HEALTH SYSTEMS PROFILE
TRINIDAD & TOBAGO

MONITORING AND ANALIZING HEALTH SYSTEMS
CHANGE/REFORM

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Trinidad and Tobago has seen an increase in the population over the period 1990 - 2005. The population pyramid is changing as the under-15 age group is decreasing, while the 60 years and over age group is increasing. A review of epidemiological data shows that while maternal mortality is decreasing, infant mortality is increasing. Mortality from TB, AIDS, malignant neoplasms, circulatory diseases, etc. are also on the rise.

Some of the determinants of health include political, economic, social and environmental factors. The country has a parliamentary democracy form of government and is politically stable. Efforts are underway to attain developed nation status by 2020, which has led to changes in the health and other sectors. Public expenditure per capita has been increasing (US$ 1,165.70 in 1990 to $3,369.80 in 2005). Public expenditure on health as a percentage of GDP has fluctuated from 2.3% in 1990 to 1.6% in 2000 and 2.5% in 2005.

Millennium Development Goals indicators show that while strides have been made in education, with high enrolment ratios for primary education, and in sanitation, with an increasing percentage of the population having access to water and water closets at home, the increasing prevalence of chronic diseases like diabetes and hypertension poses a challenge.

The Ministry of Health is responsible for leading the health sector. The service provision aspect of public health care has been devolved to newly created entities, the Regional Health Authorities (RHAs). However, the Ministry of Health is still responsible for some vertical and national programs. The Ministry of Health is shifting its focus to concentrate on policy development, planning, monitoring and evaluation, regulation, financing and research. Citizens can access free health care at public health care facilities where health insurance is not required. However, the government is developing the National Health Service in which a package of services is to be determined, as well as a financing strategy.

Health Sector Reform has affected the functions of the health system in many ways, e.g. changes in the structure and management of the health sector, new legislation, rationalization of health care facilities and services, review of human resources, expansion and development of information technology, introduction of new services, etc. There was widespread consensus on the need for health sector reform. Financial resources to carry out the reform were available both from local and international sources.
1. CONTEXT OF THE HEALTH SYSTEM

1.1 HEALTH SITUATION ANALYSIS

1.1.1 DEMOGRAPHIC ANALYSIS

Trinidad and Tobago is a twin-island nation located at the southern end of the archipelago that forms the Caribbean islands. Trinidad is located at 10 ½ degrees and Tobago is located at 11 degrees north latitude. Both islands lie between 60 and 62 degrees west longitude, with the Caribbean Sea to the north-west and the Atlantic Ocean to the east (the Gulf of Paria lies to the west of Trinidad). The climate is tropical. Trinidad has an area of 4,828 square kilometers (1,864 square miles), while Tobago, which lies north-east of Trinidad, has an area of 300 square kilometers (116 square miles). A thirty-one kilometer wide channel separates the two islands. The country, which is English-speaking, lies in close proximity to the South American mainland.

The mid year population estimate for Trinidad and Tobago for 2003 was 1,282,447. The country has a multi-ethnic, multi-religious population. Trinidad’s population is concentrated in the north, north-west and in parts of the south and south-west. In Tobago, the population is concentrated in the south and south-west.

Table 1 - Total Population, Trinidad and Tobago, 1990-2003

<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1,227,443</td>
<td>1,259,971</td>
<td>1,262,366</td>
<td>1,282,447</td>
</tr>
</tbody>
</table>

Source: Central Statistical Office, Ministry of Planning & Development, Republic of Trinidad and Tobago.

Table 2 - Population by Age Group, Trinidad and Tobago, 1990-2003

<table>
<thead>
<tr>
<th>Year</th>
<th>Population Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&lt; 15 years</td>
</tr>
<tr>
<td>1990</td>
<td>406,648</td>
</tr>
<tr>
<td>1995</td>
<td>365,026</td>
</tr>
<tr>
<td>2000</td>
<td>319,937</td>
</tr>
<tr>
<td>2003</td>
<td>320,612</td>
</tr>
</tbody>
</table>

Source: Central Statistical Office, Ministry of Planning & Development, Republic of Trinidad and Tobago.
Table 2 indicates two trends. First, the data illustrates a steady decrease in the population under the age of 15 from the year 1990 to 2000 (in 2003 the number increased slightly over the previous year). Second, the data shows a tendency for the population of 60 years and older to increase over time. Life expectancy in 1990 for males was 68.4 and for females, 73.2 years (1990 figures from Central Statistical Office, Trinidad and Tobago). Other demographic information shows decreasing total fertility rates, decreasing birth rates and improved life expectancy.

**Table 3 – Population Indicators, Trinidad and Tobago, 1990-2003**

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Fertility Rate</td>
<td>2.4</td>
<td>1.9</td>
<td>1.8</td>
<td>1.7</td>
<td>1.7</td>
<td>n.a.</td>
</tr>
<tr>
<td>Crude birth rate (live births per 1,000 pop.)</td>
<td>19.7</td>
<td>15.7</td>
<td>15.3</td>
<td>14.6</td>
<td>14.4</td>
<td>14.0</td>
</tr>
<tr>
<td>Crude death rate (deaths per 1,000 pop.)</td>
<td>6.7</td>
<td>7.4</td>
<td>7.2</td>
<td>8.0</td>
<td>7.5</td>
<td>8.0</td>
</tr>
<tr>
<td>Life expectancy at birth</td>
<td>70.8</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>71.0</td>
<td>n.a.</td>
</tr>
</tbody>
</table>

*Total Fertility - An estimate of the number of children a cohort of 1,000 women would bear if they went through their reproductive years exposed to the age-specific fertility rates in effect at a particular time.

n.a. = not available.


### 1.1.2 EPIDEMIOLOGICAL ANALYSIS

Over the period 1990-2003, mortality rates were highest for diseases of the circulatory system followed by malignant neoplasms, external causes, communicable diseases, and AIDS. Mortality rates for these conditions have increased over this period. However, external sources (violence and injury) have assumed an increasingly important role in the burden of mortality.

**Table 4 - Mortality Rates (per 1,000 pop.), Trinidad and Tobago, 1990-2003**

<table>
<thead>
<tr>
<th>Period</th>
<th>General</th>
<th>Maternal*</th>
<th>Communicable Diseases</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>1990-1994</td>
<td>6.96</td>
<td>61.36</td>
<td>0.28</td>
<td>0.02</td>
<td>0.14</td>
<td>0.00</td>
<td>2.67</td>
<td>0.87</td>
<td>0.53</td>
</tr>
<tr>
<td>1995-1999</td>
<td>7.52</td>
<td>51.94</td>
<td>0.46</td>
<td>0.03</td>
<td>0.32</td>
<td>0.00</td>
<td>2.89</td>
<td>0.97</td>
<td>0.49</td>
</tr>
<tr>
<td>2000-2003</td>
<td>7.73</td>
<td>37.75</td>
<td>0.53</td>
<td>0.02</td>
<td>0.39</td>
<td>0.00</td>
<td>2.83</td>
<td>0.99</td>
<td>0.60</td>
</tr>
</tbody>
</table>


*Maternal mortality – maternal deaths per 100,000 live births.
The average annual incidence of malaria, tuberculosis and HIV/AIDS is shown in Table 5. There has been an increase in the incidence of each disease over the specified time periods. For HIV/AIDS, the increased incidence is notable and could be due to greater awareness and the use of Voluntary Counseling and Testing (VCT) sites. This suggests the need for greater surveillance for these diseases and the development of strategies to reverse trends.
Table 6 - Newly Confirmed Cases of Dengue Fever, Trinidad and Tobago, 1990-2003

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dengue Fever</td>
<td>528</td>
<td>30</td>
<td>146</td>
<td>178</td>
<td>447</td>
<td>124</td>
</tr>
</tbody>
</table>

Source: Statistical Unit, Ministry of Health, Government of Trinidad and Tobago.

Infant mortality rate has increased from 12.01 deaths per 1,000 live births in the period 1990-1994, to 17.32 in the period 1995-1999, and to 21.92 in the period 2000-2003. On the other hand, maternal mortality rate has been decreasing, from 61.36 deaths per 100,000 in the period 1990-1994, to 51.94 in the period 1995-1999, to 37.75 in 2000-2003.1

Table 7 – Infant Mortality (per 1,000 live births) and Maternal Mortality Rates (per 100,000), Trinidad and Tobago, 1996 – 2002

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Infant Mortality</td>
<td>16.2</td>
<td>17.1</td>
<td>18.5</td>
<td>17.6</td>
<td>21.1</td>
<td>18.5</td>
<td>24.2</td>
</tr>
<tr>
<td>Maternal Mortality</td>
<td>38.9</td>
<td>70.4</td>
<td>44.7</td>
<td>38.2</td>
<td>55.1</td>
<td>38.7</td>
<td>29.4</td>
</tr>
</tbody>
</table>


Causes of infant mortality reveal that disorders originating in the perinatal period generally were responsible for over 50% of deaths in the 0 to 1 year age group for the period 2000-2004.

Table 8 – Infant Deaths by Cause, Trinidad and Tobago – Averaged over 5-Year Periods

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>*Disorders originating in the perinatal period (including birth trauma/asphyxiation and prematurity)</td>
<td>150</td>
<td>220</td>
<td>255</td>
</tr>
<tr>
<td>Acute Diarrheal Disease (ADD)</td>
<td>4</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Acute Respiratory Infections (ARI)</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Birth defects</td>
<td>45</td>
<td>42</td>
<td>67</td>
</tr>
<tr>
<td>Nutritional deficiencies</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Other causes</td>
<td>62</td>
<td>52</td>
<td>43</td>
</tr>
<tr>
<td>TOTAL</td>
<td>265</td>
<td>318</td>
<td>369</td>
</tr>
</tbody>
</table>

Source: Central Statistical Office, Ministry of Planning & Development, Government of Trinidad and Tobago.

Data disaggregated by residential area and ethnicity was not available.

The HIV/AIDS prevalence rate among 15-24 year old pregnant women was 11.56 in 1999; 5.70 in 2000 and 9.78 in 2001.\(^2\) The Multiple Indicator Cluster Survey 2006 (4b) showed that 57.5\% of women were not using any contraceptive method, 13\% were using condoms, 10.9\% were using the Pill and 8.4\% had undergone female sterilization.

Rates for malignant neoplasms were generally higher for males than for females. This is an area of concern and a National Oncology Center is under construction to meet the increasing demand for health services in this area. The Ministry of Health has been working with the media to promote health through messages that address anti-smoking, proper exercise and good nutrition.

### Table 9 - Mortality due to Malignant Neoplasms, Trinidad and Tobago, 1990-2003

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Malignant Neoplasms (Males)</td>
<td>0.89</td>
<td>1.05</td>
<td>1.07</td>
</tr>
<tr>
<td>Malignant Neoplasms (Females)</td>
<td>0.86</td>
<td>0.91</td>
<td>0.90</td>
</tr>
</tbody>
</table>

Source: Central Statistical Office, Ministry of Planning & Development, Government of Trinidad and Tobago (7).

When collected, information on depression is grouped with Mood Disorders, including depression, manic episodes and bipolar affective disorders. There were 343 hospital discharges for these types of disorders in 1990, 488 discharges in 1995, 258 discharges in 2000 and 163 discharges in 2004.\(^3\)

### 1.2 DETERMINANTS OF HEALTH

#### 1.2.1 POLITICAL DETERMINANTS

Trinidad and Tobago is a parliamentary democracy (following the Westminster model), inherited from Britain, from which it gained independence in 1962. The country became a republic in 1976 and the President is the Head of State. The Legislative arm of government comprises the House of Representatives (elected members) and the Senate (appointed members). The Executive arm of government comprises the Prime Minister and his Cabinet, appointed from Members of Parliament. Tobago’s elected House of Assembly is responsible for administration and implementation of government policy. The Judicial arm is independent of the government as outlined in the Constitution (2).

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2. Source: National Surveillance Unit, Ministry of Health, Republic of Trinidad and Tobago.
3. Source: Statistical Unit, Ministry of Health, Government of Trinidad and Tobago.
The country is considered to be politically stable. Elections are held every five years to appoint the government. While there was an attempted coup in 1990, it did not gain popular support and was quelled. A Vision 2020 Plan has been outlined by the government for the country to achieve developed nation status by the year 2020. The country is involved with various international and other agencies and organizations, such as the Pan American Health Organization/World Health Organization (PAHO/WHO), United Nations Educational, Scientific and Cultural Organization (UNESCO), Inter-American Development Bank (IDB), Food and Agriculture Organization (FAO), Scotland Yard, and others. Areas of cooperation include health, education, infrastructure development, agriculture, national security, etc. The country also belongs to regional groupings such as the Caribbean Community (CARICOM), the Caribbean Single Market and Economy (CSME), and arrangements such as the Caribbean Cooperation on Health III (CCH III), etc.

1.2.2 ECONOMIC DETERMINANTS

In terms of Gross Domestic Product (GDP), the petroleum/petrochemical sector is the largest sector of the economy. Other sectors of note, in terms of GDP, are the distribution and restaurant sector; the finance, insurance and real estate sector; and the transport, storage and communication sector. In 2002, the labor force comprised 60.9% of the population and amounted to 586,200 persons (1). In 2003, the GDP per capita was $51,597.2 (TT dollars) or $8,242.4 (US dollars).

<table>
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</tr>
</thead>
<tbody>
<tr>
<td>GDP per capita in US$, in current prices</td>
<td>4,170.6</td>
<td>3,995.7</td>
<td>4,271</td>
<td>5,327.8</td>
<td>6,479.7</td>
<td>11,037.2*</td>
</tr>
<tr>
<td>Public expenditure per capita</td>
<td>1,165.7</td>
<td>1,351.7</td>
<td>1,353.8</td>
<td>1,372.5</td>
<td>1,865</td>
<td>3,369.8</td>
</tr>
<tr>
<td>Total public expenditure, as a % of GDP</td>
<td>28</td>
<td>34.2</td>
<td>31.7</td>
<td>25.8</td>
<td>28.8</td>
<td>30.5</td>
</tr>
<tr>
<td>Annual Inflation Rate</td>
<td>11</td>
<td>8.8</td>
<td>5.3</td>
<td>3.4</td>
<td>3.5</td>
<td>6.8</td>
</tr>
<tr>
<td>Foreign debt, as a % of GDP</td>
<td>N/A</td>
<td>34.7</td>
<td>31</td>
<td>20.4</td>
<td>18.2</td>
<td>N/A</td>
</tr>
</tbody>
</table>

* Estimated figures.
Source: Central Statistical Office, Trinidad and Tobago; Central Bank of Trinidad and Tobago; Estimates of Expenditure (1990 to 2006) for the Ministry of Health, Trinidad and Tobago.

GDP per capita ($US) has been increasing from 1990 to 2005, as has the public expenditure per capita, particularly from the year 2000. Total public expenditure as a percentage of GDP fluctuated between 25.8% and 34.2% over this period. Inflation decreased from 11% in 1990 to 3.4% in 1999, but increased to 6.8% in 2005. In 2005, there appeared to be a concerted attempt by the government to increase national spending as is evidenced by the increase in public expenditure per capita. There has been a steady decline in the unemployment rate, from 20% in 1990 to 8% in 2005 (3).
1.2.3 SOCIAL DETERMINANTS

Violence (criminal and domestic) is considered to be a social problem which is increasingly contributing to mortality. Due to a lack of standardized procedures for collecting data on domestic violence, statistics in this area may not be an adequate representation. The Report on Crime Statistics of the Central Statistical Office shows that the number of domestic violence cases referred to Probation Services by the District Courts ranged from 513 in 1997, to 323 in 1998, and 317 in 2000. (13)

For the period 1999-2000 the net enrolment ratio at primary schools was 93 and for the period 2000-2001 it was 92 (4a). The proportion of students starting grade 1 who reach grade 7, was as follows:

**Table 11 - Proportion of Students Starting Grade 1 who Reach Grade 7 by Gender, Trinidad and Tobago, 1990-1998**

<table>
<thead>
<tr>
<th>Year</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>96.1</td>
<td>93.7</td>
</tr>
<tr>
<td>1995</td>
<td>98.4</td>
<td>96.4</td>
</tr>
<tr>
<td>1998</td>
<td>98.5</td>
<td>97.8</td>
</tr>
</tbody>
</table>

Source: CSO Education Report (5).

According to the MICS 2006 survey, the percentage of literate 15 to 24 year olds was 98.1% for females. No data was available for males (4b).

**Table 12 - Ratio of girls / boys in primary and secondary education, Trinidad and Tobago, Averaged over 2 Year Periods**

<table>
<thead>
<tr>
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<th></th>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary</td>
<td>0.97</td>
<td>0.97</td>
<td>0.96</td>
<td>0.95</td>
<td>0.95</td>
</tr>
<tr>
<td>Secondary</td>
<td>1.09</td>
<td>1.10</td>
<td>1.08</td>
<td>1.11</td>
<td>1.09</td>
</tr>
</tbody>
</table>

Source: CSO/Social Statistics, Central Statistical Office (6) and MICS 2006 (Multi Indicator Cluster Survey conducted by Ministry of Social Development), Trinidad and Tobago (4b).

Efforts are being made to address poverty through various social programs such as provision of free education, assistance with school books, a school-feeding program, recent increases in Old Age Pension (for indigent persons over 65 years of age), the Chronic Disease Assistance Programme (CDAP) providing free medication for specified conditions, skills training programs, such as Youth Training and Employment Partnership Programme (YTEPP), and Multi-Sector Skills Training Programme (MuST). In addition, there are employment programs such as the Unemployment Relief Programme (URP) and the Community Environmental Protection and Enhancement Programme (CEPEP). There has been some collaboration with other agencies for the development and implementation of health-related public policies (e.g. Ministry of Education – School Health Programme and Ministry of Local Government – Revision of the Public Health Ordinance, Chapter 12 No. 4).
1.2.4 ENVIRONMENTAL DETERMINANTS

The population with access to an improved water supply increased from 71.4% in 1990 to 82.2% in 2005 (including public and private - piped into dwelling and public - piped into yard). The population with water closets, linked and not linked to sewers, was 57.7% in 1990 and 84.4% in 2006.

Table 13 – Environmental Indicators, Trinidad and Tobago, 1990-2006

<table>
<thead>
<tr>
<th>Indicators</th>
<th>1990</th>
<th>2000</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proportion of dwelling units with piped water in their homes (public &amp; private sources)</td>
<td>59.2*</td>
<td>65.0*</td>
<td>75.1^</td>
<td>73.5^</td>
</tr>
<tr>
<td>Proportion of dwelling units with water-closets linked and not linked to sewers*</td>
<td>57.7</td>
<td>71.9</td>
<td>N/A</td>
<td>84.4</td>
</tr>
</tbody>
</table>

Sources: # Survey of Living Conditions 2005 (11).
^ MICS 2006 (4b).
*CSO Population and Housing Census, Central Statistical Office, Republic of Trinidad and Tobago (10).

The institutions responsible for environmental issues are the Ministry of Public Utilities and the Environment, Ministry of Works and Transport, Ministry of Agriculture, Ministry of Health, Ministry of Local Government, the Environmental Management Authority (EMA), and the Institute of Marine Affairs (IMA). The health sector is involved through the enforcement of public health legislation. Health problems related directly or indirectly to environmental factors are identified through screening at health centers, child care centers, schools, and other institutions and health promotion. Lead levels in children, food, and water-borne pathogens (e.g. Salmonella, Shigella, E-Coli) are monitored.

4 Source: CSO Population and Housing Census (10) and Survey of Living Conditions 2005 (11).
2. FUNCTIONS OF THE HEALTH SYSTEM

2.1 STEERING ROLE

2.1.1 CONDUCT/LEAD

The agency responsible for leading the health sector is the Ministry of Health. The Ministry’s role involves setting the national health agenda, developing legislation, regulation, financing, among others. The Minister of Health has Parliamentary responsibility for the health of the population of Trinidad and Tobago. The Policy Unit of the Ministry is responsible for providing technical assistance in the area of policy development to all departments of the Ministry, as well as the Regional Health Authorities.

The Vision and Mission of the Ministry of Health is clearly defined in its Corporate Plan 2006-2009. The Vision of the Ministry states, “The Ministry of Health is a proactive institution that makes sound evidence-based decisions to assure standards of excellence are achieved by all agencies that promote, protect and improve the health of the people of Trinidad and Tobago”. The Mission is “to provide leadership for the health sector by focusing on policy making, planning, monitoring and regulation.”

The Ministry’s role is to develop national priorities based on needs assessments and influence the provision of care by a combination of financing and regulation of public and private services. However, the Ministry recognizes that it has limited capability to conduct needs assessments and is currently seeking to strengthen this area. The Ministry is also moving towards improving its capacity to make evidence-based decision making in keeping with its vision. The Directorate of Health Policy, Research and Planning is currently being strengthened and a National Health Information System is under implementation to facilitate the availability of information in a timely manner to guide the decision making process. The National Surveillance Unit in the Ministry of Health is responsible for health surveillance in the country, involving monitoring, alerting regarding outbreaks of disease, investigating, etc.

2.1.2 REGULATION

The Ministry of Health operates within a legal framework consisting of several laws and regulations. Some of these include the Regional Health Authorities Act No. 5 of 1994, the Medical Board Act and Regulations Chap. 29:50, and the Public Health Ordinance, Chapter 12 No. 4. Other pieces of legislation include the Nurses and Midwives Registration Act, Chapter 29:53; the Food and Drugs Act and Regulations, Chapter 30:01; the Litter Act, Chapter 30:52; and the Pesticides and Toxic Chemicals Act, No. 42 of 1979; among others.
The regulation of drugs (antibiotics and narcotics) is carried out by the Drug Inspectorate of the Ministry of Health. The functions of the Drug Inspectorate are authorized by legislation, including the Antibiotics Act and Regulations, Chapter 30:02; the Food and Drugs Act and Regulations, Chapter 30:01; Pharmacy Board Act and Regulations, Chapter 29:52; and other legislation. The functions of the Drug Inspectorate include reviewing, approving and registering drugs for use in the country, ongoing monitoring and surveillance of drugs, maintenance of drug formulary, monitoring for adverse events regarding drugs, etc. Parameters are set through legislation, e.g. limiting the dispensing of drugs only to licensed pharmacists.

The Chemistry, Food and Drugs Division is responsible for the review, approval and registration of drugs (except antibiotics and narcotics), pesticides and other toxic chemicals. This Division is guided by legislation, including the Food and Drugs Act and Regulations, Chapter 30:01, and the Pesticides and Toxic Chemicals Act, Chapter No. 42 of 1979. The legislation provides legal authority for the Division to carry out its functions, which include reviewing, approving and registering pesticides and chemicals and ongoing surveillance and monitoring of these substances for compliance with standards, etc.

The Environmental Management Act of 1995 regulates air pollution; however, the health sector is not involved in this type of surveillance. The Municipal Corporation Act of 1990, the Public Health Ordinance, Chapter 12, No. 4, and the Water and Sewage Act 16 of 1965 are the legal mechanisms that regulate the disposal of excreta and waste. The health sector is involved through enforcement of the Public Health Ordinance, as well as coordination and collaboration with the Local Health Authorities and the Water and Sewage Authority (WASA). The Pesticides and Toxic Chemicals Act No. 42 of 1979 is the legal mechanism that regulates the disposal of toxic and radioactive particles. The health sector is involved in this type of surveillance.

The Environmental Management Act – Water Pollution Rules is the legal mechanism responsible for overseeing problems related to water pollution. The Water and Sewage Act is the legal mechanism guaranteeing the population’s access to drinking water. The health sector is involved via recommendations regarding the suitability of premises for connection to service.

The Private Hospital Act gives the Ministry of Health regulatory powers over private hospitals in Trinidad and Tobago. All private hospitals are required to apply for a license to operate. However, once the license is obtained there is no mechanism in place to monitor or to continuously regulate the functions of these facilities. The Ministry of Health recognizes this as a weakness in the system and is working to establish an Accreditation System for both private and public health institutions. This Accreditation System will facilitate the continuous monitoring of health facilities as well as the quality of care they deliver.

Despite the existence of these laws and regulations, for years, health institutions have been functioning without a legal framework that can facilitate the assessment of the quality of services. The Ministry of Health recognizes this as a significant gap in the system and is currently working on the establishment of a Health Services Accreditation Council to oversee the accreditation of health care facilities, which includes the assessment of services.
2.1.3 ORIENTATION OF FINANCING

The Ministry of Health is responsible for financing the activities of the RHAs through annual budgets submitted by each RHA. The Ministry is also responsible for ensuring that the funds allocated to the RHAs are efficiently spent to effectively meet the health needs of the population. Auditing is one of the accountability measures used by the Ministry to ensure adequate use of resources. In addition, the Ministry establishes standards for the RHAs and monitors their achievement.

The Ministry of Health conveys its needs through annual budgets submitted to the Ministry of Finance, mid-year reviews with the various Ministries, and quarterly progress reports. These activities also serve as mechanisms for monitoring the efficiency of these resources. A national health insurance system does not exist at this time; however, a Cabinet appointed steering committee initiated work towards its development. There is also no redistribution of funds among health insurance providers by the Ministry.

2.1.4 DEVELOPMENT OF ESSENTIAL PUBLIC HEALTH FUNCTIONS

The Pan American Health Organization (PAHO) outlined 11 Essential Public Health Functions (EPHF), in collaboration with other agencies. The intent of the EPHF is to strengthen the steering role of the health authority and to enhance the development of an effective public health system. Public health is defined by PAHO in the context of the EPHF as the, “collective intervention by the State and civil society to protect and improve the health of the people.” In 2002, Trinidad and Tobago participated in an exercise wherein the eleven (11) Essential Public Health Functions were assessed. The results of this assessment for Trinidad and Tobago were consistent with the results reported by other English-speaking countries in the Caribbean.

Recently, the Ministry of Health has been refocusing its role with regard to EPHF implementation. It is timely that the Ministry of Health conducts, along with PAHO, an assessment of its compliance with alignment and readiness regarding the Essential Public Health Functions. The Ministry of Health, as a result of initiatives such as the Vision 2020 Plan and the Health Sector Reform Programme, has been reorganizing the public health sector, streamlining the functions of the Ministry, separating the management of service delivery, introducing and upgrading information systems and technology, and addressing areas of human resource need.

2.1.5 HARMONIZATION OF SERVICE PROVISION

The Ministry of Health is responsible for policy and planning at the national level, which helps to ensure that action plans are standardized. The RHAs are responsible for service delivery and each has its catchment area to reduce duplication of services. The Ministry of Health is still responsible for the Vertical Services, such as the Public Health Inspectorate, National Surveillance Unit, Insect Vector Control, etc. In most cases, there are documented standards, protocols and guidelines for the provision of basic health care, both at the level of the medical institutions and at other levels. A referral system ensures integration and coordination of the different levels of care.
2.2 FINANCING AND ASSURANCE

2.2.1 FINANCING

The public health care system in Trinidad and Tobago is financed by the government and is currently free to citizens. Public expenditure on health as a percentage of GDP showed a significant increase from 2000 to 2005. Public health expenditure per capita has also increased from TT$458.53 in the period 1990-1994, to TT$1,064.42 in the period 2000-2005. Public health expenditure as a percentage of total health expenditure has fluctuated from 7.33% in 1990-1994, to 5.86% in 1995-1999, to 7.27% in 2000-2005. Information is not collected on private expenditure on health or on out of pocket expenditures.

Table 14 – Public Expenditure Indicators, Trinidad and Tobago, 1990-2005

<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP per capita in $US, in current prices</td>
<td>4,170.6</td>
<td>3,995.7</td>
<td>4,271.0</td>
<td>5,327.8</td>
<td>6,479.7</td>
<td>11,037.2*</td>
</tr>
<tr>
<td>Total Public Expenditure as a % of GDP</td>
<td>28.0</td>
<td>34.2</td>
<td>31.7</td>
<td>25.8</td>
<td>28.8</td>
<td>30.5</td>
</tr>
<tr>
<td>Public Expenditure on Health as a % of GDP</td>
<td>2.3</td>
<td>2.1</td>
<td>2.0</td>
<td>1.8</td>
<td>1.6</td>
<td>2.5</td>
</tr>
</tbody>
</table>

Source: Central Statistical Office, Trinidad and Tobago; Central Bank of Trinidad and Tobago; Estimates of Expenditure (1990 to 2006) for the Ministry of Health, Trinidad and Tobago. * Estimated figure.

Table 15 - Health System Financing ($US / $TT), Trinidad and Tobago, 2003-2006

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Ministry of Health</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>US$</td>
<td>248,964,355.19</td>
<td>352,169,737.15</td>
<td>336,661,600.94</td>
</tr>
<tr>
<td>TT$</td>
<td>1,578,434,011.92</td>
<td>2,232,756,133.51</td>
<td>2,134,434,549.98</td>
</tr>
</tbody>
</table>

Source: Ministry of Health, Government of Trinidad and Tobago.

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2.2.2 ASSURANCE

Currently, there is no public health insurance system in Trinidad and Tobago. Health services are generally free to citizens at the various public health facilities located throughout the country. However, there are some services at the Eric Williams Medical Sciences Complex for which payment is required (if referred outside of the public health care system).

The Ministry of Health is currently in the process of developing the National Health Service (NHS), which will guarantee a package of services to all citizens and residents based on the health needs of the population. A Health Needs Assessment, as well as costing of health services, will be carried out to determine the essential services. NHS implementation will provide the population with added benefits to complement the existing benefits available through the CDAP, which provides free pharmaceuticals for certain diseases or conditions. The NHS is expected to increase access to health services and provide the opportunity for users to choose when, where and by whom their care should be provided. All health care providers will be required to be accredited under the proposed Health Service Accreditation System to ensure the quality and standard of services provided.

The NHS is at a very developmental stage, where the parameters, structure, and functioning are still being determined. Other transformational processes are taking place in the Ministry to streamline its functions which has slowed down the NHS implementation process. However, Cabinet approval has already been given for the establishment of the NHS. As part of the process, a Steering Committee is to undertake the following:

- Engage the national community in dialogue on the proposed NHS;
- Conduct activities to complete the design of the benefit package;
- Complete a policy brief that would inform any required legislation; and
- Develop an implementation plan.

Private health insurance exists and the Central Bank is the regulatory agency. The Central Bank requires the following of insurance companies that carry out the long-term portion of health insurance (over 5 years): a) they are mandated to have an actuarial evaluation (an assessment of risk); b) they must submit audited returns once a year and c) they must submit un-audited returns once a quarter. Central Bank conducts risk-based examinations to ensure that the company is covering risk and has implemented measures to mitigate risk.

Private providers are paid at the point of service by the patient, or if referred by the public institutions, by the Government. Most self paying patients pay through private insurance that is provided by their employer as part of their employment benefits. Payments are also made in cash by those without insurance or through a voucher system by the Government. The proposed introduction of the NHS will modify the payment mechanism to private providers and significantly reduce the number of patients paying out of pocket.
2.3 SERVICE PROVISION

2.3.1 SUPPLY AND DEMAND FOR HEALTH SERVICES

Services offered in the public community health facilities vary, however they generally include: antenatal, postnatal, child welfare, chronic disease, and family planning. A basic level of care through a variety of services is offered at the primary health care level at health centers, located in communities throughout the country. Secondary health care is offered at the public hospitals, located in various parts of Trinidad and Tobago. A limited range of tertiary care services is also offered at specific hospitals. The private health sector is smaller and includes a variety of private health care providers, such as physicians, dentists, pharmacists, opticians, etc., along with private health care facilities, e.g. private hospitals and nursing homes, clinical laboratories and diagnostic testing facilities.

Trinidad has 3 general hospitals, 2 district hospitals and 4 specialist hospitals (psychiatric, maternity, thoracic and a combined radiotherapy, physical medicine, and gerontology facility). Tobago has 1 general hospital. Trinidad has 84 health centers, while Tobago has 18, all of them dispersed throughout each island.

Health Centers usually offer a combination of various services including: Clinic, Cervical screening, Child Health Clinic, Immunization, Chronic Disease Clinic, Testing and Counseling for HIV, Dental services, Diabetic Clinic, Dressings, Family Planning, General Practice, Home Visits, Pap Smears, Pre-Natal Clinic, Post Natal Clinic, Social Work Services, Psychiatric Clinic, School Health, Skin Clinic, and Wellness Clinic. Different types of community health facilities have been introduced, e.g. the District Health Facility, which provides more services and functions on a 24-hour basis and the Outreach Center, which offers fewer services and has shorter hours.

Patients are referred to secondary care facilities by primary health care medical personnel whenever required. The long waiting lists for medical and surgical care and other health care services reflect the high demand for secondary services. This, however, is being addressed in innovative ways, such as partnerships with local and foreign medical teams to perform medical and surgical interventions, e.g. cataract extraction, etc. Recently, some tertiary level services, such as cardiac surgery and MRI testing, have been offered to the public via new initiatives, which have also provided the opportunity to develop local expertise. Tertiary level care is a high demand area and most services are accessed privately or abroad and paid for either out of pocket or through private insurance.

The major challenges regarding access to health care are transportation and hours of operation of some health centers. The issue of transportation relates to challenges in obtaining transport from a person’s home to the health care facility and the cost associated with special/hired transport. Transportation issues have been a problem particularly for the elderly, persons with disabilities or debilitating conditions, persons living in more remote areas, and persons seeking specialized care. The Community Care Development Programme is developing a pilot project to provide home care and community-based rehabilitation at one of the Regional Health Authorities, as well as home care for HIV/AIDS patients.
Furthermore, the hours of operation for some of the health centers, usually between 8.00 am and 4.00 pm, may create a barrier to working persons. Some health centers are addressing this issue by extending hours of operation. In addition, District Health Facilities are under construction in specified areas. These are health facilities that offer additional services and function on a 24-hour basis. These developments are expected to reduce the inappropriate use of public hospitals.

<table>
<thead>
<tr>
<th>Year</th>
<th>High</th>
<th>Medium</th>
<th>Low</th>
<th>Specific</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Trinidad*</td>
<td>Tobago</td>
<td>Trinidad**</td>
<td>Tobago***</td>
</tr>
<tr>
<td>1990</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>1995</td>
<td>3</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>2000</td>
<td>3</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>2005</td>
<td>3</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

* Port of Spain General Hospital; San Fernando General Hospital; Eric Williams Medical Sciences Complex – (see 1995 onwards).
** Sangre Grande District Hospital; Pt. Fortin Hospital.
*** Scarborough Hospital.
**** Arima; Princes Town; Mayaro & Couva District Hospitals.
***** Caura Thoracic Hosp.; St. Anni’s Psychiatric Hosp.; St. James Medical Complex and Mt. Hope Women’s Hospital.
NB: Arima / Princes Town / Mayaro & Couva District Hospitals no longer exist and have all been replaced by District Health Facilities.
Source: Statistical Unit, Ministry of Health, Republic of Trinidad and Tobago.

2.3.2 HUMAN RESOURCES DEVELOPMENT

Training of health care professionals locally is conducted at the University of the West Indies, (UWI); the University of Trinidad and Tobago (UTT); the College of Science, Technology and Applied Arts of Trinidad and Tobago (COSTAATT); The National Institute of Higher Education, Research, Science and Technology (NIHERST); and the Ministry of Health School of Nursing and Dental Nurses Training School. Data from the Training and Development, Human Resources Division suggests that there has been an increasing trend towards “specialists” rather than “generalists” in areas such as public health, oncology, organ transplant procedures, occupational medicine, urology, etc.

The basic nursing curriculum was developed in the 1980s with consultation between the Ministry of Health and PAHO/WHO. The curriculum was influenced by the country’s epidemiological profile, societal changes and available technology. There was no major review of the curriculum until the start of the Health Sector Reform Programme (HSRP) in 1994, which mandated the addition of Primary Health Care courses. The curriculum is currently undergoing another review following a similar exercise in 1999-2000. A B.Sc. Nursing Programme has been introduced, offered by the University of the West Indies.
Trinidad and Tobago faces a shortage of qualified health care professionals. To address this issue, the Ministry of Health is currently attempting to quantify the shortages and is making efforts to recruit specific skills from the international market. In addition, the Ministry has established a UN Volunteer program to provide assistance in specific areas and transfer knowledge to local counterpart staff. The Ministry also hosted a career fair to expose students and adults to career opportunities in health and is offering health-related scholarships to qualified nationals.

Trinidad and Tobago is experiencing both emigration and immigration of health care professionals, such as physicians, nurses and allied health professionals. Local professionals have mainly migrated to the U.S., the U.K., and other Caribbean islands. Initially, the Ministry of Health recruited doctors, many from India and Africa, to work in the public sector. However, since 2003, medical personnel have been recruited through the UN Volunteer Programme and also through government-to-government arrangements, and through recruiting agencies. For example, Cuban doctors and nurses and Filipino nurses, physicians and pharmacists have been recruited through government-to-government arrangements.

The majority of health care workers are employed in the public sector; therefore, this movement of health care professionals affects the operations of the Ministry of Health and Regional Health Authorities more than the private sector. The Ministry of Health is currently in the process of restructuring its human resources. One of the strategies the Ministry is using to transfer personnel to the RHAs is to offer Voluntary Separation of Employment Packages to health service delivery workers; however, the Ministry is facing conflict with the trade unions in the completion of this process. The office of the Chief Personnel Officer is also engaged in the classification of new posts and reclassification of existing posts to assist the process.

### Table 17 – Average Number of Human Resources in Public Sector Institutions, Trinidad and Tobago, 1990-2005

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctors</td>
<td>N/A</td>
<td>Nurses*</td>
<td>Auxiliary Nurses</td>
<td>Doctors</td>
<td>Nurses*</td>
<td>Auxiliary Nurses</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2360</td>
<td>1328</td>
<td>763</td>
<td>1896</td>
<td>1412</td>
</tr>
</tbody>
</table>

*Nurses and Midwives.

Source(s): Human Resource Department, Ministry of Health and Regional Health Authorities, Trinidad and Tobago.

There is no single national body or agency responsible for certifying health care professionals. Certification is carried out by professional regulatory councils specific to that profession e.g. the Pharmacy Board, the Medical Board, the Dental Council, the Council of Professions related to Medicine and the Nursing Council. In most cases, continuing professional education is not a requirement for certification renewal.
Table 18 – Human Resources in the Health Sector, Trinidad and Tobago, 1990-2005

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Average Ratio of physicians per 10,000 inhabitants (Public Sector Only)</td>
<td></td>
<td>7.88</td>
<td>8.60</td>
<td>9.64</td>
</tr>
<tr>
<td>Average Ratio of professional nurses per 10,000 inhabitants (Public sector Only)</td>
<td></td>
<td>19.07</td>
<td>14.97</td>
<td>15.73</td>
</tr>
<tr>
<td>No. who completed graduate-level training in Public Health</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>No. with graduate-level degrees in Public Health</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>No. of Schools of Public Health</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>No. of Universities with a Master’s in Public Health</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Contracting Modalities</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Source(s): Ratio of physicians per 10,000 inhabitants and Ratio of professional nurses per 10,000 inhabitants – information from Ministry of Health, Republic of Trinidad and Tobago.

2.3.3 MEDICINES AND OTHER HEALTH PRODUCTS

The National Insurance Property Development Company Limited (NIPDEC) is contracted by the Ministry of Health to procure, store and distribute pharmaceuticals for the public sector. Drugs in the public sector are free at the point of service, or at various pharmacies registered under the Ministry of Health’s Chronic Disease Assistance Programme (CDAP), which provides medication for specified conditions. In order to further facilitate access to medication, the CDAP has also incorporated private pharmacies.

The Ministry of Health is currently collecting and updating its treatment protocols in an effort to promote standardization. This process will hopefully help to further rationalize the procurement and dispensation of pharmaceuticals. To minimize the risk of dispensation errors and to provide advice to the public, pharmacists are required by law to be present in private pharmacies, pharmacies in public hospitals, and any place that drugs are dispensed.

The National Drug Advisory Committee (NDAC) is responsible for reviewing all drugs that are used in the public health care system. This Committee also approves new drugs and removes obsolete or ineffective drugs from the Ministry of Health Drug Formulary. The National Drug Policy of 1998 guides the selection of drugs for the Vital, Essential, and Necessary (VEN) List utilized by all public health care institutions in the country. NDAC reviews this list every 6 months. Although the Ministry is pursuing efforts to ensure the availability of drugs to the public, there is no mechanism in place to measure the level of access and availability of essential medicines.
Table 19 – Registered Pharmaceutical Products, Trinidad and Tobago, 1990-2005

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicines*</td>
<td>N/A</td>
<td>N/A</td>
<td>5,046**</td>
</tr>
<tr>
<td>Antibiotics</td>
<td>276</td>
<td>266</td>
<td>266</td>
</tr>
<tr>
<td>% of brand name medicines that are antibiotics</td>
<td>n/a</td>
<td>n/a</td>
<td>43%</td>
</tr>
<tr>
<td>% of generic medicines that are antibiotics</td>
<td>n/a</td>
<td>n/a</td>
<td>57%</td>
</tr>
</tbody>
</table>

* With the exception of antibiotics and narcotics.
** Information for the period Jan. 2000 – Dec. 2005. The 5,046 registered pharmaceutical products comprise new, veterinary and alternative medicines and drugs. Also included are variations, e.g. where there has been a change in name of a previously registered drug.

Source(s): Chemistry, Food and Drugs Division, Ministry of Health and Drug Inspectorate, Ministry of Health.

2.3.4 EQUIPMENT AND TECHNOLOGY

The number of beds in public hospitals per 1,000 population averaged 2.70 from 1993-1996. From 1997-2000, the number decreased to 2.52 and from 2001-2004, the number dropped again to 2.32. Nine out of 10 government hospitals have X-Ray equipment, as well as 5 District Health Facilities and 1 Enhanced Health Center. The total number of X-Ray machines in all of these facilities amounts to 60. Six out of the 10 government hospitals have ultrasound equipment, as well as 1 out of the 5 District Health Facilities and the Enhanced Health Center.

Data from 2007 identifies 11 health-related institutions with clinical laboratories including: Port of Spain General Hospital (POSGH); St. James Medical Complex; Queen’s Park Counseling Centre and Clinic (QPCC&C); The Public Health Laboratory; Mt. Hope Women’s Hospital; Eric Williams Medical Sciences Complex (EWMSC); Caura Hospital; Sangre Grande Hospital; San Fernando General Hospital (SFGH); Pt. Fortin Area Hospital; and Scarborough Hospital. There are also 6 blood bank units (of the National Blood Transfusion Service or Blood Bank) located at POSGH; EWMSC; Scarborough Hospital; SFGH; Pt. Fortin Hospital; and Sangre Grande Hospital.
Table 20 – Availability of Equipment in the Health Sector, Trinidad and Tobago, 1990-2005

<table>
<thead>
<tr>
<th>TYPE OF RESOURCE</th>
<th>SUB-SECTOR</th>
<th>Number of beds per 1,000 population</th>
<th>Basic diagnostic imaging equipment per 1,000 inhab.</th>
<th>Clinical Laboratories per 100,000 inhab.</th>
<th>Blood banks per 100,000 inhab.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Public*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1993 – 2.75</td>
<td>X-Ray machines per 1,000 = 0.05</td>
<td>0.85</td>
<td>0.046</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1994 – 2.72</td>
<td>Ultrasound machines per 1,000 = 0.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>1995 – 2.66</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>1996 – 2.69</td>
<td></td>
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<td></td>
<td></td>
<td>1997 – 2.66</td>
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<td></td>
<td></td>
<td>1998 – 2.46</td>
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<tr>
<td></td>
<td></td>
<td>1999 – 2.57</td>
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<td></td>
<td></td>
<td>2000 – 2.38</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>2001 – 2.36</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td>2002 – 2.33</td>
<td></td>
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<td></td>
<td>2003 – 2.30</td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>2004 – 2.30</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Information was not available for the private sector.

Note: Information from Hospitals and District Health Facilities.
Source(s): Ministry of Health, Trinidad and Tobago.

2.3.5 QUALITY ASSURANCE

The Directorate of Health Service Quality Management is responsible for quality assurance in the public health sector. The Directorate has produced a number of documents stipulating standards of care for health care institutions. The Accreditation Standards Manual and the Infection Prevention and Control manuals are examples of two such standards manuals. Health system users can have their complaints heard through a Client Feedback System developed by the Quality Directorate and implemented at the Ministry as well as the RHAs.

Parliament is currently considering the establishment of an autonomous Health Services Accreditation Council to serve as the governing body for the implementation of the Accreditation System. Although the Accreditation System is not yet supported by law, the Accreditation Standards are successfully being implemented in both public and private institutions to improve health service quality. In addition, the licensing and certification of health care professionals and health institutions ensures the delivery of quality health services.

The Health Sector Quality Awards Plan provides health institutions with the opportunity to have their quality standards assessed and compared to other institutions. The highest ranked institution wins the award. Established quality indicators are used as a guide in measuring the performance of the various institutions.
### 2.4 INSTITUTIONAL MAPPING OF THE HEALTH SYSTEM

<table>
<thead>
<tr>
<th>Organizations</th>
<th>Conduct/Lead</th>
<th>Regulation/Enforcement</th>
<th>Financing</th>
<th>Assurance</th>
<th>Service Provision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Government</td>
<td>MOH</td>
<td>MOH</td>
<td>Ministry of Finance</td>
<td>MOH/RHA</td>
<td>MOH/RHA</td>
</tr>
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<td>Social Security Institutions</td>
<td>National Insurance Board</td>
<td>Ministry of Finance</td>
<td>Employer/Employee</td>
<td>National Insurance Board</td>
<td></td>
</tr>
<tr>
<td>Regional government</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Local government</td>
<td>Regional Corporations</td>
<td>Min. of Local Government</td>
<td>Ministry of Finance</td>
<td>MOLG</td>
<td>MOLG/Regional Corporations</td>
</tr>
<tr>
<td>Private Insurers - For-Profit</td>
<td></td>
<td></td>
<td>Central Bank of T&amp;T</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private Providers - Non-profit</td>
<td></td>
<td></td>
<td>Min. of Health</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- For-Profit</td>
<td></td>
<td></td>
<td>Min. of Health</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Ministry of Health, Republic of Trinidad and Tobago.
Note: MOH – Ministry of Health; RHA – Regional Health Authority; MOLG – Ministry of Local Government.
3. MONITORING HEALTH SYSTEMS CHANGE/REFORM

3.1 IMPACT ON HEALTH SYSTEMS FUNCTIONS

Health Sector Reform, initiated in the early 1990s, has had a significant effect on the functions of the Health System. The reform sought to reorganize the health system based on international trends and recommendations of international health organizations. The Health Sector Reform process has resulted in new legislation and updated policies, changes in the structure and management of the health system, rationalization of health care facilities and services, a review of human resource and other needs, improvement in information systems, the introduction of new services, among other things.

Health sector management has traditionally been centralized leading to a time-consuming and bureaucratic decision-making process. Facilities that provide health care services require on-site managers who are empowered with the authority and responsibility for decision-making, for effective and efficient management. One aspect of Health Sector Reform has been the decentralization of the service delivery function, which has become the responsibility of the Regional Health Authorities (RHAs). With the passing of the Regional Health Authorities Act No.5 of 1994, five RHAs, four in Trinidad and one in Tobago, were established as independent statutory authorities.

Passing of the Act mandated the transfer of all public sector health care facilities to the RHAs, which would be responsible for public health care delivery, as well as the transfer of all staff working in these facilities from the public service to the RHAs. While the Ministry is no longer involved in the direct delivery of health care, it still operates a number of vertical and national services primarily in the areas of public and allied health. The Ministry is now focused on its core governance role comprising financing, policy development, research, planning, regulation, monitoring, and evaluation.

Another aspect of Health Sector Reform is the prominent role given to primary health care, with resources being shifted from hospitals to primary health care level. Public health care facilities have been rationalized, with some being upgraded to provide more services and others being repaired, refurbished, modified or closed, depending on changing needs. Community Care, another component of Health Sector Reform, seeks to provide services in the community to help the elderly, persons with disabilities and others in need of care, stay in their own homes or in Residential Homes in the community rather than in institutions or public hospitals. This would reduce the burden on public hospitals. A pilot project was started that moved selected, long-stay patients from public health care institutions to Residential Homes in community settings.
3.2 IMPACT ON THE “GUIDING PRINCIPLES OF HEALTH SECTOR REFORMS”

3.2.1 EQUITY

3.2.1.1 Distribution of Resources

Data from the period 1990-2005 indicates that per capita public health expenditure increased from TT$ 411.69 in 1990 to $1,723.80. Public Health Expenditure as a percentage of Total Government Expenditure showed slight fluctuations over the years. In 1990, expenditure was reported at 8.26%, 6.37% in 1995, 5.55% in 2000, and 8.09% in 2005. (14)

Statistics show that the ratio of public sector physicians per 10,000 people has been steadily increasing from 6.53 in 1990 to a reported 11.65 in 2005. By contrast, the ratio of public sector professional nurses per 10,000 people has declined from 20.90 in 1990 to a low of 10.19 in 2000, but increased to 18.32 in 2005. The Ministry of Health has been addressing the issue of shortage of health care professionals, particularly physicians and nurses, by increasing training opportunities, offering scholarships, and recruiting international personnel. These initiatives have contributed to the improvement of these ratios. There has also been an increase in the local training of both physicians and nurses.

The number of public sector hospital beds per 1,000 people was 2.75 in 1993, but decreased steadily to 2.30 in 2004. As mentioned previously, part of the philosophy of Health Sector Reform is that there should be greater emphasis placed on primary health care, with fewer hospitals, which should be better staffed and resourced. This increases the possibility of expanded diagnosis and treatment in non-hospital settings, and a higher rate of day care and same-day surgeries as a result of laser surgery and minimally invasive techniques.6

3.2.1.2 Access

Efforts are being made to improve access to health care through the rationalization of health facilities. The Health Sector Reform process has an infrastructure component that focuses on rationalizing the usage of health care facilities and making changes as recommended (closures, upgrades, modifications, repairs or refurbishing). Twenty-four-hour District Health Facilities and outreach centers are being developed in various areas. Initiatives have improved access such as some health centers offering extended service hours. Mobile Clinics have also been introduced, which are especially beneficial to the more remote or rural areas.

3.2.2 EFFECTIVENESS

3.2.2.1 Infant and Maternal Mortality

Infant mortality increased from 1990-2005, while maternal mortality declined over the same period. A review of infant mortality identifies areas of concern that were addressed through hospital-based interventions, including the recruitment of additional neonatal specialists, acquisition of needed equipment and supplies, and capacity building for staff. Other interventions included increased health promotion, through the Baby Friendly Initiative, and the Breastfeeding Initiative. These interventions have resulted in a decline in infant mortality.

Additional initiatives aimed to address infant and maternal mortality are outlined as follows:

- Policy for the Prevention of Mother to Child Transmission of HIV (PMTCT).
- Reopening of the Neonatal Ward at Port of Spain General Hospital, which was closed for renovation.
- Classes at antenatal clinics in the Eastern Regional Health Authority (ERHA) to incorporate lessons on preparation for child birth, as well as parenting.
- Training in ultra-sonography to Health Visitors in the ERHA.
- Promotion of breast feeding to pregnant women temporarily in the hospital wards by the Nursing Staff of the Community Liaison Unit at Sangre Grande Hospital.
- Increase in the number of specialists at the Tobago Regional Health Authority (TRHA) hospital, as well as the number of midwives in the maternity ward.
- Introduction by the TRHA of a parent craft class that incorporates mothers and fathers.
- Acquisition by the TRHA of new incubators for infants at the hospital, as well as transport incubators for transporting infants to Trinidad when further medical care is needed.
- Development of a draft strategic framework document for maternal and child health by the Mount Hope Women’s Hospital.
- Availability of laboratory and X-Ray services for antenatal care services at the hospitals and District Health Facilities in the Regional Health Authorities.

3.2.2.2 Incidence of Malaria, TB and HIV/AIDS

There has been an increase in the incidence of each of these conditions from 1990-2005. Some of the initiatives and programs that are being developed or implemented to address the increase in these conditions are outlined as follows:

- A national promotion campaign to encourage healthy lifestyles.
- A healthy community/healthy spaces initiative aimed to promote health and well-being.
- Tobacco Control legislation.
- Distribution of diabetes testing machines through CDAP.
- A Cardiac Surgery Programme to assist persons having cardiac surgical procedures.
- A program for Renal Dialysis.
- A Cardiovascular Services Initiative and a Diabetes Services Initiative as part of the proposed Trinidad and Tobago Health Sciences Initiative.
- An Oncology Advisory Committee to inform policy, planning, etc.
- Ongoing HIV/AIDS education programs in schools and the establishment of an HIV/AIDS focal point in the Ministry of Education.

3.2.3 EFFICIENCY

3.2.3.1 Resource Allocation

Data obtained from the Central Statistical Office, Ministry of Planning and Development, and the Survey of Living Conditions 2005, Ministry of Social Development, indicates an increasing proportion of dwelling units with piped water in their homes (59.2% in 1990 to 73.5% in 2006) and with water closets (57.7% in 1990 to 84.4% in 2006).

Public Health Expenditure as a percentage of Total Government Expenditure averaged 7.33% in the period 1990-1994, 5.86% in 1995-1999 and 7.27% in 2000-2005. Information was not available regarding funds disaggregated into primary care and secondary care.

3.2.3.2 Sustainability

Health Sector Reform has reorganized health services delivery, shifting responsibility from the Ministry of Health to five RHAs. The transition leading to the autonomy of the RHAs is still ongoing, as some health care personnel are still managed by the Ministry of Health and are in the process of moving into the RHA management. Although RHAs have gained some measure of acceptance, there are problems such as a dual system of staff management, liability issues, etc. Decisions also need to be made regarding some of the national health programs and whether or not they remain as such or be placed under the management of RHAs.

The Ministry of Health has received funding from the Inter-American Development Bank (IDB) for Health Sector Reform and manages these funds along with the Ministry’s annual budgetary allocation. Funds have been allocated to various areas, such as infrastructure and human resources development, etc. Most public health financing is through government revenue. However, international funds have been accessed to facilitate Health Sector Reform and in other areas, e.g. training.
3.2.3.3 Social Participation

Health Sector Reform, along with increased awareness among the population and the ease of dissemination of information via various media outlets, has led to higher expectations for the health sector by the general population. The Directorate of Health Services Quality Management has developed ‘The Patient’s Charter of Rights and Obligations’ and a system for lodging complaints or noting issues.

The Ministry of Health Policy Document outlines the role of the Non-Government Sector and the participation of civil society in the planning and implementation of health activities. The document notes that “The private sector has a complementary and supporting role in health care delivery and is subject to the legal authority of the Government in health care matters.” This document also outlines a role for Non-Governmental Organizations as follows: “They are in a position to influence national policy and act as advocates. They also have roles in the provision of services.” This document also outlines a role for Community Participation stating that “Communities must be encouraged to take part in the planning, implementation and evaluation of health programmes at the district, regional and national levels.”

The RHAs are mandated to hold annual public meetings to report their activities and receive feedback and input from the population they serve. There are a number of civil society groups that provide services that contribute to health (e.g. support groups, education, information, health services, services not provided elsewhere, etc.). These groups include the Diabetes Association, the Cancer Society, the Alzheimer’s Support Group, etc.

Other ministries and government agencies, private organizations, non-governmental organizations, and international agencies such as Ministry of Social Development, Ministry of National Security, PAHO, Inter-American Institute for Cooperation on Agriculture (IICA), etc. have hosted workshops and symposiums, with the participation of the Ministry of Health. The Ministry of Health has also hosted seminars and workshops and has invited other agencies for their input, e.g. other Ministries, NGOs and the private sector. The National Consultation on Public Health Legislation, June 2007, was recently hosted by the Ministry of Health and other government Ministries and agencies, NGOs, the private sector, etc. were included. Also, the Health Promotion Division has worked with community and other groups in health promotion and empowerment activities.

3.3 IMPACT ON THE “HEALTH SYSTEM”

Health Sector Reform has had an impact on the health system. New legislation was enacted for the establishment of the RHAs. The RHAs can respond quicker to human resource and other resource needs, as they have the ability to hire staff and purchase supplies. New services can also be provided based on the needs of the Region. The RHAs, however, have to develop plans and budgets and submit them to the Ministry of Health for funding. RHAs are accountable to the Ministry of Health. The Ministry of Health now has a greater focus on national planning and priority setting, policy making, working with regions on strategies and targets, and allocating financial resources.
Important developments have impacted the Health Sector Reform process, such as the government's plan to bring the country to developed nation status by the year 2020. The process is currently ongoing and has brought various challenges, however, the process has also resulted in improvements. The table below provides an analysis of the opportunities and threats regarding the process of Health Sector Reform.

**Table 21: Opportunities and Threats for Health Sector Reform in Trinidad and Tobago**

<table>
<thead>
<tr>
<th>Context</th>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Political Context</td>
<td>Agreement within the political sector on the need for health sector improvement.</td>
<td>Possibility of lack of support for the process.</td>
</tr>
<tr>
<td></td>
<td>Government commitment towards moving the country to developed nation status by 2020.</td>
<td>Change in government and in priorities.</td>
</tr>
<tr>
<td>The Social Context</td>
<td>Discontent by the population about public health care services, fuelled by exposure to travel, TV, to more advanced health care – (facilitates the acceptance of change).</td>
<td>Possibility of resistance to change by health sector workers, partners and stakeholders.</td>
</tr>
<tr>
<td>The Economic Context</td>
<td>Availability of funding for reform in the health sector via a healthy economy fuelled by positive returns from the petrochemical industry and the availability of funding through international agencies.</td>
<td>Changes in priorities for allocation to the health sector.</td>
</tr>
<tr>
<td>The Environmental Context</td>
<td>Need for an update of the Public Health Legislation and review of the functions of the Ministry of Local Government in public health vs. that of the Ministry of Health.</td>
<td>Other Ministries spearheading reform with minimal collaboration with the Ministry of Health.</td>
</tr>
</tbody>
</table>

Source: Ministry of Health, Government of Trinidad and Tobago.
3.4 ANALYSIS OF ACTORS

The RHA Act of 1994 provided the legal framework for health sector decentralization. The country was divided into regions, each with its own management structure. There are four RHAs in Trinidad - the Northwest Regional Health Authority (NWRHA); the North Central Regional Health Authority (NCRHA); the Eastern Regional Health Authority (ERHA) and the South West Regional Health Authority (SWRHA). Tobago has one RHA – The Tobago Regional Health Authority (TRHA). RHAs are responsible for service delivery, while the Ministry of Health is responsible for policy formulation, the development of strategies and targets with the Regions, and financing.

The Ministry of Health commissioned a document entitled ‘Towards a Healthy Nation’ to ‘assist in defining and planning the reforms needed by incorporating the Ministry’s approach to the reform process. The document was developed following a lengthy period in which there had been growing consensus by all political parties regarding the need for improvement of health services in Trinidad and Tobago. The public also shared the desire for positive change in the nation’s health services. Therefore, the main ‘actors’ involved in the reform process include the political directorate, the Ministry of Health, consultants who supported the process, and the public.
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