This publication was produced by the Health Systems and Services Area (HSS) of the Pan American Health Organization/World Health Organization (PAHO/WHO). It was made possible through the support provided by the Office of Regional Sustainable Development, Bureau for Latin America and the Caribbean, U.S. Agency for International Development (USAID), under the terms of Grant No. LAC-G-00-07-00001. The opinions expressed in this publication are those of the author(s) and do not necessarily reflect the views of USAID. The electronic version of this document is available at the Web site for Health Systems Strengthening in Latin America and the Caribbean and can be accessed at www.lachealthsys.org. For any questions or inquiries regarding this document, please contact info@lachealthsys.org.
# TABLE OF CONTENTS

- Executive summary
- 1. Context of the health system
  - 1.1. Health situation analysis
    - 1.1.1. Demographic analysis
    - 1.1.2. Epidemiological analysis
    - 1.1.3. Millennium Development Goals
  - 1.2. Determinants of health
    - 1.2.1. Political determinants
    - 1.2.2. Economic determinants
    - 1.2.3 Social determinants
    - 1.2.4. Environmental determinants
- 2. Functions of the health system
  - 2.1. Steering Role
    - 2.1.1. Mapping of the Health Authority
    - 2.1.2. Conduct/Lead
    - 2.1.3. Regulation
    - 2.1.4. Development of the Essential Public Health Functions
    - 2.1.5. Orientation of Financing
    - 2.1.6. Guarantee of Assurance
  - 2.2. Financing and Assurance
    - 2.2.1 Financing
    - 2.2.2. Assurance
  - 2.3. Service provision
    - 2.3.1. Supply and demand for health services
    - 2.3.2. Human resource development
    - 2.3.3. Medicine and Other Health Products
    - 2.3.4. Equipment and Technology
    - 2.3.5. Quality Assurance
- 3. MONITORING HEALTH SYSTEMS CHANGE/REFORM
  - 3.1. Impact on “Health Systems Functions”
  - 3.2. Impact on the “Guiding Principles of health Sector Reforms”
    - 3.2.1. Equity
    - 3.2.2. Effectiveness
    - 3.2.3. Efficiency
    - 3.2.4. Sustainability
    - 3.2.5. Social Participation
  - 3.3. Impact on the “Health System”
  - 3.4. Analysis of Actors
- BIBLIOGRAPHY
Executive summary

St. Vincent and the Grenadines is a multi-island state in the Windward Islands, consisting of 32 islands, inlets, and cays with a total land area of 345 km. The total population in 2005 was 100,747. The annual growth rate of the population declined from 0.7% in the 1990s to 0.5% since 2000, the reduction being attributable to declining fertility rates and migration. Total life expectancy at birth was 71.1 years during the period 2000-2006. Infant mortality rates decreased from 60 per 1,000 live births in the 1980s to 15.7 in 2005. The Poverty Assessment conducted in 1996 indicated that 37.5% of the population was poor; 20.4% of households and 25.7% of the population was deemed indigent. The currency is the Eastern Caribbean dollar (EC$) pegged at EC$2.70 to US$1.

The Ministry of Health is responsible for health, environmental policies, and service delivery. Health policies and plans are determined by a convergence of the epidemiological profile of the country, stakeholder interests, and the political environment. Public sector health care is financed through the national consolidated fund as well as from the fee-for-service system. At the primary care level, health care is offered free-of-charge through a network of health centers. Considerable health gains were achieved over the period 1980-2007 despite the effects of the global economic crises and major catastrophes that impact the economic infrastructure of this small-island state.

The National Strategic Health Plan 2007-2012 articulates the strategic direction for the reform and the primary care orientation is the framework for organizing the health system. The national health priorities seek to address: inadequate management capacity; inadequate data; availability, sustainability, and utilization of human resources; non-communicable diseases; communicable diseases; inadequate utilization of health service delivery; health care financing and management; food and nutrition security; environmental and population concerns; infant and perinatal mortality; social issues; and level and quality of care for the population. Several challenges exist for accelerating the rate of pace for a sustainable health care delivery system. The Millennium Development Goals, the Essential Public Health Functions, and the Caribbean Cooperation in Health, Phase II provide the context and timeline to benchmark progress and reevaluate development strategies in the health sector.
The government created links with in the international arena to mobilize foreign investments and secure technical cooperation. Civil society, non-governmental organizations, and regional and international entities have partnered with the government to provide health and health-related activities.
1. Context of the health system

1.1. Health situation analysis

1.1.1. Demographic analysis

St. Vincent and the Grenadines (SVG) is a multi-island state in the Windward Islands. It consists of 32 islands, inlets and cays with a total land area of 345km. Most of the land area and 91% of the country’s population can be found on the mainland St. Vincent. The Grenadines extend south, by 45 miles, and include seven inhabited islands - Bequia, Canouan, Mayreau, Union Island, Mustique, Palm Island and Petit St. Vincent. Sea transport links all the islands, while airport facilities are present on the mainland St. Vincent and four Grenadines islands - Bequia, Canouan, Mustique and Union Island. The separation of the islands by sea is a challenge in the delivery of health care. This is particularly so when medical emergencies occur outside routine hours for sea and air transportation. On such occasions, the coast guard, private boats, and small aircraft operators provide the needed transportation.

According to the 2001 Population and Housing Census, the country’s total population was estimated at 106,253. The annual growth rate of the population declined from 0.7% in the 1990s to a constant of 0.5% since 2000. The slow rate of population growth over the period is attributable to declining fertility rates and migration. In 2001, 30.7% of the total population was under 15 years old. The size of the population aged 60 and older has been steadily growing as a result of an increase in life expectancy. The over-60 age group represented 9.9% in 2005. The aging of the population is of concern because non-communicable diseases and chronic conditions, which occur mainly in the elderly population, impose a heavy burden on the health system.

The total fertility rate has shown a downward trend, dropping from 3.1 children per woman in the 1990s to a stable rate of 2.2 since 2001. Total life expectancy at birth was around 71.1 years during the period 2000-2006. The average life span for the female population rose from 71.6 years in the five-year period 1995-1999 to 74.2 years during the period 2000-2005, while for males it increased from 67.8 and 69.8 for the corresponding periods. The
population structure by age and sex for 1990 and 2005 are shown in the population pyramids below.

Source: Central Statistical Department 2007.
1.1.2. Epidemiological analysis

Morbidity

Although gains have been made in the overall health profile of the nation, life-style related diseases have threatened to erode those gains. There has been a marked decline in infectious diseases and an increase in chronic non-communicable diseases. Since the late 1990s, the leading causes for hospitalization are directly related to complications of diabetes and hypertension. Other causes include violence-related injuries, HIV/AIDS, and mental illness. These may be linked to the socio-cultural practices as well as family and individual economical challenges.

In 2003 and 2004, the ten leading causes for clinic visits throughout the country were: hypertension, hypertension with diabetes, diabetes, arthritis, cardiac problems, asthma, gastritis, injuries, myalgia, and lumbago. The first five causes accounted for approximately 65% of all clinic visits. Hypertension was the leading cause of clinic visits in all health districts and accounted for almost a third of total visits. A “Wellness Revolution” was proposed by the CARICOM Heads of Government in 2007 to meet the challenges posed by non-communicable diseases; it was formally launched in St. Vincent and the Grenadines in 2008.


<table>
<thead>
<tr>
<th>Indicators</th>
<th>1995-1999</th>
<th>2000-2005</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Urban</td>
<td>Rural</td>
</tr>
<tr>
<td>% of deliveries attended by skilled health attendants</td>
<td>95</td>
<td>95</td>
</tr>
<tr>
<td>Number of influenza infections</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Number of confirmed dengue cases</td>
<td>78</td>
<td>116</td>
</tr>
<tr>
<td>Number of TB cases</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Number of HIV/AIDS cases</td>
<td>300</td>
<td>449</td>
</tr>
<tr>
<td>Ratio of HIV/AIDS cases (male/female)</td>
<td>2:1</td>
<td>2:1</td>
</tr>
</tbody>
</table>

Prior to 2001, mental wellness was not given deserved attention. Since then, a number of new initiatives geared towards improving service delivery were implemented. These have included renaming the psychiatric hospital from the Mental Health Center to the Rehabilitation Center, increasing the cadre of nursing and medical staff, and offering financial assistance to access specific psychiatric training and skills. The Community Outreach Program is intended to reduce stigma and discrimination regarding mental illness and to sensitize the general public about the importance of achieving and maintaining mental wellness. The overarching goal of the program is to reduce hospital admissions due to mental illnesses. As the delivery of mental health services improves, there should be a reduction of some of the social ills such as suicides, murders, other forms of violence, and family abuse, among others.

**Mortality**

Despite efforts to achieve a reduction, crude death rates have remained at around 6.8 per 1,000 population since the 1990s. Infant mortality rates decreased from 60 per 1,000 live births in the 1980s to 22.2 in 1998, 18.5 in 2001, 17.3 in 2004, and 15.7 in 2005. The reduction in infant deaths was due to the decline in deaths from infectious and parasitic diseases. Mortality rates in the under-5 year age group rose from 23 per 1,000 live births in 2000 to 27 in 2003, and declined to 20 per 1,000 live births for the years 2005 and 2006. In the period 1995-1999, neonatal mortality was 12.6 per 1,000 live births and it increased slightly to 13.0 per 1,000 live births in the period 2000-2005. Post neonatal mortality decreased from 6.4 per 1,000 live births in the period 1999-2000 to 4.6 in 2000-2005. Mortality rates for select diseases are shown in Table 2.

<table>
<thead>
<tr>
<th>Period</th>
<th>Communicable diseases (mandatory reporting)</th>
<th>TB</th>
<th>AIDS</th>
<th>Malaria</th>
<th>Circulatory system diseases</th>
<th>Malignant neoplastic diseases</th>
<th>External causes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995-1999</td>
<td>17.1</td>
<td>NA</td>
<td>28.2</td>
<td>0</td>
<td>253.7</td>
<td>111.8</td>
<td>49.4</td>
</tr>
<tr>
<td>2000-2005</td>
<td>57.3</td>
<td>2.4</td>
<td>34.1</td>
<td>0</td>
<td>226.8</td>
<td>114.4</td>
<td>57.8</td>
</tr>
</tbody>
</table>


The available data for 2000-2004 showed that the leading causes of death were non-communicable diseases, as shown in Table 3. It should be noted that the methodology to
rank the causes did not exclude the category “Signs, symptoms and ill-defined conditions.” In the period 2000-2004, diabetes was the leading cause of death except in 2001 and 2002 when it ranked second. Malignant neoplasms were the leading cause of death in 2001 and 2002, but ranked second in 2000, 2003 and 2004. Notably, epidemiological data revealed that from 2006 to 2008, malignant neoplasms continue to rank in the first two leading causes of mortality. Data on accidents was only available for 2003. Although not reflected in Table 3, deaths due to violence have increased. There were 11 violence-related deaths in 2003 and 28 in 2004 (Royal St. Vincent and the Grenadine CID record 2008). All causes of death were coded according to WHO International Statistical Classification of Diseases and Related Health Problems, 10th Revision (ICD-10).

Table 3. St. Vincent and the Grenadines: Ten leading causes of death in rank order, 2000-2004

<table>
<thead>
<tr>
<th>Principal causes</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes</td>
<td>1 (153)</td>
<td>2 (103)</td>
<td>2 (89)</td>
<td>1 (120)</td>
<td>1 (125)</td>
</tr>
<tr>
<td>Malignant neoplasms</td>
<td>2 (116)</td>
<td>1 (132)</td>
<td>1 (122)</td>
<td>2 (119)</td>
<td>2 (116)</td>
</tr>
<tr>
<td>Heart disease</td>
<td>4 (98)</td>
<td>4 (45)</td>
<td>4 (58)</td>
<td>3 (102)</td>
<td>4 (58)</td>
</tr>
<tr>
<td>Hypertension</td>
<td>6 (54)</td>
<td>6 (33)</td>
<td>9 (26)</td>
<td>4 (101)</td>
<td>4 (58)</td>
</tr>
<tr>
<td>Cerebrovascular diseases</td>
<td>3 (11)</td>
<td>3 (60)</td>
<td>3 (89)</td>
<td>5 (51)</td>
<td>3 (64)</td>
</tr>
<tr>
<td>Accidents</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>7 (25)</td>
<td>ND</td>
</tr>
<tr>
<td>HIV/AIDS</td>
<td>3 (46)</td>
<td>5 (34)</td>
<td>6 (36)</td>
<td>6 (34)</td>
<td>6 (33)</td>
</tr>
<tr>
<td>Respiratory infections</td>
<td>5 (63)</td>
<td>ND</td>
<td>5 (47)</td>
<td>7 (25)</td>
<td>9 (27)</td>
</tr>
<tr>
<td>Signs, symptoms and ill-defined conditions</td>
<td>8 (29)</td>
<td>8 (21)</td>
<td>ND</td>
<td>9 (24)</td>
<td>7 (29)</td>
</tr>
<tr>
<td>Conditions originating in the perinatal period</td>
<td>9 (21)</td>
<td>8 (24)</td>
<td>7 (29)</td>
<td>10 (21)</td>
<td>10 (26)</td>
</tr>
<tr>
<td>Homicide (murders)</td>
<td>21</td>
<td>12</td>
<td>20</td>
<td>12*</td>
<td>7 (29)</td>
</tr>
</tbody>
</table>


* 1 of the deaths was categorized as “manslaughter”.

ND - no data available for those years.

1.1.3. Millennium Development Goals

The Millennium Development Goals (MDGs) reflect the need to promote human development and the government has reiterated its commitment to achieving them by 2015. The goals are: the eradication of extreme poverty and hunger; achieve universal primary education; promote gender equality and the empowerment of women; reduce child mortality;
improve maternal health; control HIV/AIDS, malaria and other diseases; promote environmental sustainability, and develop global partnerships for development.

While there is no formal entity in charge of tracking the indicators related to the goals, the government continues to strengthen collaborative efforts to address the goals and sustain gains already achieved. Several initiatives commenced in the reporting period. In 2002, the government identified national strategies and initiatives for poverty reduction. These include: a) developing effective policies to stimulate growth, trade and investment; b) increasing/generating employment opportunities; c) greater and better investment in human capital; d) improving social and physical infrastructure; e) strengthening civil society participation; and f) good governance and the business environment. In 2003, the Ministry of Education, Youth and Sports began a series of public consultations on education to inform its Education Sector Development Plan. The purpose of the Plan is to provide overall direction for the development of education in St. Vincent and the Grenadines from 2002-2007. In 2002, the government launched at Global Movement for Children to focus on the range of issues affecting children in the country. In the area of HIV/AIDS care and treatment, in 2003, the government intensified its action through increased funding for educational programs. In 2001, the Woman’s Affairs Division was renamed the Gender Affairs Division to provide increased attention to gender issues with a focus on poverty-reduction and capacity-building among rural women and promote gender equity. The government signed the St. George’s Declaration on environmental sustainability in 2001. Considerable improvement in sanitation has been achieved. In summary, the scale of the challenge remains a barrier towards accelerated progress towards achieving all of the MDGs by 2015.

1.2. Determinants of health

1.2.1. Political determinants

St. Vincent and the Grenadines is a politically stable parliamentary democracy within the Commonwealth of Nations. The Governor General is recommended by the Prime Minister but appointed by Her Majesty the Queen of England, who is the Head of State. The House of Assembly has 15 elected representatives and six senators.
The government is signatory to several regional and international charters and conventions. Efforts have continued to meet the country’s obligations under: the Declaration of Alma Ata (Primary Health Care), the Convention on the Elimination of Discrimination Against Women; the Port-of-Spain Declaration on Wellness, and the Belem-do-Para Convention that deals with issues surrounding domestic violence, among others. The Government has recognized the link between globalization, health, and foreign policy. This alliance has mobilized foreign investment and technical cooperation with specific benefits for the health sector.

The government has placed great emphasis on poverty reduction and education reform. To this end, there is ongoing coordination among different social sectors including the Ministry of Education, Ministry of Social Development, the Ministry of Finance and Planning, and the National Insurance Service for the development and implementation of health-related public policies.

1.2.2. Economic determinants

An analysis of health care reform is best understood in the context of economic and social reforms. The World Bank Economic and Financial Review (March 2008) concluded that economic activity in St. Vincent and the Grenadines continued to expand due mainly to growth in the construction industry; wholesale and retail sector; transport; and tourism. The economy experienced four episodes of high growth averaging 2.9% over the period 1990-1999. The episodes of high growth were in 1990, 1992, 1995, and 1998 and were fuelled by increases in agricultural output, construction and other services. The GDP growth trend continued in the years 2000-2004 with annual growth rates of 1.8 % in 2000, 2.6% in 2005, and 6.9% in 2006.

In St. Vincent and the Grenadines, most recent data available from CARICOM (2004), showed that 6.1% of the nation’s GDP was spent in health; and that a 36.8% of all health expenditures corresponds to private health spending which comes totally out of the pocket. Table 4 shows trends for selected economic indicators.
Table 4: Trends for selected economic indicators, St. Vincent and the Grenadines, 1990-2005

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP per capita in US$ constant prices relative to the base year</td>
<td>1637</td>
<td>1853</td>
<td>2205</td>
</tr>
<tr>
<td>Public expenditure per capita (US$)</td>
<td>539</td>
<td>713</td>
<td>1032</td>
</tr>
<tr>
<td>Total expenditure, as a percentage of GDP</td>
<td>30.2</td>
<td>31.7</td>
<td>35.8</td>
</tr>
<tr>
<td>Public expenditure on health, as a percentage of GDP</td>
<td>4.7</td>
<td>4.5</td>
<td>4.6</td>
</tr>
<tr>
<td>Public expenditure on health services, as a percentage of GDP</td>
<td>4.4</td>
<td>4.2</td>
<td>4.4</td>
</tr>
<tr>
<td>Annual inflation rate (%)</td>
<td>3.9</td>
<td>1.8</td>
<td>1.0</td>
</tr>
<tr>
<td>Remittances, as a percentage of GDP</td>
<td>7.2</td>
<td>5.4</td>
<td>6.5</td>
</tr>
<tr>
<td>Foreign debt, as a percentage of GDP</td>
<td>37.3</td>
<td>41.4</td>
<td>60.2</td>
</tr>
<tr>
<td>Percentage of female-headed households</td>
<td>39.0</td>
<td>39.0</td>
<td>40.0</td>
</tr>
<tr>
<td>Service of the foreign debt, as a percentage of GDP</td>
<td>2.5</td>
<td>3.6</td>
<td>4.6</td>
</tr>
</tbody>
</table>


The present gloomy global economic situation has triggered concerns and fiscal measures are in place to ensure the country’s economic viability. The economy is trade-dependent and external trade occurs under preferential conditions. As such, the government is committed to the expanding regional integration process as an important component of its economic survival. In 2008, work begun on the construction of an international airport to facilitate easier trade with the regional and international communities and expand the tourism industry. The 2000-2004 Medium-term Economic Strategy articulates the government’s development policy that aims to sustain growth in the economy and reduce unemployment and poverty.

In 1991, males accounted for 18.4% and females 22.1% of the unemployed. The 1996 Country Poverty Assessment (CPA), commissioned by the Caribbean Development Bank (CDB), estimated that 30% of the young male population was unemployed. The 2001 Population Census reported an overall unemployment rate of 21.1% with men accounting for 22.7% and 18.6% for women.
Poverty

The CDB conducted a Poverty Assessment in 1996. The study’s most noteworthy findings were: 1) 37.5% of the population was poor and 20.4% of households and 25.7% of the population was deemed indigent; 2) 38.7% of the rural population was poor compared to 35.4% in urban areas; 3) poor households had lower levels of education and training, more children, lived in poorer quality accommodation, and had few income earners; 4) emigration was seen as an important coping strategy and 43.8% of the households reported recent migration among members of the household; and 5) the poverty gap ratio was 12.6%. A Data Collection Survey conducted in 1996 showed that 5.55% of the population was living below US$1.00 per day. The government, in collaboration with the European Union and the United Nations Development Programme will conduct a second CPA in 2008 to assess existing poverty reduction policies and strategies.

The development of a poverty reduction framework is assigned to the National Economic, Social Development Council (NESDEC) that consists of representatives from a wide range of civil society organizations and senior public servants. The 2002 Interim Poverty Reduction Strategy aims: to improve the macro-economic context; create an enabling environment for investment; facilitate the development of micro-enterprise through support for micro-credit/finance institutions; increased effectiveness and efficiency in social service delivery; giving special attention to HIV/AIDS; and greater investment in human capital. Various types of assistance are offered to families although not guided by a legal framework or articulated policy. These include: the Family and Social Recovery Programme, a Basic Needs Trust Fund, a poverty alleviation fund and a Youth Empowerment Program. Through the Indigent Family Program, children who meet the matriculation requirement for a university education but are unable to access same due to financial constraints, are given the opportunity to do so. There is a special program where loans are guaranteed at low interest rates for university education.

1.2.3 Social determinants

In 1991, intake at the primary school level was 24,305 as compared with 18,807 in 2001 (Population Census, 2001). This difference is attributed to a decrease in the population
growth. Tertiary technical and vocational education is accessed through improved vocational programs.

In 2003, the country achieved universal access to secondary education. All children of secondary school age are placed in a secondary-level institution or its equivalent. Any child who prematurely leaves secondary school due to pregnancy or other reasons, is given the opportunity to reenter the education system. For those who may not be academically inclined but display technical skills, they are schooled at multi-purpose centers or technical vocational schools.

The 2005 Human Development Index (HDI) for St. Vincent and the Grenadines is 0.761 which gives it a rank of 93rd out of 177 countries with data. According to the HDI, the literacy rate among the population over 15 years of age was 88.1%; it was 88.2% for males and 89.5% for females. In that year, the Ministry of Education commenced a crusade to increase literacy rates among the population. The illiterate population was estimated at 16.9% in 2000-2005. In 2007, the government instituted a policy that includes provision for the construction of new primary schools with a pre-school education component.

1.2.4. Environmental determinants

The Ministry of Health and the Environment is responsible for environmental issues and has direct responsibility for food, sanitation, monitoring of water quality, and garbage disposal. The Central Water and Sewage Authority (CWSA) ensures safe and adequate water supply of potable water. In 2006, 95% of the population had access to pipe-borne drinking water. The Solid Waste Management Unit collects garbage and disposes properly in landfills. The government now operates three landfills, one at Diamond, on the windward side, the second at Belle Isle on the mainland, and the third in Bequia in the Grenadines. The Public Health Department monitors water quality and the Environmental Services Department looks at ozone depletion and its links to eye cataracts and skin cancer.

Squatting and its concomitant problems were widespread, but currently these informal settlement sites have become less of an environmental hazard. This is due to an organized

---

1 The HDI provides a composite measure of three dimensions of human development: living a long and healthy life, being educated, and having a decent standard of living.
housing project undertaken by the government. In areas where squatting still exists, the CWSA has installed potable water supply. Low income houses are constructed at affordable repayment rate. In addition, nationals are warned against the development of new informal settlement sites. One of the government’s priorities for development assistance is implemented through the Special Possessory Title Program which turns “dead property” into a “live property”. This program benefits families/individuals that live on informal settlement for years but do not have titles for the land. The program allows them to obtain a title and use the property as collateral to obtain a loan from a lending agency in order to do business.

Figure 2. St. Vincent and the Grenadines: Summary of issues affecting health care, 2008

Summary of Issues Affecting Health Care

- Biological
  - Declining Population
  - Dependency Ratio
  - Aging Population
  - Emerging and Re-emerging Diseases

- Chronic non-communicable disease:
  - Diabetes
  - Hypertension
  - Obesity
  - Cardiac Diseases
  - Asthma
  - Injuries/Violence
  - Malignant Neoplasm
  - HIV/AIDS/STIs
  - Drug Abuse

- Urbanization
  - Informal Settlements
  - Per Capita Income
  - Poverty
  - Food and Nutrition Insecurity
  - Illiteracy
  - Homicides
  - Human Resources
  - Health Care Financing

- Occupational Health & Safety
  - Infant & Perinatal Mortality
  - Men’s Health
  - Mental Health
  - Oral Health
  - Governance of HCDS
  - Utilization Patterns
  - Information Systems
  - Ambulance Services
  - Training
  - Policy and Programming
  - Regulatory Mechanisms
  - Environmental Issues
  - Essential Functions of Public Health
The national health priorities for 2006-2010 seek to address: inadequate management capacity; inadequate data; availability, sustainability, and utilization of human resources; non-communicable diseases (hypertension, diabetes, injuries, and violence; acute respiratory infections; obesity); communicable diseases (HIV and emerging infections); inadequate utilization of health care service delivery including equity and sustainability; health care financing and management; food and nutrition security; environmental and population concerns; infant and perinatal mortality; social issues (drug dependency and depression); and level and quality of care delivered.
2. Functions of the health system

2.1. Steering Role

The policy of the Government of St. Vincent and the Grenadines is to provide universal health care which reflects the principles of equity, affordability, quality, and cultural acceptance for its citizens. The Ministry of Health and the Environment (MOHE) is the state agency ultimately responsible for health policy decisions, service provision, allocation/use of resources, and the desired outcomes to be achieved. The Government recognizes that there can be no sustainable political and economic development without effective, time-sensitive plans and policies. In 2004, the MOHE led the process to develop the National Strategic Plan 2007-2012. Major stakeholders contributed to the identification of the priorities to be addressed in the period. The mission and the vision of the MOHE, as stated in the Plan, provide legitimacy that the government assures equity and quality healthcare to meet the health needs of the population. The Plan’s strategic direction is the basis for operational planning and the entry point to involve external partners.

2.1.1. Mapping of the Health Authority

The MOHE is the executive arm of the government with responsibility for health and environmental policies and service delivery. The Minister of Health and the Environment is the political directorate of the Ministry while the administrative head is the Permanent Secretary and Chief Medical Officer (CMO), the technical head. There is a Senior Management Committee, which supports the MOHE, and whose primary responsibility is policy development and implementation. Members of the Committee include senior administrative and technical personnel at the MOHE. Formal and ad hoc committees are formed for specific initiatives to assist the MOHE in performing its functions. Primary, secondary and tertiary care is provided through a network of facilities, programs and the environmental health department. At the program level, heads of departments, subunits, and sub-sectors meet to discuss their program plans. The organizational chart (Figure 3) shows a highly vertical structure. The CMO is the highest technical authority and is the focal point for different hierarchical structures with no technical coordination among them.
2.1.2. Conduct/Lead

The government’s health policies, programs, and plans are determined by a confluence of the epidemiological profile of the country, stakeholder interests, and the political context. The government has increased its capacity to attract international technical cooperation, implement an intersectoral approach, and establish strategic partnerships with civil society to develop policies, plans and access financing for the health sector. The MOHE is
responsible for policy-setting, regulation of practice, harmonization of services, and monitoring and evaluation in a primary health care-based system.

In the absence of a formal health policy, the 2007-2012 National Strategic Health Plan is the framework to improve the health status of the population in the face of new epidemiological challenges and to secure sustainable health gains. The Plan is built upon the tenets of the Alma Ata Declaration, the United Nations Millennium Declaration, the Caribbean Cooperation in Health and the results of the analysis of health system performance of the Essential Public Health Functions.

2.1.3. Regulation

Several pieces of legislation govern the delivery of health care services. These are enshrined in the Laws of St. Vincent and the Grenadines in force on 1st January, 1991. Title XVII, Health, Education and Social Services, contains the laws that regulate the health sector. Most of these regulations are outdated and do not provide for the type of governance that ensures a policy process for an equitable and efficient health system. Where legislation is enacted, it confers on the Ministry of Health the supervisory and the regulatory functions for public health activities and the provision of medical care in the country.

The Public Health Act (1977) provides broad powers to the MOHE to regulate various environmental aspects with public health significance. The Solid Waste Act 31 (2000) provides a legal framework that guides the operations of the authority to ensure that proper systems are in place for long-term management of solid waste. The Solid Waste Management Act (2000) provides for the management of solid waste in conformity with best environmental practices. The Consumer Protection Act (1992 amended in 2001) provides for the preparation of standards in relation to goods, services and practices by the establishment and operation of the Bureau of Standards. The Central Water and Sewerage Authorities Act (1991) intends to make better provision for the conservation, control, apportionment, and use of the water resources of the islands. The National Economic and Social Development Council Act was passed in 2001. The legislation requiring the use of seatbelts while riding in automobiles and helmets while riding motorcycles was enacted in 2006.
Monitoring and evaluation of health sector performance are done through reports submitted by department heads. All public sector health care facilities are owned and operated by the government who sets the standards for the structure and organization of the facility, service delivery, and deployment of human resources. The Chief Medical Officer guides the operations of privately-owned and operated health facilities. All medical professionals must be registered. Legislation regulates the professional practice of medicine, nursing, and pharmacy. The respective Councils are responsible for oversight, accountability, and the resolution of disputes.

2.1.4. Development of the Essential Public Health Functions

The 11 Essential Public Health Functions (EPHF) describe the spectrum of competencies and actions required to reach the central objective of public health which is to improve the health of populations. In 2002, the Pan American Health Organization (PAHO) assessed the country’s capacity for achieving these functions. Table 5 shows that monitoring and evaluation; ensuring quality of personnel and population based on services; and research were the three weakest areas of the system. Two of the stronger areas were the handling of emergencies and disasters; and promoting equitable access to care.

<table>
<thead>
<tr>
<th>Functions</th>
<th>Ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Monitoring, Evaluation and Analysis</td>
<td>.46</td>
</tr>
<tr>
<td>2  Health Promotion Activities</td>
<td>.59</td>
</tr>
<tr>
<td>3  National Approach IEC</td>
<td>.79</td>
</tr>
<tr>
<td>4  Empowering Civil Society</td>
<td>.67</td>
</tr>
<tr>
<td>5  Policies, Institutional Capacity for Planning and Strategic Implementation</td>
<td>.68</td>
</tr>
<tr>
<td>6  Institutional Capacity for Regulation and Enforcement in Public Health</td>
<td>.52</td>
</tr>
<tr>
<td>7  Promoting Equitable Access to Care</td>
<td>.96</td>
</tr>
<tr>
<td>8  Human Resource Development and Training in Public Health</td>
<td>.77</td>
</tr>
<tr>
<td>9  Ensuring Quality of Personnel and Population Based Health Services</td>
<td>.43</td>
</tr>
<tr>
<td>10 Research in Public Health</td>
<td>.33</td>
</tr>
<tr>
<td>11 Emergencies and Disasters in Health</td>
<td>.94</td>
</tr>
</tbody>
</table>

Note: Zero point seven six (0.76) to 1.0 was the scale used for quartile of optimal performance and 0.0 to 0.25 for quartile of minimal performance.
Efforts to improve these functions include a 2007 study conducted by the Nursing Research Committee on “Age-related atopy Asthma Severity in the Asthmatic Population in Saint Vincent and the Grenadines” in conjunction with the University of California, Irvine. The findings were presented by two nurse researchers from St. Vincent and the Grenadines at the American Academy of Allergy and Immunology in March 2008. A patient satisfaction survey was done at the MCMH in 2008 and a “Youth Nutritional Status Survey” is in progress. The results will inform the development of an action plan for stakeholders to address nutritional issues affecting the youth population. The Nursing Research Committee hosts an Annual Research Conference to present research projects conducted in the previous year by nurses and nursing students. It is held during nurses’ week and invitation is extended to the general public as well as members of other disciplines.

A Health Planning and Information Unit was established in the Ministry of Health in 1984. Although information sources are available on the health situation primarily through epidemiological reporting, there are several gaps in data collection. Issues concerning missing data, inconsistent definitions, and conflicting values for the same indicator are key challenges. There are national and international demands for data for decision-making and to monitor progress on key health and development indicators. The government recognizes the need for a health information policy that sets out the standards and guiding principles covering the quality indicators for health statistics on: system functioning, service access, cost of service (public and private), coverage and quality; and health outcomes. The objective is to relate political commitment and policy design to data collection and analysis.

One of the strategic directions in the National Strategic Plan 2007-2012 is the strengthening of the health information system. The Health Planning and Information Unit, although currently understaffed, utilize seven information systems for data collection, evaluation and analysis. Surveillance is being strengthened and a framework for monitoring and evaluation of programs is being implemented. There is no active research agenda but there is capacity to carry out public health research.
2.1.5. Orientation of Financing

Health care is financed through annual appropriation from the national budget as well as from individual and household contributions, mainly through a fee-for-service system, which was introduced in 1995. A wide range of health services are offered free of charge through a network of health centers.

2.1.6 Guarantee of Assurance

In 1999, the government initiated deliberations for the introduction of a National Health Insurance Program (NHIP). However, discussions were suspended indefinitely in the absence of a frame of reference to assess the pertinence of national health insurance proposals. The principle that health is a fundamental right, coupled with the government’s commitment to health sector reform, has prompted renewed interest in, and a review of the process for policy formulation, policy implementation and evaluation of a social health protection program that guarantees a package of health services.

2.2. Financing and Assurance

2.2.1 Financing

The successful funding of the health care system is directly related to the financing and spending of the resources available to the sector. The government is the major financier of health care through the historical budget mode. The Ministry of Health submits annual budgetary proposals to the Ministry of Finance and Planning for a one-year operational period. Plans and programs from the strategic and operational planning processes inform the submissions. Direct and indirect contributions to the health budget are also received from the private sector and individuals. The six hospitals are funded through a detailed line item budget allocated to the MOHE. Each facility is allocated a pre-determined fixed amount based on previous year’s spending to cover the needs of the population.
Under the National Strategic Health Plan 2007-2012 that seeks to guarantee universal access to basic health services by all citizens, every resident has access to a basic package of health services irrespective of capacity to pay. Discussions are underway for a new health care financing mechanism by 2010 although a policy decision is yet to be effected. Notably, the increasing life expectancy; better education and increased awareness of preventive health and healthy lifestyles; the expansion of primary outpatient care; the demand for more specialized care and expensive diagnostic tests are some of the critical factors being considered in advancing health financing reforms in the country. There continues to be a move towards greater private sector coverage and involvement in the provision of health care. However, it is still a challenge to obtain reliable data with respect to private financing of health care and the efficiency of resource allocation.

2.2.2. Assurance

The policy framework for the proposed National Health Insurance Program (NHIP) embodies the goal of ensuring all citizens access to a defined package of essential health care goods and services that are affordable and sustainable. Under the NHIP, the quality of care would be monitored and the service audited against standards set by the MOHE and other relevant agencies. The NHIP was envisaged as the sole insurance carrier of the benefit package, thereby enabling it to determine the quality of the services provided and ensuring adherence to those standards. The supporting NHIP legislation will be developed in recognition and review of the National Insurance Act. The critical processes to introduce legislation, pre-implementation activities, and implementation of the NHIP are under review.
Data on the number, membership, activity, state of solvency, and performance of private health insurance carriers are not available. Similarly, data was not readily available on household health expenditures in the private sector.

### 2.3. Service provision

#### 2.3.1. Supply and demand for health services

The Ministry of Health and the Environment provides primary, secondary and tertiary care through a network of institutions. There are 39 health centers in the nine health districts. On average, each center is equipped to cover a population of 2,900 and geographic accessibility is good with no one traveling more than three miles to access care.

Secondary care is accessed through the 211-bed Milton Cato Memorial Hospital (MCMH) – the country’s only government acute care referral hospital providing specialist care. In the period 2000-2004, bed occupancy rate was low, averaging 67% at the MCMH. This indicator seems to reflect that there may be too many hospital beds and inefficient use of this level of care. Data from the steward’s office at the MCMH indicated that the average length of stay is five days.

Five rural hospitals, with a combined bed capacity of 58 provide a minimum level of secondary care for which specialist intervention is not indicated. The Mary Field Hospital with 12 beds is privately owned and operated.

The government operates a 186-bed Mental Health Centre and a 106-bed Lewis Punnett Home for the indigent elderly population and physically and mentally challenged adults. Five private institutions with a combined bed capacity of 55 offer resident care to the elderly.

The use of private health care establishments is increasing because of the relative ease of access to high-technology diagnostic equipment, shorter waiting time, and the need for referrals for specialist outpatient care and medical investigations.
2.3.2. Human resource development

Human resource training

According to the 2002 evaluation of EPHF No. 8 (human resources development and training in public health), very little investment was made in health worker education especially in continuing education and graduate training for public health workers. The unavailability of funding made it impossible to implement these strategies in accordance with demand. However, to ensure effective care, the nursing and medical professions have a system of continuous medical education.

Most physicians are either graduates of the University of the West Indies Medical School, U.S and Canadian Medical Schools, or universities in Cuba. The Caribbean Association of Medical Councils (CAMC) is the regional mechanism for the registration and monitoring of the practice of medicine. The St. Vincent and the Grenadine School of Nursing is the only institution in the country providing nursing education. Plans are underway to transfer the School of Nursing to the Ministry of Education by 2009. Other health care workers received specialist training at the regional and international levels, including North America and Europe. Greater access to public health education is being achieved through the increased involvement of the private sector and external donors. The governments of China on Taiwan, Cuba, and Venezuela continue to offer training in various health-related disciplines and monetary contributions to produce skilled workers with technical competence.

Supply and distribution of human resources

In 2007, over 90% of the health workforce was employed by the MOHE. The workforce is critical to advancing health to achieve positive outcomes. Consequently, the government intends to examine the driving forces and workforce challenges as a mechanism to strengthen health human resource capacity for the country. Table 7 shows the following ratios.
Table 7. St. Vincent and the Grenadines: Health professions by disciplines, by numbers and per 10,000 population, 2004

<table>
<thead>
<tr>
<th>Health professionals</th>
<th>Number</th>
<th>Per 10,000 population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physicians</td>
<td>101</td>
<td>9.51</td>
</tr>
<tr>
<td>Registered Nurses</td>
<td>365</td>
<td>34</td>
</tr>
<tr>
<td>Nursing Assistants</td>
<td>146</td>
<td>11.67</td>
</tr>
<tr>
<td>Nursing Auxiliaries</td>
<td>115</td>
<td>10.82</td>
</tr>
<tr>
<td>Laboratory Technicians</td>
<td>13</td>
<td>1.22</td>
</tr>
<tr>
<td>Pharmacists</td>
<td>36</td>
<td>3.39</td>
</tr>
<tr>
<td>Environmental Officers</td>
<td>14</td>
<td>1.32</td>
</tr>
<tr>
<td>Psychiatrist</td>
<td>2</td>
<td>0.19</td>
</tr>
<tr>
<td>Psychologist</td>
<td>1</td>
<td>0.09</td>
</tr>
<tr>
<td>Dentists</td>
<td>13</td>
<td>1.22</td>
</tr>
<tr>
<td>Counselors</td>
<td>5</td>
<td>0.47</td>
</tr>
<tr>
<td>Nutrition Officers</td>
<td>12</td>
<td>1.13</td>
</tr>
<tr>
<td>Health Educators</td>
<td>7</td>
<td>0.66</td>
</tr>
</tbody>
</table>


The skill mix in the health sector will be improved with the inclusion of professionals in areas such as radiography, physiotherapy, social work, pharmacy, public health, health policy, and health economics.

There is no human resources management and development policy to strengthen the workforce. A human resource plan was contemplated for implementation in 2007 as part of the National Strategic Health Plan 2007-2012. This would facilitate deployment of human resources in appropriate numbers and skill mix to adequately meet the challenges of the health care delivery system. Unfortunately, this workforce strengthening plan is not yet operational.

Despite the shortage of nurses in the Caribbean mainly due to outward migration, this is not a problem for the country. The School of Nursing has increased its enrollment to provide for the dynamics of international mobility. However, there are shortages in several disciplines, which have been shown to impact service provision. An example of this is the shortage of cyto-technologist, which is resulting in increasing waiting times for Pap-smear reports. Prior to 2001, specimens for histology were sent to other countries in the region for analysis.
However, since 2001, a resident pathologist was added to the staff and specimens are analyzed locally.

In the primary care setting, there is a need for more counselors, social workers and psychologists to meet the increasing socio-economic challenges that have negative health outcomes. The high cost of training overseas, retention of trained medical personnel, poor health workforce planning and management, are among the complexities that necessitate the importing of specialist health personnel.

Governance and conflict in the health sector

The Laws of St. Vincent and the Grenadines, revised edition 1990, indicates that any patient at the Kingstown Hospital, (now renamed Milton Cato Memorial Hospital) who has a complaint, can seek redress from the resident surgeon or request an appointment with the Chief Medical Officer, whose duty shall be to investigate and deal with the complaint. The Law does not include a similar provision for patients at other medical institutions. There are no records of labor conflicts or tensions between the Government and health workers.

2.3.3. Medicine and Other Health Products

There is no essential medicines observatory or national essential medicine policy. The St. Vincent and the Grenadines Pharmacy Act, 2002 was operationalized in 2004. The Act provides for the regulation and control of pharmaceutical practice and related matters as well as for a Pharmacy Council to regulate standards and practices for all pharmacists/pharmacies and pharmacy owners.

Procurement of drugs for the public sector is primarily through the Organization of Eastern Caribbean States Procurement Services. For the private sector, it is through the open market (local, regional or international). Under the Act, pharmacy owners/operators shall not dispense drugs without a licensed pharmacist in attendance.

There is a revenue stamp (an out-of-pocket payment) valued at EC$5.00 (US$1.85) that allows all persons between 17 and 29 years of age to access available drugs from the public sector dispensaries. Members of the police force, nursing profession, the elderly 60 years and over and those under 17 years receive drugs free of charge.

2.3.4. Equipment and Technology

There is one clinical laboratory and two blood banks per 100,000 population. The health sector has benefited from the procurement of a number of advanced diagnostic and other medical equipment to deal with priority public health conditions at different levels of care and in various settings. These health technologies have been effective and efficient for prevention, diagnosis, and treatment of various diseases.

The acquisition of ventilators, defibrillators, and Intensive Care Unit monitors for management of patients in the ICU, has significantly reduced the incidence of avoidable deaths. The availability of a portable ultrasound machine for the Accident and Emergency Unit at MCMH has reduced the demand on the radiology staff and the “turnabout” time, as well as improved service efficiency. Tonometers have promoted early diagnosis and treatment of eye conditions such as glaucoma. The increase in the number of fetal monitors and incubators has enhanced the quality of maternal and child care services within the country. The fetal monitors greatly assisted in the detection of distress signs which allowed for timely intervention.

The scope and quality of laboratory services has improved. The Coulter Hematology Analyzer which was acquired in 2002 has resulted in a reduction of turn-around time for tests such as PSA, HIV and HepB. The BD Facscount, acquired in 2003, has facilitated the handling of increased demand for CD4 counts.

The public sector hospital does not have sufficient trained technicians to service medical equipment. As a result, there are delays in maintenance as the government must outsource maintenance services at a cost to the Ministry of Health. To date, there is no designated post in the Ministry for a biomedical engineer. However, there is a trained biomedical engineer who holds the post of Senior Engineering Assistant. There is not a fixed
percentage of the health sector budget to perform maintenance. No routine preventative maintenance of medical equipment is performed.

2.3.5. Quality Assurance

The Government recognizes the use of accreditation as a tool for organizational development and external assessment of health services. An accreditation readiness assessment was conducted by the Canadian Council for Health Services Accreditation (CCHSA) in 2005. Subsequently, the criteria and procedures were developed for the accreditation of the Milton Cato Memorial Hospital. The legal framework for the proposed National Health Insurance Program includes provisions for accreditation and certification of health institutions.

There is no policy or national institution responsible for the development and implementation of standards, protocols and procedures to measure elements of quality in preventive and curative care. Although great emphasis is being placed on access, equity, continuity of care, efficiency, and patient satisfaction, no recent studies have been done to assess public perception of the performance of public health services.
3. MONITORING HEALTH SYSTEMS CHANGE/REFORM

3.1. Impact on “Health Systems Functions”

The three main objectives of the health sector reform launched in the 1980s were: availability of care, improved quality, and cost-containment. However, there was no explicit agenda, evaluation criterion or monitoring mechanism for a health sector reform process. Nevertheless, the guiding principles of health reform were the catalyst for several substantive changes that were introduced in the health sector in the mid-nineties. These included: introduction of user fees in 1995 for public sector hospital and diagnostic services and pharmaceuticals; enactment of pertinent legislation, such as the Immunization Act of 1982 amended by Act 20 of 1997, SRO 1991 which helped in the eradication of childhood diseases and the Drugs (Prevention and Misuse) Act of 1988, amended by Act 25 of 1989, which sought to prohibit the use and misuse of dangerous drugs within the state; strengthening of the primary health care strategy; upgrading and expansion of secondary health care through the phased redevelopment project for the Kingstown General Hospital (now Milton Cato Memorial Hospital); strengthening of institutional capacity; transfer of the solid management unit from the environmental health unit to the Central Water and Sewerage Authority; passing of the pharmacy Act; and the amendment of the Nurses, Midwives and Nursing Assistant Act. Specifically, the Nurses, Midwives and Nursing Assistants Act expanded the functions of the family nurse practitioners. This Act gave the latter category of worker prescriptive rights, thereby reducing the need for clients to be seen by a medical practitioner for minor medical conditions. These initiatives strengthened the capacity of the Ministry of Health to deliver improved health care services.

Proposals for new initiatives designed to further improve service delivery and access were introduced during the period under review. These were: transfer of the school of nursing to the Community College (Ministry of Education) to be accomplished in January 2009—the final phase towards the granting of a baccalaureate degree in nursing which is the basic entry requirement for a registered nurse; addressing the governance of the Milton Cato Hospital; renewed interest in the proposals for introduction of the National Health Insurance Program (NHIP); reorganizing the environmental health services; and strengthening the health information system. The governance of the Milton Cato Hospital is linked to the
implementation of the NHIP. The much-needed expansion of the health information system is in the final stage of development.

3.2. Impact on the “Guiding Principles of health Sector Reforms”

3.2.1. Equity

Coverage

There are no evident gaps in population coverage but, for certain procedures, there is a waiting list at the public hospital. The primary and secondary care services respond sufficiently to the demands of the population; there is effective access to emergency services. In addition, three polyclinics and a modern medical complex—all in rural areas, will be built in the near future. Services that were only accessed at the Milton Cato Hospital will be offered also at these four locations. The modern medical complex will offer services that heretofore were never offered in St. Vincent and the Grenadines, such as renal dialysis. These services will reduce the waiting lists in public hospital for certain procedures.

Distribution of resources

The available data does not permit the establishment of a direct correlation between the distribution of human and financial resources in health and the incremental progress achieved in various components of the health system over the last ten years. There is an under-utilization of beds in the public hospital owing to the effective primary care network and sustained health promotion activities. Global phenomena, such as economic crises and major catastrophes, impact on the economic infrastructure of this small island state and in turn, affect the allocation of financial resources across all sectors.

Access

No user has to travel more than three miles to access basic medical care. There is a mobile laboratory team that services rural communities and users are now less likely to travel to the city to access laboratory services. Dental services (examination, cleaning and extractions) are offered in all health districts. The overall impact is a reduction in cost to the user and
reduced congestion at the Milton Cato Memorial Hospital. Same-day primary health care services are available at all outpatient clinics.

3.2.2. Effectiveness

**Infant and Maternal Mortality**

The infant mortality rate continued to fluctuate during the last 10 year period as shown in Table 8. Infant mortality decreased moderately from 22.2 per 1,000 live births in 1998 to 17.3 in 2004. Seventy percent of infant deaths occur in the perinatal period. The percentage of newborns with low birth weight as a percentage of total live births decreased from 6.1% in 2000 to 5.1% in 2002. Data for other years were not readily available. Over the last 10 years, the proportion of avoidable deaths decreased due to basic health interventions. Of the 28 infant deaths that occurred in the period 2005-2006, 11 were due to respiratory and cardiovascular disorders specific to the perinatal period and 17 to bacterial sepsis of the newborn. The community health team consisting of a district medical officer, staff nurse, and community health aide visits every home in the communities around the health center to identify health needs. Over the last 10 years, the number of maternal deaths has remained low. Of the 10 maternal deaths, six were due to complications of sickle diseases, one to ectopic pregnancy, two to complications of the heart, and one to unavailable cause.


<table>
<thead>
<tr>
<th>Year</th>
<th>No. of Infant deaths</th>
<th>Infant Mortality Rate/1,000 live births</th>
<th>No. of Maternal Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>47</td>
<td>18.0</td>
<td>ND</td>
</tr>
<tr>
<td>1996</td>
<td>39</td>
<td>16.7</td>
<td>3</td>
</tr>
<tr>
<td>1997</td>
<td>41</td>
<td>18.5</td>
<td>1</td>
</tr>
<tr>
<td>1998</td>
<td>47</td>
<td>22.2</td>
<td>0</td>
</tr>
<tr>
<td>1999</td>
<td>47</td>
<td>21.4</td>
<td>2</td>
</tr>
<tr>
<td>2000</td>
<td>35</td>
<td>16.3</td>
<td>1</td>
</tr>
<tr>
<td>2001</td>
<td>39</td>
<td>18.5</td>
<td>0</td>
</tr>
<tr>
<td>2002</td>
<td>36</td>
<td>18.1</td>
<td>1</td>
</tr>
<tr>
<td>2003</td>
<td>35</td>
<td>18.1</td>
<td>2</td>
</tr>
<tr>
<td>2004</td>
<td>32</td>
<td>17.3</td>
<td>0</td>
</tr>
</tbody>
</table>

ND: No data
Source: Health Planning and Information Unit, 2005
Mortality due to malignant neoplasm

The mortality profile in St. Vincent and the Grenadines showed that malignant neoplasm (all forms) ranked either first or second as the leading cause of death in the period 2000-2004. Signs, symptoms and ill-defined conditions were included in the ranking. Table 9 shows data on mortality from malignant neoplasms of the breast and cervix by year. Data from the histology register at the MCMH showed 37 cases of malignant neoplasm in 1994 and 97 cases in the period 1995 to 1999. Cancer of the cervix was the most common site followed by cancer of the breast, skin, lymph, and prostate gland. However, the data was not available to show the trend for deaths due to malignant neoplasm of the cervix for 2000-2004.


<table>
<thead>
<tr>
<th>Year</th>
<th>Breast</th>
<th>Cervix</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>7</td>
<td>ND</td>
</tr>
<tr>
<td>2001</td>
<td>20</td>
<td>ND</td>
</tr>
<tr>
<td>2002</td>
<td>6</td>
<td>ND</td>
</tr>
<tr>
<td>2003</td>
<td>0</td>
<td>ND</td>
</tr>
<tr>
<td>2004</td>
<td>10</td>
<td>ND</td>
</tr>
<tr>
<td>2005</td>
<td>7</td>
<td>11</td>
</tr>
<tr>
<td>2006</td>
<td>7</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: Epidemiology Department, Ministry of Health, 2008

Incidence of Malaria, Tuberculosis and HIV/AIDS

There were no cases of malaria over the past 10 years; however, there was one reported case in the first quarter of 2008.

Table 10 shows nine cases of tuberculosis in 1999 with an increase by one case each year from 2003 to 2005, markedly increasing to 20 in 2006.
Tuberculosis, considered the most common opportunistic infection affecting HIV/AIDS patients worldwide, received considerable national attention over the years. All patients diagnosed with tuberculosis in St. Vincent and the Grenadines are routinely tested for HIV. All symptomatic HIV infected persons who access medical services are tested for tuberculosis. From 1999 to 2005, there were two cases annually of Tb/HIV co-infections. Of the 20 cases of tuberculosis diagnosed in 2006, five (25%) were co-infected with Tb and seven (44%) of the 16 cases diagnosed in 2007 were co-infected with Tb.

HIV/AIDS affects mainly the workforce and has a case fatality rate of around 90%. In the period 1984 to 2000, a total of 478 persons were diagnosed with HIV infection. In 2007, HIV/AIDS data showed that a total of 524 persons were living with HIV; 276 (53%) were male and 233 (44%) female; 14 (3%) were categorized as “unknown sex.” Although the incidence of HIV infection is steadily increasing in women, men continue to be more affected by the disease. The current ratio of men to women with HIV infection averaged 1.3:1 over the last five years, compared to the previous ratio of about 2:1 in earlier years. Using the 2005 Population Estimates of 100,746, the prevalence rate is calculated to be 0.5% (524 reported HIV/AIDS cases) (Statistical Department, Central Planning).

The Government has committed resources to the prevention and control of HIV/AIDS through a national World Bank-funded program which commenced in earnest in 2004. The key stakeholders include the Ministry of Health, non-health ministries, and civil society organizations. The program, which is in its fourth year of operation, includes:

### Table 10. St. Vincent and the Grenadines: Cases of confirmed tuberculosis, 1999-2006

<table>
<thead>
<tr>
<th>Year</th>
<th>Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>9</td>
</tr>
<tr>
<td>2000</td>
<td>13</td>
</tr>
<tr>
<td>2001</td>
<td>10</td>
</tr>
<tr>
<td>2002</td>
<td>10</td>
</tr>
<tr>
<td>2003</td>
<td>14</td>
</tr>
<tr>
<td>2004</td>
<td>15</td>
</tr>
<tr>
<td>2005</td>
<td>16</td>
</tr>
<tr>
<td>2006</td>
<td>20</td>
</tr>
</tbody>
</table>

decentralization of care and treatment; training of health care providers and other significant persons of civil society and line ministries; provision of project management support for sub-projects; formulation of a national policy for HIV/AIDS; and revisiting of the monitoring and evaluation strategy.

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of HIV Positive</th>
<th>M</th>
<th>F</th>
<th>Gender Unknown</th>
<th>No. of AIDS Case</th>
<th>M</th>
<th>F</th>
<th>No. of Deaths</th>
<th>M</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>26</td>
<td>15</td>
<td>11</td>
<td>0</td>
<td>7</td>
<td>5</td>
<td>2</td>
<td>8</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>1996</td>
<td>62</td>
<td>35</td>
<td>23</td>
<td>4</td>
<td>28</td>
<td>21</td>
<td>7</td>
<td>26</td>
<td>20</td>
<td>6</td>
</tr>
<tr>
<td>1997</td>
<td>57</td>
<td>29</td>
<td>26</td>
<td>2</td>
<td>31</td>
<td>18</td>
<td>13</td>
<td>34</td>
<td>20</td>
<td>14</td>
</tr>
<tr>
<td>1998</td>
<td>60</td>
<td>30</td>
<td>26</td>
<td>4</td>
<td>45</td>
<td>27</td>
<td>18</td>
<td>44</td>
<td>26</td>
<td>18</td>
</tr>
<tr>
<td>1999</td>
<td>50</td>
<td>34</td>
<td>13</td>
<td>3</td>
<td>51</td>
<td>36</td>
<td>15</td>
<td>45</td>
<td>31</td>
<td>14</td>
</tr>
<tr>
<td>2000</td>
<td>70</td>
<td>48</td>
<td>22</td>
<td>0</td>
<td>39</td>
<td>27</td>
<td>12</td>
<td>43</td>
<td>31</td>
<td>12</td>
</tr>
<tr>
<td>2001</td>
<td>69</td>
<td>41</td>
<td>28</td>
<td>0</td>
<td>33</td>
<td>23</td>
<td>10</td>
<td>33</td>
<td>23</td>
<td>10</td>
</tr>
<tr>
<td>2002</td>
<td>60</td>
<td>30</td>
<td>29</td>
<td>1</td>
<td>32</td>
<td>18</td>
<td>14</td>
<td>35</td>
<td>20</td>
<td>15</td>
</tr>
<tr>
<td>2003</td>
<td>81</td>
<td>54</td>
<td>27</td>
<td>0</td>
<td>57</td>
<td>37</td>
<td>33</td>
<td>36</td>
<td>25</td>
<td>11</td>
</tr>
<tr>
<td>2004</td>
<td>108</td>
<td>64</td>
<td>44</td>
<td>0</td>
<td>40</td>
<td>26</td>
<td>14</td>
<td>35</td>
<td>21</td>
<td>14</td>
</tr>
<tr>
<td>2005</td>
<td>62</td>
<td>31</td>
<td>31</td>
<td>0</td>
<td>36</td>
<td>23</td>
<td>13</td>
<td>28*</td>
<td>18</td>
<td>10</td>
</tr>
<tr>
<td>2006</td>
<td>82</td>
<td>45</td>
<td>36</td>
<td>1</td>
<td>43</td>
<td>27</td>
<td>07</td>
<td>33</td>
<td>24</td>
<td>09</td>
</tr>
<tr>
<td>2007</td>
<td>85</td>
<td>46</td>
<td>39</td>
<td>0</td>
<td>40</td>
<td>31</td>
<td>09</td>
<td>35</td>
<td>27</td>
<td>08</td>
</tr>
</tbody>
</table>

* Two male clients died from AIDS related causes.


The spread of HIV was slow during the early years of the epidemic, recording approximately 15 cases annually. However, in 1996, a sharp acceleration was observed with 60 reported cases in that year. Since then, the annual incidence has ranged between 50 to 108 cases with the year 2004 experiencing the highest peak. Data for 2005-2007 showed than an estimated 75% of HIV/AIDS infected persons fall into the age group 25-44 years with the 25–29 years old age group being most affected (25.4%); heterosexual transmission (59%) is the main mode of spread; vertical transmission was 1.9%. Information from the MOHE indicated that there was a decrease in the incidence of new cases of HIV infection for the first half of 2008. No data was available to quantify transmission through intravenous drug use and through blood and blood products.

The HIV/AIDS Prevention and Control Program continues to make notable progress in key program areas. Of significance is the steady enhancement of the Mother-to-Child..
Transmission Program that provides voluntary counseling and testing to pregnant women and achieving coverage of 85–100%. The program that provides free anti-retroviral coverage to all HIV positive mothers to minimize the risk of vertical transmission is also worthy of mention. The scaling-up of the program for care and treatment of persons with HIV/AIDS met with considerable success. This program which was formalized in 2003 with a clientele of 55 had an enrollment of 244 in December 2007.

3.2.3. Efficiency

Resource allocation

In the period 1990-2005, limited funds were allocated for basic and post-basic training for the spectrum of health workers, with priority given to nursing education; funds were also allocated to expand the medical internship at the Milton Cato Hospital. New equipment was purchased to support laboratory services. Although the national budget over the period does not show a real increase in the proportion allocated to health, there was a redistribution of resources from “other” line items to support priority programs in the health sector. In addition, funds that were not reflected in central government’s budget, such as donor funds, were used to improve areas of health care.

3.2.4. Sustainability

The MOHE goals, targets, and priorities are aligned with CCH-II, MDGs, and EHPF. Several challenges exist for accelerating the pace for a sustainable, equitable, and efficient public health infrastructure. Nevertheless, the national health budget; public, private and non-governmental sectors involvement; and the country’s ability to source external funding, have maintained an acceptable health care delivery system that is accessible and responsive to the public health needs of the population.

The primary care model guides the delivery of health care and its increased funding is an important goal for the government. The primary health care budget is program-based with only a slight increase in funding from year-to-year. Despite this, the allocative efficiency of the primary health care budget was optimal because specific health programs, such as the maternal and child health program, continued to produce gains in the health status of
women and children. However, due to a lack of complete data, it is difficult to precisely assess the technical efficiency of clinics and community health centers.

3.2.5. Social Participation

The development of the 2007-2012 National Strategic Health Plan benefited from multi-sectoral input. A similar process was used to develop the NHIP, and initiatives related to the governance structure of the new hospital. However, no information is available to measure the impact of equity, effectiveness, efficiency, sustainability, and social participation over the health sector.

3.3. Impact on the “Health System”

Considerable health gains have been noted over the period 1980 to 2007. There is no longer a shortage of registered nurses; there is improved efficiency in the delivery of health care at all levels; more and diversified services offered to the general public; and more external donors are contributing towards the provision of health care; and the health budget is aligned more closely with the health profile, social realities, and the fiscal affordability of the government.

3.4. Analysis of Actors

Civil society, non-governmental organizations, regional and international entities have partnered with the government to provide health, and health-related activities. The following actors contributed to the health sector reform initiative by participating in the decision-making process as well as providing financial and in-kind contributions, technical cooperation, service provision and providing feedback on health policy decisions.
### Table 12. St. Vincent and the Grenadines: Actors contributing to the development and implementation of health and health-related programs, 2008

<table>
<thead>
<tr>
<th>Agencies</th>
<th>Key programs in health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caribbean Epidemiology Center (CAREC)</td>
<td>Technical assistance for laboratory strengthening</td>
</tr>
<tr>
<td>CARICOM</td>
<td></td>
</tr>
<tr>
<td>- Caribbean Environmental Health Institute</td>
<td>Assistance in water sustainability and occupational health and safety. Assistance with environmental and biochemistry projects. Eg, the implementation of the integrated---and coastal areas management project</td>
</tr>
<tr>
<td>- Caribbean Health Research Council (CHRC)</td>
<td>Provides technical assistance in monitoring and evaluation; Assisted the HIV/AIDS Unit in development HIV/AIDS monitoring and evaluation plans; provides training in several areas.</td>
</tr>
<tr>
<td>- Caribbean Disaster Emergency Response Agency (CDERA)</td>
<td>Assisted in strengthening programs for disaster response.</td>
</tr>
<tr>
<td>- Pan Caribbean Partnership (PANCAP)</td>
<td>Technical and financial assistance for the implementation of HIV/AIDS activities. Eg, the National Law Ethic and Human Rights assessment</td>
</tr>
<tr>
<td>Cuban Government</td>
<td>Technical assistance for a range of health related projects such as the “Vision Now” (ophthalmology) project in which clients with visual problems were initially managed in Cuba. The program is now being done in SVG with visiting Cuban specialists. Construction of a Modern Medical Complex</td>
</tr>
<tr>
<td>Global Fund</td>
<td>Financial assistance for the implementation of HIV/AIDS related activities.</td>
</tr>
<tr>
<td>Inter-American Institute for Cooperation on Agriculture (IICA)</td>
<td>Provides technical assistance in food safety</td>
</tr>
<tr>
<td>Pan American Health Organization/ World Health Organization (PAHO/WHO)</td>
<td>Provides technical assistance.</td>
</tr>
<tr>
<td>United States Agency for International Development (USAID)</td>
<td>Financial assistance through the HIV/AIDS Alliance. Funding is targeted to assist the groups: men who have sex with men and female sex workers</td>
</tr>
<tr>
<td>World Bank</td>
<td>Provided financial assistance to combat HIV/AIDS</td>
</tr>
</tbody>
</table>
BIBLIOGRAPHY

17. PANCAP, PANCAP Perspective keeping the Promise, Volume I, Issue No. I, October – December 2005
List of institutions that have participated in the elaboration of this profile:
Ministry of Health and the Environment (MOHE)
Milton Cato Memorial Hospital
Ministry of Education
Community Nursing Service
School of Nursing
Central Planning and Statistical Department

Members of the work team that prepared the profile:
Dr. Margaret Hazlewood, Consultant, PAHO/WHO ECC Office
Ms. Lucine Edwards, Health Planner, MOHE
Mr. Lanceford Weeks, Permanent Secretary, MOHE
Ms. Donnette Cunningham, Health Nursing Supervisor
Ms. Susana Providence, Nurse Educator
Dr. St. Clare Thomas, Chief Medical Officer
Ms. Audrey Gittens-Scott, Chief Nursing Officer, MOHE

Institutions that have validated the profile:*
Statistical Department
Ministry of Education
HIV/AIDS Secretariat
Ministry of Health and the Environment
Central Police Station: CID Unit
*These entities provided the information for the document.