP spending by households, especially on private medical services and pharmaceuticals, and the country's estimated dependence on OOP to finance health care, there is a significant need for the risk-pooling features of health insurance. Dominica's MOH provides a free and accessible network of primary health care services for citizens. At the same time, the secondary care hospital consumes significant budgetary expenditures – without defraying the most significant financial risks that come from any needs for tertiary care services.

As is the case in all the eastern Caribbean small-island countries, the costs of off-island health care are particularly burdensome. Advanced tertiary care services (such as cardiac surgery and advanced cancer treatment) are not available in Dominica. Individuals needing such care must seek services elsewhere in the Caribbean or in the United States, incurring higher treatment costs as well as travel costs for themselves and family members. There is little or no government subsidy available for most individuals needing tertiary care; the proposed budget for 2011/12 contained a line item of approximately EC$1 million (US$370,370) to go towards subsidizing off-island care, representing a significant increase from previous years. Individuals requiring tertiary care either pay OOP, get a bank loan, use private health insurance coverage, or seek whatever government subsidy they can find – frequently requesting assistance directly from the MOH or even the Prime Minister. As noted earlier, the PSFH has become a source for medical care assistance for Dominicans, primarily supporting costs of overseas care. The assessment team estimates that just over 20 percent of households' direct OOP spending is for care received overseas (see Annex B). Less than half of total overseas health spending is covered by private health insurance.

4.2.1 AVAILABILITY OF HEALTH INSURANCE

Private health insurance covers approximately 20 percent of the total population. Most insurance policies, approximately 90 percent, are employer-sponsored. Most policies have deductibles, coinsurance, copayments, and limits to certain benefits. For those who can afford the premiums, or are employed by an employer who can pay most of the cost of the premium, private health insurance is a logical solution to the need to pool risk. However, most of the island's residents cannot afford private health insurance coverage. According to our analysis of household survey data from the 2007 Household Survey, approximately 25 percent of household health spending is allocated to health insurance premiums (MOF 2007).

According to insurance representatives interviewed during this assessment, there are five to seven private health insurers on the island, insuring over 15,000 persons. About 10 percent of the privately insured have individual, nongroup policies averaging EC$70 (US$25.93) per person per month. The remaining 90 percent have group (employer-provided with employee contributions) health insurance averaging EC$50 (US$18.52) per person per month.

4.2.2 PLANS FOR NATIONAL HEALTH INSURANCE

Private health insurance is a financing modality for a small minority of the high-income segment of the urban employed – the group that can afford the high premiums charged for services in the private sector. However, there has been a growing demand for social health insurance, with mandatory payments by the employed, through payroll deductions, financing a socially equitable benefits policy. Social health insurance has been proposed and considered as an option in Dominica. Dominica has also been part of discussions with other Caribbean countries on the feasibility of regional health insurance. However, it has not yet found sufficient support, or the right model, to keep the proposal moving forward. Payroll and other taxes already consume substantial percentages of formal and informal sector income. As such, there is little political will to add a health insurance tax despite the great need.

4.3 RESOURCE ALLOCATION

This section explores how health sector funds are being spent in Dominica, including resource allocation patterns, the process by which resource allocation decisions are made, and how payments are transferred to health care providers. These topics get at *efficiency* and *cost-effectiveness* in the use of scarce resources.

4.3.1 RESOURCE ALLOCATION PATTERNS

Secondary care services consume the largest portion of the total government health budget in Dominica. The share of the total MOH budget absorbed by PMH has been roughly 50 percent of the total MOH budget since at least 2005/06. Administration accounts for about 10 percent of the MOH budget for 2011/12. The other significant program budgets are for primary health care (PHC) (22 percent) and CMS (13 percent).

Table 4.2 presents MOH spending by program.

TABLE 4.2: DISTRIBUTION OF MINISTRY OF HEALTH SPENDING BY PROGRAM

	2005/06 (Actual)	2006/07 (Actual)	2007/08 (Actual)	2008/09 (Actual)	2009/10 (Actual)	2010/11 (Approved)	2011/12 (Projected)	Distribution in 2011/12
Health system management	2.4	3.6	3.0	3.3	4.6	4.6	4.7	10.1%
Health management system growth rate	14.4%	47.5%	-16.5%	11.8%	36.9%	1.8%	0.9%	
PHC	7.2	7.9	9.1	9.0	9.6	10.1	10.2	22.2%
PHC growth rate	6.0%	10.5%	14.5%	-0.4%	5.9%	5.7%	1.2%	
Public health	0.6	0.4	0.4	0.5	0.8	0.9	0.9	2.0%
Public health growth rate	2.6%	-27.2%	-11.8%	30.4%	59.4%	10.7%	1.3%	
CMS	4.0	4.0	4.1	5.1	5.4	5.9	6.0	13.0%
CMS growth rate	21.8%	-0.7%	4.2%	23.5%	5.1%	10.4%	1.5%	
Health Promotion Center	0.5	0.6	0.6	0.7	0.9	1.1	1.1	2.4%
Health Promotion Center growth rate	0.2%	10.4%	14.4%	3.8%	39.4%	17.3%	1.2%	
Subtotal MOH	*14.7*	*16.5*	*17.2*	*18.7*	*21.2*	*22.7*	*22.9*	*49.6%*
Subtotal MOH growth rate	*10.9%*	*12.0%*	*4.6%*	*8.3%*	*13.8%*	*6.7%*	*1.2%*	
PMH	14.5	15.2	16.8	18.0	21.1	22.8	23.3	50.4%
PMH growth rate	-9.9%	5.0%	10.4%	7.3%	17.3%	7.9%	2.3%	
Total: MOH & PMH	*29.2*	*31.7*	*34.0*	*36.7*	*42.4*	*45.4*	*46.2*	*100.0%*
Total MOH & PMH growth rate	*-0.5%*	*8.5%*	*7.4%*	*7.8%*	*15.5%*	*7.3%*	*1.7%*	

Sources: MOF Interviews (2011)

For the current year, the total amount paid to medical staff and personnel is about 63 percent of the total budget. The share of the budget going to compensate staff has declined as a share of the total budget since 2005/06. This is primarily because amounts allocated for supplies and materials has risen to EC$9 million (US$3.3 million), or 19 percent of the total budget. The amounts allocated for operation and maintenance of facilities and equipment has risen to EC$2 million (US$740,740) or over 4 percent of the total budget.

TABLE 4.3: DISTRIBUTION OF MINISTRY OF HEALTH SPENDING BY LINE ITEM (MILLION EC$)

	Actual 2005/06	Actual 2006/07	Actual 2007/08	Actual 2008/09	Actual 2009/10	Estimates 2010/11	Estimates 2011/12	Actual 2005/05	Estimated 2011/12
Personal emoluments	18.3	19.7	20.9	21.7	22.8	23.5	23.8	62.7%	51.4%
Wages (casual labor)	0.6	0.4	0.3	0.3	0.6	0.6	0.6	2.2%	1.4%
Salaried allowances	2.1	2.1	2.1	2.3	3.4	3.1	3.4	7.3%	7.3%
Non-salaried allowance	1.1	1.1	1.1	1.3	1.5	1.5	1.5	3.8%	3.2%
Subtotal labor	*22.2*	*23.3*	*24.4*	*25.5*	*28.4*	*28.7*	*29.3*	*76.0%*	*63.3%*
Supplies and materials	5.1	4.9	5.4	6.7	7.7	8.8	8.9	17.4%	19.3%
Professional & consulting services	0.3	1.1	0.9	0.9	1.0	1.1	1.1	1.1%	2.4%
Operating & maintenance	0.2	0.4	0.4	0.4	1.4	1.9	1.9	0.8%	4.2%
Grants & contributions	1.0	1.0	1.5	1.4	1.5	1.5	1.5	3.3%	3.2%
Other & sundry	0.4	0.9	1.4	1.8	2.3	3.4	3.5	1.5%	7.5%
Subtotal non-labor	*7.0*	*8.3*	*9.6*	*11.1*	*14.0*	*16.7*	*17.0*	*24.0%*	*36.7%*
Total MOH budget	*29.2*	*31.7*	*34.0*	*36.7*	*42.4*	*45.4*	*46.2*	*100.0%*	*100.0%*

Sources: MOF 2009; MOH 2011.

Table 4.4 shows the distribution of primary health care spending, population, and visits by health district.

TABLE 4.4: DISTRIBUTION OF PRIMARY HEALTH CARE SPENDING BY POPULATION, VISITS, AND HEALTH DISTRICT (2009/10)

Health District	Population	PHC Visits	PHC Visits/ Person	PHC/Person (EC$)	PHC/ Visit (EC$)	Spending Distribution	Population Distribution
Roseau	36,275	59,880	1.65	$53	$32	24%	50%
Portsmouth	8,203	31,697	3.86	$276	$71	28%	11%
Grand Bay	5,924	22,582	3.81	$222	$58	16%	8%
St. Joseph	6,278	20,868	3.32	$118	$36	9%	9%
Marigot	8,310	27,886	3.36	$75	$22	8%	12%
La Plaine	3,299	14,723	4.46	$227	$51	9%	5%
Castle Bruce	3,877	12,167	3.14	$142	$45	7%	5%
Total	72,166	189,803	2.63	$113	$43	100%	100%

As noted in Table 4.2, roughly 22 percent of the total MOH 2011/12 budget was spent on PHC services. Type I and Type III clinics in the seven health districts have financed almost 190,000 visits with medical personnel, or about 2.6 visits per person in the country. However, the distribution of that budget does not correspond to the distribution of the population. For example, Roseau District has half of the population but consumes only 24 percent of the PHC budget. The presence of outpatient and Accident and Emergency (A&E) departments at PMH diverts many patients away from the clinics, which accounts for this difference. Also, Marigot received only 8 percent of the budget for 12 percent of the population. On the other hand, Portsmouth received 28 percent of the PHC budget for only 11 percent of the population, and Grand Bay received 16 percent of the PHC budget for 8 percent of the population. There is no obvious explanation for these differences. However, they do not seem to translate into large differences in access to services. Except for average use of only 1.65 visits per person in Roseau, all other district average over 3.00 visits per person. La Plaine has the highest average, with 4.46 visits per person in 2009/10.

Preliminary estimates of total and average costs in relation to use of inpatient services at PMH in 2009/10 was EC$21 million (US$7.8 million). With 7,050 admissions in that year, the cost per admission was approximately EC$2,546 (US$943). With an average length of stay of 5.67 days, the total cost per day was EC$449 (US$166.30). Estimates of the average costs of outpatient visits are EC$55 (US$20.37), and of visits to A&E wards are EC$74 (US$27.41). These estimates were calculated using broad assumptions and further research is needed to derive precise figures.[3]

4.3.2 RESULTS-BASED FINANCING

Results-based financing is an innovative financing method that could be designed to offer incentives linking accountability for use of funds with accountability for results. This modality is particularly needed in the presently inefficiently managed government health facilities. Under this modality, funds would be disbursed, or previous funding supplemented, once the targeted results were proven to have been achieved. Future technical assistance could explore alternatives for using such methods, but would place proposed options within the broader context and spectrum of the range of financing modalities that are listed here. This modality is particularly promising in conjunction with initiatives to give more autonomy to managers of the PMH and the decentralized PHC clinics.

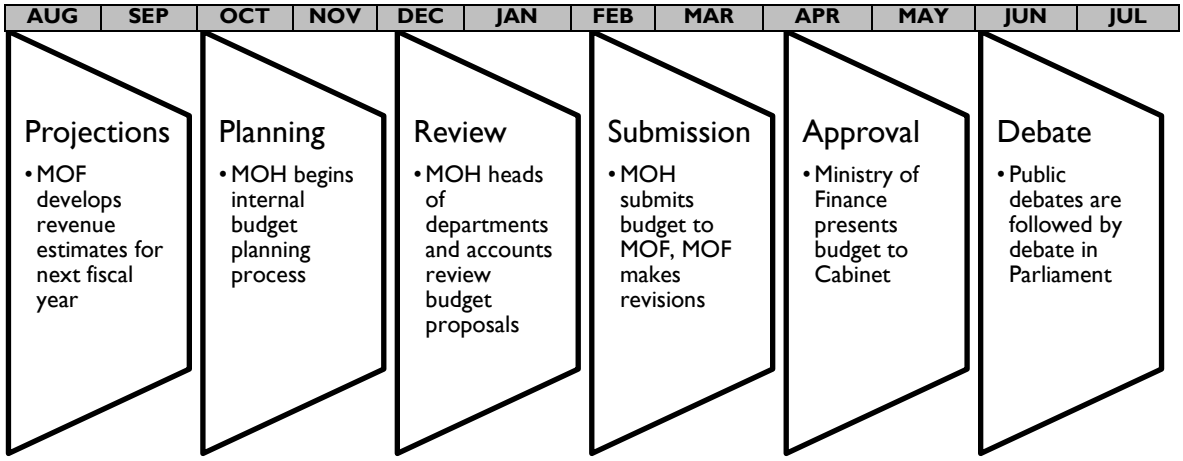
4.4 GOVERNMENT BUDGETING PROCESS

Dominica's fiscal year runs from July to June. The government budgeting process begins in February when a management team from each line ministry is charged with preparing a budget. Budgets for recurrent expenditures are managed by the MOF. Capital expenditures are a function of the Public Sector Investment Unit. As such, separate budget documents are prepared for recurring and capital expenditures. For recurrent expenditures, priority is placed on funding needed to cover staff on payroll, including travel costs and per diems, as well as estimates for the cost of supplies, medications, and overhead. Budget figures are based largely on the current year's budget. Consultations are then held between line ministry representatives and the MOF, during which the line ministries justify their proposed budgets, including any requests for increased funding or additional staff. The MOF often requests additional detailed information at this point and reportedly almost always negotiates downward. The budget is then presented to the Cabinet in May. The information in this presentation

[3] Assumptions were that 85.0 percent of the total PMH budget is dedicated to inpatient care services, that 11.5 percent is dedicated to A&E services, and that the remaining 3.5 percent is dedicated to hospital outpatient services.

serves as the basis of a Parliamentary debate on the appropriations bill. The debate is active in the print, radio, and TV media, and copies of the budget are made available to the public. In fact, the World Bank has touted the process as having a commendable level of transparency that should be duplicated in other aspects of public financial management (World Bank 2004). Ultimately, the budget goes through appropriations in June and is finalized before the start of the fiscal year in July. At this point the MOF gives written authority to begin executing the budget and is subsequently responsible for monthly distribution of funds to the line ministries. Within the MOH, separate line items and funding envelopes are established for PMH, PHC, and several other categories (i.e., environmental health). All of the DMOs review expenditures compared to the proposed budget, and suggest necessary changes.

FIGURE 4.5: DOMINICA'S BUDGETING PROCESS



4.4.1 CAPITAL SPENDING

As stated above, the MOH capital budget is developed by a completely different process led by the Minister of Health, in consultation with the Prime Minister and the Minister of Finance. Every year, some capital commitments are carried over and some new commitments made.

Commitments made on the basis of grants approved in 2010/11 are outlined in Table 4.5.

TABLE 4.5: CAPITAL SPENDING COMMITMENTS IN DOMINICA, 2010/11

PHC	EC$	US$
Construction/rehabilitation	5,000,000	1,851,852
Repairs to health centers	1,500,000	555,556
Health Promotion Center (HIV/AIDS)	346,296	128,258
PMH	**EC$**	**US$**
New medical equipment	5,000,000	1,851,852
Department rehabilitation	500,000	185,185
Construction of fencing	500,000	185,185

Source: MOH Interviews (2011)

4.5 RECOMMENDATIONS

4.5.1 SHORT-TERM RECOMMENDATIONS

- **Build capacity (through in-country or off-shore training) in areas of health policy analysis, health care costing and budget analysis, and National Health Accounts estimation** to key professionals engaged in health planning within the MOH.
- **Conduct a National Health Accounts** estimation, including HIV/AIDS subaccount, and institutionalize the ability of health professionals to conduct such NHAs on a regular basis.
- **Estimate the unit cost of public and private sector health services** to assist policymakers in routine evidence-based planning and inform new health financing policies.
- **Rationalize the allocation of funds to primary and secondary health facilities** according to patients' use of services at each site. This may require additional data analysis of patient utilization patterns, combined with the costing analyses described above.
- **Consider allowing health facilities to retain some user fee revenue on-site** for use in staff incentives, facility upgrades, purchase of equipment, or improvements to amenities. This would incentivize improved fee collection, potentially generate additional revenue, and increase willingness among patients to pay fees as they observe the results of their spending. Simultaneously, strengthen billing and collection systems at public facilities so that they can better recoup costs from private insurers and patients with ability to pay.
- **Proactively plan for reduced external HIV/AIDS funding.** This could include developing a financial sustainability plan for the HIV/AIDS program and conducting a projection analysis of available domestic and external funds going forward.

4.5.2 LONGER-TERM RECOMMENDATIONS

- **Develop National Health Accounts modeling skills** to enable estimators to use advanced methods to update older NHA estimates. This will ensure that NHA estimations are as relevant as possible and inform policymakers of the most up-to-date information on health financing flows.
- **Continue discussions and analysis surrounding establishment of national health insurance.** Given the country's reliance on OOP spending, efforts to increase the proportion of the population with insurance coverage should be promoted. Explore options to finance access to off-island care, while protecting individuals from the potentially impoverishing costs associated with such care. This might include a publicly subsidized catastrophic insurance scheme financed through mandatory premium or payroll tax contributions; expanded public subsidies for private insurance to cover off-island care, combined with strict regulatory oversight of policies and premiums; or inter-island arrangements for low-cost care. Financial and epidemiological analyses would need to be carried out to ensure strong design of whichever model is selected. Efforts should also include identifying data gaps and developing data collection plans.
- **Identify sources for future recurrent spending before initiating major policy changes**. Before engaging in ambitious policy reforms, build a solid evidence base to project the future recurrent spending that is implied by financing policies (such as national health insurance) or investments in buildings and equipment (such as the new hospital to be built with funds from China).
- **Consider implementing results-based financing** on a pilot basis that would include incentives to managers for minimizing costs. Performance-based incentives could encourage

greater efficiency as well as better outcomes, and should be linked with decentralizing management of facilities by giving more managerial autonomy to professional managers.

5. SERVICE DELIVERY

Key Findings

- The PHC system is strong, but there is limited secondary care and quality is uneven. Specialized tertiary care is only available off-island.
- Public facilities face equipment and supply management challenges. A significant proportion of donated medical equipment is inappropriate or unusable. Forecasting of consumable supplies (i.e., laboratory reagents) is not effectively considered.
- There is inadequate coordination of referrals between primary and secondary care, leading to challenges in quality and continuity of care.
- Private health provision appears to be growing, but there is minimal coordination and communication with the public health sector.
- There is no formal quality assurance system in place and no national quality assurance policies.

Health service delivery is the most visible aspect of the health system because it is where users interface directly with the health system. The WHO defines service delivery as the way inputs are combined to allow the delivery of a series of interventions or health actions (WHO 2000). "Good health services are those which deliver effective, safe, quality personal and nonpersonal health interventions to those that need them, when and where needed, with minimum waste of resources" (WHO 2007). This chapter presents a brief profile of the structure, performance, and challenges related to health service delivery in Dominica. It builds upon available resources such as the National Strategic Plan for Health 2010–2019 which includes a comprehensive Health Situation Analysis, as well as numerous interviews with stakeholders from both the public and private health sectors.

5.1 ORGANIZATION OF HEALTH SERVICE DELIVERY

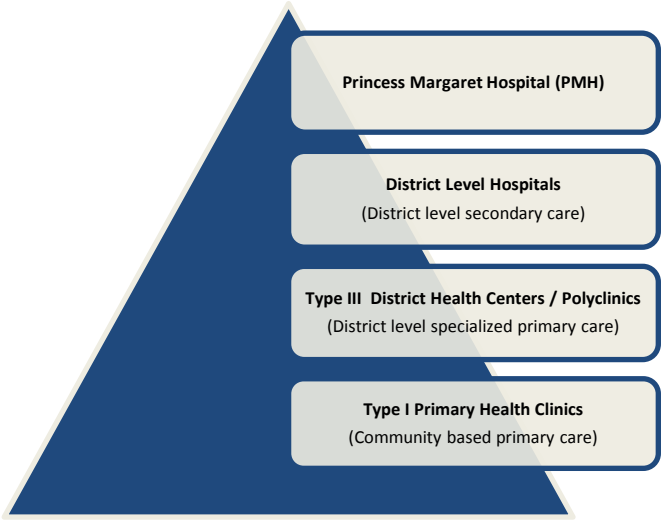
The goal of the government of Dominica is to ensure the availability of quality health services that respond to the needs of the population (MOH 2010b). As such, health services in Dominica are primarily government operated, financed by the MOH, and centered on delivery at two levels: primary and secondary. Tertiary services, such as specialized trauma care and diagnostics, are only available off-island – with citizens most frequently seeking specialized tertiary care on the neighboring islands of Martinique, Guadeloupe, or Barbados. Geographic coverage is adequate, with most residents living near a health facility. However, given recent population shifts, rural facilities are underutilized while urban facilities tend to be overutilized.

While private health services have been less documented, the assessment team found evidence of a small but thriving private health sector that largely operates in parallel to the public system.

5.1.1 PUBLIC HEALTH CARE SYSTEM

The structure and performance of the public health system is presented below, followed by a description of the private health sector and its interaction with the public health system.

FIGURE 5.1: ORGANIZATION OF THE DOMINICA PUBLIC HEALTH SYSTEM



PRIMARY HEALTH CARE SERVICES

Dominica's health system is based on a PHC model that strives to ensure universal and equitable access to primary health services. The island is divided into two regions and seven health districts, with each district consisting of a number of communities. PHC services are decentralized and delivered from a network of fifty-two health centers/polyclinics, and three district hospitals in Roseau, Marigot, and Portsmouth. Well-defined catchment populations for each facility seek to ensure that every community has access to essential primary care services. At the community level, services offered include: prevention services like immunization and basic dental services; health maintenance, such as screening and early detection of potential health risks; health promotion and education geared towards individuals, groups, and families; diagnosis (including HIV testing) and management of acute and chronic illness; case management; and community development (MOH 2010b). Each health district has access to an ambulance operated by the local fire department that is staffed by an Emergency Medical Technician (EMT). EMTs are not, however, considered part of the health system and therefore have minimal medical training. Despite response times being described as "relatively quick" due to the service being decentralized to the district polyclinics, EMTs have no ability to triage or respond to medical needs en route. Table 5.1 describes the primary health services provided at both Type I and Type III facilities.

TABLE 5.1: PRIMARY HEALTH SERVICES OFFERED BY FACILITY TYPE

Type of Facility	Population Served	Staffing	Services Offered
Type I PHC	600–3,000 persons within a five-mile radius	• Primary care Nurse or district nurse midwife • Visiting specialist staff from Type III centers	• Child health • Reproductive health • VCT • Nutrition • Health education • Primary medical care • Community action • Emergency care • Specialized psychiatric and ophthalmology services (Type III specialists)
Type III PHC/Polyclinic	Each district has one Type III center that functions as the district administrative headquarters	• Multidisciplinary team including various cadres of: • Nurses • Medical doctors • Pharmacists • Drug abuse prevention officers • Environmental health officers • Dental therapists	• Comprehensive range of primary care and services • Diagnostic services (Portsmouth) • Health education • Dental unit • 1–2 beds for deliveries • Specialized psychiatric and ophthalmology services • Most have computers with internet access

Source: MOH (2010a)

A major success of the PHC system has been the Maternal and Child Health (MCH) Program, as evidenced by universal attendance of births by trained nurse midwives and the availability of free antenatal care at both Type I and Type III public health facilities. HIV testing is integrated into antenatal care, and HIV tests were done for 74.9 percent of all pregnant women in 2007. La Plaine and Portsmouth Health Districts had the highest percentages of pregnant women tested with 98.6 percent and 86.8 percent tested, respectively. Treatment is available free of cost to those testing positive. Consequently, over the past five years, Dominica has not recorded any child being born with HIV. The MCH Program also provides growth and development monitoring for children, and the Expanded Program on Immunization has maintained 95–100 percent coverage over recent years. Immunizations are free of charge at the PHC level. Many of these services are also available in the private sector, which will be discussed below.

Overall the PHC system in Dominica performs well. However, some informants suggested that the system could be more efficient, and more effective. For example, medical technology, supply, and equipment management pose a significant challenge at both Type I and Type III facilities. The financing of medical supplies and equipment have been largely donor driven and although the majority of facilities have been refurbished, many are not adequately equipped (MOH 2010b). Some facilities do not have oxygen cylinders and sterilizers; other basic instruments are in short supply. Medical equipment donations are "often inappropriate, lack manuals, work on 110 voltage and cannot be used" and "allowance is not made for consumable and replacement parts" (MOH 2010b).

Of the seven Type III health centers in the country, Portsmouth is the only one that offers diagnostic services (with support from the Cuban government). Since fees are not collected at the health center level, citizens travel from all over the island to access these services. This has raised concerns about equity of access to diagnostic services through the public system. In addition, students of Ross University School of Medicine (RUSM) in Portsmouth have been able to access these services at no cost, when presumably they could afford to pay for these services. Despite the availability of diagnostic equipment at Portsmouth, there were no personnel to operate the ultrasound equipment at the time of this assessment. The x-ray machine, an older model donated from Cuba, has been under repair for more than a year due to a lack of technicians capable of fixing the machine.

Additional PHC system gaps include the lack of sufficient services for men and adolescents, insufficient sites for cancer screening, and the fact that the school health program ends at Grade 6. The latter results in secondary school students not receiving routine health monitoring. Prostate cancer is a leading cause of male morbidity, but Prostate Screening Antigen tests are not free and rectal examinations are not widely accepted. All health districts have recently begun prioritizing programs for men's health and are trying to increase service utilization by men.

SECONDARY HEALTH CARE SERVICES

Secondary care is available in Dominica through three public hospitals: PMH located in Roseau, and two district hospitals located in Portsmouth and Marigot. The 227-bed PMH is a major trauma facility at the top of the Dominica health system providing secondary, curative, and rehabilitative services to the whole of the island. It is the primary location providing medical-surgical services, inpatient and intensive care, ambulatory specialist clinics, A&E, and diagnostic services. Specialty services include ophthalmology, radiology, oncology, gastroenterology, intensive care, and hemodialysis. PMH is also the primary site of referral for overseas tertiary care and acts as the primary clinical practicum site for RUSM.

The assessment revealed that service delivery at PMH faces several challenges that have eroded public trust in the institution. Based on information gathered by the assessment team, a site visit, and interviews with key informants, key constraints are identified below.

- The management structure and/or level of authority are unclear so no single individual is accountable for hospital operations as a whole. The current tripartite management structure undermines efficiency and rational use of resources, ultimately limiting accountability.
- There are no mechanisms in place for enforcing standards and/or guidelines ensuring quality of service provision. Some procedural manuals and functional nursing policies have recently been revised. Apart from these, there is a lack of clinical standards, guidelines, or policies in place to effectively guide service delivery.
- There is a lack of departmental supervision and deficiencies in supervision of junior medical staff and student physicians, while the A&E department at PMH lacks a clinical head.
- Medical equipment and supplies are insufficient and poorly maintained; some donated equipment is not currently functional and/or consumables have not been adequately forecasted.
- There is an inadequate human resource skills mix. A lack of experience among charge nurses negatively impacts the level of care provided and negative attitudes are reported among young doctors and nurses. There is also an extremely high rate of absenteeism.
- Operating theater staffing is limited, resulting in problems when someone is absent. Postponement or cancelation of surgery for various reasons is very common.
- Delays in diagnostic processing means patients must be treated before receiving diagnostic test results.

- There are frequent stock-outs of basic and essential medications in hospital pharmacy departments.
- There is inadequate community participation and no official mechanism to obtain community views on priorities, quality, and barriers related to health services.

In light of plans to construct a new hospital, with support from the Chinese government, the assessment of these challenges presents an opportunity to improve planning and preparation for the provision of secondary services in Dominica.

The 28-bed Reginald Armour Hospital is located in Portsmouth Health District. The hospital is located on the same compound as the Type III health center. This has led to challenges because it is treated as a health center rather than a hospital in terms of allocation of funds, drugs, and staffing. Hospital supervisors noted that they are often overlooked, as correspondence is directed to the health center rather than the hospital. Patients requiring acute care are transferred to PMH, but PMH cannot always accommodate transfers. Challenges at Reginald Armour Hospital include:

- Lack of updated clinical standards;
- Nonexistent quality assurance system;
- Inadequate staffing with respect to skills mix and numbers of staff;
- Language barriers as a result of multinational staff;
- Stock-outs of essential drugs; and
- Inadequate community participation and a lack of official mechanisms to obtain community views on priorities, quality, and barriers related to health services.

In Marigot, there is a 20-bed district hospital; the district's Type III health center is located in the basement of this hospital. Unlike in Portsmouth, the Marigot district hospital functions independently of the health center. The facility has a computer with internet access and informants reported that supplies of drugs are adequate. Several staff members have been trained in VCT. Major challenges are outlined below.

- Medical equipment is inadequate.
- Quality assurance and quality management systems are not in place.
- There is no community participation in service provision or planning.
- The ambulance serves both the hospital and the airport, with priority given to the airport.
- Supervision is inadequate; the assigned MOH supervisor has not visited in the past five years.
- There is a lack of coordination of CME activities, resulting in staff being away from their positions too frequently and for too long.

PUBLIC LABORATORY SERVICES

The laboratory at PMH is owned by the government of Dominica and operates as the national laboratory. It performs both clinical and public health functions and provides services in the areas of hematology, blood banking, clinical chemistry, microbiology, histology, and cytology.

Due to barriers in obtaining chemical reagents, the Type III Diagnostic Center at Portsmouth relies on non-automated analyzing procedures. This has made monitoring of quality standards at the Diagnostic Center extremely difficult, and in practice, blood samples collected at Portsmouth are often sent to PMH for analysis. Laboratory turnaround times and follow-up on collected samples are reported as

major challenges at PMH, where patients often require treatment before laboratory results are available. Improving the availability and quality of laboratory and diagnostic services is a priority emerging from the assessment.

TABLE 5.2: SUMMARY OF HEALTH SERVICE PROVISION IN DOMINICA

Public Sector		
Health Facility	**Number and Capacity**	**Services Provided**
PMH	227 beds	• Inpatient services • Ambulatory specialist clinics • Emergency service • Diagnostic services • Ear Nose and Throat • Ophthalmology • Radiology • Oncology • Gastroenterology • Intensive care • Hemodialysis • ART
Reginald Armour Hospital (Portsmouth District)	28 beds	
Marigot District Hospital	20 beds	
Type I health centers	45 facilities	• Child health • Reproductive health • VCT • Nutrition • Health education • Medical care • Community action • Emergency services
Type III health centers	7 facilities	• Diagnostic imaging and laboratory services (Portsmouth) • Dental services • Deliveries • Health education • Specialized psychiatric and ophthalmology services • Range of primary care services
Private Sector		
Type of Facility	**Number and Capacity**	**Services Provided**
Justin Fadipe Medical Center	11 beds 15 staff	• Primarily surgical procedures • Consultations

Private physician practices (individual/small outpatient practices)	12–15 solely in private practice	• Medical consultations • Chronic conditions (hypertension, diabetes, arthritis, gastrointestinal issues, asthma) • STIs
Dental clinics	Approximately 9	• Preventative and curative dental care
Private nurse practices	3 practices	• Gynecology (Pap smears, swabs) • HIV rapid tests • Screenings: blood pressure, blood sugar, cholesterol, triglycerides, BMI • Dressings • Health education and behavior change
La Falaise House private laboratory	1 laboratory	• Laboratory diagnostics (thyroid, DNA, cancer, hormonal, and HIV tests)
Medicus Diagnostics	1 facility	• Diagnostic ultrasound • X-rays • Contrast radiography • Vascular ultrasounds, including echocardiograms and EKGs
Private pharmacies	Approximately 10	• Prescriptions • Over-the-counter medicines and supplies
Planned Parenthood	1 facility	• Sexual and reproductive health services including Family Planning (oral and injectable contraceptives, condoms, emergency contraceptives, IUD) • Pregnancy tests • Pap smear tests • VCT • Sales of contraceptives at highly subsidized prices.
Chinese Medical Center	1 clinic	• Traditional Chinese medicine and therapy for gastritis, back pain, and paralysis.

5.1.2 PRIVATE HEALTH CARE SYSTEM

There is a small but growing private health sector in Dominica, which appears to be operating parallel to the public sector, with minimal communication or coordination between the two sectors. As presented in detail in Table 5.2, the private health sector includes a private hospital, lab, imaging center, several private physician practices and dental practices, three private practice nurses, a non-profit clinic offering reproductive health services, and a Chinese medicine center.

The only private hospital on the island, Justin Fadipe Medical Center, has 11 beds and approximately 15 staff. The hospital provides 24-hour care for both inpatient and outpatient services. Over the past year, the facility has shifted its focus to surgical cases to improve forecasting and address financial issues. Approximately 40 percent of patients pay OOP and 60 percent are covered by health insurance. The facility averages 15–20 consultations per day, with approximately 4 percent of these patients being admitted for surgery.

The assessment team heard from several sources that it was the establishment of this private facility that prompted the MOH to pass legislation regulating private health provision on the island (Hospitals and Health Care Facilities Act). However, despite enactment, enforcement of the regulations has been limited. In fact, the only documented visit from the MOH to the hospital was in 2006. In response, the facility largely self-regulates. The staff is aware of protocols, and a user satisfaction survey is conducted every six months; results are reportedly positive. The hospital has minimal communication with the MOH, and relations with PMH appear to be strained, particularly with regards to referrals between the two facilities and the associated sharing of patient records (see Chapter 9, Private Sector Contributions to Health, for further information).

One private medical laboratory, La Falaise House, has operated on the island since 1993. The lab offers many tests that are not available at the national lab, such as HbA1c which is now the standard of care for diagnosing diabetes, and conducting rapid testing for HIV. Positive tests that remain positive after re-testing are sent to Martinique for Western blot confirmation. The lab informs doctors when tests are positive. However, there is little communication between the lab and NHARP related to HIV tests. Other tests commonly performed include thyroid function, DNA, cancers, and hormonal tests. Lab management expressed a desire for greater cooperation with the PMH lab, noting that communication is currently limited.

There is currently no formal relationship between La Falaise House and the public laboratory at PMH, and very little information is shared between the two. The lab purports to adhere to international quality of care standards, and recognizes the need to voluntarily self-regulate in the absence of MOH oversight. Medicus Diagnostics provides services in the areas of diagnostic ultrasound, x-rays, contrast radiography, and vascular ultrasounds, including echocardiograms and EKGs. These services are provided by referrals or walk-ins.

Several private practice physicians were interviewed as part of this assessment. Respondents estimated 12–15 physicians are engaged solely in private practice in Dominica. The team was not able to ascertain the extent to which physicians practice in both the public and private sectors, known as "dual practice," although it is believed that a majority of the physicians employed in the public sector also have a private practice, with the exception of DMOs.

The assessment team identified three nurses that practice independently in Dominica, providing services ranging from blood pressure and glucose checks to immunization and company wellness programs, as well as HIV/AIDS counseling and testing. One nurse reports HIV-positive cases to Dr. Joseph (NHARP). The nurses report that many clients choose their services because of shorter waiting times and flexibility. Two of the nurses see clients at home and their offices, while the third sets up her practice at the entrance to a local supermarket. They report that clients are referred to the appropriate public health facility as warranted by the patient's symptoms/needs, and have reported cases of communicable disease to the HIU. However, there is limited to no MOH oversight of their practice or oversight of referral.

Through available information and informant interviews, the assessment team estimates there are approximately 10 private pharmacies on the island. One respondent suggested the number of pharmacies has decreased in recent years, a possible result of limited training opportunities for pharmacists. This may be contributing to the deterioration of a qualified pool of pharmacy personnel. A lack of regulations for the pharmaceutical sector, particularly related to drug quality, was noted as a concern. Most private pharmacies import drugs without much MOH oversight and respondents consistently mentioned problems sourcing drugs and supplies from CMS.

There are approximately nine dentists practicing in the private sector in Dominica. Similar to private practice physicians, there is a trend of dentists starting out in the public sector, and then shifting to private practice. On average, private dentists see 20–25 patients per day, with the majority of clients being from the middle class. Approximately 50 percent of patients are covered by dental insurance, while the other half pays OOP. Although dentists are required to be licensed, there is virtually no regulation or enforcement of standards of care. However, according to one stakeholder, this is also true of dental care provided in the public sector.

The Dominica Planned Parenthood Association (DPPA), which dates back to 1976, is now the main provider of contraceptive services in the country. This is in large part because condoms are the only method of contraception provided at government clinics, but the preferred contraceptive method at DPPA is oral contraceptives. DPPA supplies over 100 outlets (including the MOH HIV/AIDS Unit and CMS) with condoms, and some health centers also purchase oral contraceptives from DPPA. Commodities are subsidized by the International Planned Parenthood Federation and the MOH grants duty-free concession on them. Occasionally they experience stock-outs due to imperfect projections.

DPPA receives approximately 400 client visits monthly (99 percent female, 15 percent adolescents; age range 15–55 years). DPPA does screening for breast and cervical cancer, and works with schools and communities to implement sexual and reproductive health programs. They also provide family life education at the prison. Although marked for VCT roll-out, training has not yet taken place and VCT services are not yet offered. Interestingly, many clients come to DPPA for blood pressure screening rather than contraceptives. A fully computerized system has yet to be implemented. Informants reported good collaboration with the MOH: they are frequently invited to workshops and sometimes provide MOH staff training. In addition, DPPA was represented during Strategic Planning exercises and the DPPA Coordinator is a member of the HIV and AIDS Management Committee. Primary challenges include limited services for men and complaints that services are not youth-friendly.

5.2 PRIORITY SERVICE AREAS

5.2.1 CHRONIC NONCOMMUNICABLE DISEASES

CNCDs are the leading causes of morbidity and mortality in Dominica. As of the 2001 census, the most prevalent conditions were hypertension, arthritis, diabetes, and asthma (MOH 2010a). An analysis of visits to DMOs and Family Nurse Practitioners from 1999–2005 found that 22 percent of those visits were due to hypertension and 13 percent to diabetes. A related concern is data indicating an increasing prevalence of obesity among children aged five years and under, rising from 9.5 percent in 2001 to 11.2 percent in 2005 (MOH 2010a).

In 2008, a national survey of CNCD prevalence and risk factors was completed using the PAHO/WHO STEPS methodology. However, the results of this survey were not available to the assessment team. According to the MOH, the 10 leading causes of death among Dominicans are dominated by CNCDs (MOH 2010b). The majority of deaths are currently attributed to heart and hypertensive diseases. There has been a major increase in deaths caused by malignant prostate neoplasms between 1991 and 2005; an increase in diabetes and cerebrovascular-related deaths has also been noted over the same time frame. The increasing burden of CNCDs poses additional challenges in Dominica by raising the prevalence of serious complications such as amputations, cardiovascular events, diabetic retinopathy/blindness, and similar conditions. For more information on burden of disease, please see Section 2.2.1, Causes of Morbidity and Mortality.

5.2.2 HIV/AIDS PREVENTION AND TREATMENT

HIV/AIDS prevention and treatment is well integrated into Dominica's PHC services and is available at many sites across the island. Services include health education/behavior change communication, VCT, and the provision of ART. Rapid "point of care" testing is being rolled out to several PHCs and Enzyme Immunoassay (EIA) blood testing for HIV is available at the PMH laboratory. Blood tests drawn at various sites in the country are forwarded to PMH laboratory for EIA analysis. PMH adheres to recognized testing protocols. Over 120 health care providers have been trained in either provider-initiated testing and counseling or VCT, and all clients receive psychosocial support. UNAIDS estimates that in 2008 over 3,000 people were tested for HIV, with that number increasing to approximately 3,631 in 2009 (UNGASS 2010).

The increasing availability of VCT and treatment services in Dominica, and the success of the MCH Program in significantly reducing the number of HIV-positive newborns, are acknowledged achievements. Challenges facing the national testing program are outlined below.

- Delayed testing is a problem – processing of EIA blood samples at PMH is slow and clients who provide samples at PHCs need to wait for test results to be returned before appropriate care can be initiated.
- Clerical systems for tracking patients, blood samples, and test results are manual and labor-intensive and, because of the numbers of samples and the geographic spread, are open to errors.
- Data from testing at the island's private laboratory is not included in national testing and counseling surveillance.
- Under the current arrangements, any confirmation tests are done off the island which slows getting results to clients.
- Quality control mechanisms are weak at the PHC remote testing sites.

ART (first- and second-line ARVs) and ongoing care is universally available to all citizens. However, PMH is the only ART treatment site on the island. There are currently 66 people being treated free of charge. Of that total, 40 are on first-line treatment and 7 are on second-line treatment. The Clinical Care Coordinator at PMH provides prescriptions for ART, while the clinical care team provides patients and caregivers with education and support. Additional physician attendants assist patients to maintain or improve adherence to treatment regimens (Commonwealth of Dominica 2010c).

NHARP has developed a new National Strategic HIV/AIDS Plan for 2010–2014 with the following priority areas (Commonwealth of Dominica 2010c):

- Prevention of new infections – all groups;
- Improved treatment, care, and support;
- Further development of infrastructure;
- Strengthening capacity of health systems and providers; and
- Improved information and knowledge management.

The main achievements of the program over the past year were the launching of rapid testing at three sites and a behavioral and seroprevalence study among MSM. NHARP is challenged by:

- Inadequate human and financial resources;
- Stigma and discrimination issues;
- Lack of adequate policy environment; and

- Lack of legislative reform.

For more information on HIV/AIDS in Dominica, refer to Annex C, Focus on HIV/AIDS and Health Systems Strengthening.

5.2.3 MENTAL HEALTH

According to the National Strategic Plan for Health 2010–2019, it is estimated that over 700 persons may be disabled with serious mental health problems requiring immediate and continuous public health interventions. The most common types of mental health disorders are schizophrenia, bipolar disorder, and substance-induced psychosis. Analysis of admissions data to the Acute Psychiatric Unit at PMH from 2004–2008 shows a high proportion of recurrent admissions, suggesting challenges in continuation of mental health care (MOH 2010b). People with less-debilitating mental conditions such as anxiety and major depressive disorders are not managed routinely in the public health system.

Mental health clinical care services are provided on an outpatient basis for over 1,400 clients within the PHC system. In addition, the Acute Psychiatric Unit, a community-based psychiatric inpatient service located within PMH, offers critical care to approximately 30 acutely ill patients per day. It also provides housing accommodation for up to 16 chronic socially destitute individuals and forensic psychiatric care for over 18 inmates of the state prison. Drug prevention tips are provided to in-school populations through the Drug Abuse Prevention Unit, and the Grotto Home for the Homeless provides community-based residential accommodation to over 50 people.

5.2.4 OTHER HEALTH SERVICES

ENVIRONMENTAL HEALTH

The Environmental Health Department (EHD) is the monitoring and regulatory agency of the MOH whose purpose is "to undertake the necessary measures to ensure the physical, biological and chemical hazards in the environment are controlled so as not to endanger public health and safety" (MOH 2010a). The EHD is in the process of updating the system in order to meet International Health Regulations standards and timelines by June 2012. Major programs implemented by the agency include food safety, water quality control, solid and liquid waste monitoring, workers' health and safety, vector control, and institutional health.

The areas of greatest challenge are port health and food safety. Services in Roseau are extremely different from Portsmouth where many food establishments have no toilet facilities. The department lacks equipment in some program areas for such things as food monitoring and improved lab facilities. PAHO has been providing support in these areas. Legislation is lacking, outdated, in draft form for prolonged periods, or not enforced. There is a need for staff with specialized skills such as port health, meat inspection, and occupational health (MOH 2010a).

Collaboration between EHD and Solid Waste Corporation is fairly good; however there is no formal reporting system in place. The latter is beset by challenges such as an insufficient fleet of vehicles for garbage collection, lack of regulations enforcing use of bins and disposal and storage of garbage at the household level, very limited human resources, and lack of enforcement of procedures for disposal of white goods and derelict vehicles (MOH 2010a).

ELDERLY CARE

The "Yes We Care" program was instituted by the government to meet the needs of elderly, destitute, and abandoned citizens. Most communities have trained caregivers who deliver home-based care to these individuals, ensuring their basic needs are met while allowing persons to remain in their homes while receiving services. The demand for the service is very high. The main challenges are inadequate financing and no access to funds of their own, limited food supplies, and a shortage in housing for clients.

DRUG ABUSE PREVENTION

The drug abuse prevention program endeavors to reduce the demand for and the impact of illegal substances through community outreach programs with local Village Councils, groups, and school prevention programs in collaboration with peer counselors. School-based programs are better organized among primary schools. A survey on prevalence of drugs among secondary schools is currently being conducted. There is a need for a Drug Prevention Officer for secondary schools.

There is a need for formal training in substance abuse and addiction counseling. Training is prohibitively expensive and not available online. Information collected is compiled manually on the Drug Information Network. Informants noted the concerns outlined below.

- Many persons do not see drug abuse as a problem, which limits their participation in planned educational activities.
- The department lacks adequate administrative support.
- Insufficient funding hinders program implementation at schools.

5.3 SERVICE DELIVERY ACCESS, COVERAGE, AND UTILIZATION

An emerging concern relevant to health service access relates to demographic shifts currently underway in Dominica. Large new communities are developing in some areas, creating an imbalance in demand and utilization of PHCs and other health service infrastructure. There may be a need to redefine the boundaries of Dominica's health districts, and shift resources to meet the changing demands on access and utilization. For instance, some communities are located geographically closer to another health district than their assigned one. Bellevue Chopin, for instance, should be included in Grand Bay Health District and not in Roseau, while Belles should be included in Marigot rather than St. Joseph district.

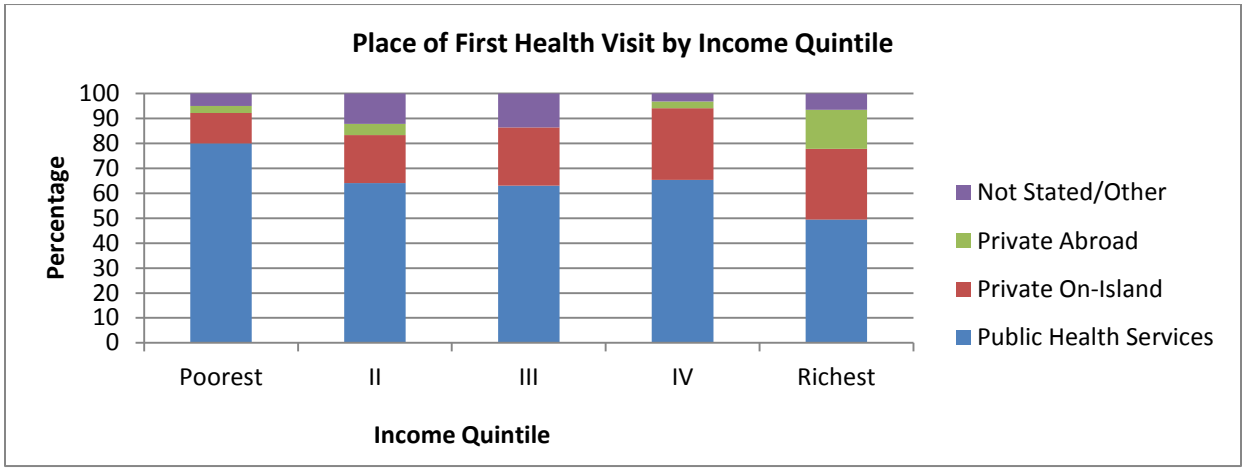
General utilization of PHC services is described in the National Strategic Plan for Health 2010–2019. The plan suggests a general underutilization of primary health care facilities – resulting in reportedly high levels of default from services such as MCH and low utilization and/or late entry into health services by men (MOH 2010b). In contrast, utilization of secondary services, including PMH, is very high. According to respondents, inpatient occupancy at PMH is over 100 percent, requiring the use of "center beds" in the hospital corridors and contributing to staff fatigue. PMH provided 1,595 operations in 2009, with a sharp increase in emergency operations (from 274 to 678 procedures) from 2008 to 2009 (PMH 2009).

Data on utilization of outpatient services at PMH also document high demand for services. For example, there were 31,563 visits to the A&E department in 2009, equating to one out of two Dominicans visiting the department in a given year. Only 8 percent of these patients were admitted to the hospital, suggesting the possibility of overutilization of PMH for nonemergency care. The number of visits to the A&E department has remained fairly steady over the past five years. While electrocardiogram services

have been on the rise in recent years, deaths from ischaemic heart disease have decreased since 2006 (PMH 2009).

Two fairly recent household surveys provide population-based information about health care utilization in Dominica. A survey carried out in 2007 found that that 45 percent of Dominicans reported having accessed a medical facility within the past year, with half of respondents (49 percent) expressing satisfaction with the accessibility of health services. Just over 10 percent of respondents in this survey reported having traveled overseas for medical attention within the last five years, with the majority of those seeking off-island care paying for those services with personal savings or contributions from friends and family (MOF 2007). A separate household survey conducted in 2008 asked where residents first sought medical care. Not surprisingly, 63 percent reported seeking care from a public health facility. However, as shown in Figure 5.2, nearly 24 percent reported they first sought care from the private health sector, with another 6 percent seeking care from a private source overseas. Reliance on the private health sector appears to increase with income – whereas nearly 44 percent of respondents in the wealthiest quintile sought care from a private source, only 15 percent of respondents from the poorest households did so.

FIGURE 5.2: SOURCE OF FIRST HEALTH VISIT BY INCOME QUINTILE



Source: Kairi Consultants Limited (2010)

5.4 EFFICIENCY OF SERVICE DELIVERY

5.4.1 REFERRALS

In general, a well-defined referral process has been established for patients seen at the district-level PHC centers; those requiring secondary care are typically referred to PMH. However, there is little or no feedback from PMH to the district health facilities. When patients who were referred to PMH return to the district facilities post-referral, this lack of communication regarding treatment, diagnosis, and guidance on follow-up care presents a barrier to effective and efficient continuity of care.

Additionally, the lack of referrals between the public and private sectors presents another barrier to patient care. Informants in both sectors reported a lack of communication between the sectors, which could potentially be compromising patient care. For example, private providers noted that it was difficult to obtain records from PMH – it often required going in person to request the records, which took them away from their practice. Some private respondents also expressed frustration with the poor reception their patients received from PMH doctors after referring them for care at the hospital. Often

their diagnosis would not be accepted. This prompted repeat tests, increased costs of care, and delayed treatment, only to come to the same diagnosis.

5.4.2 INFRASTRUCTURE AND SUPPLIES

As detailed in the Health Situation Analysis, and confirmed by a variety of stakeholders interviewed for this assessment, Dominica faces many challenges with regard to ongoing maintenance of medical equipment. These include:

- Lack of trained maintenance technicians on-island, resulting in the need to import technicians from overseas to service and fix some equipment;
- Lack of spare parts on-island;
- Lack of preventive maintenance; and
- Obsolete equipment or equipment in disrepair.

One respondent noted that there is only one functioning nebulizer in the public sector in the Roseau area, located in the A&E department at PMH. The machine is reportedly in constant demand, and given there is only one, this poses problems if more than one child presents for treatment at the same time. The assessment team also observed high demand for nebulizer treatment at the Marigot district hospital. Although there were three nebulizers visible, staff reported that only one was operational. The dire situation with regards to adequate medical equipment at PMH prompted the PSFH to earmark the majority of its funding to finance necessary equipment for the hospital, starting in 2005. But as detailed in Chapter 9, concerns related to the performance of the Medical Equipment Committee and insufficient inventory control led the PSFH to halt support for medical equipment procurement.

5.5 QUALITY ASSURANCE

5.5.1 SUPERVISION AND QUALITY IMPROVEMENT

Improving the quality of PHC has been an area of emphasis for Dominica, and one that PAHO has supported. In 2010, PAHO conducted a review of the PHC system as the foundation of a baseline quality of care assessment (PAHO 2010). The findings from the report align with many of the conclusions drawn by this assessment team. Among these findings, PAHO suggests that Dominica needs to take a holistic health systems approach to quality assurance and management and would benefit from introducing a quality management system. The report also found that efforts have been made to strengthen quality assurance over the past two decades, with varying levels of success. Specific examples of quality improvement measures are as follows:

- A Quality Department has been established at PMH to champion quality improvement efforts.
- The Department of Nursing at PMH has made strides to maintain a quality assurance program, especially through "Grand Rounds" that seek to identify areas of weakness. However, there is limited follow-up and modification of behavior when weaknesses are detected.
- The Caribbean Epidemiology Center (CAREC) supported laboratory staff at PMH to attend training on quality management. In 2006, two lab employees completed a graduate certificate program in quality management and are currently in the process of developing a quality management system. A quality policy, manual, and standard operating procedures have also been drafted.
- In 2009, the national Quality Coordinator visited Trinidad on a study tour to learn from their system of operating and managing quality (PAHO 2010).

Based on stakeholder interviews, the assessment team found written clinical guidelines for district-level supervisors. However, these guidelines are neither regularly updated nor upheld. Each facility has a recognized clinical supervisor, the Community Health Nurse, who is charged with visiting facilities at least twice monthly. Although supervisors receive training in various managerial areas, there are no methods of ensuring quality and/or ensuring effective supervision of personnel. As outlined in the discussion regarding secondary care services, there is a lack of adequate departmental supervision in the country's hospitals. Junior medical staff and medical students are poorly monitored, and some departments, such as the PMH A&E department, lack a clinical head. Generally, there is a lack of standards, guidelines, or policies guiding adequate supervision and/or quality improvement of health services throughout both the primary and secondary care system. This is compounded by weak disciplinary procedures or consequences for poor performance in the public sector, which compromises quality.

In light of these findings, several steps need to be taken to ensure that a solid foundation is developed for a sustainable quality management system. As identified by PAHO, these include: obtaining support and commitment to quality assurance measures from senior management; identifying a champion to move action forward; developing a clear vision; setting measurable objectives and indicators; and developing a quality monitoring team to ensure objectives are met. Maintaining gains and continuing efforts to strengthen quality improvement efforts in the delivery of PHC services is paramount. Future health systems strengthening assistance provided by USAID should complement PAHO's efforts to support quality of care in Dominica.

5.5.2 QUALITY ASSURANCE AND MONITORING THROUGH DATA USE AND ANALYSIS

The HIS at PMH suffers from insufficient data collection, limited feedback to those who provide information, and an antiquated paper-based patient record system. The Roseau Health District has limited ability to identify, store, and retrieve medical information on patients, and noted that there is little feedback on data submitted to the HIU.

There is little evidence of routine data sharing between the public and private sectors, with La Falaise House private laboratory noting the lack of a system to report data to the MOH. While they have voiced an interest in providing data, a standard reporting system has not yet been developed. The lab also noted that NHARP requests data on positive HIV tests, particularly for pregnant women. However, the lab is not able to easily comply with these requests. They have suggested that a standardized system would facilitate effective reporting and information exchange.

5.6 RECOMMENDATIONS

5.6.1 SHORT-TERM RECOMMENDATIONS

- **Establish and enforce a referral system from primary health clinics to secondary facilities.** This would necessarily include improvements in information exchange between primary and secondary facilities, and a formal commitment to improving continuity of care between providers at all levels.
- **Formalize the referral process between public and private providers**. This is particularly important to ensure continuity and quality of individual patient care, as well as optimal use of specialized health resources available in-country.

- **Investigate perceptions of poor service quality at some primary health care centers and all secondary-level facilities.** Is this related to the fact that services are provided for free, or can it be attributed to the performance and attitude of providers?
- **Strengthen clinical capacity and oversight of laboratory services at Princess Margaret Hospital and Portsmouth.** Given that PMH serves as the country's primary diagnostic facility it is imperative that quality assurance efforts are undertaken to improve processing times and the timely provision of results. Patient care is highly compromised in an environment of prolonged diagnostic analysis. Efforts should include a review and revision of forecasting procedures for reagents and other laboratory consumables, and a commitment to the repair of x-ray and other essential diagnostic equipment. Provision of results to patients and/or the referring PHC center should also be a priority component of general primary and secondary referral strengthening as outlined above.

5.6.2 LONGER-TERM RECOMMENDATIONS

- **Strengthen quality assurance practices in the public sector through the introduction of National Treatment Guidelines.** The first step would be to develop the guidelines by working from existing guidelines and policies in the region. There should also be an official policy for periodic review and revision of clinical guidelines, which would stipulate by whom, how often, and by what process the guidelines would be reviewed. It should also address how the updated version will be rolled out to health workers.
- **Clarify the policies, procedures, and regulation of dual practice activities of Princess Margaret Hospital/secondary-level physicians.** This would include expanding opportunities for professional career growth and CME in the public sector as a retention strategy. Improving the supervision and clinical quality of junior medical personnel requires a reduction in absenteeism among senior public sector clinicians. Partnerships with a U.S., Canadian, or U.K. hospital may also form an important part of human resource capacity strengthening.
- **Assess challenges currently faced at Princess Margaret Hospital and other secondary-level facilities in preparation for creation of a new national hospital.** An assessment and analysis of challenges currently faced at Dominica's secondary-level facilities (e.g., management structure and medical equipment/supply management) can assist in developing appropriate policy, procedures, structures, and guidelines at the new national hospital. Learning from current challenges presents an opportunity to develop appropriate policies and procedures in order to improve quality of services at the new public facility.
- **Explore options for increasing affordable access to tertiary and specialty care.** Access to tertiary care is clearly an important issue for the country, and options for ensuring access to such care could include inter-island agreements with other nations that have recently established tertiary care (such as St. Lucia), the use of telemedicine, and contracting with private specialists to provide care at scheduled interludes. Coordination with other eastern Caribbean countries will be essential, and can help inform Dominica's decisions regarding the planned new facility.

6. HUMAN RESOURCES FOR HEALTH

Key Findings

- The government's human resource management structure is well defined (although in need of major policy revisions) and professionally managed by the Establishment Department under the Office of the Prime Minister. However, there is a need for additional human resources (HR) planning and management skills and tools that can be provided through available technical assistance and training opportunities.
- Public sector employment policies do not maximize performance. Extremely liberal leave policies, combined with an overly complex and lengthy disciplinary process, are contributing to high rates of absenteeism among health care workers.
- MOH plans to create an HRH Unit are supported by the Establishment Department but roles and responsibilities within the unit are not yet well defined.
- Continuing education opportunities are plentiful for most cadres of health workers.
- The nursing college is in need of more and better-trained instructors.

6.1 OVERVIEW OF HUMAN RESOURCES FOR HEALTH

A critical component of a comprehensive health systems assessment is an examination of the human resources engaged in the health care delivery process, as well as the strengths, weaknesses, and opportunities for improving the situation. This chapter seeks to determine the status of HRH in Dominica and to make actionable recommendations for improvement. For the purposes of this analysis, the team uses the WHO definition of the health workforce, which comprises "all people engaged in actions whose primary intent is to enhance health" (Islam 2007). This includes those who promote and preserve health as well as those who diagnose and treat diseases, health management and support workers, and those who educate health workers. The assessment addresses such factors as numbers and distribution of health personnel, the status of HRH policy, planning, and management, and leadership, education, and training.

In Dominica, recent health sector reforms have focused primarily on financing, with less attention paid to the health workforce. Various analyses conducted during the development of the National Strategic Plan for Health 2010–2019 point to many HR management challenges faced by the MOH and a need to strive toward meaningful changes that will have a measureable impact on the quality of health service delivery.

In late 2008, the first steps toward the development of an HRH policy and plan were initiated but have not been completed due to limited and inconsistent availability of expertise to guide the process. In the meantime, the introduction of new systems, while retaining historic policies and procedures, has led to mixed results. Health workers within the PHC system seem to be doing an adequate job in spite of limited resources and some outdated HR management policies. However, management of human resources at the secondary level is not well organized and lacks clear direction, leading to limited

supervisory oversight, inconsistent work performance, and high levels of absenteeism at PMH, as noted in Chapter 5. Several respondents that have experience practicing medicine in both sectors remarked that it is much easier to enforce discipline among staff in the private sector, and noted the advantage of being able to hire and fire easily. Perhaps because of this, respondents suggested absenteeism is lower and compliance with protocols is higher in the private sector than in the public sector.

6.2 HEALTH WORKFORCE

While the overall number of nonspecialist health workers and the ratio of health workers to population are generally considered adequate, anecdotal evidence indicates that the quality, skills mix, and distribution of health workers is not optimal. The number of qualified administrative and management personnel at the district level are also considered to be inadequate. It should be noted that the health workforce is not wholly of Dominican origin, and is supplemented with health care workers recruited from the Caribbean region and beyond.

Even though the overall health worker-to-population ratio is deemed adequate, the number of medical and nurse specialists is known to be insufficient to meet the needs of the population, and the average age and years of experience of nurses is low. According to some respondents, recently graduated physicians having completed their medical training in Cuba require close supervision and mentoring to bring their skills up to an acceptable level.

6.2.1 DISTRIBUTION OF PERSONNEL

Data on the exact number, cadre, and distribution of the health workforce are available from several sources, including the staff allocation estimates from the Establishment Department, the PAHO HRH core dataset from 2009, and the *Baseline Indicators of the Regional Goals for Human Resources in Health*. The numbers in each are not in complete alignment, but the level of effort and completeness of the PAHO dataset will be presented here as this seems to be the most likely source document to be used for planning purposes.

6.2.2 CADRE

In 2009, Dominica had a total of 824 health care workers employed in the public sector. At present the nurse-to-doctor ratio is approximately 3:1. Nurses represent nearly 45 percent of the total HRH workforce while doctors make up 15 percent of the public HRH pool. Among the remaining health care cadres, nursing assistants (8.3 percent), public health practitioners (7.9 percent) and technologists (7.3 percent) are the most prevalent. Table 6.1 estimates the number of health workers by cadre as well as public sector HRH per 10,000 population. The latter was calculated based on 2001 census data. As the table suggests, there are roughly 17 medical doctors per 10,000 population, or roughly 1 doctor for every 585 citizens. As such, there are more doctors per 10,000 population in Dominica than in other Caribbean countries such as St. Lucia (8 per 10,000) or St. Vincent and the Grenadines (6 per 10,000). With 370 nurses and midwives employed in the public sector, there is 1 available for approximately every 196 Dominicans.

TABLE 6.1: PUBLIC-SECTOR HRH WORKERS PER 10,000 POPULATION BY PAHO OCCUPATIONAL GROUPINGS[4]

Occupation	Number of Workers (%)	Density per 10,000 Population	Population per Worker
Medical doctors	124 (15.0)	17.07	586
Nurses and midwives	370 (44.9)	50.92	196
Nursing assistants	68 (8.3)	9.36	1,069
Dentists and allied	21 (2.5)	2.89	3,460
Pharmacists and allied	18 (2.2)	2.48	4,037
Social workers	8 (1.0)	1.10	9,083
Rehabilitation workers	4 (0.5)	0.55	18,165
Technologists	60 (7.3)	8.26	1,211
Public health practitioners	65 (7.9)	8.95	1,118
Nutritionists	1 (0.1)	0.14	72,660
Mental health practitioners	0 (-)	-	-
Other health workers	85 (10.3)	11.70	855
All health workers	824	113.4	88

Source: Establishment Department (2011); PAHO (2010)

6.2.3 SERVICE DELIVERY LEVEL

Table 6.2 provides detailed information on the number of public sector health workers by facility in Dominica. As the table indicates, PMH is the largest employer of health care workers in the country, with over 58 percent of the public health care workforce. Collectively, the health districts (over 50 health centers across seven districts) employ 24 percent of the workforce. An additional 56 staff (6.8 percent) are employed by the MOH. According to research conducted by PAHO, the districts with the greatest number of staff are Portsmouth (28 percent) and Roseau (23 percent) (PAHO 2010).

TABLE 6.2: NUMBER OF HRH WORKERS IN EACH PUBLIC SECTOR FACILITY GROUP

Public Sector Facility Type	Number of Workers (%)
PMH	483 (58.6)
Health districts	198 (24.0)
MOH	56 (6.8)
Laboratory services	40 (4.9)
Dental services	13 (1.6)
Environmental health services	13 (1.6)
Psychiatric Unit	12 (1.5)
Drug Prevention Unit	9 (1.1)
Total workers	**824 (100)**

Source: PAHO (2010)

6.2.4 PRIVATE SECTOR WORKFORCE

Minimal regulations and inconsistent data collection means that available data on private health care providers is limited to estimates for cadres in which registration is required. The DMB and General Nursing Council (GNC) both register relevant professionals. However, only the latter requires payment of fees for continued registration, and data on sector of employment are limited. As such, most of the information below is based on data gathered from the MOH and a scan of the Yellow Pages conducted

by PAHO (PAHO 2010). Table 6.3 shows the number of private sector health care workers also working in the public sector (dual practice) and working only in the private sector. The numbers in the table are somewhat higher than estimates gathered through stakeholder interviews – for example whereas the PAHO report suggests there are 23 physicians practicing solely in the private sector, respondents interviewed for this assessment suggested there were 12–15 such practitioners. Conducting a rapid survey or "mapping" of the private health sector could establish an accurate count of private health practices, and serve as a baseline going forward.

TABLE 6.3: PRIVATE HEALTH CARE PRACTICE IN DOMINICA BY OCCUPATIONAL CATEGORY

Occupation	Number of Dual Practice Health Workers	Estimated Full/Part-Time Private Sector-Only Workers
Medical doctors	54	23
Dentist	4	5
Nurses/nursing assistants	289/60	Unknown
Pharmacists	11	13

Source: PAHO (2010)

6.3 HUMAN RESOURCES POLICY AND REGULATION

As noted in Chapter 3, Governance, the current Medical Act (1938) regulates medical practitioners, dentists, opticians, chemists and druggists, family nurse practitioners, and dental auxiliaries. The provisions regarding medical practitioners relate primarily to registration. The DMB has done significant work on a proposed new act, highlighting the need for implementation of provisions which go beyond registration and address areas such as licensing, fitness to practice, discipline, and post-registration CME. At the moment, the DMB leads efforts to monitor required registration of medical doctors following medical training at a registered medical school, and completion of a one-year internship. The DMB does not register doctors as specialists, but this is expected to change following the review of the Medical Act. The DMB is also responsible for accrediting medical schools on the island. At the moment, no one is charged with the registration and licensure of allied health professionals such as physiotherapists, opticians, etc. It is anticipated that the revised Medical Act will make allowances for inclusion of these cadres. Given their small numbers, it would not be practical to have a separate body responsible for their regulation.

Pharmacists are also registered by the DMB. A draft Pharmacy Act has been submitted to Cabinet and would provide much of the guidance for the pharmaceutical sector, including the establishment of a Pharmacy Board which would have responsibility for registration and practice among pharmacists.

Nurses in Dominica register with the GNC for Dominica. Registration requirements include the successful completion of a prescribed nursing course in an institution approved by the Council and the passing of the Regional Examination for Nurse Registration. Nurses are required to renew their licensure every three years. Foreign-trained nurses can also register with the GNC. Registration fees for foreign-trained nurses are set at the U.S. equivalent of the local fees. Regulation of the nursing profession dates to 1961 and also needs to be addressed. A new Nursing Act has been drafted and reviewed by the GNC. It is currently with Legal Affairs for review, but there is a need for a legal draftsman for proper review and revision. The content of the act includes a new registration and licensure process, including the need for annual renewal and 36 hours of annual continuing education.

The vast majority of health workers in the public sector are on permanent contracts that entitle them to a variety of benefits including pensions and gratuities. Fixed-term contracts are becoming increasingly

common, and operational contracts are also used. Fixed-term contracts are used when urgently required skills are in short supply (e.g., to recruit medical specialists from outside the country), tasks are of limited duration, and when it is advantageous to bring people with fresh skills and talents from outside the public service. These contracts can be initiated by the Cabinet without review by the Establishment Department.

6.4 HUMAN RESOURCE MANAGEMENT

6.4.1 HUMAN RESOURCES INFORMATION SYSTEM

The government's HR management structure is limited in capacity, yet is well defined and professionally managed. The Establishment Department is proactive and is in the process of scaling up the SmartStream payroll software into a full-fledged Human Resources Information System by including modules to track training and conduct succession planning. The MOH will eventually have direct access to the software for updating and using information to facilitate internal HR planning and management. There was no opportunity to review the content of the new modules, so it is not clear to the assessment team what information will be compiled or how it will be used. The piloting of the modules with the MOH will be helpful to determine whether the new system will meet the data needs of a MOH HR planning unit.

The government Information and Communications Technology (ICT) unit recently developed a Microsoft Access database for the MOH to record personnel information for MOH employees. This database is currently being populated with data from personnel records. However, it is not clear how this standalone desktop HR database relates to SmartStream or whether there will be any interaction between the two systems.

6.4.2 PERFORMANCE MANAGEMENT

Health workers undergo an annual Employee Assessment and Development Review (EADR) based on key result areas and performance objectives. The EADR includes a career development section that the Establishment Department uses to develop annual training plans. Health workers' annual salary increase is dependent on the EADR. While there is positive feedback about the utility of the EADR, it is not clear that it is adequately used as a performance management tool. Feedback from some managers about problems related to absenteeism and poor performance indicate that actual employee performance, even if noted in the EADR, has little impact on annual salary increases or job stability.

6.4.3 WORKFORCE PLANNING

Planning is currently based on historical assumptions, although a recent job audit and a planned workload analysis should help improve the planning process. Staffing gaps are primarily in nursing and medical specialist positions. Succession planning is not yet done, but the Establishment Department is in the process of adding a module to its Human Resources Information System to assist with this.

6.5 RECRUITMENT

The recruitment and hiring process appears to be well established and expedient. A candidate recommended by a ministry will take up to one week for approval by the Establishment Department and four to six weeks by the Public Service Commission depending on their meeting schedule and review of the candidate.

6.5.1 MIGRATION, ATTRITION, RETIREMENT

While data indicate that emigration of nurses has declined over the past several years, the consensus among managers is that the decline is only temporary. A significant number of nurses left Dominica in the 1990s and early 2000s leading to a large nursing gap. The nursing program at the Dominica State College was able to respond by increasing the number of nurse trainees, leading to the existing adequate numbers. However, this large cohort of young nurses does not yet have the experience necessary to seek out job opportunities in developed countries. There are expectations that once these nurses have adequate experience they will migrate to other countries.

Attrition of Dominican medical doctors already practicing in the public sector in Dominica appears to be due to a preference for setting up full-time private practices more than to migration. Foreign physicians, especially specialists, tend to stay for a limited amount of time before moving elsewhere. Much of the migration of Dominican physicians occurs at the completion of their medical training, except for those trained in Cuba, and they therefore do not enter the public sector health workforce.

The mandatory retirement age in Dominica has recently been increased from 55 to 60 years for nurses and teachers as a means to reduce attrition and ensure a balanced nursing workforce of seasoned and less-experienced nurses.

6.6 HUMAN RESOURCE DEVELOPMENT

6.6.1 PRE-SERVICE TRAINING

Several public and private off-shore institutions provide medical training to Dominicans. These institutions include the following:

- ***University of West Indies*** – The majority of HRH professionals are trained at the Jamaica and Trinidad campuses but social work and psychology training are provided at the Cave Hill, Barbados campus. Cave Hill also provides clinical training for the first two clinical years of a Bachelor of Medicine and Bachelor of Surgery.
- ***Dominica State College*** – Offers three degree types: Certificate (practical or mental health nursing); Associate's Degree (general nursing, environmental health) and a Bachelor of Science.
- ***All Saints University*** – School of Medicine is chartered and recognized by the government of Dominica and is authorized to confer Doctor of Medicine degrees.
- ***Ross University*** – School of Medicine awards Doctor of Medicine degree upon successful completion of Basic Sciences curriculum and Clinical Sciences curriculum (PAHO 2010).

The Dominica State College through its Faculty of Health Sciences (FHS) is the main training institution for health care workers on the island. Over the past two years, the faculty has expanded the courses offered to include a three-step program in environmental health which is being offered with the assistance of PAHO, and an accelerated program upgrading Level II nurses to Level I. Overall, however, Dominica is heavily dependent on varying levels of foreign assistance to train the full range of required health workers. This includes foreign recruitment of FHS lecturers and instructors and sending medical and other health specialist students abroad for training. The MOH is seeking to increase the number of courses offered locally. In doing so, the MOH expects a larger number of locally trained professionals for the same amount of money it would cost to support fewer people receiving training overseas.

The FHS is challenged by an inability to run programs concurrently because of a lack of qualified trained staff with different specializations and limited physical space. The FHS requires at least 11 trained staff to

run its programs. Currently the FHS only has six lecturers, one clinical instructor (whose skills need improvement), and the chair, who also serves as a lecturer. There are currently no specialist lecturers. Coursework would be greatly improved with the addition of a modern clinical lab with simulators and clinical software with simulation exercises. The library needs to be expanded to accommodate a growing number of students. The large number of students compared to the number of patients available for clinical practice also poses a great challenge, given that medical students also use the same facilities. The school would benefit from a "living lab" such as a ward with patients who are not critically ill, which would be dedicated to the school. Student fees are theoretically supposed to cover a portion of the operating expenses of the school. However, fees are nominal and contribute little compared to the actual needs. Notwithstanding its challenges, the FHS plans to introduce the Bachelor of Science in Nursing next year, beginning with a Registered Nurse to Bachelor of Science in Nursing program. It also anticipates starting a program to train medical technologists.

Ross University School of Medicine has agreed to a request from the MOH to provide post-grad training in family medicine to basic medical doctors (e.g., DMOs), in collaboration with University of West Indies-Open Campus, with final approval by the MOH anticipated in the near future. This program will help expand specialist training opportunities locally and could potentially be a model for expansion to other specialties in the future.

6.6.2 CURRICULUM

The nursing curriculum at the FHS is designed to meet regional standards and the needs of the Regional Nursing Exam. The curriculum is regularly reviewed and updated internally using resources available over the internet. There is a desire for outside advice and assistance in curriculum development as well as review and confirmation from outside professional bodies. As the school transitions to a Bachelor of Science in Nursing program, there will be a need for a professional assessment of the curriculum to ensure regional standards are met.

The FHS currently has no HIV/AIDS curriculum. There is a mental health curriculum available, but no lecturer able to teach it. An operating theater curriculum has been developed in anticipation of offering this as a specialty in the near future, but the FHS chair would like outside professional review before implementing it.

6.6.3 CONTINUING EDUCATION AND IN-SERVICE TRAINING

Formal in-service training in the public sector remains the responsibility of the Establishment, Personnel, and Training Department (EPTD). The department also administers the policies pertaining to study leave and bonding arrangements for Public Officers pursuing tertiary-level studies, locally or overseas. The MOH accesses training opportunities for technical/professional staff through collaborating agencies and other entities.

In the past, newly trained physicians hired into the public service were closely mentored by an established physician during their first year of service. This induction program served to integrate new hires into the system, provide close technical supportive supervision, and ensure any gaps in training were addressed. This is particularly important in the case of physicians trained in Cuba, where the level of training is not specifically aligned with the needs in Dominica. Although the induction program is officially still in place, it is not functional and lacks leadership and guidance. The nursing service at PMH has a vibrant in-service education program which has been integrated into the system. The GNC requires proof of CME as part of the criteria for renewal of licensure. The medical staff at PMH also provides a weekly forum where presentations are made and cases discussed.

Ross University School of Medicine offers several continuing education opportunities for all health workers in Dominica. Monthly CME classes are offered every third Friday of the month, clinical practice presentations are offered weekly, and half-day research topics are discussed two–three times per semester. The MOH can request specific CME topics and encourages public sector health workers to attend. About 80–100 people attend the monthly CME sessions. Ross University provides certification of attendance. The scope for continuous professional education has further increased with the advent of online courses. Prior to that, most professionals would have to access courses overseas.

6.7 RECOMMENDATIONS

6.7.1 SHORT-TERM RECOMMENDATIONS

- **Conduct training workshops for supervisors on active management** of performance problems with an objective to improve health worker performance in a positive manner rather than resorting solely to disciplinary procedures. Existing disciplinary procedures are complicated, protracted, and not the most effective approach to ensuring good performance. Improved personal management of health workers could lead to a more positive work environment, greater sense of responsibility, better morale, and decreased absenteeism.
- **Support the Ministry of Health to implement workload analysis methodology** to determine optimal staffing levels at facilities. The results of workload analysis, combined with an analysis of disease burden, could result in changes in the recommended types and distribution of health care workers throughout the health system. While the outcome of this activity should result in a more effective and efficient use of health HR, there could be financial and training ramifications that may need also to be addressed.
- **Continue advocacy for hiring of proposed positions for the Human Resources for Health Unit, including establishing the position of Health Planner within the Ministry of Health.** While there is general agreement in the MOH and the Establishment Department that the MOH should take more of a leading role in HRH planning and management, there is a need for someone to take the lead in making this happen, including continued advocacy for the hiring of recently proposed MOH HR management positions.

6.7.2 LONGER-TERM RECOMMENDATIONS

- **Revitalize induction year program**, including mentoring, for recent medical school graduates. Although the induction program is officially active, in practice, recently graduated new physician hires are not being mentored adequately and performance by some new physicians is considered suboptimal.
- **Expand opportunities for professional career tracks** as a retention strategy. Increased perception of opportunities to grow professionally, with resultant financial and other benefits, can prove to be a powerful mechanism to improve quality of service and retain professionals in the public service.
- **Continue development of the Ministry of Health Human Resources Development Plan** that currently exists in draft form. The specific strategies, objectives, and outcomes that have already been outlined in the draft HR Development Plan are good, but need some fine-tuning. The MOH should also develop an HR development work plan and timeline, identify leadership for the implementation of the plan, and ensure political commitment and support.
- **Support regional accreditation of the nursing program** at Dominica State College. Regional accreditation is an indicator of a higher-quality nurse training program that will better meet the nursing workforce needs of Dominica, as well as make the college more attractive to students from

other islands. There are significant challenges to meet accreditation requirements, so this is a long-term activity that would require substantial investment.

- **Implement hospital management restructuring recommendations** (originally recommended by KPMG), including hiring a professional hospital administrator. The current tripartite management structure lacks individual accountability and leads to an inability to make strategic decisions regarding hospital staffing. The insufficient number of doctors, the presence of foreign doctors without appropriate language skills, and an inadequate overall human resource skills mix negatively affect service quality. A hospital management structure with authority to develop and enforce evidence-based hospital staffing plans should improve overall quality of service and improve staff morale.
- **Implement hospital management/health management training program** for select positions. To reinforce an overall hospital management restructuring, relevant training in hospital and health management is necessary.
- **Negotiate with a public sector union to change leave policy** or institute policy to reduce abuse of the generous amount of leave available. The high level of absenteeism disrupts health facility staff scheduling and reduces the number of health care workers available to provide essential services to the public. The consensus among interviewed stakeholders was that the availability of six months of leave combined with the lack of authority of supervisors to enforce disciplinary measures contributes greatly to absenteeism in the workplace. Health workers sometimes use this leave to perform part-time private sector work. While it is understood that changes to the leave policy itself may be challenging, good faith negotiations between government and the public sector union could potentially lead to agreements on reducing abuse of the leave policy.
- **Develop and implement policy giving supervisors disciplinary authority**. The existing system that prevents supervisors from implementing measures to address poor performance, absenteeism, and general disrespect negatively affects the morale of supervisors and managers as well as respectful and high-performing health care workers. The procedures currently in place to enforce disciplinary measures are daunting enough that only the most egregious of behaviors are noted and raised to the level of the MOH and Public Service Commission, potentially opening disciplinary issues to political interference. As with policy related to leave, this will require difficult negotiations between government and the public sector union.

7. MANAGEMENT OF PHARMACEUTICALS AND MEDICAL SUPPLIES

Key Findings

- Weak legislation and a lack of regulations make governing the pharmaceutical sector extremely difficult, especially the private sector.
- Efforts to coordinate procurements between the sectors are limited and ineffective, resulting in system inefficiencies.
- Monitoring and regulation of facilities and pharmaceuticals is inadequate, especially in the private sector.
- Information management and data for decision-making is inadequate and has serious implications for proper forecasting of need.
- Rational drug use is prioritized but hindered by a general lack of standard treatment protocols.
- Pharmacovigilence practices are inconsistent in both the public and private sectors.

Access to high-quality and cost-effective medical products and technologies is critical to a well-functioning health system. Addressing public health needs requires the availability of pharmaceuticals which can be costly to purchase and distribute; therefore effective management of pharmaceuticals and medical supplies is important. This chapter looks at the activities aimed at ensuring the availability and appropriate use of safe, effective medicines and medical products.

7.1 OVERVIEW OF PHARMACEUTICALS AND MEDICAL PRODUCTS SYSTEM IN DOMINICA

The escalating costs of medicines and the increased burden of CNCDs in Dominica has forced the country to look for more efficient procurement, management, and distribution systems to ensure equitable access. The limited purchasing power of small island economies, such as Dominica, makes bulk pharmaceutical shipments to lower the cost of procurement inefficient. To increase efficiency, Dominica participates in the OECS Pharmaceutical Procurement Service. The PPS has helped OECS countries reduce the cost of medicines and provides a level of regulation and oversight of procurements. It has also played a critical role in ensuring access to medicines in the public sector, and to some extent, the private sector.

According to recent estimates, the public pharmaceutical sector consists of pharmacies at the PMH and all Type III health centers. Pharmacists at Type III facilities make scheduled visits to local communities within their respective regions on a weekly basis to ensure greater access to available pharmaceuticals. There is an estimated 10–12 private pharmacies on-island. Pharmaceuticals are also dispensed at Justin

Fadipe Medical Center, the only private hospital on the island. No wholesalers or distributors are present in Dominica.

Many pharmacists in the public sector participated in a government-sponsored fast track pharmacy certificate program that was developed in 2004, to shore up the sector after several pharmacists retired. The certificate required a high school diploma and one and a half years of intensive training. Respondents estimated that approximately three to four public sector pharmacists have a college degree, with the remainder taking advantage of the fast track program noted above. The level of training at private pharmacies ranges from minimal training to advanced pharmacy training at U.S.-based institutions. Some private pharmacists also participated in the certificate program. Minimum education and continued training requirements for pharmacy personnel are not currently enforced, but are included in drafted regulations for the Pharmacy Act.

7.2 POLICY FRAMEWORK

Policies related to pharmaceuticals and medical supplies are relatively weak and outdated. Currently, medicines and medical products are regulated by the Medical Act, which was originally drafted in 1938 and most recently updated in 1990. The portion of the act addressing pharmacists has not been updated since Dominica gained independence in 1978 and essentially outlines basic qualifications for registration and procedures to follow when obtaining certificates of competency. Similar to other OECS countries, Dominica does not have a National Medicines Policy to guide the implementation of pharmaceutical laws and regulations and establish the roles of key stakeholders. While a draft national policy was developed in 1999, it has yet to be passed. Implementing and enforcing the existing policy could provide a clear framework for the pharmaceutical sector, and help to ensure predictable, equitable access to safe drugs for Dominicans.

In the absence of a National Medicines Policy, other laws provide some guidance on the roles, rights, and obligations of stakeholders in relation to medicines and medical supplies. The Antibiotics Act, most recently updated in 1991, regulates the importation, storage, distribution, sale, and use of antibiotics. Dominica has adopted several international agreements related to the management of pharmaceuticals and medical products (Health Research for Action 2009). The country also appears to be in compliance with minimum requirements of the World Trade Organization's Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) patent protection. No pharmaceutical patents have been granted in the past five years and there is currently no national policy on innovation, technological development, or intellectual property rights (Health Research for Action 2009).

7.3 REGULATORY SYSTEM

Dominica's pharmaceutical sector is currently regulated by the Medical Act and the Dangerous Drugs Act – both enacted in 1938. The former has provisions for the licensing of pharmacists. A Pharmacy Act was drafted in 2004 and includes language to establish a Pharmacy Council charged with registering, licensing, and inspecting pharmacists and pharmacies. Regulations under this legislation would apply to personnel engaged in the manufacture, procurement, prescribing, and dispensing of pharmaceuticals, in both the public and private sectors. At present, regulatory activities are not formally outlined beyond importation requirements for controlled drugs and narcotics (Health Research for Action 2009). The private pharmaceutical sector remains virtually unregulated. When formally gazetted, the Pharmacy Act and associated regulations will address drug selection in the public sector, procurement in both the public and private sectors, as well as drug distribution, storage, and quality assurance measures. Proposed regulations will also outline methods to ensure rational drug use, promote continuing

education among pharmacists, provide regular information on drugs and standard treatments, and foster appropriate dispensing and patient compliance practices.

7.3.1 MEDICINES REGULATION

Dominica does not currently have any national laws that govern the procurement or distribution of pharmaceuticals and medical products. However, there are administrative regulations on import/export control, license control, distribution monitoring. and prescription monitoring. The MOH is responsible for coordinating these activities as they pertain to the control of pharmaceutical products (Inter-American Drug Abuse Control Commission [CICAD] 2006). Since Dominica does not have a quality control lab in-country, the medicine regulatory function is currently done primarily through the OECS. All medicines in the public sector are purchased through the PPS which has prequalified suppliers and sample testing prior to procurement. PPS performs limited post-market surveillance. According to the 2010 OECS/PPS Annual Report, 27 medicine samples were submitted to the Caribbean Regional Drug Testing Lab, which is used by many CARICOM countries for testing as part of the post-marketing surveillance program. However, heavy volume at least partially explains the delays in testing as reported by individuals throughout the region. The 2010 OECS/PPS Annual Report indicates that the average lead time in receiving testing results from the post-market surveillance program increased from 48 days in 2009 to 108 days in 2010 (OECS 2011).

The lack of policies and guidelines on the importation of drugs means that privately procured drugs are largely unregulated. Dominica also lacks regulations or legislation to control the sale and distribution of pharmaceutical products over the internet (CICAD 2006). A portion of private sector procurements are made via the PPS, which provides some quality assurance measure. A larger portion of privately procured pharmaceuticals are sourced on an ad hoc basis, including via the internet. According to respondents, representatives from the private sector value maintaining a positive image for their clientele and, as such, take the responsibility of self-regulation seriously. Most utilize reputable companies that have been vetted by other countries in the region, such as Jamaica, with more stringent regulations. Given widely held concerns about products manufactured in India, procurement from this country is purportedly kept to a minimum as a quality assurance measure.

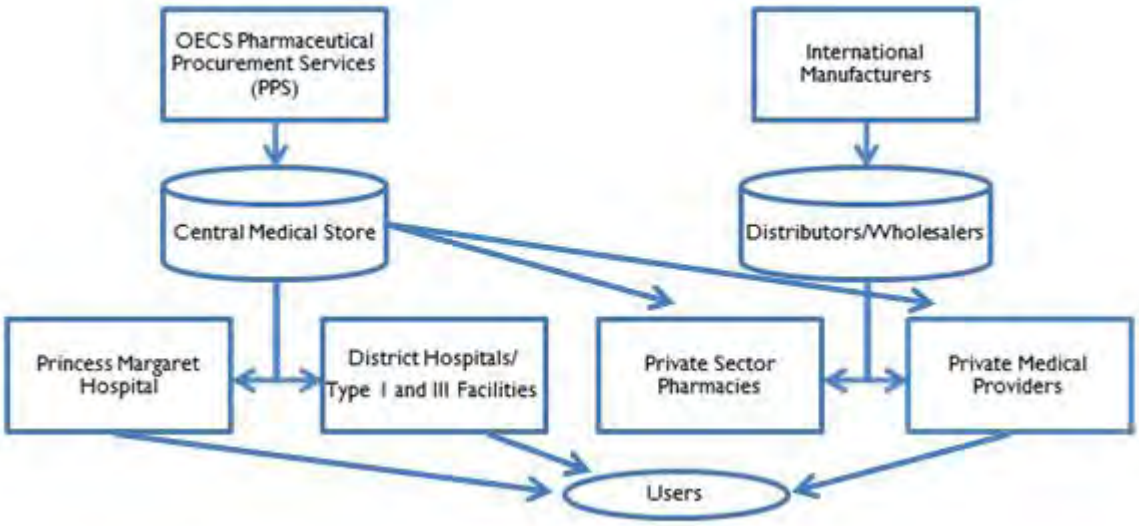
7.3.2 PHARMACOVIGILANCE

Pharmacovigilance is necessary to detect, assess, understand, and prevent adverse drug reactions (ADR). Dominica participates in the OECS pharmacovigilance system, which is a spontaneous reporting system. As such, the success of the program relies on individual medical professionals reporting any suspected ADRs. Guidelines and forms for reporting are available for pharmacists and district medical officers. Forms are provided by the Chief Pharmacist, who subsequently gathers and forwards to OECS. Based on the frequency of submission, pharmacovigilence practices appear to be limited. Evidence indicates that only one individual from a single district health center is reporting on ADR; and no forms have been submitted by a private pharmacist in recent years. Respondents indicated that failure to submit forms was due to a lack of ADR incidents, suggesting that further training in this area may be warranted.

7.4 MEDICINES AND MEDICAL PRODUCTS SUPPLY

This section provides an overview of the procurement, storage, and distribution of pharmaceuticals and medical supplies in Dominica's public and private sectors. Figure 7.1 provides a visual overview of the country's pharmaceutical supply chain.

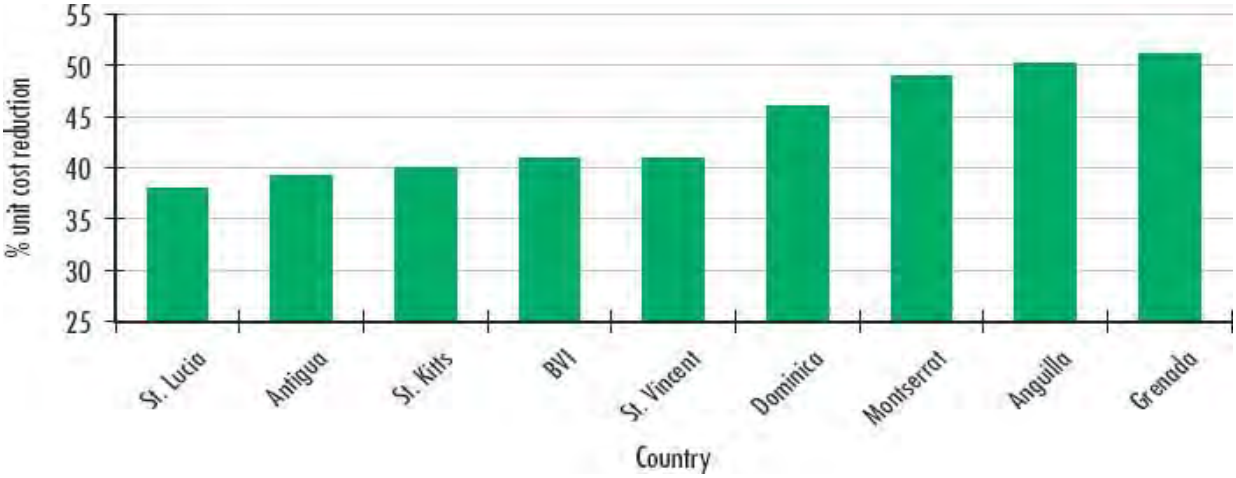
FIGURE 7.1: PHARMACEUTICAL SUPPLY CHAIN FOR DOMINICA



7.4.1 PUBLIC SECTOR PROCUREMENT

The OECS/PPS system has dramatically reduced the prices of drugs that OECS member states purchase, as bulk orders can be processed more cheaply than smaller orders from each country. While the OECS/PPS received an initialUS$3.5 million grant from USAID, the OECS/PPS has been self-financing since 1989 through a 15 percent administrative fee that it levies on all pharmaceutical purchases. As a result of the OECS/PPS purchasing mechanism, Dominica has decreased its pharmaceutical costs significantly, averaging an over 45 percent reduction in costs for a basket of 20 popular drugs in 2001/02 (Figure 7.2).

FIGURE 7.2: AVERAGE PERCENTAGE UNIT COST REDUCTION FOR A MARKET BASKET OF 20 POPULAR DRUGS 2001/02 COMPARED WITH INDIVIDUAL COUNTRY PRICES



Source: OECS (2001)

Public sector procurement in Dominica is centralized through CMS. CMS is responsible for procuring all pharmaceuticals in the public sector and also has the authority to provide to the private sector at cost plus a fixed mark-up. As previously stated, the vast majority of medicines and medical products are procured through OECS/PPS. When the CMS goes outside of the PPS, it tends to use traditional suppliers, including some that the PPS generally uses, without a competitive bid process. Like many participating countries, late payments to suppliers are threatening the system and Dominica's supplies. The 2010 OECS/PPS Annual Report found that payment performance in 2010 was the worst on record, with only 55 percent of sampled invoices being paid within the contracted 60-day agreement. The average lead time was 83 days (OECS 2011). Suppliers view PPS as one unit so late payments from any country can be used to withhold an order to any OECS country, regardless of that country's account balance. Suppliers are now threatening to impose interest charges on overdue invoices and some suppliers are not submitting new tenders, reducing competition and increasing prices. Higher-end suppliers are not as willing to take the risk on such small tenders. The lower-end suppliers do not have the same reputation for quality products and given that post-market testing is limited, there is concern that suppliers can send lower quality goods after the qualifying sample test. In addition to delayed delivery of supplies, informants claim that there are issues with suppliers failing to send the entire quantity of medicines requested in one tranche. Instead, pharmaceuticals are dispensed over the course of several deliveries as products become available. This results in CMS having to ration out available supplies and procure from the private pharmacies.

While Dominica's payment performance actually improved slightly over last year, budgetary issues remain. The average monthly procurement budget for CMS is approximately EC$440,000 (US$162,963). However, monthly disbursements to the CMS revolving fund vary depending on revenue collected by the country, so funding deposited into the account is at the discretion of the Treasury. This has contributed to Dominica being in arrears by an estimated EC$1 million (US$370,370). At the moment, invoices are being submitted to PPS for payment at the discretion of CMS based on how far into arrears the payment is, whether the supplier allows credit, and whether there is legitimate concern that the supplier will stop supplying without receipt of payment.

Dominica's Expanded Program on Immunization provides children with immunizations against: tuberculosis, diphtheria, pertussis, tetanus, polio, measles, mumps, rubella, Hib influenza Type B, and Hepatitis B. These vaccinations are available across the islands and are free of charge in the public health system. The vaccinations are purchased through PAHO, with monitoring and oversight of the program provided by CAREC. Necessary supplies, including syringes and needles, are purchased through CMS (MOH 2010).

ARVs are obtained from a variety of sources, including through PPS via a Global Fund grant, the Clinton Foundation HIV/AIDS Initiative, and the government of Brazil. In January 2010, a Technical Cooperative Agreement between the OECS Secretariat and the government of Brazil resulted in a third donation of ARVs to the OECS valued at EC$570,000 (US$211,000). The ARVs were distributed among the member states, with transshipment costs being covered by UNICEF. However, the assessment team learned that the government of Brazil has not been able to provide quantities of ARVs according to the agreement, so other donors are being approached to cover the shortfall in supply. The Dominican health budget currently does not include a line item for ARVs or medicines to treat opportunistic infections (OIs). Based on limited domestic support for OIs, and the fact that no donors provide these, there have been shortages of these drugs in Dominica. The Global Fund also provides OECS with money to dispense ARVs through the PPS; the latest tranche was valued at approximately EC$359,000 (US$133,000) and designated mostly for second-line ARVs. ARVs are mainly distributed to Roseau Health Center, with a few going to the PMH to meet the needs of any HIV-positive patients admitted.

Preliminary discussions about decentralizing provision of ARVs at Marigot and Portsmouth health centers have stalled due to concerns around stigma and discrimination.

7.4.2 PUBLIC SECTOR INVENTORY MANAGEMENT

Inventory management and forecasting capacity is generally weak. There is no electronic system for tracking medicines and medical supplies at the central level. CMS utilizes a paper-based system that involves pulling and reviewing stock on hand-written bin cards and placing an order once stocks are below a predetermined threshold. There is no way of tracking pharmaceutical stocks once they have been distributed. Methods of forecasting stock at public facilities range from using bin cards to track consumption patterns to senior pharmacists "knowing their stock." There have been multiple attempts to implement electronic inventory management systems, but success has been elusive due to limited technical support to keep the system operational. The purchase of off-the-shelf software with technical support has not been pursued. The latest OECS/PPS Annual Report identified Dominica as having one of the weakest inventory management systems among participating countries. OECS/PPS continues to prioritize developing and rolling out an electronic inventory management system that is consistent throughout the six PPS countries. A 2010 attempt on the part of Management Sciences for Health to install Orion software at member states' CMS was ultimately discontinued because it failed to meet OECS information technology requirements (OECS/PPS 2011). OECS/PPS has been exploring other options for an integrated and computerized pharmaceutical inventory management system but none have been successful to date.

Distribution is carried out via a "pull" system using paper-based requisition forms. The Supply Manager at CMS assigns costs to the consolidated requisition form and then sends to the Treasury to ensure adequate funding. Distribution to the hospital is done on a weekly basis while health centers order monthly. CMS is also authorized to distribute pharmaceuticals to private providers to ensure that chronic diseases are treated at an affordable price for individuals choosing to use private providers. These pharmaceuticals are provided at cost plus a fixed fee that is reportedly meant to cover the cost of transporting pharmaceuticals. Any revenue generated from sales to the private sector is deposited into a "rainy day" account outside of the drug revolving fund. However, several respondents suggested that pharmaceutical distribution to the private sector is ad hoc and at the discretion of the CMS Supply Manager who reportedly fails to provide a steady supply to private providers for various reasons. These providers need to guarantee availability of essential medicines, so have generally opted to procure elsewhere. This represents a missed opportunity for greater public-private collaboration, as well as lost financial benefits for the CMS.

Stock-outs in public pharmacies vary by location. Most stock-outs occur for items that have been rarely used in the past, such as specific cancer drugs, but that physicians have begun prescribing with greater regularity. Informants also indicated a widespread shortage and continued stock-out of certain dosages of amoxicillin. One public facility identified shortages and stock-outs as a serious and chronic problem. When stock-outs do occur, they usually occur in storage at CMS and are often due to suppliers withholding supplies from PPS because of late payments. When supplies are withheld, CMS has to go to private sector pharmacies to obtain essential medicines. This is financially problematic because once an order to PPS has been made, it cannot be rescinded. As such, if an order is not sent in a timely manner and CMS has to go to the private sector as a back-up, CMS must purchase pharmaceuticals at higher rates in the private sector as well as honor the original order placed with PPS.

7.4.3 PRIVATE SECTOR PROCUREMENT AND INVENTORY MANAGEMENT

Private pharmacies play an important role in meeting the demand for pharmaceutical products in Dominica. They allow patients to fill prescriptions at times more convenient for them and often with a shorter wait time. However, the pharmacies charge retail prices as opposed to a flat fee of EC$5. Private pharmacies provide a range of products that are not available in the public sector, especially for branded treatments, as well as over-the-counter medicines such as aspirin and ibuprofen. Private pharmacies are motivated to serve clients as quickly and efficiently as possible. As businesses, they are focused on keeping clients, and this incentive manifests itself in offering more competitive prices and better customer service.

Private practitioners procure the majority of their medicines and medical products directly from external sources. As noted earlier, a limited amount is also procured directly through CMS. However, nearly all private sector respondents interviewed expressed frustration with trying to procure through CMS, and most have resigned to procuring elsewhere. All private pharmacists interviewed stated they only work with "reputable" distributors and/or drug manufacturers that are WHO prequalified. The private pharmacies import very few generics from India as there are a general sense of mistrust and limited post-market surveillance to ensure quality.

The private sector pharmacies interviewed use electronic inventory management systems. Pharmaceuticals at the private hospital were managed by the head nurse, who procured as needed when stocks were running low. Storage of drugs and medical supplies at private entities are unregulated so procedures are at the discretion of management.

7.5 RATIONAL USE

Dominica does not have a formalized rational drug use policy but it has been identified as a top priority by the Chief Pharmacist. An Essential Medicines List exists for Dominica, which is an adaptation of the OECS Formulary. The formulary is constantly reviewed by a Formulary Committee comprised of the Chief Pharmacist, CMO, DMOs, District Pharmacists, CMS, representatives from PMH, and various consultants as needed. Meetings are held to review and update the formulary based on estimated consumption patterns. To date, the Dominican formulary has been revised to include various drugs to treat cancer and glaucoma. If the needed therapy is not on the OECS formulary, then purchases are made outside of the PPS through reputable vendors. Vendors are generally identified as "reputable" if they have been vetted by OECS or a country in the region, such as Jamaica, that has more stringent regulations on the importation of medicines and medical products.

The use of generic medicines is neither actively promoted nor is it regulated (i.e., no provisions for generic prescribing or substitution). In practice generic substitution is done in all sectors in Dominica unless this is expressly prohibited by the prescriber (Health Research for Action 2009).

With PPS support, Dominica convened a national workshop on rational drug use in December 2010. More than 80 representatives from both the public and private sectors participated in the workshop, which focused on rational prescribing based on patient history, cost, and compliance with existing treatment guidelines. The training was so well received that the head of the OECS/PPS requested that the training be extended to the rest of the OECS member countries. It should be noted that draft regulations for the Pharmacy Act would require pharmacists to receive continuing education on rational drug use.

Dominica has unique prescribing protocols on certain classifications of drugs, especially at the PMH. There is a clear division between junior doctors and their more senior "consultant" counterparts. Respondents suggested that it has become customary practice for senior physicians to have to sign off on prescriptions written by junior doctors before drugs can be dispensed. This practice is a result of perceived issues with lower standards of practice and technical skills with respect to rational prescribing among junior staff, including those who received training in Cuba.

National treatment guidelines exist for diabetes, hypertension, and HIV. Both diabetes and hypertension were prioritized based on the fact that roughly 25 percent of the procurement budget is spent treating these two diseases. Efforts are currently underway to draft additional guidelines for tuberculosis and asthma. Barriers to rapid development of guidelines include a lack of human resources necessary for writing, finalizing, and enforcing protocols.

7.6 FINANCING

Prices for medicines are affordable in the public sector as they are heavily subsidized at EC$5/prescription but largely provided free of charge when necessary. Financing for pharmaceuticals comes from the drug revolving fund granted from the Treasury. Informants estimated that the actual budget for pharmaceuticals purchased through CMS is approximately EC$5.28 million (US$1.96 million) per annum. The gap between budget allocation and consumption value is widening and has been identified as a major problem for CMS. A recent OECS/PPS report indicated that the government budget for pharmaceutical procurement is insufficient and should be increased by 25 percent to meet current need (OECS/PPS 2011). Some costs are meant to be recouped through the nominal user fee for prescriptions purchased through CMS. In practice, however, this fee is rarely collected. Cost recovery mechanisms, including fees for registering and licensure of pharmacies and pharmacists, are included in the draft Pharmacy Act.

As presented in Table 7.1, pharmaceutical expenditures make up approximately 29 percent of total health expenditure in Dominica, slightly more than for the region as a whole. Per capita expenditures are also estimated to be somewhat higher in Dominica than for the region.

TABLE 7.1: FINANCIAL INDICATORS FOR MEDICINES AND MEDICAL PRODUCTS IN DOMINICA COMPARED TO LATIN AMERICA AND CARIBBEAN REGION

	Dominica	Year of Data	LAC Region	Year of Data
Total expenditure on pharmaceuticals (% total expenditure on health)	28.5%	2000	23.2%	2000
Total expenditure on pharmaceuticals (per capita at average exchange rate) (US$)	$57.00	2000	$41.79	2000
Government expenditure on pharmaceuticals (per capita at average exchange rate) (US$)	$37.00	2000	$12.21	2000
Private expenditure on pharmaceuticals (per capita at average exchange rate) (US$)	$20.00	2000	$32.45	2000

Source: Health Systems 20/20 (2011)

Currently, ARVs are available free of charge in Dominica, due to contributions from external donors. The OECS Round 10 proposal, which would have supported preferred provider services for vulnerable populations particularly for treatment, was not approved and funding from previous rounds expired in early 2011. A Round 9 Global Fund grant has recently agreed to fund first- and second-line ARVs for two years starting in 2011, with the expectation of increasing government contributions in subsequent years. As noted earlier, although Brazil has an agreement with the PPS to provide free first-line ARVs through 2013, there have been problems accessing these drugs. In September 2011, the PPS received a donation of ARVs, valued at EC$272,000, from Trinity Global Support Foundation based in Canada (OECS 2011).

Given the number of private pharmacies on the island, competition appears to be keeping prices within reach for many Dominicans. Based on CARICOM policies, certain essential medicines are Value Added Tax (VAT)-exempt, while medical products are not.

7.7 RECOMMENDATIONS

7.7.1 SHORT-TERM RECOMMENDATIONS

- **Prioritize the passing of a Pharmacy Act and associated regulations.** Though drafted, the Pharmacy Act and associated regulations have yet to be enacted. This legislation and its regulations are the result of considerable effort on the part of key stakeholders, and are based on existing legislation in other countries. However, until these regulations are passed, the MOH lacks the authority to properly regulate the pharmaceutical sector. The MOH should identify ways to address the current bottlenecks that are currently preventing this legislation from moving forward, and explore technical assistance options with development partners.
- **Explore creative solutions to strengthen coordination between public and private aspects of the pharmaceutical sector and ensure access and affordability of essential medicines**. Currently, inconsistent cooperation and communication between the public and private pharmaceutical sectors are leading to missed opportunities for financial gain and mutually beneficial synergies. For example, CMS has the opportunity to sell medicines and products purchased through OECS/PPS at cost plus a fixed fee. This is a revenue-generating mechanism for CMS while also enabling private pharmacies to obtain products at a potentially lower cost and with greater quality assurance. In order for this to be successful, however, CMS needs to ensure that private practitioners are regularly included in the procurement process and ensure that necessary medications and supplies are consistently available for purchase.
- **Prioritize the implementation of a National Medicines Policy.** A National Medicines Policy would play a significant role in strengthening health outcomes in Dominica by fostering access to and the rational use of pharmaceuticals and medical supplies. A draft policy has been in existence since 1999 and seeks to guide public and private sector actors involved in the manufacture, procurement, prescribing, and dispensing of pharmaceuticals. To date, however, the policy has not been finalized and efforts to do so have been hindered by HR constraints and competing priorities. The MOH should identify and address obstacles to the finalization and implementation of the National Medicines Policy.

7.7.2 LONGER-TERM RECOMMENDATIONS

- **Reinforce the existing pharmacovigilance system and encourage the active participation of the private sector.** Sound pharmacovigilance practices are required to detect, assess, understand, and prevent adverse effects and other drug-related problems. While Dominica participates in the OECS pharmacovigilance mechanism, reporting is rare to

nonexistent. Efforts to reinforce the existing pharmacovigilance system should include capacity building in the area of identifying and tracking ADR. Opportunities to incentivize reporting into the system by private sector pharmacists should also be explored.

- **Develop and implement an electronic inventory management system for the public sector.** The current inventory management system is ill-equipped to handle the procurement, distribution, and tracking needs of the MOH. Stock-outs are frequent, and CMS has little knowledge of needs at the pharmacies until requisition forms are received. Efforts should be made to use off-the-shelf systems and/or request technical assistance from the private sector, which is already utilizing electronic systems.

8. HEALTH INFORMATION SYSTEMS

Key Findings

- The HIU team is highly motivated and knowledgeable, although the lack of permanent positions threatens sustainability of surveillance and reporting efforts.
- There is strong reporting and intersectoral review of notifiable conditions/communicable diseases, in spite of manually driven reporting systems.
- The absence of a national HIS strategic plan hinders development of HIU priorities as well as measurement of progress towards these objectives, and may also limit the pursuit of adequate resources.
- Delayed data consolidation and dissemination limits effectiveness of data-driven policymaking.
- Minimal private sector reporting on important health indicators results in incomplete knowledge of health issues affecting Dominica.

HIS is defined as a "set of components and procedures organized with the objective of generating information that will improve health care management decisions at all levels of the health system" (Lippeveld et al. 2000). The HIS typically serves four functions: data generation; data compilation; data analysis and synthesis; and data communication and use. The HIS collects data from the health sector and other relevant sectors. It seeks to analyze the data and ensure overall quality, relevance, and timeliness; and converts the data into information for health-related decision-making. The functioning of the HIS at the national level provides a strong indicator of the overall health systems functioning. This chapter provides an overview of the key structures, findings, and recommendations for the Dominica HIS based on the assessment.

8.1 OVERVIEW OF HEALTH INFORMATION SYSTEMS IN DOMINICA

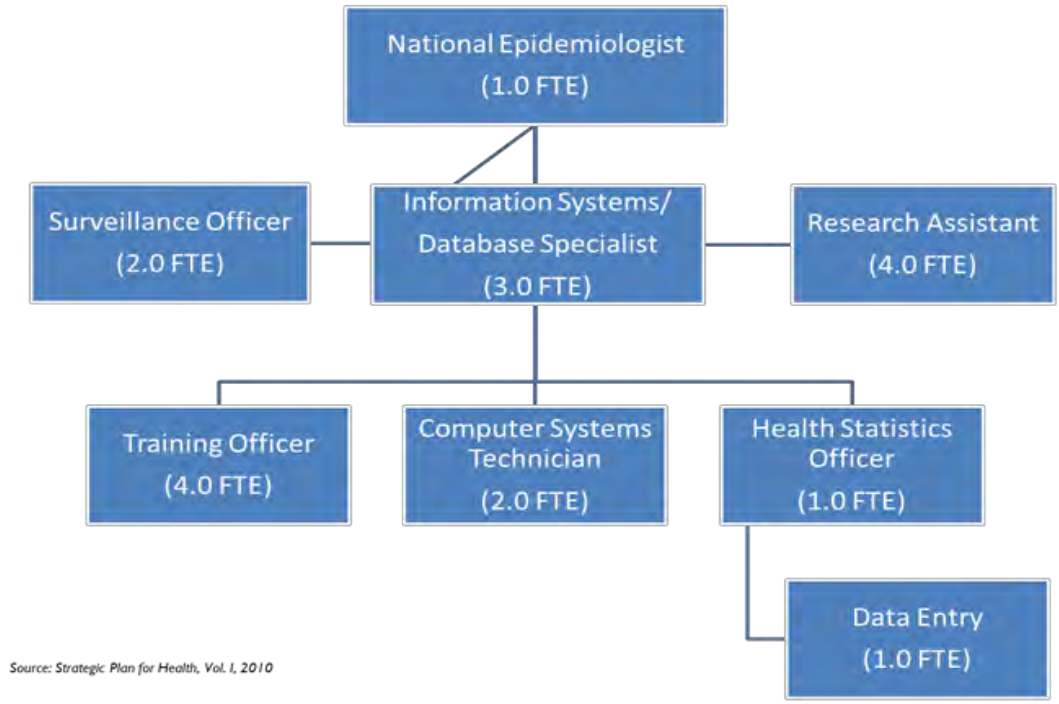
The Dominican health system has long benefitted from the visionary leadership of creating a robust national HIS to produce timely, accurate, and relevant information to support policy decisions. That vision, however, has struggled to come to fruition as severe limitations of staffing and resources have slowed progress. A variety of electronic information systems have been implemented at various points in the Dominican health system, but they have not been brought together under the umbrella of a comprehensive HIS strategic plan that supports the national health agenda.

8.1.1 STRUCTURE

The HIU within the MOH is led by the National Epidemiologist. There are currently only two full-time, permanent staff members in the HIU: the National Epidemiologist and the Health Statistician. There are two other staff members within the HIU, a Surveillance Officer and a Data Clerk, but both officially remain contract employees, posing a risk to retention of these staff members. The HIU reports to the CMO within the MOH. As envisioned in the National Strategic Plan for Health 2010–2019, the HIU

would transform into the Health Surveillance, Training and Research Unit with a complement of 18 full-time staff (MOH 2010a).The following organizational chart in Figure 8.1 outlines the core staff envisioned by the HIU as necessary for the unit to achieve its goals in supporting the Dominican health system.

FIGURE 8.1: PROPOSED ORGANOGRAM FOR DOMINICA HEALTH, SURVEILLANCE, TRAINING AND RESEARCH UNIT



Source: MOH (2010b)

The Dominican HIS is comprised of several subsystems. Surveillance data on notifiable conditions is reported on a weekly basis by a staff member from Type I health centers to the District Health Office housed at the Type III health center. The District Health Office then reports the data by telephone each week to the HIU's Surveillance Officer. If the data is not received in a timely fashion, the Surveillance Officer then tracks down the missing data by calling sites.

Routine health data is reported to the HIU from clinical sites including the country's 52 health centers, two district hospitals, and PMH. The privately owned Justin Fadipe Medical Center, private practice physicians, and various pharmacies also report some clinical information to the HIU, although not as formally as the public sector primary care sites. HIV/AIDS data represents a third flow of data from the health centers to the national level. Data collection, which is primarily paper-based, is routinely conducted to support external donor reporting requirements.

8.1.2 EXISTING PLATFORMS AND RECORD KEEPING

The Dominican HIS is a predominantly paper-based system at the PHC level. Type I and Type III health centers capture information in standardized forms received from the HIU. Data reporting varies slightly across facilities, depending on staffing. The Type I health facilities, such as the Petit Savanne Health

Center, have only one employee, a registered nurse, present on a full-time basis. In this type of facility, the employee balances clinical care with administrative duties, including capturing and reporting routine health statistics. Each facility develops an annual work plan which includes targets for the number of patients to be seen in each program area, including home visits for high-risk patients. The targets for number of patients seen by program area are set in conjunction with the Senior Community Health Nurse responsible for the district and include consideration of the size of population being served.

The data reporting forms, which are compiled and submitted on a quarterly basis, include the population numbers, the targets set for the annual plan, and progress against those targets. The Type I facilities submit their data to the District Health Office, which is located at the district's Type III facility. The District Health Office compiles the statistics for the district, which are then sent to the HIU. All of the facilities visited indicated that they get good feedback on the data reported in the form of a Yearly Report of District Activity.

The HIU began investigating the option of implementing an electronic Health Management Information System (HMIS) in Dominica as early as 2003, when a review team conducted site visits to Jamaica to see their HMIS in action. Dominica was then able to obtain funding from the CDB to support the purchase and implementation of the Heron Technology Corporation's Patient Administration System (PAS) for PMH. This electronic HMIS was initially implemented in 2006 and was intended to be the pilot site followed by a wider roll-out. Only a portion of the functionalities have been rolled out, in part due to the lack of funding to purchase additional licenses. Dominica did not undertake a functional specifications definition process prior to acquiring the HMIS, which made it difficult to compare any system that they reviewed against an objective set of evaluation criteria. In addition, to date the PAS has not been implemented at any other health facilities in Dominica.

The primary components of PAS being used at PMH are the admissions, discharge, and transfer functions. Medical Records staff at the hospital can search for existing patients in the PAS, but the majority of the patient record numbers are not captured in the electronic system. The manual registry of patient identification numbers that are assigned upon initial registration at the hospital indicates that there are more than 87,900 patient records on file. A review of the medical records storage rooms at the hospital confirms that estimate. There are no records retention policies in place at PMH to guide staff efforts to weed out non-active patient records, resulting in overcrowded medical records storage facilities.

8.2 HEALTH INDICATORS

Dominica does not have an official minimum health data set that is reported on a routine basis from all health facilities. Health facilities in Dominica do, however, report regular health statistics regarding number of visits, types of services provided, and diagnoses of patient conditions. Key HIV/AIDS-related indicators of positive HIV tests, numbers of patients receiving ARVs, and other morbidity and mortality indicators are also regularly reported to NHARP.

8.2.1 VITAL STATISTICS IN REPORTING

The Registrar is the Chief Records Officer for public documents, such as birth certificates, death certificates, wedding licenses, and property deeds. The Registrar is officially a member of the Supreme Court of Dominica. All births are required to be reported through the hospital where they take place, which covers virtually all of those born on the island. A death certificate is required in order for a burial to take place, with an International Classification of Diseases-10 code included. Death certificates are issued locally. While morbidity coding is not widespread, some is done at the PMH Medical Records

Department. However, an interview with the Chief Statistician indicated that there is a two-year backlog of morbidity coding to be completed. The annual Mortality Statistics Report was last published in 2009.

While not an officially enacted policy, Dominica has an "open records" law in principle. This "open records" law allows anyone to request a copy of a birth or death certificate from the Registrar's Office without showing a legal reason or a relationship to the deceased. Interviews with the Registrar indicate that the policy came under scrutiny following recent allegations of identity fraud tied to the records lawfully obtained from the Registrar's Office. The Commonwealth of Dominica does not issue or assign a national identifier to each citizen for tracking purposes across all government records. The issue has been raised a number of times over the last 10 years in Dominica to support such activities as voter registration, school enrollment, and patient medical record assignment. No agreement has been reached, however, over which government agency should be the central administrator of such a national identifier.

8.2.2 SURVEYS, CENSUS, AND SURVEILLANCE

Basic morbidity and mortality data in Dominica is available from the Central Statistical Office, which resides within the MOF. The Central Statistical Office's role is legislatively authorized: *"An act to provide for the establishment of a coordinated statistical system and for the taking of censuses and surveys, for the collection, compilation, analysis and publication of statistical information and for other matters related thereto"* (Commonwealth of Dominica, 1995). While authority to conduct surveys and the census is granted to the Central Statistical Office, no timeframes are mandated by the Census and Statistics Act for the implementation of the surveys and census.

Dominica launched its 2011 Population and Housing Census in April of 2011, with the enumeration ongoing during the assessment in the summer of 2011. The full data files and reports are expected to be released by March of 2012. The 2011 Population and Housing Census is expected to provide vital information including the complete count of the population size and distribution, age structures, educational attainment, development management, and other socioeconomic status data. Interviews with a variety of HIS stakeholders indicate the demand for the data provided by the Central Statistical Office is not high, which many see as a missing component and highlights the need to promote a culture of information in Dominica.

8.3 REPORTING RESOURCES

8.3.1 FINANCES

One of the starkest findings from this assessment is the level of funding provided to the HIU. A review of the Recurrent Expenditure Estimates shows that the HIU continues to be the least-supported unit within the MOH. As a percentage of the total PHC budget, which excludes the roughly 50 percent of the MOH budget allocated to PMH, the HIU portion represented just 0.41 percent in 2009/10, 0.34 percent in 2010/11, and projected at 0.41 percent in 2011/12 (Commonwealth of Dominica 2011). The HIU actively pursues and receives external funding for projects, many of which are used to supplement their limited staffing or for capital expenditures. Grant funding examples that were reviewed during the assessment include the Strategic Information and Laboratory Strengthening (SILS) Project from CDC, which supports two staff reporting to the HIU, and a loan from the CDB which supported the purchase of an electronic hospital information system for PMH. Without an increase in recurrent funds within the MOH budget, there are not likely to be sustainable opportunities to strengthen the Dominican HIS.

8.3.2 POLICIES AND REGULATIONS

The policy and regulatory framework supporting both public and private HIS in Dominica is relatively underdeveloped. There are only two known legislative policies covering HIS: the Census and Statistics Act, which grants the authority to perform surveys and the census on behalf of the government; and the Environmental Health Services Act, which outlines diseases that should be reported for public health tracking. Neither act requires that the compilation of data take place or that the data be shared or used for public policy development. There are also no guarantees of access to the data. While the Census and Statistics Act includes an incentive of EC$1 (US$0.37) for each reported communicable disease, none of the key stakeholders interviewed for the assessment were aware of the incentive clause's existence. Several key policies that are noticeably absent in the HIS domain are a Freedom of Information Act, a Protection of Personal Health Data Act, and a Mandatory Health Data Reporting Act. Each of these acts would move Dominica closer to creating a culture of health information use.

8.4 DATA COLLECTION

8.4.1 AVAILABILITY

Key stakeholder interviews and a review of the most recently available health data in Dominica indicate strong challenges with the timely reporting and dissemination of data at the central level. The data collection, dissemination, and use processes are often driven by external reporting requirements. Stakeholders for this assessment indicated that they only have access to the information that is being produced when requested and not through a structured data dissemination plan. By the same token, interviews with key actors within the HIS in Dominica also indicated that there was very little demand for data across the policy and programming sectors. Consolidated national health data from 2010 in Dominica rests in an unpublished and nondisseminated report in the National Epidemiologist's office. The report remains a draft due to the limited staffing and competing priorities within the HIU in Dominica.

8.4.2 QUALITY

At the time of this assessment, statistics on timeliness and completeness of routine data reporting were not readily available. However, the capacity of health center staff to collect and report data appears to be relatively strong. The HIU keeps regular records of communicable diseases, which are obtained and reviewed weekly by the Surveillance Officer. Findings from the communicable disease syndromic report, including timeliness of reporting and delinquent sites, are then recorded in the minutes of the weekly National Public Health Surveillance meetings. The completeness of routine data collection is not as well-known and would require regular review of records at the reporting sites. Another key gap clearly identified across the Dominican health system is the absence of data feedback to the reporting sites; while it is reported up the chain on a regular basis, there is very little discussion with the health centers about the performance of health centers on the data that they provide. On the clinical side, this issue is highlighted by the numerous clinical referrals made to PMH which generate limited feedback and discussion between providers coordinating care for patients. Interviews during the assessment indicate that surveys conducted and results distributed by the Statistics Office in the MOF are frequently met with little response within the government, reflecting in large part the limited time to review and comment on such material by staff.

8.5 DATA ANALYSIS

8.5.1 HUMAN RESOURCES

HR constraints within the HIU are a key concern for Dominica. With only two full-time, permanent positions, the HIU's capacity to regularly consolidate, analyze, and disseminate information is severely limited. The HIU relies heavily on international volunteers from a variety of programs and intermittent grant support to hire staff for nonpermanent positions. For example, the HIU obtained a grant from the CDC under the SILS initiative. This initiative is funding two HIV/AIDS program positions reporting to the HIU: one Quality Assurance Advisor whose role is to support development of protocols and standards for rapid HIV testing and the central Dominica laboratory, and the second is a Public Health Specialist who is responsible for the gathering of HIV program data, development of survey strategies, and improving data quality. The funding for these two positions is time-limited and, at the time of this assessment, there was no guarantee that the Dominica MOH would be able to absorb these staff positions at the end of the three years of support. The HIU has also relied heavily on a steady stream of volunteers from overseas; relationships have been developed with Japan, Canada, and the United States to provide short-term volunteers to supplement the HIU staff. This has proved useful in initiating many smaller projects, but not in sustaining initiatives over the long term. Without an increase in recurrent funds within the MOH budget, there are not likely to be sustainable opportunities to strengthen the Dominican HIS.

8.5.2 DATA FLOW AND CONSOLIDATED REPORTING

The base of the Dominican health system is the 52 primary care health centers. Health centers report their routine statistics and surveillance data through their District Health Office to the National Epidemiologist's Office, where data is consolidated in an electronic format. The National Public Health Surveillance and Response Team, a multisectoral, multidisciplinary committee, meets and reviews the surveillance data received on a weekly basis and initiates coordinated responses to perceived health threats. In addition, weekly syndromic data is received and reviewed from the A&E department at PMH and from the public health laboratory located there. The surveillance information is then entered into a local database (S-ComDis), analyzed, and reports generated which are then transmitted electronically to CAREC in Trinidad. A summary of CNCD data is compiled on an annual basis utilizing a template from PAHO and reported to CAREC.

Reporting of notifiable conditions and communicable diseases is mandated by the Dominica Environmental Health Services Act. While the legislation applies to both public and private medical practitioners, reporting from the private sector is not consistent. Surprisingly, HIV is not included as a notifiable condition under the statutory rules. However, positive cases are regularly reported, and it seems more commonplace for private providers to report positive HIV cases than other conditions or diseases (Commonwealth of Dominica 2004). A National Communicable Disease Surveillance Manual of Dominica was developed in 2007 following the regional template provided by CAREC.. While the copy provided by the HIU is still labeled "Draft," the manual was finalized and launched on December 10 2007. It was revised and re-launched in August 2010 with circulation of hard copies to all health facilities on the island. The procedures for reporting reviewed in the manual appear to match the actual surveillance data reporting process that takes place in Dominica. Based on several stakeholder interviews, it appears that guidance and policy documents often get stalled in draft form, possibly due to inadequate staffing.

Routine data reported form the PHC system include medical care, home visits, family planning, maternity services, and child health including immunization, nutrition, health education, school health,

mental health, and dental care. The hospitals also report inpatient data, including admissions, discharges, surgeries, procedures, tests, length of stay, and other key statistics. There are uniform, written indicator definitions that have been developed and distributed for communicable diseases, CNCDs, mortality and basic indicators, etc., but they are not compiled in a single document. Based on site visits conducted to a number of Type I and Type III health centers and to PMH, the understanding of the routine health data reporting process by staff in Dominica is well understood and reasonably followed.

HIV/AIDS data represents a third flow of data from the PHC level to the national level. Data collection, which is primarily paper-based, is routinely conducted to support external donor reporting requirements. Operational definitions for indicator reporting exist in accordance with donor requirements and are in line with international standards. HIV/AIDS visits and counseling data are captured using the standard paper forms at the health centers. These guidelines are specific to the reporting of indicators under the OECS Multi-Country Global Fund Grant for the Scale-up of HIV Prevention, Care, and Treatment Services. In addition to the HIU, the HIV/AIDS data are routinely reported to NHARP, which until recently had a Monitoring and Evaluation Officer responsible for data collection and analysis.

8.6 USE OF INFORMATION FOR DECISION-MAKING

8.6.1 PLANNING AND BUDGETING

Dominica received an EC$6.5 million (US$2.4 million) World Bank loan to participate in the OECS E-Government Regional Integration Program (E-GRIP) (World Bank 2008). The E-GRIP initiative primarily focuses on developing common frameworks for integrating commerce across the OECS countries, such as uniform customs clearance processes. There are, however, health components that are specifically called out in the E-GRIP project documents:

> Subcomponent 2.5 E-Government in Health and Other Social and Productive Sectors – (US$830,000)
>
> This subcomponent will provide assistance in the implementation of a ***regional pilot project in health management information systems***[….] The core health elements of this subcomponent will explore options, in synergy with existing efforts, for implementation of standardized hospital facilities management systems and electronic patient records, including key linkages with national identification systems and civil registries, as well as regional epidemiological monitoring programs. (World Bank 2008)

One objective of E-GRIP has been conducting an assessment of the Dominican national HIS using the Health Metrics Network (HMN) framework and tools. This support has entailed providing a two-day training on the framework, methodologies, and tools. Following the training conducted in late February of 2011 with assistance from PAHO, the HIU initiated the HMN HIS assessment with the support of a Canadian intern in health informatics. Some preliminary results were compiled in the late spring, with the help of the intern, but the report remains unfinished as the intern returned to Canada. The draft results indicated a significant weakness in data management (Bangash et al 2011). A key outcome of the HMN assessment is intended to be a national HIS strategic planning process. The development of an HIS strategic plan for Dominica would provide structured guidance to the HIU and other implementation teams on the development, evaluation, and implementation of electronic HMIS to support the health system.

The Performance of Routine Information Systems and Management (PRISM) framework and tools have also been supported in Dominica by PAHO and the OECS. The support included providing key Dominica stakeholders with training on the tools, which focus on determining the organizational,

behavioral, and technical determinants of routine HIS system performance. As with the HMN assessment, the PRISM assessment was expected to take place in the late spring of 2011. Scheduling conflicts, however, delayed the PRISM assessment until after site visits were conducted by this assessment team in July 2011.

8.6.2 POLICIES AND GOVERNANCE

As noted above, there is no national HIS strategic plan to guide the development systems to support the national health priorities in Dominica. Dominica has been working since 2005, however, on the development of an overarching ICT Strategic Vision. With the assistance of several external consultancies, Dominica initiated the development of an ICT Unit within the EPTD. The unit was formally created in 2009 with an initial year of funding support from the EU and subsequent funding from the government of Dominica. The Director of the ICT Unit sits on the MOH Information and Communication Systems Advisory Committee which is a multisectoral team providing guidance on health ICT initiatives. The National ICT Strategic Plan was developed with the support of a PAHO-funded consultant; the plan remains in draft under review by Parliament. The ICT Unit has a mandate to be "the central coordinating and executing agency established by the government to coordinate the planning, implementation and monitoring of e-government and the use of ICTs within the public sector" (Commonwealth of Dominica 2005).

This mandate has directly financially and technically supported the roll-out of internet connectivity through the government's infrastructure to health facilities across Dominica. Site visits by the assessment team in June 2011 to a sample of health facilities in Dominica did confirm the availability of working network connections. None of the facilities visited, however, had been supplied with computer equipment to leverage these connections, nor did they have any information on when such equipment might be supplied. Interviews with the ICT Unit indicated that their mandate included providing connectivity, while supplying the equipment to utilize that infrastructure rests with the MOH. This dichotomy of laying the backbone for connecting health facilities across the country without the capacity to equip them to utilize the backbone is emblematic of the underresourcing faced by the HIU in Dominica.

8.7 RECOMMENDATIONS

8.7.1 SHORT-TERM RECOMMENDATIONS

- **Convene a Technical Working Group to review Health Metrics Network Assessment and Performance of Routine Information Systems and Management Assessment results as a kickoff to a National Health Information Systems Strategic Planning process.** The development of a National HIS Strategic Plan for Dominica is a central priority. This plan will serve as a guide to both ongoing and intermittent health initiatives across Dominica. The E-GRIP initiative has supported trainings for two assessment HIS methodologies and is positioned to support utilization of the assessment results to develop strategies for strengthening the Dominican HIS. The MOH Information and Communication Systems Advisory Committee is an already-existing, multisectoral body strategically placed to take on the role of the Technical Working Group in Dominica. One central component of the HIS Strategic Planning exercise should be the comprehensive mapping of key HIS processes, data flows, business requirements (i.e., decisions needing to be made with the health information), and ultimately, functional specifications; this documentation will guide reviews of any potential electronic HIS or tools to meet programmatic needs.
- **Leverage mobile phones for surveillance reporting.** The current reporting of notifiable

conditions and/or disease outbreaks is done via fax or telephone and data is recorded by hand at the HIU, which has a severe shortage of staff to perform these duties. By contrast, Dominica has widespread mobile phone connectivity across the island and more than universal coverage with mobile phones. Research suggests that there are nearly seven times as many mobile phones as fixed land lines in Dominica. Given the relatively small data set for surveillance reporting, the broad coverage and availability of mobile phones, and the existence of tools to leverage mobile phones for data reporting into a central database, this approach should be explored in Dominica. A core team involved in the data capture and evaluation process should convene to explore the options for mobile phone reporting directly to a centralized database.

- **Implement the Routine Data Quality Assessment tool across the health system.** There are currently no formal data quality assessment processes in place with respect to data being reported to the MOH. One HIU employee has been trained on a standardized Routine Data Quality Assessment (RDQA) methodology and it has been applied in a review of HIV/AIDS data. No institutionalization of this process has taken place, however. The RDQA tool incorporates both data review and feedback components in its methodology, both of which are critically needed to strengthen the Dominican HIS. Implementing an RDQA mechanism in Dominica will likely improve the quality of data being reported, while also creating a feedback structure between central and district levels, and district and facilities levels. As an internationally endorsed and standardized methodology, the RDQA also has a complete set of user guidelines and training materials which can easily be customized to implementation in Dominica.

8.7.2 LONGER-TERM RECOMMENDATIONS

- **Develop a formal staffing plan to support the Dominica Health Information Unit in the long term.** The HIU laid out an ideal vision in the National Strategic Plan for Health 2010–2019 for transforming itself into the Health Surveillance, Training and Research Unit, which reflected a dramatically increased funding stream and a brand new building to house the unit. The long-term vision for development of HIS must include plans for staffing for the HIU that entail defining the specific roles and responsibilities of each position, the respective funding required to support the position, and includes a recruitment and retention component that is incremental in nature. Where skills for the required positions do not exist on the island, the development of training programs to create the long-term cadre of workers should be explored.
- **Initiate dialogue with private health providers around data-sharing opportunities.** While private providers are reporting some data, e.g., positive HIV cases and notifiable diseases, reporting is uneven. And private providers are not required to report other basic health indicators to the MOH. As data quality is improved within the public sector, opportunities exist to incorporate the private health sector into a dialogue around data quality and reporting. To generate interest from private providers in data sharing, consider the following steps:

    - Initiate a public-private dialogue on health reporting, reviewing current policies and beginning the discussion on why reporting is important and how data is used.
    - A good place to start is incentivizing reporting on notifiable conditions, making sure reporting positive HIV cases is part of this discussion. The dialogue could then broaden to other key health statistics that would improve knowledge on the burden of disease and otherwise assist with planning (number of patients, diagnoses, service mix, etc.).
    - Highlight the value of comprehensive health sector data for efficient service and resource coordination across both sectors – e.g., select a few service delivery categories and collect utilization and service cost data from both sectors to showcase how such information can be used for effective, evidence-based decision-making. This

data could be collected through a small survey implemented in collaboration with CARICOM researchers, for example.

- Ensure that the reporting burden for private providers is minimized, by involving them in the process of developing the reporting forms and/or procedures they would use. If Dominica were to implement an electronic system, this could make it easier for private providers to comply. CDC may be a potential resource in this area.

9. PRIVATE SECTOR CONTRIBUTIONS TO HEALTH

Key Findings

- A small but diverse private health sector contributes to the health needs of Dominicans, including a private hospital, several physician practices, 3 private practice nurses, 1 lab, 1 diagnostic center, approximately 10 pharmacies, and 9 private dentists. Many public sector physicians engage in "dual-practice," adding to these numbers.
- Limited data suggests that while all socioeconomic classes access private sector health services available on-island, use is concentrated among middle- and upper-income citizens.
- Weak professional organization and lack of sufficient regulation and quality assurance undermine the private sector. With no formal mechanism for engagement, the potential for fruitful collaboration with the public health sector is limited.
- Examples of public-private collaboration exist, ranging from corporate contributions to health to informal arrangements between private entities and the MOH. These examples can serve as a foundation for enhanced cooperation between the public and private sectors.

The role of the private health sector is often not explicitly conceptualized in a health systems framework. Harnessing the private sector can relieve constraints in delivering essential health services. It can also result in increased efficiencies in management and resource utilization, a broader market for health promotion messages, and greater responsiveness to consumer preferences. The private health sector can increase the scope and scale of services available in Dominica in important ways. For example, the private sector can reduce overcrowding in public facilities, provide access to specialists, expand availability of diagnostic services, and fill gaps when public sector drugs and supplies are unavailable. Corporate and philanthropic entities also invest in health education and services, and government engagement with these entities may leverage additional resources that lead to increased access to health services with improved health impact for the country.

This chapter synthesizes data on the private sector in Dominica, incorporating information presented in previous chapters supplemented by additional information to provide a comprehensive description of the sector. The chapter begins by describing the policy and business environment in which the private health sector operates, including the government's capacity to provide stewardship of this sector. Next, the scope, size, and breadth of the private health sector and its human resources is presented, including a discussion of linkages with the public health system. Private health financing and the private sector role in the supply chain are also reviewed. The chapter concludes with recommendations on how to better coordinate and integrate the private health sector into the overall health sector, harnessing the private sector's resources to complement public health priorities.

9.1 OVERVIEW OF THE PRIVATE HEALTH SECTOR

The private sector in Dominica was broadly defined for the purpose of the assessment, ranging from private delivery of health services and medicines, to private health financing, to corporate and philanthropic contributions to health. The private sector stakeholder domains identified for the assessment in Dominica include:

- Private health services – private doctors, nurses, and dentists operating in solo practice or as part of a group practice;
- Laboratory and diagnostic services – radiology and laboratory pathologists and technicians;
- Pharmaceuticals and medical supplies – private pharmacy personnel;
- Private health financing – private health insurance, household OOP costs, and company-sponsored health care and wellness services; and
- Corporate social responsibility and philanthropy – short-term corporate funding of health and wellness campaigns and corporate engagement in health policy.

There are indications that the private health sector in Dominica is growing, as evidenced by the establishment of a private hospital, numerous private physician practices, a private lab, a private diagnostics center, and several pharmacies, as well as private nurse practices. The development of the private sector belies the fact that it is largely unregulated, a point of concern for both public and private sector stakeholders. The lack of government oversight of the private sector in the areas of service delivery, training and continuing education, and pharmaceuticals has resulted in a parallel system, operating largely outside the established public health system.

Despite the apparent separation of the sectors, some informal cooperation exists, and private practitioners interviewed for this assessment expressed a willingness to improve communication and collaboration with public sector counterparts in the interest of improved patient care. However, true partnership can only be achieved if the public sector shares this intent to improve relations and better engage the private health sector.

9.2 GOVERNANCE AND POLICY ENVIRONMENT

While the private sector is independent from the government, medical provider ethics require adherence to Dominican laws and regulations in place to protect citizens. Government policy can both strengthen and stifle the private sector – the ideal is to balance its responsibility to citizens as well as to the private sector so that it may grow profitably and provide economic growth to the country as a whole. When optimized, an organized private sector can be an active participant in the health system and a resource partner to address the country's health needs.

In Dominica, the private health sector largely operates independently from the public sector, even though it is partially composed of practitioners from the public sector. There is little regulation by and no formal engagement with the MOH. This independence is beneficial for business, but does not ensure that quality health care is delivered to Dominicans. For the most part, the professional councils do not engage in regulation or set quality improvement standards. Some professional councils offer active support and guidance to their members, but largely act as registration bodies that validate credentials for doctors, pharmacists, dentist, and nurses.

9.2.1 ROLE OF THE PRIVATE HEALTH SECTOR IN GOVERNANCE

The extent to which private health providers have a voice in governance of the health sector is an important indicator of collaboration, and involvement in medical councils and professional associations is one way to exercise such a voice. Dominica has a Medical Association that serves as a membership body for physicians. Most of the private providers interviewed for this assessment felt both entities were somewhat ineffective. Some had previously served on the board, and participated in the association, but currently feel that such involvement is not worth the effort, given the lack of accomplishments and outputs. One respondent said he had reached out to the CMO when newly appointed to suggest a meeting, but the invitation was not accepted.

Private providers interviewed as part of this assessment expressed a genuine interest and commitment to joining efforts with the MOH to address inefficiencies in the health system and improve health outcomes for citizens. One respondent suggested the need to find "common ground" between the sectors, noting that patients may suffer when public and private providers don't work together. While engagement thus far has been limited and overtures from the private sector have largely gone unanswered, perhaps an important turning point is the recent consultation in June 2011 organized by the MOH to solicit stakeholder input on proposed changes to the Medical Act. While some private sector stakeholders interviewed for this assessment noted they were not aware of the forum, several mentioned that they had been invited and appreciated the opportunity. However, participation may have been low due to the timing of the event – it was scheduled during the work day, a time when many private practitioners are not able to attend. If future consultations were held in the evening or on the weekend, it may result in a higher turnout from the private sector. Alternate modalities, such as via email or other means, may be another way to increase awareness and subsequent input from key stakeholders.

The general consensus from private sector respondents was that Dominica's Medical Association has become dormant and is in need of revitalization. Physicians who were formerly members don't see the point in participating given its current state. The former president resigned over two years ago, and there was never an election to replace him, leaving the current Vice President the de facto leader. By virtue of the fact that such associations typically have members representing the public and private health sectors, the re-establishment of the Medical Association could be a cornerstone of increased public-private coordination in Dominica.

9.2.2 REGULATION OF THE PRIVATE HEALTH SECTOR

Official oversight and regulation of private providers rests with the MOH (through the CMO). Medical practice in Dominica is organized around two professional councils: the Medical Board (covering medical doctors, dentists, and pharmacists) and the GNC (covering nurses and nursing assistants). Becoming a private physician requires registration with the Medical Board and the MOH, as well as a business license. Other medical practitioners and establishments, such as lab technicians, diagnostic centers, nursing homes, and occupational therapists are not included. Due to lack of regulation, a business can be established without proof of credentials for these professions.

No providers interviewed could recall active enforcement of regulations from the MOH. The owner of the private hospital noted that he had been visited once by the MOH since opening his facility in 2001. Several stakeholders voiced concern about the need to update regulations and the lack of enforcement, and welcomed greater MOH oversight to ensure quality of care. One physician stated, "Anything that will improve patient care, I'm all for it!"

In light of limited government oversight, several private providers interviewed for this assessment noted the need to self-regulate to assure quality of care. The incentives to do so are higher in the private sector, as patient perceptions and satisfaction influence treatment-seeking. If a patient is dissatisfied, they will go elsewhere. To be clear, the majority of respondents welcomed increased enforcement of standards of care. However, given the current reality, one respondent noted "Any (facility) worth their salt will self-regulate and not wait for the government to do it."

As noted in the Chapter 7, the private pharmaceutical sector is also largely unregulated. A Pharmacy Act was drafted in 2004 and includes language to establish a Pharmacy Council charged with registering, licensing, and inspecting pharmacists and pharmacies. Regulations under this legislation would apply to personnel engaged in the manufacture, procurement, prescribing, and dispensing of pharmaceuticals, in both the public and private sectors. However, both the act and its regulations remained in draft at the time of this assessment.

9.3 PRIVATE HEALTH SERVICE DELIVERY

An important aspect of this assessment was to assess the current and potential contributions of the private sector to health. The extent to which the private health sector is engaged in service delivery is a key element of measuring private sector involvement. However, information on private service delivery was somewhat difficult to obtain, given that no central registry of private health facilities exists in Dominica. Information presented in this section primarily reflects interviews with private sector stakeholders, as well as information obtained from Yellow Pages listings. There appears to be significant variance in estimates of private health providers (between local informants and published reports) in Dominica, suggesting the potential need for documenting the private health sector in more detail as a first step to further engaging this sector.

As introduced in Chapter 5 and summarized in Box 9.1, the private health sector in Dominica includes a private hospital, private health and dental practices, a private lab, private pharmacies, diagnostic center, and non-profit organizations such as DPPA that provide sexual and reproductive health services. The Caribbean HIV/AIDS Alliance (CHAA)[5] and Life Goes On provide education, outreach, and health services related to HIV/AIDS.

The assessment team visited many of these facilities in the course of the fieldwork. Private health services appear to be concentrated in Roseau and Portsmouth, the former given it is the largest city on the island, and the latter driven by Ross University professors who also have a private practice. A shared trait among the private providers interviewed for this assessment is that the majority started their career in the public sector in Dominica, granting them considerable knowledge about both sectors.

[5] At the time of the assessment, CHAA was not in operation in Dominica. However, it is our understanding that funding from USAID/Barbados and the Eastern Caribbean is now supporting outreach efforts in Dominica.

BOX 9.1: Dominica's Private Health Sector at a Glance

Private hospital

There is one private hospital on the island – Justin Fadipe Medical Center – located in St. Joseph. Established in 2001, the 11-bed facility provides Dominicans with another option for secondary care, including certain surgical procedures. The hospital employs a staff of 15, and regularly draws on specialists (e.g., surgeons, anesthesiologists) as required. See Box 9.2 for additional information.

Private physician practices

It is estimated that 12–15 doctors are solely practicing in the private sector in Dominica. Dual practice in the public and private sectors is reportedly common among physicians, although dual practice is not formally tracked. A small number of private doctors employ nurses or nursing assistants as well.

Private dental practices

There are approximately nine private dentists on the island, a significantly higher number than employed by the public sector. Private dentists provide a range of preventive and curative care to a cross-section of the population.

Private nurse practices

There are three nurses practicing independently in the private sector, providing services ranging from blood pressure and glucose checks to immunization and company wellness programs, as well as HIV/AIDS counseling and testing. Nurses provide health services in a variety of venues, including in their homes, at a small clinic, on site at local companies, as well as at the entrance of a local supermarket.

Supply chain

There are approximately 10 licensed private pharmacies in Dominica currently in operation. A long-standing private lab and a private imaging center also comprise part of the supply chain in Dominica. There are no wholesale distributors in Dominica.

Industry

Health insurance is made available to employees of most large companies in the financial, tourism, and telecom sectors. Some companies contribute to community and national health needs through regular or ad hoc financial contributions and in other ways. Other businesses have adopted HIV/AIDS workplace programs and support HIV prevention efforts in the community.

Non-profit sector

NGOs are not engaged in the direct provision of medical care, with the exception of sexual and reproductive health services, as offered by the Dominica Planned Parenthood Association. The Caribbean HIV/AIDS Alliance and Life Goes On provide education and outreach services related to HIV prevention, care, and treatment.

Convenience and confidentiality are the most-cited reasons for visiting providers in the private sector, according to interviewees. Additionally, waiting time is usually shorter at private facilities, and choice of provider is guaranteed for those who may seek a particular individual. Respondents also suggested that the private sector may have other advantages over the public sector. For example:

- Some private providers have been instrumental in securing specialty medical services on the island (e.g., podiatry, cardiology) through visiting specialists from other islands.
- The private lab is able to provide faster response times to doctors for test results as well as perform tests are not available in the public lab. La Falaise House has adopted a new test for diabetes, HbA1c (glycated hemoglobin), which is the new standard of care. At the time of the assessment, this test was not available in the PMH lab.
- Private pharmacies offer a wider variety of branded medication than is available in the public sector.
- The private sector can actually improve quality in public sector – by exposing patients to better services, which they can then demand from the public sector.

Many private sector respondents felt that the private health sector may be key in addressing the lack of tertiary care on the island. Several private sector representatives agreed that providing necessary care

in Dominica is less expensive than citizens seeking care overseas. While it may not be possible nor advisable for Dominican health facilities to be able to respond to all health care needs or emergencies, there could be benefit to regularly bringing specialists to the island to address ongoing and nonemergency care. There are examples of private providers being instrumental in bringing such specialists to the island – a private nurse has arranged for a podiatrist to visit the island annually to address the growing need for foot care among diabetics, and a dual practice physician helped bring a cardiologist from Trinidad to Dominica, attending to both public and private patients. The general consensus is that the private sector is better positioned to bring specialists to the island, given the protocols and necessary approvals required for the MOH to accomplish this. The examples noted here appear to be viable and worthy of replication and/or expansion. It was also noted that PMH previously had a private wing, although this has now become the dialysis center. If such a wing were included in the plans for the new hospital, this could facilitate regular visits by medical specialists to the island, particularly if specialty care could be made available to public sector as well as private-paying clients. Another cost-effective option for increasing access to specialty care may be contracting with private providers for care not available in the public sector.

Two respondents who work at PMH and have also established private practices commented on what they perceive to be overreliance on A&E at the hospital – estimating around 3,000 visits per month. A small private practice group has plans to open an ambulatory care clinic to address the high need for such care. Such clinics may help relieve the high demand for ambulatory care at PMH, allowing the hospital to focus on inpatient care.

Box 9.2: Justin Fadipe Medical Center

Justin Fadipe Medical Center (JFMC) is an 11-bed hospital facility located in St. Joseph parish. Owned by a Nigerian surgeon who previously worked at Princess Margaret Hospital (PMH), the hospital has expanded its service offerings in stages, starting in 2001. In addition to the full-time surgeon, the hospital employs a staff of 15, including a full-time matron and accountant, and several part-time nurses. To facilitate better forecasting of personnel and supplies, the hospital is now focusing on surgical procedures and same-day surgery in particular.

Approximately 40 percent of patients pay out-of-pocket and 60 percent are covered by health insurance. The hospital has established a sliding fee scale, with lower prices for patients paying cash out-of-pocket than for patients covered by health insurance. Payment plans up to six months are an option for cash patients. Although the establishment of JFMC apparently prompted passage of the Hospitals and Health Care Facilities Act in 2002, oversight by the Ministry of Health (MOH) has been lax. The MOH has visited "once or twice" in the past decade, although increased oversight would be welcome. In the absence of government oversight, the hospital largely self-regulates, including the use of written protocols to guide treatment in all departments.

Despite the important role the hospital appears to be playing in the health system in Dominica, communication between JFMC and the MOH and PMH physicians appears to be minimal. As patients do alternate in seeking services between JFMC and PMH, the lack of communication is a potential concern, and may jeopardize patient care. In fact, the owner of JFMC has noted that patients he refers to PMH are not always well received, remarking there is a "steeper gradient" for a patient to climb once PMH doctors know that the referral came from JFMC. And when patients elect to self-refer to his facility after being diagnosed at PMH, this is considered an insult to the public doctors. Perhaps because of this, in his experience it is difficult to obtain patient records from PMH, although he has observed patient records are readily released to overseas providers.

In spite of the lack of current cooperation with the public sector, the hospital remains open to greater collaboration with the MOH and PMH, particularly as this can only improve continuity of care and health outcomes for Dominicans seeking services from both sectors.

9.3.1 UTILIZATION OF PRIVATE HEALTH SERVICES

In the absence of a population-based Demographic and Health Survey, data on health care-seeking in the private health sector is limited. However, a recent Country Poverty Assessment conducted in 2008 does offer some information on utilization of private health services. Nearly 25 percent of all respondents reported they first sought care from a private provider on-island, with another 6 percent seeking care from a private source overseas (Kairi Consultants Limited2010). Whereas nearly 44 percent of respondents in the wealthiest quintile sought care from a private source, approximately 15 percent of the poorest quintile did so (See Figure 5.3 in Chapter 5, Service Delivery). However, reliance on the private health sector was fairly consistent for the middle three wealth quintiles (Kairi Consultants Limited 2010).

Anecdotal evidence and informant interviews suggest that despite a strong national HIV/AIDS program, related services are also sought in the private sector, including HIV tests, treatment for OIs, and even ARVs (through private pharmacies). Some private providers reported that HIV-positive patients seek care and treatment off-island, perhaps in an attempt to avoid potential stigma and discrimination.

9.3.2 COST OF SERVICES

Private providers are generally expected to adhere to standard fees for services (see Appendix C). However, respondents expressed the sentiment that not all private practitioners subscribe to these rates, and at the very least there is no enforcement of these rates. Several respondents suggested that they will adjust their fees based on a client's ability to pay. One physician said that the need to charge for his services, contrasted with a patient's ability to pay and need for care, was one of his greatest dilemmas as a private practitioner.

9.3.3 DUAL PRACTICE

Engaging in dual public/private practice appears to be the norm among medical practitioners in Dominica. While respondents were not able to suggest an actual figure, most suggested that a majority of physicians employed in the public sector also had a private practice. A recent PAHO report estimates as many as 54 physicians practice in both sectors (PAHO 2010). A positive aspect of dual practice is that it may help retain physicians on the island, offering these health providers the opportunity to supplement government salaries. This was verified by a few private sector respondents. However, some staff at PMH had a different view of dual practice, observing that the lack of guidelines stipulating work hours in the public sector results in junior doctors being left unsupervised, thus jeopardizing patient care.

Certain physicians employed by the MOH, such as DMOs, are not allowed to have a private practice. While there are no laws or regulations governing dual practice, there is a protocol in place whereby doctors in the public sector must request permission from the CMO to establish a private practice. The proposal must include approximate office hours for private practice, and a commitment that public service will take precedence over private practices. Doctors wishing to open a private practice must also forfeit the monthly stipend (EC$800 [US$296] per month) paid to public sector physicians who only work for the government. However, more tenured doctors did not view this stipend as sufficient incentive to discourage private practice, noting that they could earn this amount in one to two days of private practice.

The general assessment from stakeholder interviews is that physicians with more experience are more likely to have a private practice, whether full-time or combined with government service.

Some respondents suggested dual practice affords certain benefits. For example it is felt that dual practice physicians can afford to lower their rates, as they receive a base salary from the MOH. Moreover, physicians that work in both sectors seem to have better luck sourcing drugs and supplies from CMS than do physicians that solely work in the private sector.

9.3.4 REFERRALS BETWEEN PUBLIC AND PRIVATE HEALTH FACILITIES

There is anecdotal evidence of mobility of clients between private and public providers of medical care in Dominica. This is apparent in the fact that approximately one in four Dominicans first seek care from the private health sector – and even 15 percent of the poorest do so (Kairi Consultants Limited 2010). Several respondents for this assessment confirmed that they see a cross-section of the population in their private practice, and that seeking care from private as well as public facilities is common. However, as noted in Chapter 5, Service Delivery, there appear to be significant barriers to referrals between private providers and PMH doctors.

Other challenges were reported related to physician communication and referrals between private physicians and PMH physicians. For example, a patient may go to a private facility to have diagnostic tests or a consultation, and when the problem is diagnosed, may decide that the cost of the procedure is too high and will then ask to be referred to PMH. In some instances, the patient may face some difficulty getting admitted, or the admitting physician may not "trust" the diagnosis of the private physician, insisting that diagnostic tests be re-administered and thus delaying treatment, perhaps unnecessarily.

9.3.5 PRIVATE SECTOR HEALTH REPORTING

Several providers acknowledged that it was important to report notifiable diseases to the MOH, including HIV, tuberculosis, and hepatitis. The assessment team learned that private providers are reporting such information to HIU, NHARP, and to PHC facilities (in the case of a private nurse). However, reporting appears to be uneven, and there were some concerns about burden of reporting. For example, HIV test results must be reported to NHARP while other data and results are reported to HIU. Nearly all of the private providers commented that they had been contacted by the National Epidemiologist and encouraged to report data, and they seemed to appreciate these efforts. In fact, several respondents stated that this was the only contact they had with the MOH.

9.4 PRIVATE SECTOR ROLE IN THE SUPPLY CHAIN

The private sector serves an important role in the medical supply chain by providing a choice of medical and paramedical products conveniently and affordably for citizens. Key actors in the supply chain in Dominica include private pharmacies, a private lab, and a private diagnostics center.

9.4.1 PRIVATE PHARMACIES

It is estimated that there are at least 10 private pharmacies in Dominica, with the majority located in Roseau or Portsmouth. While some respondents suggested there has been growth in the private pharmacy industry in recent years, others indicated that the lack of training opportunities for pharmacists has constricted growth of this sector. In either case, private pharmacies play an important role in meeting the demand for pharmaceutical products in Dominica in that they allow patients to fill prescriptions at times more convenient for them, often with a shorter wait time. They also provide a range of products that are not available in the public sector, especially for branded treatments. Commonly dispensed drugs include painkillers, antibiotics, and treatments for hypertension and diabetes. Pharmacy respondents suggested that their clientele represents a cross-section of the

population, while noting that their retail prices were higher than the nominal amount charged in the public sector.

Private pharmacies visited for this assessment utilized electronic inventory systems to manage their stocks. As noted in Chapter 7, Management of Pharmaceuticals and Medical Supplies, private pharmacies are virtually unregulated in Dominica. Although permitted to procure through CMS, reported challenges purchasing drugs and supplies through this public sector source has prompted most pharmacies to procure from private sources overseas, although there is little oversight for such procurement. Drugs and supplies are commonly procured from Barbados, Jamaica, and the United States, with less frequent mention of India and China. There is some indication that private pharmacies are combining orders from certain suppliers, although one respondent expressed a desire for greater cooperation in drug procurement.

Some of the issues pharmacy respondents reported as challenges include:

- Lack of training opportunities for pharmacists;
- Difficulty procuring medicines and supplies from CMS, with one respondent noting that he felt like he was "disturbing CMS" when he tried to call in an order; and
- Limited opportunities to network with other pharmacists, both within Dominica as well as in the region.

9.4.2 MEDICAL SUPPORT SERVICES

Medical services such as private labs and imaging centers also play a role in the health supply chain since they supply services to private providers. Private lab services have sometimes filled needs for the public sector, proving more reliable when testing machinery at the hospital is not operating or when the hospital is out of regents for testing. Dominica has one private lab (La Falaise House) and one medical imaging facility (Medicus Diagnostics).

As noted in the Chapter 5, Service Delivery, La Falaise House has operated on the island since 1993. The lab offers many tests that are not available at the national lab, such as HbA1c which is now the standard of care for diagnosing diabetes, and conducting rapid testing for HIV. Positive tests that remain positive after re-testing are sent to Martinique for Western blot confirmation. The lab informs doctors when tests are positive, and reportedly provides these data to NHARP. Other tests commonly performed include thyroid function, DNA, cancers, and hormonal tests. There is currently no formal relationship between La Falaise House and the public laboratory at PMH, although greater cooperation would be welcome. The lab purports to adhere to international laboratory standards, and recognizes the need to voluntarily self-regulate in the absence of MOH oversight.

Medicus Diagnostics is a private medical imaging facility providing ultrasound, x-rays, contrast radiography, and vascular ultrasounds, including echocardiograms and EKGs. The facility is owned by a radiologist who works at PMH. The diagnostic center recently joined efforts with the Dominica Cancer Society Breast Health Campaign, offering mammography at a discounted rate to all clients referred by the campaign (Dominica Central Newspaper 2010).

9.4.3 PROCUREMENT OF DRUGS AND SUPPLIES

Private providers in Dominica procure the majority of their medicines and medical products directly from external sources, as there are no wholesalers or distributors on the island. Suppliers from Barbados, Jamaica, the United Kingdom, and the United States were most frequently mentioned by respondents, although some mentioned sourcing from China and India, noting the significantly lower

costs. However, other respondents expressed reluctance importing drugs from India and China, based on a general sense of mistrust and limited post-market surveillance to ensure quality. Most private providers interviewed for this assessment stated they only work with "reputable" distributors and/or drug manufacturers that are WHO prequalified, but they do not follow any guidelines from the MOH. One respondent also reported a negative experience with a supplier from St. Lucia, which prompted him to cease ordering from that source. A limited amount of drugs and supplies is also procured directly from CMS, although the majority of respondents mentioned problems with CMS. Many suggested procuring from CMS was easier is the past, but in recent years it has become more difficult.

9.5 PRIVATE FINANCING OF HEALTH

Private financing of health in Dominica is primarily comprised of household OOP spending and company contributions through private health insurance. While limited data was available to the assessment team, estimates suggest that household and employer health spending is approximately 32 percent of total health spending.

Given the lack of tertiary care on the island, it is perhaps not surprising that about 20 percent of household OOP spending is spent overseas. That amount is supplemented by health insurance payments, which accounts for less than half the costs.

Private health insurance provision in Dominica is offered by five to seven private insurance companies. Based on data provided by private insurers, we estimate that approximately 15,000 Dominicans are covered by private health insurance, totaling 21 percent of the island's population. Of those covered, the majority are those who have formal employment-sponsored insurance. The Country Poverty Assessment documents that coverage rates increase with income, with coverage at 4.3 percent in the lowest income quintile and 24.3 percent in the highest. Annex B shows a breakdown of these coverage data. Recent financial failures of BAICO and CLICO have affected multiple Caribbean countries, including Dominica, resulting in decreased confidence in private insurance companies.

In addition to the private insurance companies, some larger employers (e.g., employing more than 200 workers) offer health insurance to their employees including benefits for tertiary and off-island care.

9.6 PRIVATE SECTOR ENGAGEMENT IN HEALTH

Through the assessment, the team learned of several examples of private engagement in health, often in partnership with the public sector, that may serve as the foundation for further cooperation between the sectors.

LIME

LIME is the largest mobile service provider in Dominica. As a company, contributing to the health needs of Dominicans is one of the pillars of its corporate social responsibility program. The company supports the Roseau District Health Facility, including regular health fairs, and is also a member of the PSFH. LIME has also collaborated with the MOH, using their SMS platform to deliver health messages to its mobile phone subscribers. Recently, the General Manager was appointed as the chair of the National HIV/AIDS Committee. In this capacity he will support the efforts of NHARP; guide policy related to HIV/AIDS; and engage wider private sector participation in Dominica's HIV response. Serving as the chair of the committee, combined with LIME's tradition of supporting health needs of Dominicans, lends itself to an even greater role for instigating broader private sector participation in health and HIV/AIDS in the country.

Ross University

Ross University is an off-shore medical school with a tradition of supporting the health system as well as health needs more broadly in Dominica. Ross University provides equipment for 19 public health centers, PMH, and Justin Fadipe Medical Center – sites where medical students have clinical learning opportunities and rotations. Ross University staff members and instructors are in frequent communication with MOH staff, and are often asked to contribute to pressing health needs. For example, Ross University staff played a key role in developing a national Manual for Hypertension and Diabetes (a three-year endeavor) in collaboration with the MOH. The university also offers CME credits for all health workers in Dominica, whether they practice in the public or private sector, and recently provided assistance to MOH to convene a workshop to review and revise the draft Medical Act (in June 2011). While respondents noted some challenges in partnering with the MOH, including slow progress of joint activities and uneven communication, the university remains committed to contributing to a sustainable health system in Dominica, and remains a viable – and valuable – partner for the MOH.

Private Sector Foundation for Health

PSFH is a business foundation with the mandate to contribute to the health needs of Dominicans, under the premise that the government alone cannot meet all the needs. PSFH has been operational since 2005, and currently has 18 corporate members who have collectively contributed to the purchase of medical equipment at PMH and provided grants to individuals in need of overseas treatment in recent years. PSFH liaises closely with the MOH as well as PMH, in addition to responding to citizen requests for medical assistance. The foundation could serve as a basis for increased participation and cooperation from the private business sector to address health needs in Dominica, in partnership with the government. See Box 9.3 for further information on the foundation.

Scotiabank

As part of a regional partnership to encourage HIV testing involving the Caribbean Broadcast Media Partnership and Scotiabank, NHARP partners with Scotiabank branches in Dominica to promote awareness of HIV through designated testing days in June. This past year, testing was promoted in Roseau as well as in the Kalinago Territory. The partnership offers the opportunity to increase awareness of HIV status as well as reduce stigma associated with the disease.

Nurse Corporate Wellness Promotion

As noted in Chapter 5, there are approximately three nurses with private practices in Dominica. All have their roots in the public health sector. One particularly entrepreneurial nurse promotes herself as a wellness nurse, especially in light of the burden of chronic disease in the country. She approached several companies and offered her services, and now has a growing number of employers that she visits periodically to offer wellness check-ups for employees, receiving EC$70 per employee from the company. Current clients include Dominica Electric, DoWasCo, and National Bank.

With regards to private sector involvement in HIV/AIDS, it is worth noting that the Employment Federation is a member of the National HIV/AIDS Committee, providing input to policies regarding HIV. Many of its 37 members have adopted HIV/AIDS workplace policies, although this was noted as an area that could be further strengthened in Dominica. As an example of an informal public-private partnership, NHARP has established an agreement with Jolly's Pharmacies to ensure HIV-positive clients receive free treatment for OIs. The pharmacy retailer provides medications to patients with approved prescriptions, and then invoices NHARP monthly for reimbursement. The agreement has allowed NHARP to leverage the capacity of private pharmacies while ensuring affordable access to essential OI medications.

Box 9.3: Private Sector Foundation for Health

Dominica has a unique philanthropic entity that cooperates with the Ministry of Health (MOH) and contributes to the health needs of local citizens. The Private Sector Foundation for Health (PSFH) was established in 2005 by the Executive Director of Astaphan's, a large retailer on the island. PSFH was founded on the notion that the health sector was in crisis and the government alone could not address the country's health needs. The foundation is governed by a volunteer Board of Directors and a Medical Advisory Board that provides technical input on funding allocations. The Chairman of the Board communicates with the Permanent Secretary and the Minister of Health to learn about pressing health need. There is also one full-time staff member that supports day-to-day efforts and liaises regularly with Princess Margaret Hospital (PMH) – primarily with the Hospital Services Coordinator and the CMS Supplies Manager.

There are currently 18 corporate members (See Appendix D), each paying a minimum of EC$10,000 (US$3,704) per year. PSFH primarily provides direct medical assistance to individuals for health care and finances needed equipment for PMH. The foundation has contributed EC$902,666 (US$334,321) to address health needs in Dominica in recent years: EC$411,215 (US$152,302) for medical equipment and EC$491,451 (US$182,019) for medical grants to individuals.

Direct medical assistance

Dominicans apply for medical grants online and PSFH then verifies the request and need for assistance. Once approved, the patient is given a bank draft to present to the medical institution. A legal agreement is signed by both parties with specific terms, including any unutilized money is reverted to PSFH and any costs not articulated in the agreement are the responsibility of the patient.

Financing medical equipment for Princess Margaret Hospital

PSFH finances equipment but does not shoulder any responsibility for ongoing servicing or maintenance. PMH provides a priority list, which the Medical Advisory Board then reviews and decides on what they will support. Given the needs of PMH, purchasing equipment was initially 60 percent of PSFH funding. However, PSFH has recently decreased this earmark due concerns with how previous funding has been used, opting increase funding for direct assistance to individuals. Some of the reasons for this shift include:

- Disappointment with the performance of the Medical Equipment Committee at PMH;
- Sense of need for better inventory control of equipment at PMH; and
- Poor decision-making on the part of PMH in sourcing equipment.

For example, in 2010, PSFH provided EC$67,500 (US$25,000) for Emergency Room (ER) lights. However, PMH procured refurbished lights that did not work and because of the source were not able to get a refund. Other times, PMH has not procured necessary accessories or failed to purchase the service manual – with implications for use and functioning of purchased equipment.

These experiences have resulted in a loss of confidence among PSFH members that money will be put to good use. The nonfunctional ER lights contributed to 17 percent of PSFH annual contributions going to waste. This in turn affects the willingness of members to contribute annual dues and maintain their membership. PSFH would like assurances from the MOH that they will be better stewards of the funds, and if so, feel that the foundation could gain more members and mobilize additional resources to contribute to health needs of Dominicans.

9.6.1 OPPORTUNITIES FOR GREATER PRIVATE SECTOR ENGAGEMENT

While there is no regular forum for discussion or dialogue between public and private health sector stakeholders, the contributions described above illustrate that partnerships are occurring. By and large, private sector stakeholders interviewed for this assessment expressed a desire to meet the health needs of the Dominican population, with one respondent noting the "government cannot provide all levels of care that people need." A recognition that increased cooperation with the public sector would help achieve this aim was nearly universally expressed through interviews with the private sector. The government of Dominica, and the MOH in particular, should take advantage of the private sector's interest in greater collaboration, viewing this sector as a potential partner in helping the country achieve its health objectives. In the foreword to the National Strategic Plan for Health 2010–2019, the Minister of Health, the Hon. Julius Timothy, eludes to this, asserting that Dominica will surmount health challenges "through hard work, enthusiasm and the support of NGOs, the private sector and other ministries" (MOH 2010b). The assessment found that the majority of private health providers on the island began their careers in the public health sector, and many others are jointly practicing in both sectors. This seems to support greater inclusion of the private health sector into the overall health system, as there is considerable overlap and more similarity than difference between public and private health providers.

In addition to the private sector contributions described above, some industry respondents suggested that the MOH think about their potential contributions outside of providing financial assistance, such as tapping their business management and strategic planning expertise for a specific health need or issue. For example, the assessment team has noted that there is little incentive for PMH to collect fees, as they revert to the MOF and do not support the hospital or health needs. One private sector respondent expressed her disagreement with this practice, noting fees should be invested back into the hospital or at least the MOH. Another respondent suggested business leaders could assist with planning the new hospital, and perhaps contribute ideas for improving the management structure of the current hospital.

However, for partnerships to work, the MOH has to meet the private sector halfway, which may require changes to its customary practices. One respondent that has had experience working with the MOH expressed frustration at the slow pace of the collaboration, stating "The private sector is much more efficient – it's difficult working with the public sector."

9.7 RECOMMENDATIONS

9.7.1 SHORT-TERM RECOMMENDATIONS

- **Conduct a baseline mapping of private sector services and resources.** Given the recent growth of the private sector, and the apparent discrepancy about actual numbers of private providers on the island, a mapping of providers and services will provide the MOH with a better understanding of both the range of services and numbers of providers operating in the private sector. The mapping effort should include identification and classification of dual practice operators, and could be expanded to include all stakeholders involved in providing health services to citizens to identify gaps in services. The mapping will also help identify the level of specialization, equipment available, services offered, staffing, and location of each provider. This effort would enable the MOH to engage in an effective discussion regarding regulation, collaboration, and effective health provision through the public and private sectors.
- **Start a dialogue between public and private sectors to identify ways to collaborate that may increase efficiency and quality of health services.** Convene a meeting with leaders in the public and private sectors and a neutral facilitator to determine how to engage

key stakeholders in the group. Given the likelihood of decreasing external assistance for HIV/AIDS, the group may want to start by exploring ways in which the private sector might play a greater role in sustaining Dominica's HIV response. A discussion on improving patient referrals and communication between the public and private sectors is another pressing topic, as is streamlining and strengthening private sector reporting of key health data. The success of this effort may require identifying a person who is a focal person within the MOH to maintain engagement and integrate ideas and solutions throughout the ministry after the meeting.

- **Identify services in the private sector that may be able to fill gaps in public provision through negotiated contracts.** Examples may include back-up lab support services for nonroutine lab work, medical imaging, and medical education through Ross University.
- **Explore partnerships with the private sector that maximize resources for both public and private sectors.** Through meetings to convene partners and programs, identify the priority areas for strategic engagement and value added. Key private sector stakeholders should include PSFH, Ross University, LIME, and Scotiabank, given their notable inputs to health on the island. Technical assistance could help identify priority programs and areas for strategic engagement and establishing a process and strategy to advance the search for and development of public-private partnerships.
- **Fast-track the passage of the Medical Act and the Pharmacy Act.** Both pieces of legislation have implications for the private health sector and are urgently needed. Although instituting a legal analyst within MOH would help move legislation forward, if it's not feasible to support such a position, PAHO could be a potential source of expertise, through seconding a legal analyst to the MOH for a finite period to draft regulations. Increasing regulatory oversight of private health practices is welcome by private providers, and thus enabling the Medical Board to provide this function would be ideal. In the interim, increased efforts to include private providers in training opportunities is a first step; another way to ensure quality would be to reinvigorate the Medical Association to serve as a resource on standards of care for private providers.

9.7.2 LONGER-TERM RECOMMENDATIONS

- **Engage key private sector leaders in developing public health plans and strategies.** In particular, articulate the role of the private sector during the planning process and how their responsibilities will be operationalized. Private sector input – from both the health sector and business – could be particularly helpful in planning for the new hospital, and private sector stakeholders expressed a willingness to participate and provide new ideas.
- **Develop and enforce guidelines on dual practice in the public and private sectors**. While dual practice is common in Dominica, the lack of guidelines on this practice may be negatively impacting patient care. As part of HR planning, the MOH should address the factors that contribute to distortions in provider incentives to serve private patients at the expense of public service. Factors include, standards, evaluation, issues related to salary levels, and working conditions.
- **Consider ways in which the private health sector can help provide needed specialty care on the island.** The private sector is leading the effort to bring specialties to the island, and can share lessons it has learned about bringing needed services (e.g., cardiology, podiatry) to Dominica. It may be possible to replicate and/or expand on these experiences. Another option to explore is whether it may be feasible for private medical specialists to utilize space in the planned new hospital. There had previously been a private wing at PMH, and reinstating such a wing in the new hospital may be a way to ensure access to specialized medical care cost-effectively.

10. DISCUSSION

Specific findings within each of the six building blocks are important to address individually. However, there are a number of cross-cutting, interrelated issues that are impeding the functioning of the health system and its ability to offer sustainable, quality health services. Addressing these challenges holistically will result in positive and sustained impact, and contribute to a more effective health system in the long term. These themes are summarized below. The team will facilitate a discussion of these cross-cutting areas with local stakeholders during the in-country dissemination meeting, and envisions developing cross-cutting recommendations through this consultative process.

With the objectives of strengthening the health system and ensuring sustainability of the HIV response in mind, the team identified the following cross-cutting objectives for Dominica:

- Increase efficiencies within the health system to make better use of existing resources and preserve primary care in light of growing demands for secondary care.
- Seek cost-effective and sustainable solutions to address the lack of tertiary and specialty care on the island, considering a greater role for the private health sector.
- Ensure adequate staffing throughout the health system to improve MOH performance and ensure equitable access to high-quality care.
- Increase engagement of a capable and willing private sector to contribute to health needs by formalizing structures and mechanisms for public-private engagement and identifying opportunities to leverage existing relationships.
- Build on efforts to integrate HIV/AIDS services into the health system and mobilize domestic support to ensure responsiveness to the epidemic.
- Strengthen and solidify the legal and regulatory framework for health.
- Improve data availability and use to inform policy, planning, and advocacy.

The findings and recommendations presented in this report were intended to serve as a basis for dialogue between key stakeholders – representing both the public and private sectors – on the way forward toward strengthening the Dominican health system. As reflected by the Partnership Framework, USAID recognizes that country-led efforts to strengthen national health systems and HIV responses are most likely to be sustained over the long-term. To this end, the SHOPS and Health Systems 20/20 projects convened over 40 stakeholders in March 2012 to validate the results and findings of this assessment, and to prioritize recommendations to address critical health systems gaps and sustain the HIV response in Dominica. Through a participatory process, stakeholders identified the following health systems strengthening priorities for Dominica, all of which support objectives put forth in the National Strategic Plan for Health 2010–2019:

- Strengthen the legal and regulatory framework for health through reviewing, updating, and finalizing legislation and enforcing regulations.
- Institute a more efficient management structure for the public secondary care facility (PMH).
- Explore partnerships with the private sector that maximize on-island resources for health, using a newly established public-private forum as a starting point.

- Develop a National HIS Strategic Plan, including a formal staffing plan to support the HIU over the long term.
- Conduct an NHA estimation with HIV/AIDS subaccount to track funding flows for all heath expenditures, as well as HIV/AIDS expenditures.
- Finalize the MOH HR Development Plan and establish the HRH Unit, including hiring a Health Planner and appropriate staff.
- Establish a formal national quality management system.

Participants developed draft action plans to address each of these priorities, identifying any existing initiatives, progress on action steps, necessary resources (local and/or external), and local "champions" to carry the work forward. Action plans and a summary of workshop proceedings were presented to senior MOH leaders to make a determination of next steps, including the option of requesting technical assistance from USAID/Barbados and the Eastern Caribbean to support specific health systems strengthening priorities.

ANNEX A: WORKSHOP REPORT: DOMINICA HEALTH SYSTEMS AND PRIVATE SECTOR ASSESSMENT

1. BACKGROUND

Dominica is one of 12 Caribbean countries joining efforts with the United States Government in the United States-Caribbean Regional HIV and AIDS Partnership Framework 2010–2014. The United States Agency for International Development (USAID) is working through two projects, Health Systems 20/20 and Strengthening Health Outcomes through the Private Sector (SHOPS), to provide a variety of health systems strengthening technical assistance to countries in the eastern Caribbean as part of this Partnership Framework. To identify priorities for this technical assistance, the two projects conducted integrated health systems and private sector assessments in the six Organization of Eastern Caribbean States (OECS) countries. Additional partners in this effort included the Pan American Health Organization (PAHO), the International Training and Education Center for Health (I-TECH, and the Caribbean HIV/AIDS Regional Training Network (CHART).

The Honorable Minister Julius Timothy discusses the state of Dominica's health system with Ms. Kendra Phillips (USAID) and assessment team lead Ms. Sara Sulzbach (Abt Associates Inc.).

The assessment in Dominica was a first step toward improving its capacity to effectively lead, finance, manage, and sustain the delivery of quality health services. Inherent in the country's capacity to carry out these roles is understanding and catalyzing private sector contributions to health. While the functioning of the broader health system was the focus of the assessment, particular attention was paid to sustaining the country's HIV response.

The assessment process allowed the government of Dominica, USAID, and other health partners to understand the key constraints in the health system and prioritize areas that need greater attention. The assessment also creates a road map for local, regional, and international partners, both public and private, to coordinate technical assistance that aligns with priorities outlined in Dominica's National Strategic Plan for Health 2010–2019.

The assessment process had four phases. The initial step was a meeting in March 2011 to engage stakeholders and reach consensus on the topics that would require the most attention during the assessment. An extensive literature review was also conducted. The second phase involved collecting primary data during which an assessment team interviewed over 100 stakeholders and visited health facilities during one week in June/July 2011. Following this, the assessment team drafted a report. The final stage, which is represented in this workshop report, was the validation and prioritization of the

report findings. The results of this workshop will inform revisions to the draft report and the prioritization of technical assistance that USAID and other partners may provide in the region.

2. OPENING REMARKS AND PRESENTATION OF FINDINGS

Dominica's Chief Medical Officer, Dr. David Johnson, opened the workshop by welcoming participants and thanking them for their engagement. USAID/Barbados and the Eastern Caribbean's Health Team Leader, Ms. Kendra Phillips, then welcomed participants and provided brief remarks about the role of the workshop in informing USAID-funded technical assistance to Dominica moving forward. Dr. Rasul Baghirov, Health Systems and Services Advisor for PAHO, commented on PAHO's continued role in the country and emphasized the benefit of discussing findings and recommendations for the assessment.

Minister of Health Julius Timothy closed the initial phase of the workshop with an address that highlighted that the changing health profile in Dominica requires a shift in focus toward chronic diseases and expressed a desire that USAID be a partner in this transition. He also stressed the importance of understanding the strengths and challenges of the current health system in order to achieve health objectives in the face of a global economic recession. He also asserted that improving health outcomes, including sustaining the national HIV response, is made difficult because Dominica's economic development success has graduated them from many programs of external assistance to support programming. Despite this, Minister Timothy stated that health systems accomplishments have been achieved and he looks forward to more opportunities to expand collaboration with the private sector in a concerted effort to maximize in-country resources and partner for optimum health.

The Honorable Minister of Health Julius Timothy gives opening remarks while Chief Medical Officer Dr. David Johnson and Ms. Kendra Phillips (USAID) take note.

Following the welcome, Sara Sulzbach from SHOPS highlighted the key findings and recommendations presented in the report (please see Annex C for presentation slides). The presentation discussed the findings and recommendations for each WHO health system building block: governance, health financing, service delivery, human resources for health (HRH), management of pharmaceuticals and medical supplies, and health information systems (HIS). Within each topic area, findings related to the private sector's role were also discussed. Upon completion of the presentation, participants were given an opportunity to ask clarifying questions pertaining to the findings and recommendations.

3. VALIDATION OF FINDINGS AND RECOMMENDATIONS

3.1 DISCUSSION OF REPORT'S KEY FINDINGS AND RECOMMENDATIONS

National HIV/AIDS Response Program Coordinator Ms. Julie Frampton reports out on the discussion of pharmaceutical management findings and recommendations.

Following Ms. Sulzbach's presentation, participants were asked to consider the report's key findings and recommendations. Participants formed small groups based on their interests and specialties in each of the health systems building block areas. The groups reviewed the report to verify if its findings matched their experience and to add any points that they felt should have been included. The small groups were asked to: (1) discuss the ways in which the chapter's themes reflected the current issues and challenges confronting the health sector; (2) identify any new or surprising findings; (3) discuss any points of disagreement with the draft findings and recommendations; (4) identify any information that might be missing from the findings and/or recommendations; and (5) determine what, if anything, should be added to the report. Participants reported that the findings were generally accurate and made the following suggestions for strengthening each module.

ADDITIONS AND EDITS TO FINDINGS AND RECOMMENDATIONS	
Health Financing	• Emphasize the importance of revisiting options for national health insurance. • Identify administrative issues hindering the efficient collection of user fees.
Service Delivery	• Place greater emphasis on environmental health, which is currently a large priority in Dominica. • Expand findings and recommendations on quality of service in both the public and private sectors. • Incorporate the role of NGOs in the provision of care and support services more prominently.
Governance	• Place greater emphasis on the importance of monitoring and evaluation for quality assurance. • Expand on the recommendations to include costing the National Strategic Plan for Health 2010–2019 and develop a framework to support greater public-private collaboration.

Human Resources for Health	• The development of retention plans should be added to the HRH recommendations. • The development of a human resources plan should be moved from a long-term to a short-term recommendation given its value in carrying out other recommendations. • Language should be modified to suggest institutionalizing or formalizing the induction year program, which is currently ad hoc.
Health Information Systems	• Expand upon recommendations to implement a national HIS strategic planning process, including a formal staffing plan to support the Health Information Unit over the long term. • Text discussing morbidity coding (page 96) should be modified to state that while morbidity coding is not widespread, discharge data from Princess Margaret Hospital is coded. • Language on clinical referrals (page 97) should be modified to suggest that they provide some limited feedback and discussion. • A discussion of World Bank E-GRIP project efforts should be added to the findings section. • A recommendation to conduct a formal assessment of an HIV and AIDS Information System (including mHealth) should be proposed as an example for other health programs.
Pharmaceutical Management	• The findings and recommendations should add a preliminary recommendation on networking and computerization of the inventory management system. The Central Medical Stores and all other pharmacies should be networked to allow inventory to move between pharmacies to fill stock-outs as necessary. This could improve management, distribution, and forecasting. • Include greater discussion on collaboration between the public and private sectors. The private sector is perceived as a competitor instead of a part of the health care team. Sharing information regarding public sector stock-outs and offering some concessions on priority services should be recommended. • A recommendation should be added about sharing adverse drug reaction reporting from the Pharmaceutical Procurement Service (PPS) to providers as an incentive to increase pharmacovigilence practices in both sectors. • Emphasis should be placed upon developing Standard Operating Procedures for common conditions to support rational drug use and standardized care.

4. PRIORITIZATION OF RECOMMENDATIONS

4.1 DISCUSSION ON CRITERIA TO PRIORITIZE

After agreeing on additions and changes to the findings and recommendations, the participants developed a set of criteria for prioritizing the recommendations. The group agreed that priorities would be based on whether the recommendations were important, feasible, risk-averse, affordable, and impactful. An **important** recommendation addresses critical gaps and bottlenecks and poses a risk to the health system if it is not addressed. A **feasible** recommendation requires an assessment of the ease or complexity of implementation, the availability of human and technical resources, and the political will to move the action forward. Addressing **risk** requires looking at the potential for failure or underachievement of the recommendation. **Affordability** refers to an assessment of total required funding and the likelihood of mobilizing total funds from government and donor sources. In looking for **impact,** the participants wanted the activity to both be highly visible and to truly make a difference in the health system.

4.2 ALIGNMENT OF PRIORITIES TO ONGOING MINISTRY OF HEALTH INITIATIVES

In small groups, the participants discussed assessment recommendations for each of the six health systems building blocks and private sector engagement. The top three recommendations from each topic area were then selected and presented to the stakeholder group. Said prioritized recommendations are listed in the table below.

PRIORITIZED RECOMMENDATIONS	
Governance	• Review, update, and finalize legislation and acts. • Develop a Health Planning Unit to execute and enforce health acts. • Develop a more efficient management structure at Princess Margaret Hospital.
Health Financing	• Conduct and institutionalize a National Health Accounts estimation with an HIV/AIDS subaccount to track funding flows for health expenditures. • Develop technical assistance to facilitate results-based financing. • Continue discussions around the feasibility of implementing a national health insurance scheme.
Service Delivery	• Establish a formal national quality management system. • Establish a formal system of referrals between the primary and secondary level and between public and private facilities. • Explore options for securing specialist services not currently available on-island and consider a greater role for the private sector.

Human Resources for Health	• Finalize the MOH Human Resources Development Plan, taking into consideration the human resource issues and needs across all six building blocks. • Implement recommendations around hospital management restructuring.
Pharmaceutical Management	• Expedite the passage of the Pharmacy Act and associated legislation. • Develop and implement and electronic inventory management system. • Explore creative solutions to strengthen coordination between the public and private pharmaceutical sectors to ensure access and affordability of medicines.
Health Information Systems	• Develop a national HIS Strategic Planning process. • Develop a formal staffing plan to support the Health Information Unit over the long term. • Leverage mobile phones for surveillance reporting.
Private Sector Engagement	• Conduct a private sector mapping exercise to quantify private sector contributions to health and create a central registry. • Formalize a consultative forum of public and private sector stakeholders. • Explore partnerships between the public and private sector that maximize resources, including identifying services in the private sector that may fill gaps in the public sector.

After a representative from each small group presented their identified priority recommendations, participants were given five stickers with which to individually identify their top five perceived priority recommendations across all seven topic areas. Each priority corresponded to those outlined in the existing National Strategic Plan for Health 2010–2019. Most also corresponded directly with those proposed in the assessment report, with one main addition: developing a national HIS strategic planning process and a formal staffing plan to support the Health Information Unit over the long term. The top priorities that emerged included the following:

- Review, update, and finalize legislation and new acts.
- Institute a more efficient management structure at Princess Margaret Hospital, possibly including a cost-benefit analysis to guide the process.
- Explore partnerships with the private sector that maximize on-island resources for health, using a newly established public-private forum as a starting point.
- Develop a National HIS Strategic Plan, including a formal staffing plan to support the Health Information Unit.
- Finalize the MOH Human Resources Development Plan and establish the HRH Unit, including hiring a Health Planner and appropriate staff. This should take into consideration the human resources issues and needs across all six health systems building blocks.
- Establish a formal national quality management system.

A discussion about the top priorities raised some concerns, namely that emphasis had to be placed on the existing Dominican National Strategic Plan for Health 2010–2019 and that duplicative recommendations across topic areas may have affected which recommendations were ultimately prioritized. To address these concerns, the facilitator and team lead analyzed the prioritized recommendations again before the start of the second day of the workshop. Based on this analysis, it was determined that the priorities noted above did, in fact, reflect the priorities of the group as a whole. The team also reviewed the National Strategic Plan for Health 2010–2019 again to help draw linkages between priorities identified by the MOH and those prioritized during the workshop. In an effort to address health financing and sustaining the national HIV response, the team also proposed that a National Health Accounts estimation with an HIV/AIDS subaccount to track funding flows for health expenditures be added. This proposition was accepted by participants and ultimately added to the final list of priority recommendations.

Ms. Rosanna Emmanuel, Director of Clinical and Community Affairs at Ross University, votes for greater public-private coordination during the prioritization process.

Once the priority recommendations were agreed upon, small groups were formed to develop action plans for follow-up. The team provided each group with relevant information from the National Strategic Plan for Health 2010–2019 to help guide the planning process and ensure that actions aligned with current national priorities. The following tables give an overview of the working group discussions on how to align the assessment report's recommendations with ongoing initiatives. The groups also identified additional actions and resources needed to implement each recommendation, as well as champions to lead these efforts.

Priority Recommendation: Develop sustainable health financing mechanisms.

What ongoing initiatives support this priority area? (e.g. MOH, PAHO, others)	What action steps have already been proposed?	Who will "own" (lead or be the champion) the next steps?	What resources are needed? What external resources could be mobilized?

• Two subregional training done:
  ○ Report of the Training Course for Development of NHA in Caribbean (2001)
  ○ Consult with PAHO CPO on 2005 training
• Committee was formed post training (now inactive)
• New Budgeting process
	• NHA is budgeted for in PAHO Biennial Work Plan
	• Priority area in National Strategic Plan for Health (tracking flows of money and determining cost of providing services)
		MOH and MOF	• Training (local and regional level)
			• Technical assistance (PAHO, USAID, University of the West Indies)
			• Funding

What additional concrete, next steps are needed?			
• A committee needs to be formed and should include representatives from MOH, MOF, Central Statistics Office, private sector. • Revise or create terms of reference • Conduct in-country training			

Priority Recommendation: Develop a Strategic Plan for Health Information Systems.

What ongoing initiatives support this priority area? (e.g. MOH, PAHO, others)	What action steps have already been proposed?	Who will "own" (lead or be the champion) the next steps?	What resources are needed? What external resources could be mobilized?
• MOH Information and Communication Systems Advisory Committee – provides advice on development of Health Information System (HIS) • PAHO – Strategic plan for HIS strengthening in the Caribbean being developed • E-Government Regional Integration Program (EGRIP) is currently implementing HIS strengthening activities • Assessments have been done using Health Metrics Network (HMN) and PRISM tools which will be used to contribute to the development of the plan • World Bank is working with MOH to develop Results-based Financing project • CDC can potentially contribute to the process through the a new cooperative (if application successful will come into effect in October 2012)	• Convene technical working group to review HMN and PRISM results • Further assessment of needs (hardware/software) currently being conducted by World Bank specialist • Conduct further information mapping exercises for specific information systems • Recruit additional human resources with any available funding where possible • Procure some equipment under EGRIP and World Bank projects • Justification of increased staffing position submitted to Establishment, Personnel and Training Department through Permanent Secretary • Equipment needs being developed by Health Information Unit (HIU) staff	HIU led by National Epidemiologist	• Human resources: staffing plan. ○ Adequate numbers ○ Adequate skill sets: programmers, informatics specialist, technician(s), change management specialist ▪ New positions ▪ Technical assistance: USAID/CDC, PAHO, WB ▪ Overseas volunteers (US Peace Corps, Japanese International Cooperation Agency, Australian government, Chile) • Financing (budget to be developed as part of strategic plan) ○ PAHO ○ CDC • Equipment and supplies: ○ Servers ○ Work stations ○ Laptops ○ Tablet devices ○ Smart phones ○ Video conferencing equipment ○ Peripherals (mouse, webcams, scanners/printers etc) ○ Network equipment (routers, switches, cable etc) ○ Ergonomic furniture
What additional concrete next steps are needed?			
• Determine areas of expertise available in various partner agencies to contribute to development of the strategic plan. ○ Convene meeting of partners to establish areas for collaboration and plan of action by June 2012. • Determine responsibilities and develop a budget.			

Priority Recommendation: Explore partnerships with the private sector to maximize on-island resources for health, using a newly established public-private forum as a starting point.			
What ongoing initiatives support this priority area? (e.g. MOH, PAHO, others)	What action steps have already been proposed?	Who will "own" (lead or be the champion) the next steps?	What resources are needed? What external resources could be mobilized?

• Dominica Strategic Plan for Health
• There are numerous existing initiatives - most are informal:
• La Falaise and MOH/Princess Margaret Hospital (PMH)
  ○ Submit health data
  ○ Serve as back-up when equipment is not functioning or to provide reagents
• Medicus diagnostics – serves as back-up for hospital
• Ross University
  ○ Data reporting - can log-in to central HIS system (sentinel site)
  ○ Syndromic surveillance, no positive HIV tests yet
  ○ Informal agreement with Portsmouth Hospital
  ○ Private pediatricians submit immunization data
  ○ Oncology clinic Tue/Fri at PMH
  ○ Diabetic clinic 1 per month at Portsmouth
• Nurse Privo brings in urologist once per year
• National HIV/AIDS Response Program(NHARP) and Jolly's pharmacy – HIV positive clients fill prescriptions at Jolly's, the pharmacy then invoices NHARP each month
	• Strategic health plan – objectives include:
	  ○ Data from private sector incorporated into national HIS
	  ○ Protocols for standardized provision of health care in the private sector
	  ○ Increase provision of health care by private sector
		• Public sector: Permanent Secretary, Chief Medical Officer, Julie Frampton (NHARP)
		• Private sector: Dr. Burnett/Ross University
			• Peoples time and efforts (public and private)
			• Developing concept, circulating with key stakeholders, generating buy-in, convening first meeting
			• Ross University may provide some support
			  ○ External resources to convene first meeting and provide technical assistance to support/strengthen public-private partnerships - USAID

What additional concrete next steps are needed?
• Develop a concept paper to guide this effort: include vision, objectives, and proposed structure. • Convene a meeting to initiate public-private dialogue - Include a wide variety of private health providers, NGOs, and key public sector representatives. • Share the proposal and get input. • Decide on a committee to take this effort forward – ideally representatives from each sector participate • Keep view of country's health needs and the needs of clients - the work of this group should be adaptive to changing needs. • Formalize currently informal public-private arrangements - consider Memorandums of Understanding, contracts, etc **Specific examples:** • Ross University could become an HIV testing site for NHARP – free test kits, quality control from NHARP • Increase public awareness that child health record is to be used for all health services (including private) • Improve system and establish policy for private sector to procure drugs and supplies from Central Medical Stores • Improve private sector reporting on key health indicators, including positive HIV cases, by clarifying and streamlining process

Priority Recommendation: Finalize the MOH Human Resource Development Plan and establish the Human Resources Unit, including hiring a Health Planner and appropriate staff. Take into consideration the HR issues and needs across the six building blocks.			
What ongoing initiatives support this priority area?	What action steps have already been proposed?	Who will "own" the next steps?	What resources are needed? External resources?
• PAHO-initiated regional HRH roadmap • PAHO/Dominica biennial work plan • 2010-2019 Strategic Plan for Health • Human Resource audit recommendation that ministries establish Human Resources units (2009) • PAHO 20 goals baseline on HRH (conducted in 2010) • PAHO Human Resources for Health core dataset activity (conducted in 2009) • PEPFAR regional partnership framework (Dominica work plan) • HR module of SmartStream • Training database module in development at Establishment Department	• PAHO technical assistance • I-TECH/CHART are in process of organizing a workshop to strengthen HRH planning and management in OECS • OECS HIV/AIDS Project Unit (HAPU) to hire an HRH technical advisor to OECS members, supported by I-TECH/CHART	• MOH Permanent Secretary or designate with authority to lead process (possibly Coordinator of National Health Coverage) • CPO of EPDT for moving forward creation of ministerial level HR units (i.e., approval from Cabinet)	• Technical assistance (e.g., PAHO, OECS, European Union, I-TECH, CHART, World Bank, Caribbean Centre for Development Administration, University of the West Indies, Peace Corps Crisis Response) • Funding (e.g., to convene meetings) • Dedicated time by team members • People • Office space, equipment (e.g., computers)
What additional concrete short-term next steps should be undertaken?			
• Schedule meeting between MOH, Ministry of Health, Ministry of Education, Establishment, Ministry of National Security, Immigration, and Labor, Public Sector Union, PAHO, I-TECH/CHART, OECS HAPU, private sector representative others to come to agreement on way forward and map out timeline • Advocacy for cabinet approval of ministerial HR unit • Establish team (see "owners") (i.e., EPTD, MOH, MOF) • Identify/designate HR manager • Develop planning timeline • Train key team members in HR planning and management • Develop/acquire tools for HRH planning • Review existing data and ongoing initiatives to inform HRH Development plan (e.g., 20 Goals Baseline, Core dataset, etc.) • Consultation sessions with stakeholders • Develop HRH Strategic Plan			

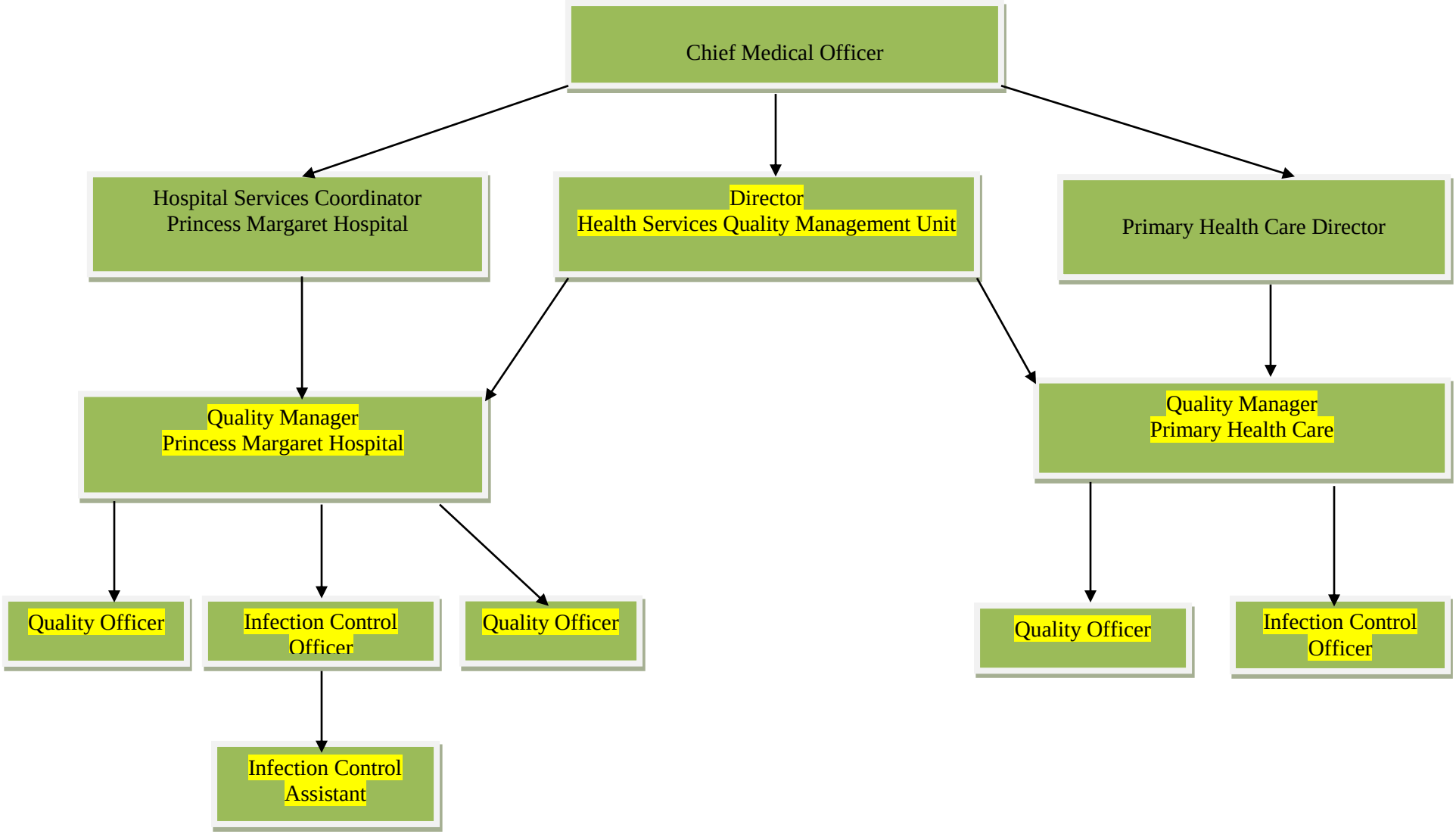
Priority Recommendation: Review, update and/or finalize legislation and new Acts

What ongoing initiatives already support this priority area? (e.g. MOH, PAHO, others)	What action steps have already been proposed?	Who will "own" (lead or champion) the next steps?	What resources are needed? What external resources could be mobilized?
• Legislation exists (medical , pharmacy, midwifery)	• Development of draft regulations • Review of current legislations done and gaps identified • Submission of justification to Cabinet on legislative agenda for MOH. • Drafts policies developed • Service of legal draft person was contract one	Permanent Secretary, Chief Medical Officer	• Legal drafts persons • Policy analysis • Resources for public education • Training of Health care providers
What additional concrete next steps are needed?			
• Employment of legal analyst • Stake holders consultations			

Priority Recommendation: Institute a more efficient management structure at Princess Margaret Hospital. Consider conducting a cost-benefit analysis to guide the process.			
What ongoing initiatives already support this priority area? (e.g. MOH, PAHO, others)	What action steps have already been proposed?	Who will "own" (lead or champion) the next steps?	What resources are needed? What external resources could be mobilized?
• Studies have already been done on proposed new structure (Value for Money and Schneider Report) • Submission made to Cabinet with new proposed structure	• Two submissions made to Cabinet • Lobbying of Minister of Health	Permanent Secretary	• Experts for doing cost-benefit analysis • Financing to implement new system • Additional skilled HR • Training and familiarization
What additional concrete, next steps are needed?			
• Conduct cost-benefit analysis • Getting Cabinet approval			

Priority Recommendation: Establish a formal national Quality Management Unit.			
What ongoing initiatives already support this priority area? (e.g. MOH, PAHO, others)	What action steps have already been proposed?	Who will "own" (lead or champion) the next steps?	What resources are needed? What external resources could be mobilized?
• PMH Quality Department ○ Draft Risk Management Policy ○ Gas management Policy ○ Infection control audit tool • Lab • Pharmacy	• Proposal for National Quality Management Unit from Quality Manager PMH ○ National Quality Director ○ Quality Manager (PMH and Primary Health Care) ○ 2 quality officers PMH ○ 1 quality officer in primary health care (PHC) system ○ Inclusion of Infection Control Officers for both PHC and PMH	Quality Manager, Permanent Secretary	• Training in Quality Management
• Submitted proposal to PAHO for national assessment of quality management to include ○ National assessment ○ Policy development ○ Training	• 2010 • Pending	PAHO Country Program Officer	

Organogram for Health Services Quality Management – Ministry of Health



5. NEXT STEPS AND CLOSURE

After the presentation of action steps by each group, the facilitator and team lead thanked participants for their engagement in the validation and prioritization process. Health Systems 20/20 and SHOPS will incorporate suggested changes emerging through the workshop into the final assessment report. The final report with priority recommendations highlighted will be shared with all stakeholders. The report will also be shared with U.S. government agencies working in the region, as well as other development partners, to further coordinate technical assistance efforts in Dominica.

ANNEX A: WORKSHOP AGENDA

HEALTH SYSTEMS/PRIVATE SECTOR ASSESSMENT

Dominica Health Systems and Private Sector Assessment Workshop
March 8-9, 2012
Garraway Hotel

Workshop Objectives

- Review and provide feedback on key findings and recommendations from the *Health Systems and Private Sector Assessment*
- Use stakeholder-determined criteria to prioritize assessment recommendations
- Reach consensus on next steps to address critical system gaps and further clarify private sector role

Workshop Expectations/Deliverables

- Stakeholder input to finalize assessment report
- Draft action plan to include: (1) Priority recommendations, (2) Next steps for implementing recommendations and (3) Roles and responsibilities to operationalize key recommendations

DAY ONE

Session 1 - Welcome	
8:30-9:00	Continental breakfast – Registration
9:00-9:15	Welcome and Opening Remarks
9:15-9:45	Workshop Overview
Session 2 - Perspectives on Assessment Findings and Recommendations	
9:45 -10:45	Presentation of health sector key findings and recommendations
10:45 -11:00	Break
11:00 -12:00	Table Group Activity: Review findings and provide feedback
12:00 -12:30	Participants offer feedback on Assessment's findings and recommendations (Part I)
12:30 - 1:30	Lunch
Session 3 - Prioritization of Assessment Recommendations	
1:30 - 2:00	Participants offer feedback on Assessment's findings and recommendations (Part II)
2:00 - 2:30	Agreement on selection criteria to prioritize recommendations
2:30 - 4:00	Table Group Activity: Prioritize recommendations
4:00 - 4:30	Wrap-up and closure

5:00 - 7:00 Reception at Fort Young Hotel - Sunset Terrace

DAY TWO

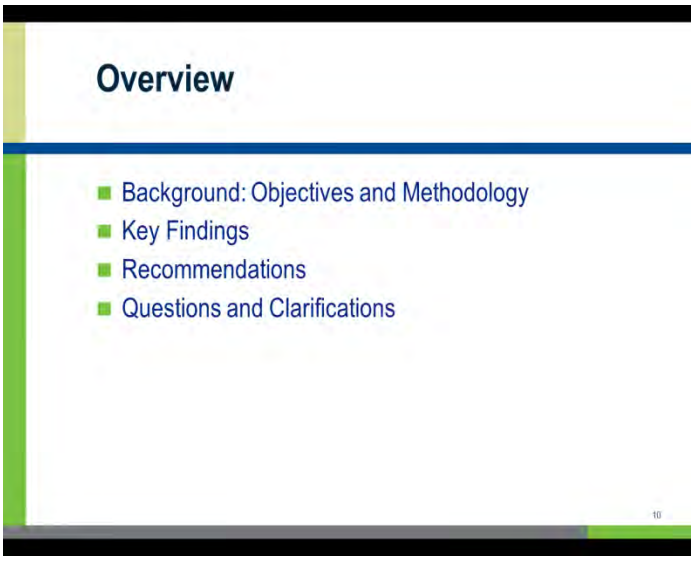
9:00 - 9:30	Recap of Day One – Summary of key findings and agreement on priority recommendations
Session 4 - Next Steps	
9:30 - 11:00	Table Group Activity: Identify next steps and roles and responsibilities
11:00 - 11:15	Break
11:15 -12:15	Synthesis of participant priorities, next steps and responsibilities
12:15 -12:30	Wrap up and closure
12:30 - 1:30	Lunch

ANNEX B: PARTICIPANT LIST

Dominica Health Systems and Private Sector Assessment – Workshop Participant List				
Name	Title and Affiliation	Day 1	Day 2	Email
Hon. Julius Timothy	Minister for Health, MOH	X		jc_timothy@hotmail.com
Dr. David Johnson	Chief Medical Officer, MOH	X	X	johnsond@dominica.gov.dm
Ms. Sandra Charter Rolle	Health Planning and Disaster Management, MOH	X		rolles@cwdom.dm
Ms. Helen Royer	Director, MOH Health Promotion Unit	X		royerh@dominica.gov.dm
Dr. Paul Ricketts	National Epidemiologist, MOH Health Info and Disease Surveillance	X	X	rickettsp@dominica.gov.dm
Ms. Marva Smith	Health Statistician, MOH Health Info and Disease Surveillance	X	X	smithm@dominica.gov.dm
Anthony Scotland	Chief Environmental Officer, MOH Environmental Health	X	X	environhealth@cwdom.dm
Ms. Julie Frampton	Coordinator, National HIV/AIDS Response Program	X	X	nharp@dominica.gov.dm
Ms. Angela Desabaye	Health Education, NHARP	X	X	angiegd@yahoo.com
Mr. Clayton Ryan	Quality Assurance Advisor, Princess Margaret Hospital	X	X	clyokike@hotmail.com
Dr. Martin Christmas	Director of Primary Health Care, MOH Primary Health Care	X	X	directorprimarycare@dominica.gov.dm
Mr. Errol Thomas	Chief Pharmacist, Central Medical Stores	X	X	erroljthomas@gmail.com
Ms. Letitia Lestrade-Wyke	Matron, Princess Margaret Hospital	X	X	leswykel@yahoo.com
Dr. Ruby Blanc	Medical Director, Princess Margaret Hospital	X		blancruby@hotmail.com
Chief Garnett Joseph	Chief, Salybia Kalinago Territory	X	X	
Cecillia Carr	Senior Admin Officer, Establishment Personnel and Training Dept.	X	X	rmucoordinator@dominica.gov.dm
Ms. Angela Lawrence (rep Alice Louis)	President, General Nursing Council	X	X	gncdominica@cwdom.dm
Ms. K. Pinard-Byrne	Director, Dominica Red	X		directorgeneral@redcross.dm

	Cross			
Dr. Fadipe	Owner/Director, Justin Fadipe Medical Center	X		accounts.justinfadipehospital@cwdom.dm
Ms. Deborah Fortune (rep Judy Boston; Andre Fortune)	Manager, La Falaise Medical Lab	X	X	lafalaisemedlab@cwdpm.dm
Dr. Spencer St. Luce	Anesthesiologist at PMH/Private Physician		X	ss_0404@hotmail.com
Ms. Rosanna Emmanuel	Director of Clinical and Community Affairs, Ross University	X	X	remmanuel@rossmed.edu
Ms. Tina Alexander	Director, Life Goes On	X		lifeline@cwdom.dm
Priscilla Prevost	Private Nurse	X	X	priscillaprevost@hotmail.com
Kendra Phillips	Health and HIV Team Lead, USAID/EC	X	X	kphillips@usaid.gov
Rene Brathwaite	HIV/AIDS Specialist, USAID/EC	X		rbraithwaite@usaid.gov
Palesa Leevu	CHAA	X		pleevy@alliancecarib.org.tt
Shirley Augustine	Country Program Specialist for Dominica, PAHO	X	X	augustis@ecc.paho.org
Kala Dowlath	Training Coordinator, OECS HIV/AIDS Project Unit	X	X	kdowlath@oecs.org
Michael Hainsworth	ITECH	X	X	mhains@u.washington.edu
Patrick Henderson	Peace Corps	X		phenderson@lc.peacecorps.gov
Amonia Paul Rolle	Social Development Planner - MOF	X	X	rollea@dominica.gov.dm
Dr. Rasul Baghirov	Advisor Health Systems and Services, PAHO CPC	X	X	baghirovr@paho.org
Caesarina Ferol	PNO MOH	X		nursing@cwdom.dm
Tamika Joseph-Hogan	Quality Officer, PMH	X	X	qualitypmh@gmail.com
Dr. Yasmin Burnett	Ross University - Dir Health Services	X	X	yburnett@rossmed.edu.dm
Mariana Jon Baptiste	Matron, Justin Fadipe Medical		X	marianajb_25@hotmail.com
Naika Duvalsaint	Nurse, Kalinago		X	
Joanna Laurent-Blaire	Infectious Control PMH		X	joannalaurent@hotmail.com
Prof Baijo Ajagbonno	Petite Soufriere		X	banmano02@yahoo.co.uk
Sara Sulzbach	Abt Associates	X	X	sara_sulabach@abtassoc.com
Carol Narcisse	ITECH	X	X	carol.narcisse@gmail.com
Kylie Ingerson	Abt Associates	X	X	kylie_ingerson@abtassoc.com

ANNEX C: FINDINGS AND RECOMMENDATIONS PRESENTATION



Objectives and Methodology

11

Rationale for Health Systems and Private Sector Assessment

- Review the health system's strengths and weaknesses in order to:
  - Understand key constraints and prioritize areas needing attention
  - Identify opportunities for technical assistance to strengthen the health system
  - Promote collaboration across public and private realms
  - Provide a road map for local, regional and international partners to coordinate technical assistance

12

Assessment Process in Dominica

- Initial stakeholder consultations (December 2010, March 2011)
- Document review; synthesize existing information
- Stakeholder interviews in-country to fill in gaps
- **Stakeholder validation and prioritization of recommendations**
  - Validate findings, conclusions, and recommendations with local stakeholders
  - Facilitate agreement on priorities
  - Stakeholders prioritize recommendations and next steps
- Develop actionable work plans to implement recommendations

13

USAID and Implementing Partner Objectives

- To assess the health system with an added focus on the potential role of the private sector
  - Review available sources of data
  - Identify areas of health system progress
  - Identify continuing challenges and gaps
- Identify priority areas for technical assistance to strengthen the health system and sustain the HIV response

14

Assessment Domains

- Governance
- Health financing
- Service delivery
- Human resources for health
- Management of pharmaceuticals and medical products
- Health information systems
- Private health sector engagement

15

Key Findings

16

Governance

- Regulatory framework for health is out of date; key legislation needs passage or updating
- The tripartite management of Princess Margaret Hospital does not promote accountability, efficiency, or rational use.
- No coordinating mechanism for public-private health sector engagement
- Private health facility inspection is mandated but not enforced.
- Citizens voice concerns about health system through call-in radio programs, community forums and meetings with government officials.
- Civil society organizations focus on service delivery issues rather than advocacy

17

Health Financing

- Citizens enjoy good access to primary health care services, most of which are provided for free.
- Out of pocket spending for health care is estimated at 30 percent of total health expenditure.
- Private health insurance covers approximately 20 percent of the population.
- Broad fee exemptions and weak fee collection systems mean that public subsidies may support those able to pay for health services.
- Lack of health financing data that links spending, utilization, and outcomes

18

Service Delivery

- Dominicans enjoy good access to primary health care services.
- Demand for secondary care at PMH is high and overcrowding is not uncommon.
- Specialized tertiary care is only available off island, at significant cost.
- Public facilities face considerable equipment and supply management challenges.

19

Service Delivery (cont.)

- Less than optimal coordination of referrals between primary and secondary care
- Private health provision appears to be growing, although minimal coordination and communication with public health sector.
- Access to HIV counseling and testing is improving through integration of services
- There is no formal quality assurance system in place and no national quality assurance policies.

20

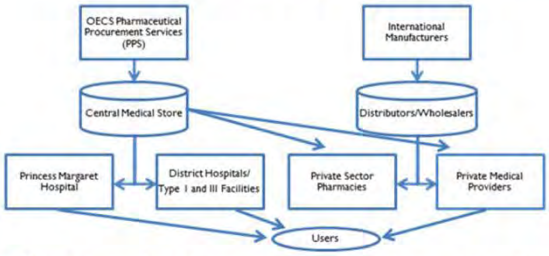
Human Resources for Health

- Human resource management structure is well-defined, but lacking tools and data necessary for effective HR planning and management.
- MOH plans to create an HRH Unit are supported by the Establishment Department but roles and responsibilities within the unit are not articulated.
- Public sector employment policies do not maximize performance. (liberal leave policies contribute to high rates of absenteeism among health care workers).
- Staffing appears to be based on historical patterns rather than disease burden and workload analysis.
- Continuing education opportunities for most cadres are plentiful.

21

Management of Pharmaceuticals and Medical Supplies

Dominica's Pharmaceutical Supply Chain



- Efforts to coordinate procurements between the sectors are limited, resulting in system inefficiencies.

22

Management of Pharmaceuticals and Medical Supplies Findings (cont.)

- Pharmacy Act and associated regulations have yet to be passed.
- Weak legislation and lack of regulations make governing the pharmaceutical sector - especially private sector - difficult
- Rational drug use is prioritized but hindered by a general lack of standard treatment protocols.
- Information management and data for decision making is inadequate, with implications for forecasting.
- Pharmacovigilence practices are inconsistent in both sectors.

23

Health Information Systems

- Health Information Unit(HIU) team is highly motivated and knowledgeable, but lack of permanent positions threatens sustainability of surveillance and reporting efforts.
- Strong consolidation and review of notifiable conditions/ communicable diseases despite manual reporting systems.
- Absence of a national HIS strategic plan hinders development of HIU priorities and measurement of progress towards these objectives.
- Delayed data consolidation and dissemination limits the effectiveness of data-driven policy making.
- Minimal private sector reporting results in incomplete knowledge of health issues affecting Dominica.

24

Private Sector Contributions to Health

- A small but diverse private health sector contributes to national health needs.
- All socio-economic classes access private sector health services but use is concentrated among middle and upper income groups.
- Weak organization and insufficient regulation and quality assurance undermine the private health sector.
- Examples of public-private collaboration exist - ranging from corporate contributions to health to informal arrangements between the private health sector and the MOH.

25

Recommendations

26

Governance

- Prioritize updating the Medical and Nursing Acts.
- Use the building of the new hospital to rationalize management and quality assurance structures, looking to examples from other countries.
- Strengthen and enforce health facility standards; consider developing standard guidelines for all health facilities in Dominica to ensure uniform quality throughout the system.
- Develop a formal system for engaging patients and responding to feedback.

27

Health Financing

- Conduct a National Health Accounts estimation and build local capacity of MOH to replicate the exercise in the future.
- Estimate the unit cost of public and private sector health services to inform evidence-based planning, as well as new health financing policies.
- Identify sources for future recurrent spending before initiating major policy changes.
- Proactively plan for reduced external HIV/AIDS funding.
- Rationalize the allocation of funds to primary and secondary health facilities, according to patients use of services.
- Consider allowing health facilities to retain some user fee revenue on-site.

28

Service Delivery

- Establish and enforce an effective referral system between primary health clinics and secondary facilities.
- Formalize and streamline referrals between public and private providers.
- Clarify the policies, procedures and regulations for dual public-private practice.
- Explore options for increasing access to tertiary care, considering a greater role for the private sector in Dominica, as well as inter-island arrangements for provision of such care.

29

Human Resources for Health

- Take advantage of technical assistance and training in HR planning and management to anchor the newly formed HRH Unit and equip other key leaders in the health sector.
- Continue to advocate hiring for the HRH Unit, including a health planner.
- Conduct training workshops for supervisors on active management of performance problems; consider implementing performance improvement plans and revising incentive structures.
- Support MOH to conduct workload analysis to determine optimal staffing levels at facilities.

30

Management of Pharmaceuticals and Medical Supplies

- Prioritize passage of the Pharmacy Act.
- Take advantage of opportunities to strengthen coordination between public and private pharmaceutical sectors that offer financial benefits and increased access to medicines
- Build capacity for electronic pharmaceutical management and forecasting system to improve current inefficiencies.
- Reinforce the existing pharmacovigilance system and encourage the active participation of the private sector.

31

Health Information Systems

- Develop formal staffing plan to support the HIU over the long-term.
- Leverage mobile phones for surveillance reporting.
- Convene a Technical Working Group to review HMN and PRISM assessment results and initiate a National HIS Strategic Planning process.
- Incorporate a data quality improvement program into supervisory process to emphasize the data feedback cycle and improve data usage.
- Initiate dialogue with private health providers to enhance reporting on key health indicators.

32

Private Sector Engagement

- Conduct a baseline mapping of private health sector services and resources for a more complete picture of this sector.
- Initiate a dialogue between public and private health sectors to identify viable strategies for greater collaboration.
- Engage key private sector leaders in developing public health plans and strategies, including plans for the new hospital.
- Consider ways in which the private health sector can help provide needed specialty care on the island.

33

Cross-Cutting Themes

- Increase efficiencies within the health system to make better use of existing resources and rationalize the mix of primary and secondary care.
- Seek cost-effective and sustainable solutions to address the lack of tertiary and specialty care on the island, considering a greater role for the private health sector.
- Ensure adequate staffing throughout the health system to improve MOH performance and ensure equitable access to high quality care.

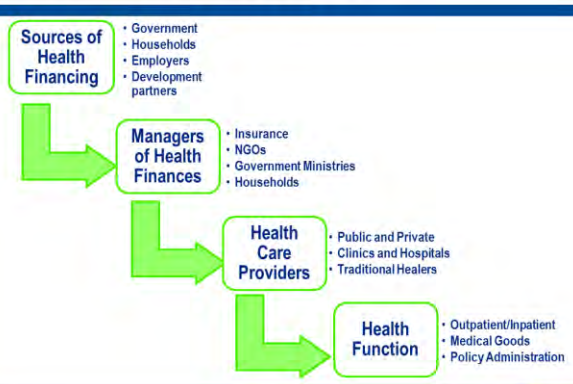
34

Cross-Cutting Themes

- Increase engagement of a capable and willing private sector to contribute to health needs - formalize structures and mechanisms for public-private engagement and identify opportunities to leverage existing relationships
- Build on efforts to integrate HIV/AIDS services into the health system and mobilize domestic support to ensure responsiveness to the epidemic.
- Concretize legal and regulatory framework for health
- Improve data availability and use to inform policy, planning, and advocacy

35

Cross-cutting recommendation: National Health Accounts



Questions and Answers

- Clarifications, comments and questions

37

ANNEX B: DERIVING ESTIMATES OF OVERSEAS MEDICAL CARE FOR DOMINICANS

Household Survey (**Tables B1 and B2**): The 2007 Household Survey (MOF 2007) reports responses to the question, "How much did you spend on health care overseas in the last five years?" By estimating a mean amount spent by those in each range of spending values, and then by multiplying that number by the number of persons in households reporting within that range, one can arrive at a total figure for each range. Once these totals are added up, dividing that number by the total persons estimated to have received care overseas in households reporting, one can get an average amount spent overseas for 2003–2007. For those actually spending, the average amount spent per capita over five years was EC$6,205, including those who received free care (from government subsidies or courtesy of the government of Cuba). The average amount spent per year over five years was EC$1,488 per capita. The total amount estimated to have been spent in 2007 (taking into account price and cost changes) was EC$3.7 million, or EC$2,476 per capita.

The 2007 Household Survey asked a question (results in Table 23, page 9) specifically aimed to elicit this information. The results for 2007 revealed that 10.3 percent of all Dominican households (2,432 out of 23,630) had at least one member who traveled overseas (within the past five years) to obtain medical care. The survey also determined how much they spent on that care – estimated at EC$15.5 million over the five years.

Tables B1 and B2 show how the data compiled from the survey can be manipulated to arrive at an estimate of the average amount (EC$ per capita) that was spent during the five years. When this average is divided by five to provide a rough estimate of the yearly spending on overseas care, it can be seen that that amount is about 22 percent of the total amount Dominicans spent in the most recent year (presumed to be 2007) on medical care anywhere. This overseas amount (derived from Table 26, page 10) is presumed to have been included in the data on households overall spending on health reported in Table 24, page 9 (MOF 2007).

In order to estimate the amounts spent overseas in the most recent year, it is not correct to divide by five and use that answer. Instead, one must take into account the likely price/cost increases that have taken place overseas, which we shall assume to have been 10 percent per year. Thus, one must first derive the estimate for the first year, and then trend it forward, using that yearly price inflation rate, to arrive at the amount for the most recent year.

TABLE B1: ESTIMATED HOUSEHOLD OUT-OF-POCKET SPENDING ON OVERSEAS MEDICAL CARE (2003–2007) (EC$)

Spending on Overseas Care	Total	All Receiving Care	Of Those Spending
Under $5,000	$1,904,500	$3,174	$3,174
$5,000–$10,000	$3,263,460	$7,383	$7,383
$10,001–$15,000	$1,433,475	$12,046	$12,046
$15,001–$20,000	$2,126,460	$16,877	$16,877
$20,001–$25,000	$1,411,200	$21,711	$21,711
$25,001–$30,000	$1,012,875	$26,655	$26,655
$30,001 +	$4,305,000	$34,167	$34,167
TOTAL (2003–2007)	$15,456,970	$6,205	$10,196
Per capita–5 yrs	$6,205		
Per capita–2007	$1,488		

Source: MOF (2007)

TABLE B2: CALCULATED OVERSEAS SPENDING BY YEAR (2005/06–2010/12) (EC$)

	2007	2008	2009	2010	2011	2012
Yearly totals	$3,748,407	$4,543,849	$5,113,625	$6,086,835	$7,228,614	$8,531,905
Population	71,286	71,546	71,889	72,234	72,580	72,928
Growth rate	7.2%	6.3%	-1.3%	4.4%	4.1%	3.5%
Income elasticity of demand	1.4	1.4	1.4	1.4	1.4	1.4
Per spending growth rates	10.0%	8.9%	-1.8%	6.2%	5.8%	4.9%
Total per capita spending	$135	$147	$144	$153	$162	$170
Total OOP (million)	$10	$10	$10	$11	$12	$12
Overseas OOP per capita	$2,476	$2,660	$2,650	$2,792	$2,936	$3,067
Number spending overseas	1,497	1,502	1,510	1,517	1,524	1,531
Converting to fiscal years		2007/08	2008/09	2009/10	2010/11	2011/12
Population	71,286	71,546	71,889	72,234	72,580	72,928
Totals	$3,538,335	$3,851,815	$3,998,819	$4,118,372	$4,355,196	$4,585,994

Source: World Bank (2011b)

Table B2 shows that the total amount for 2007 was EC$3.7 million, or 22 percent of the total OOP health spending by households in that year (EC$13.0 million spent in Dominica, as shown in **Table B3,**

plus the EC$3.7 million spent overseas). According to our calculations, overseas spending remained the same proportion of the total – 22 percent of OOP health spending by household during the period 2006/07–2010/11.

TABLE B3: PROJECTED HOUSEHOLD SPENDING ON HEALTH (2007–2012) (EC$)

Spending Per Capita	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Less than $300		$69	$119	$194	$315	$525	$874
$300–$500		$135	$231	$379	$615	$1,024	$1,704
$501–$700		$203	$347	$568	$923	$1,536	$2,556
$701–$1,000		$289	$493	$808	$1,312	$2,185	$3,635
$1,001–$1,300		$392	$670	$1,097	$1,782	$2,967	$4,937
$1,301–$1,600		$495	$845	$1,384	$2,247	$3,742	$6,226
$1,601–$2,000		$616	$1,053	$1,724	$2,799	$4,661	$7,755
$2,001 and over		$1,215	$2,076	$3,399	$5,520	$9,191	$15,292
TOTALS		$270	$462	$756	$1,227	$2,044	$3,400
Total OOP spending		$122	$136	$141	$144	$153	$163
Estimated total per capita		$184	$204	$211	$216	$230	$245
Estimated total spending		$8,692,592	$9,671,268	$10,069,416	$10,359,570	$11,086,806	$11,849,602
Population	70,886	71,008	71,286	71,546	71,889	72,234	72,580
Total private spending OOP	$11,719,428	$13,038,888	$14,506,903	$15,104,125	$15,539,355	$16,630,209	
Converting to fiscal year	**2005/06**	**2006/07**	**2007/08**	**2008/09**	**2009/10**	**2010/11**	
(In EC$ millions)							
Estimated spent in Dominica		$12.4	$13.8	$14.8	$15.3	$16.1	
Estimated spent overseas		$3.5	$3.9	$4.0	$4.1	$4.4	
Estimated Total household spending on health		$0.3	$17.7	$18.8	$19.5	$20.5	
Estimated overseas as % of total			22%	21%	21%	22%	

Source: Extrapolated from MOF Interviews

Because private health insurance covers only 21 percent of the population, one could reasonably assume that these OOP costs were supplemented by insurance reimbursements. Since survey respondents give different responses, some including covered expenses (a claim must be filed) and others including total by additional payments from insurance companies, a reasonable estimate would be that at least one-third of the total spent overseas is covered by private health insurance. If that were true, private health

insurers would pay out (in 2010/11) about EC$2.2 million, on top of the EC$4.4 million paid OOP overseas by Dominicans.

ANNEX C: FOCUS ON HIV/AIDS AND HEALTH SYSTEMS STRENGTHENING

HIV/AIDS prevention, care, and treatment are intricately connected to performance of the broader health system. Dominica has made a concerted effort to integrate HIV/AIDS services into the existing health care system, increasing access to counseling and testing throughout the island. With support from the Global Fund, the country ensures access to free ARVs through a strong National HIV/AIDS Response Program. A National HIV/AIDS Committee, comprised of public sector, civil society, and private sector stakeholders, works closely with NHARP, guiding national policies on HIV/AIDS and advocating on behalf of HIV-positive individuals. Efforts to integrate HIV/AIDS services into the health system should help ensure the long-term sustainability of Dominica's HIV response, in the face of potentially declining external aid and increasing burden posed by CNCDs.

Background on HIV/AIDS in Dominica

The 2010 UNGASS report suggests that Dominica has maintained a concentrated HIV/AIDS epidemic, with an estimated prevalence rate of 0.75 percent. MOH estimates indicate that the prevalence rate may be closer to 1 percent. Current estimates may underestimate the true prevalence of HIV, given that the epidemic appears to be concentrated among high-risk groups for which there is little data, including MSM and sex workers. Currently, 66 individuals are known to be living with HIV in Dominica. Of these, 40 are on first-line treatment and 7 have been switched to second-line treatment. Data from NHARP indicate that the male-to-female ratio of HIV incidence in Dominica is roughly 2.5:1. This sets Dominica apart from many other Caribbean countries where incidence is typically higher among women.

Dominica's HIV/AIDS Health Care System

HIV/AIDS prevention and treatment is well integrated into Dominica's PHC system and is available at many sites across the island. Available services include health education/behavior change communication, VCT, and the provision of ART. Over 120 health care providers have been trained in either provider-initiated testing and counseling or VCT. Testing and counseling services are available at PHC centers and the MOH laboratory at PMH as well as at the private laboratory, La Falaise House, which conducts rapid testing for HIV.

ARVs are available free of charge in the public sector. The Clinical Care Coordinator provides prescriptions for ARVs. The clinical care team provides patients and caregivers with education and support, emphasizing adherence to treatment regimens for HIV-positive patients who have initiated ART. The Global Fund has supported ARVs for Dominica as well as other OECS countries, starting with a Round 3 grant and, as of this year, through a Round 9 grant to PANCAP. The latest tranche was valued at approximately EC$359,000 (US$133,000) and designated primarily for second-line ARVs. The government of Brazil has committed funding for ARVs through a Technical Cooperative Agreement with the OECS Secretariat, although provision has fallen short of expectations. In September 2011, the OECS/PPS received a donation of ARVs, valued at EC$272,000 (US$100,000), from Trinity Global Support Foundation based in Canada (OECS 2011). Presumably, Dominica will benefit in some way from this donation. The MOH budget does not currently include a line item for ARVs or for treatment of OIs, resulting in periodic shortfalls of both types of drugs.

Established in 2003, NHARP has collaborated with other agencies in Dominica to coordinate the national HIV response. Recent achievements include the launching of rapid testing at three Type III health facilities (aiming to roll out rapid testing at all seven Type III facilities by the end of 2011) and conducting a behavioral and seroprevalence study among MSM. Current priorities for NHARP include: prevention of new infections; improved treatment, care, and support; infrastructure development; and strengthening the capacity of health systems and providers. NHARP has also prioritized improved information and knowledge management. To this end, HIV/AIDS data currently flow from the PHC level to the national level and are routinely collected to comply with donor reporting requirements. HIV/AIDS visits and counseling data are captured using standard paper forms at the health centers. HIV/AIDS data are routinely reported to NHARP which, until recently, had a Monitoring and Evaluation Officer responsible for data collection and analysis. The data are also reported to and consolidated by the HIU of the MOH, which is led by the National Epidemiologist. The HIU recently obtained a grant from the U.S. CDC under the SILS initiative to fund two HIV/AIDS program positions: a Quality Assurance Advisor to support development of protocols and standards for rapid HIV testing at the PMH laboratory, and a Public Health Specialist charged with improving HIV data collection and research. While the support is welcome, funding for these two positions is time-limited and there is no guarantee that the MOH would be able to absorb these staff positions when funding ends.

The private sector – both non-profit and for-profit – supports HIV/AIDS efforts in Dominica in various ways. Life Goes On, an organization that supports PLHIV through counseling, palliative care, and occupational therapy, receives a small grant from the Ministry of Community Development to operate a transitional living home. The organization also advocates directly to NHARP, especially on stigma issues and improving Prevention with Positives efforts. The Caribbean HIV/AIDS Alliance recently opened an office in Dominica, offering HIV education, outreach, and health services. The National HIV/AIDS Committee, which includes private sector and civil society representatives as members and is currently chaired by the General Manager of LIME, guides HIV policies and provided inputs to the National HIV Strategic Plan. Private providers test and counsel on HIV and treat OIs, while private pharmacies dispense drugs for OIs. One private nurse, who has been trained in counseling and testing by NHARP, provides 1–10 rapid HIV tests per week, charging EC$100 (US$37). She refers the rare positive cases to the Clinical Care Coordinator.

Sustaining Dominica's HIV Response

The sustainability of Dominica's HIV/AIDS program is a concern, in light of declining external aid and competing demands on the domestic health budget posed by CNCDs. Challenges include the need for legislative reform; ongoing stigma and discrimination issues; and inadequate human and financial resources. Less than 20 percent of public HIV spending (US$61,467) in 2008/09 was attributed to domestic sources, while the majority of funding, EC$793,376 (US$293,843), was provided by donors. While at present Dominica continues to benefit from donor support to the region, particularly for ARVs and technical assistance, its classification as an upper-middle-income country and the region's economic development is making continued external aid less likely. In this context, continuing efforts to integrate HIV/AIDS services into the existing health system, while laying the foundation for domestic support and increasingly engaging the private sector, will help to sustain Dominica's HIV response into the future.

Health Systems Recommendations to Strengthen Dominica's HIV Response

- Conduct a rapid costing exercise to determine current and projected budgetary needs to support HIV/AIDS services.

- Secure technical assistance to conduct an NHA with an HIV/AIDS subaccount to track public and private health expenditures on HIV/AIDS as well as the source for this care.
- Continue to prioritize prevention efforts and address stigma and discrimination issues, which are still prevalent in Dominica. Rolling out HIV testing to all seven Type III health facilities is a good first step. The National HIV/AIDS Committee can serve as an ideal foundation for these efforts, and its strong ties to the private sector can facilitate greater involvement from this sector. The National HIV/AIDS Committee could also help to convene a meeting with private health providers to provide an update of HIV/AIDS needs and initiate a dialogue on how the private sector can play a greater role (willingness, training needs, reporting, and referrals).
- Capitalize on the CDC-supported data improvement position to streamline HIV reporting processes and avoid duplication in reporting (to both HIU and NHARP), which should improve compliance.

ANNEX D: CUSTOMARY FEES FOR PRIVATE HEALTH SERVICES IN DOMINICA

DESCRIPTION	OFFICE VISITS	HOME VISITS
Residents		
General Practitioner	$80	$110 (+)
Specialist	$110	$150 (+)
Nonresidents		
General Practitioner	$100	$150 (+)
Specialist	$130	$200 (+)
Follow-up visits		
General Practitioner	$0–$60	
Specialist	$0–$80	
Insurance claims forms	$10	
Insurance and credit union medicals	$150	
Medicals for employment	Visit fee + $50	
Medicals for education	Visit fee + $30	
Medicals for work permits	Visit fee + $50	
Reports for work permits	Visit fee + $50	
Reports for permanent residence	Visit fee + $50	
Reports for citizenship	Visit fee + $50	
Reports for legal purposes	Visit fee + $150	
Other activities		
Repeat prescription without visit	$30	
Private doctor court appearance	$500 per day	
Administration of injection	$30 + cost of materials	
Miscellaneous	At doctor's discretion	

Note: Prices are in EC$. Effective 9 June 2006.

ANNEX E: PRIVATE SECTOR FOUNDATION FOR HEALTH MEMBERSHIP

Member Organizations
National Bank of Dominica
Dominica Electricity Services
J. Astaphan & Co.
Jays Ltd
Josephine Gabriel & Co. Ltd.
Beacon Insurance Ltd
Valley Engineering Sales and Services
Banco Transatlantico
H.H.V. Whitechurch and Co. Ltd.
Auto Trade Ltd.
Archipelago Trading
Digicel Wireless Ventures Ltd.
Jolly's Pharmacy
Northern Co-Operative Credit Union
LIME Dominica
Offshore Civil Marine Inc.
Edgehill Fortune and Associates
Campbell's Business System

As of July 2011

ANNEX F: WORKS CITED

Bangash, M., Dr. Paul Rickets and Dwight Durand. 2011. *A Comprehensive Review of Dominica's National Health Information System.* Roseau.

Brinkerhoff, D. W. and T. J. Bossert. 2008. *Health Governance: Concepts, Experience, and Programming Options.* Washington, DC: U.S. Agency for International Development, Health Systems 20/20.

Central Intelligence Agency (CIA). 2011. *Dominica*. Retrieved October 31, 2011, from The World Factbook:
https://www.cia.gov/l ibrary/publications/the-world-factbook/geos/do.html

Commonwealth of Dominica. 1995. *Census and Statistics Act.* Retrieved August 2011, from Laws of the Commonwealth of Dominica: http://www.dominica.gov.dm/laws/chapters/chap19-03.pdf

Commonwealth of Dominica. 2004. *Environmental Health Services Act (Communicable and Notifiable Diseases).* Retrieved August 2011, from Laws from the Commonwealth of Dominica: http://www.dominica.gov.dm/laws/2003/sro57-2003.pdf

Commonwealth of Dominica. 2005. Information Technology Strategic Plan. Roseau, Dominica.

Commonwealth of Dominica. 2010a. *Economic and Social Review for Fiscal Year 2009/10.* Roseau, Dominica.

Commonwealth of Dominica. 2010b. *Ministry of Health*. Retrieved December 12, 2011, from Commonwealth of Dominica: http://www.dominica.gov.dm/cms/index.php?q=node/21

Commonwealth of Dominica. 2010c. *The National Strategy for the Prevention and Control of HIV and AIDS in the Commonwealth of Dominica for 2010-2014.* Roseau, Dominica.

Commonwealth of Dominica. 2011. Reccurrent Expenditure Estimates, 2011–2012. Roseau, Dominica.

Dominica Association of Industry and Commerice. 2011. *About Us*. Retrieved November 21, 2011, from Dominica Assoication of Industry and Commerce: http://www.daic.dm/

Dominica Central Newspaper. 2010. Report on Dominica Cancer Society Breast Health Campaign 2010. Roseau, Dominica.

Health Research for Action. 2009. Regional Assessment of Patent and Related Issues and Access to Medicines. Belgium.

Health Systems 20/20. 2011. *Health Systems Database*. Bethesda: Abt Associates. Accessed November 2011. http://healthsystems2020.healthsystems database.org/

Heritage Foundation. 2011. *Dominica*. Retrieved November 21, 2011, from 2011 Index of Economic Freedom: http://www.heritage.org/index/country/dominica

Inter-American Drug Abuse Control Commission (CICAD). 2006. Dominica Evlaution of Progress in Drug Control 2006–2006. Dominica.

Islam, M., ed. 2007. *Health Systems Assessment Approach: A How-To Manual*. Submitted to the U.S. Agency for International Development in collaboration with Health Systems 20/20, Partners for Health Reform*plus*, Quality Assurance Project, and Rational Pharmaceutical Management Plus. Arlington, VA: Management Sciences for Health.

Joint United Nations Program on HIV/AIDS (UNAIDS). 2010. *The Commonwealth of Dominica: Narrative Report.* Geneva.

Kairi Consultants Limited. 2010. *Country Poverty Assessment – Dominica: Volume 1 Main Report.* Tunapuna: Kairi Consultants Limited.

Lippenveld, T., R. Sauerborn, and C. Bodart. 2000. *Design and Implementation of Health Information Systems.* Geneva: WHO.

Ministry of Finance, Central Statistics Office (MOF). 2007. *Household Survey.* Roseau, Dominica.

Ministry of Health (MOH). 2010a. National Strategic Plan for Health: Investing in Health – Building a Safer Future. Volume 1: Health Situation Analysis 2010–2019. Roseau, Dominica.

Ministry of Health (MOH). 2010b. National Strategic Plan for Health: Investing in Health – Building a Safer Future. Volume 2: Action Plan 2010–2019. Roseau, Dominica.

Ministry of Health (MOH), PAHO, and WHO. 2010. *Performance Measurement of the Essential Public Health Functions at the National Level in Dominica: Results of the EPHF Performance Measurement Workshop.* Roseau, Dominica: PAHO and WHO.

Organization of Eastern Caribbean States (OECS). 2001. *Pharmaceutical Procurement Service Annual Report 2001*. St. Lucia.

Organization of Eastern Caribbean States-Pharmeutical Procurement System (OECS/PPS). 2011. OECS/PPS 2010 Annual Report. Castires, St. Lucia.

Pan American Health Organization (PAHO). 2007. *Dominica.* Roseau, Dominica.

Pan American Health Organization (PAHO). 2010. Core Data Human Resources for Health: Stocks and Flows - Education - Management. Eastern Caribbean Countries: Dominica, Grenada, Saint Lucia, Saint Vincent and the Grenadines, 2009. Washington, DC.

Princess Margaret Hospital. 2009. Year End Comparative Report - 2005–2009. Roseau, Dominica.

World Bank. (2004). *Commonwealth of Dominica Country Financial Accountability Assessment.* World Bank.

World Bank. 2008. *Project Appraisal Document.* Washington, DC: IBRD/World Bank

World Bank. 2011a. World Devleopment Indicators: Dominica. Washington, DC: IBRD/World Bank

World Bank. 2011b. World Governance Indicators: *Dominica*. Washington, DC: IBRD/World Bank. Accessed August 2011. http://info.worldbank.org/governance/wgi/sc_chart.asp

World Bank. 2011 c. *Migration and Remittances Factbook.* Migration and Remittances Unit. Washington, DC: World Bank.

World Health Organization (WHO). 2000. *World Health Report 2000: Health Systems: Improving Performance.* Geneva: WHO. http://www.who.int/whr/2000/en/whr00_en.pdf

World Health Organization (WHO). 2004. *The World Medicines Situation.* Geneva: WHO.

World Health Organization (WHO). 2007. *Framework and Standards for Country Health Information Systems*. Geneva: WHO Health Metrics Network.

World Health Organization (WHO). 2011. *Global Health Observatory Country Statistics*. Geneva. Accessed October 2011. http://www.who.int/gho/countries/en/