

**HEALTH SYSTEMS PROFILE
PUERTO RICO**

**MONITORING AND ANALYSIS
HEALTH SYSTEMS CHANGE/REFORM**

(September, 2007)



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PUERTO RICO

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CHANGE/REFORM PROCESSES**

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LIST OF ABBREVIATIONS

AAA	Autoridad de Acueductos y Alcantarillados (Water Supply and Sewerage Authority)
ACAA	Administración de Compensación por Accidentes de Automóviles (Auto Accident Compensation Administration)
ADS	Administración de Desperdicios Sólidos (Solid Waste Administration)
ASEM	Administración de Servicios Médicos (Medical Services Administration)
ASES	Administración de Seguros de Salud (Health Insurance Administration)
ASSMCA	Administración de Servicios de Salud Mental y Contra la Adicción (Mental Health and Addiction Services Administration)
CCCPRC	Corporación del Centro Cardiovascular de Puerto Rico y el Caribe (Cardiovascular Center of Puerto Rico and the Caribbean Corporation)
CDC	United States Centers for Disease Prevention and Control
CEMPR	Centro de Estudios Multidisciplinarios de Puerto Rico (Center for Multidisciplinary Studies of Puerto Rico)
CFSE	Corporación del Fondo del Seguro del Estado (State Insurance Fund Corporation)
CMS	Centers for Medicare and Medicaid Services
DACO	Departamento de Asuntos del Consumidor (Department of Consumer Affairs)
DHHS	United States Department of Health and Human Services
DRNA	Departamento de Recursos Naturales y Ambientales (Department of Natural and Environmental Resources)
DS	Departamento de Salud (Department of Health)
DTC	Diagnosis and treatment center
EAP	Economically active population
ELA	Estado Libre Asociado de Puerto Rico (Commonwealth of Puerto Rico)
EPA	United States Environmental Protection Agency
EPHF	Essential public health functions
FDA	United States Foods and Drug Administration
FHCHS	First Hospital Corporation Health Services
FSE	Fondo del Seguro del Estado (State Insurance Fund)

GDP	Gross domestic product
GNP	Gross national product
HCO	Health care organization
HRSA	United States Health Resources and Services Administration
IPA	Independent practitioner association
JCA	Junta de Calidad Ambiental (Environmental Quality Board)
JP	Junta de Planificación de Puerto Rico (Planning Board of Puerto Rico)
LB	Live births
LEB	Life expectancy at birth
MAO	Medicare Advantage organizations
MAP	Medical Assistance Program (Medicaid)
MBHO	Managed behavioral health care organization
MCO	Managed care organization
MP	Medicare Platinum
NAP	Nutritional Assistance for Puerto Rico
OCS	Oficina del Comisionado de Seguros (Office of the Insurance Commissioner)
OPP	Oficina del Procurador al Paciente (Office of the Patient Advocate)
OPPI	Oficina del Procurador Personas con Impedimento (Office of the Advocate for Persons with Disabilities)
OPV	Oficina del Procurador de Veteranos (Office of the Veterans Advocate)
OSHA	United States Occupational Safety and Health Administration
PBM	Pharmacy benefit manager
PCP	Primary care physician
PHU	Public health units
PSG	Plan de Salud del Gobierno (Government Health Plan)
SAMSHA	United States Substance Abuse and Mental Health Services Administration
SARAFS	Auxiliary Secretariat for Health Facility Regulation and Accreditation
SCHIP	State Children's Health Insurance Program
AIDS	Acquired immunodeficiency syndrome
TANF	Temporary Assistance for Needy Families
TEM	Tribunal Examinador de Médicos (Medical Licensing Board)

TPA	Third-party administrator (operational administrator of the Government Health Plan)
UPR-RCM	Universidad de Puerto Rico, Recinto de Ciencias Médicas (University of Puerto Rico, Medical Sciences Campus)
USDA	United States Department of Agriculture
USGS	United States Geological Survey
WIA	Work Incentives Act

PREFACE

Health system reform in Puerto Rico began in 1993, and the process of integrating municipalities and regions concluded in 2000. The health services model in Puerto Rico has been profoundly impacted by the reform process, the essential premise for which was to put health services for the medically indigent on a par with those in the private sector and to offer users the freedom to choose their physicians through a health insurance plan. This plan was intended to ensure access to quality services at the primary and secondary levels and to eliminate inequality through a level of coverage that met the health needs of the population in general.

It was hoped thus to eliminate the problems of inequity and injustice that were considered by some in the various political and economic quarters of the health sector to be the major shortcoming of the previous health care model. It was those individuals who advocated and supported the implementation of the reform. The whole process was underpinned by a philosophy of privatization of services, one of the objectives of which was to “degovernmentalize” health care, as Government-run health services were considered both inefficient and highly costly for the Government. As a consequence, the service model was transformed from a public services model financed by the Government to one in which Government-financed services were subcontracted to private health care providers.

The decision-making process that took place before, during, and after the reform did not include evaluation processes or the development of performance indicators for the new system. Moreover, no health indicators were established that would have made it possible to measure the impact of this new model on the health status of the population. The evaluations carried out by various groups have focused on limitations in access to and quality of services. Inequality between different population groups has persisted, and approximately 7% of the population remains without access to services.

In this process, the impact of the reform and the new model of health services has been widely discussed among virtually all sectors and groups in the country. In the face of this situation, both the Executive Branch of Government and the Health Department, as the lead agency in the sector, undertook various initiatives aimed at strengthening the health services system, reducing costs, and exploring organizational alternatives through the implementation of pilot projects at the municipal and regional levels in the country.

In 2001, the executive branch proposed a “Reform of the Reform” aimed to introduce legislation to address various deficiencies in the process, ensure access to and quality of services, and achieve cost-effectiveness. The legislation enacted included the Charter of Patient Rights, a law to stop the sale of health facilities, and a law creating the Office of the Patient Advocate.

As a part of the joint efforts of the Department of Health (DS) and the Pan American Health Organization (PAHO), Puerto Rico carried out two projects of great importance: the application of the instrument for the measurement of the **Essential Public Health Functions (EPHF)** and the elaboration of the **Health Sector Analysis (HSA)**.

The measurement of the **Essential Public Health Functions**, which is part of PAHO’s **Public Health in the Americas Initiative**, was aimed at improving public health practices and strengthening the capacities of the DS through the definition and measurement of its public

health functions. This initiative served to foster greater understanding and development of public health and essential public health functions. It also enabled the assessment of the performance of public health practice in Puerto Rico. The first measurement workshop, held in 2001, brought together a broad range of health sector representatives from various levels of government and from the private sector. Representatives from academia, the health professions, and the community also participated. The DS carried out a second round of EPHF measurement in 2004.

The **Puerto Rico Health Sector Analysis** exercise began in April 2004 and concluded in December 2004. As a result of this highly participatory effort, which involved various segments of the health sector, it was possible for the first time to bring together the main actors of the health sector in an integrated manner and produce a document that will contribute to decision-making, public policy development, research, and health services planning in the country.

Furthermore, in response to the need to evaluate the health system of Puerto Rico, the Executive Branch, pursuant to an executive order by Governor Aníbal Acevedo Vilá, commissioned a health system evaluation and appointed a working group for that purpose. That group in turn created ten subgroups involving all sectors, which culminated in the release of the report of the Health System Evaluation Commission of Puerto Rico in November 2005.

This Health Systems Profile reflects and incorporates both of the aforementioned efforts with the aim of presenting an accurate profile and reaffirming the ongoing interest of a variety of stakeholders in the public and private sectors in monitoring and evaluating Puerto Rico's health system reform. We welcome this opportunity once again to scrutinize our health reform processes and the evaluation thereof with a view to achieving a health system that is cost-effective and that ensures access to quality services, with equality and equity. That is the goal to which we aspire.

1. CONTEXT OF THE HEALTH SYSTEM

1.1. HISTORICAL AND POLITICAL CONTEXT

Puerto Rico is one of the Greater Antilles located in the Caribbean Sea. It is part of an archipelago consisting of the main island and several small islands, including Vieques, Culebra, Mona, Desecheo, and Caja de Muertos, which have a total land area of 9,105 km². The largest island measures 170 km by 60 km. It is a tropical island with a climate that is pleasant most of the year. This archipelago is located to the east of the Dominican Republic and to the west of the British Virgin Islands. The capital is San Juan, which is located along the northern coast.

Puerto Rico was discovered by the Spanish in 1492 and remained under Spanish control for 500 years. The years of Spanish domination laid the foundations of the Puerto Rican culture: the Spanish language, the religion, the structures, the churches, and the popular culture. In 1898, Puerto Rico became an unincorporated territory of the United States of America, pursuant to the Treaty of Paris, which put an end to the Spanish-American War. In 1917, the Congress of the United States granted United States citizenship to Puerto Ricans. The Constitution of the Commonwealth of Puerto Rico was approved in 1952, establishing a system of government with administrative autonomy solely for internal affairs. Consequently, the federal laws and regulations of the United States take precedence over those of Puerto Rico.

Puerto Rico is governed under a republican system of government, divided into three branches: executive, legislative, and judicial, each having equal importance and each exercising power and authority. The executive branch is headed by a governor, who appoints and forms his/her cabinet. The legislative branch consists of a bicameral assembly made up of the Senate and the House of Representatives. The judicial branch comprises the Supreme Court of Puerto Rico and the system of lower courts. The members of the judicial branch are appointed by the governor and confirmed by the Senate.

The country is divided into 78 municipalities, each administered by a mayor and a municipal assembly. The officials who govern the country, both at the state and municipal levels, are elected in the general elections held every four years. In general, 80% of the electorate takes part in elections.

1.2. ECONOMIC CONTEXT

The Puerto Rican economy has undergone important structural changes as a result of modernization processes. The industrialization of the economy, which began in the 1960s, led to the displacement of agriculture as the principal sector of the economy. As a result, employment opportunities shifted from rural to urban and coastal areas. The development process in Puerto Rico has yielded mixed results: increases in income levels of the population, high rates of unemployment, modernization of the country, 50% of families living below the poverty line, a significant increase in transfers of funds from the United States federal Government, minimal changes in the distribution of income, marginalized communities, a relatively large governmental apparatus, significant reduction in the collection capacity of the tax

authority, environmental problems, high rates of crime, increase in domestic violence, and high rates of adolescent pregnancy, among other trends.

The gross national product (GNP) for 2004 amounted to US\$ 50,391 million, an increase of 6.0% with respect to 2003. Personal income at constant prices for 2004 was US\$ 9,404.50. Gross domestic product (GDP) was US\$ 78,947 million in 2004, representing a real growth rate of 1.9%. Per capita GDP at current prices was US\$ 20,312 for the same year. The composition of the GDP by sector of the economy in 2004 was as follows: manufacturing (42.1%); insurance, finances, and property (17.1%); trade (11.6%); services (9.9%); government (9.6%); transportation and other public services (6.9%); construction and mining (2.4%), and agriculture (0.3).

The work force in 2004 was made up of 1,360 million people between the ages of 16 and 64. The distribution of employees by sector was as follows: services (28%), government (21%), trade (21%), manufacturing (11%), construction and mining (7%), finances, insurance, and property (5%), transportation and other public services (4%), and agriculture (2%). An unemployment rate of 11.4% was reported for 2004. Puerto Rican workers are covered by the labor law of the United States; as a result, the applicable minimum wage is US\$ 5.15 per hour.

The most notable characteristic of labor market participation in Puerto Rico is the low rate of participation by men, a chronic problem that has existed for decades and the rate has continued to trend downward. The rate of participation for the population as a whole fell from 47.3% in 1990 to 40.7% in 2000. The decline was greater among men (from 58.4% to 48.5%) than among women (37.2% to 33.7%). The 2000 census indicated that one out of five people in the workforce was unemployed, with a higher rate among women than among men. The southern region has the highest unemployment (27%) and the San Juan metropolitan region has the lowest (14.2%).

1.3. HEALTH SITUATION ANALYSIS

1.3.1. Demographic and Epidemiological Analysis

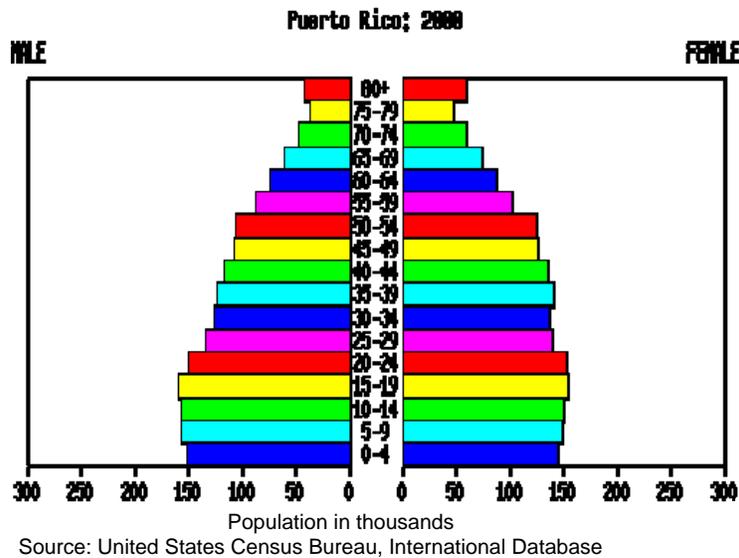
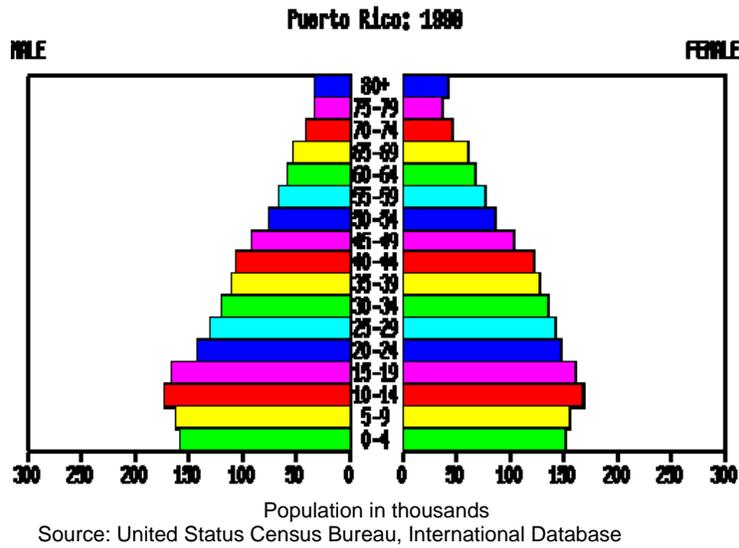
The estimated population of the country in 2004 was 3,898,000.¹ The annual average rate of population growth for the period 1990-2000 was 0.8%. The population density in 2004 was 428 inhabitants per square kilometer, with an unequal geographic distribution of the population, which is highly concentrated in the northeastern coastal region. In fact, one fourth of the population lives in six municipalities that make up the metropolitan area of San Juan.² Between 1990 and 2000, the urban population increased from 71.2% to 94.4%.³

¹ Situación de salud en las Américas. Indicadores Básicos. 2004. OPS/OMS.

² Universidad de Puerto Rico. Demografía y familia de Puerto Rico. <http://www.tendenciaspr.com> (27 June 2005).

³ Universidad de Puerto Rico and Departamento de Salud de Puerto Rico. Perfil sociodemográfico y análisis de morbilidad asociada a causas selectas en Puerto Rico. September 2004.

Figure 1. Population Pyramid, Puerto Rico, 1990 and 2000



Men make up 48.1% of the total population. In the population under 20 years of age, men outnumber women, but as age rises, the proportion of women increases. Starting at age 65, the difference is much more marked. A comparison of the age composition of the population in 1990 and in 2000 reveals a decline in the proportion of the younger population and an expansion of the oldest age groups. The median age of the population increased 13% between 1990 and 2000, rising from 28 years to 32 years. In 2000, 11% of the population was 65 or older, while 24% was under 15 years of age.⁴

Life expectancy at birth (LEB) in the period of 2000-2004 increased to 81.1 years for women and 73.7 years for men. Women have always had higher life expectancy than men, but over the years the gap between the two sexes has grown. As a result, the population of elderly women is

⁴ Idem.

now much larger than that of elderly men and it is therefore expected that there will soon be a large number of women of advanced age living alone.⁵ Between 1990 and 2000 significant increases were observed in the LEB indicator (2.6 years among men and 2.7 years among women).

Table 1. DEMOGRAPHIC TRENDS

Periods/ Indicators	1990-1994		1995-1999		2000-2004	
	Men	Women	Men	Women	Men	Women
Total Population (thousands)	1,730	1,846	1,793	1,924	1,855	2,002
Proportion of urban population	N/A	N/A	N/A	N/A	N/A	N/A
Proportion of population under 15	27.9	25.1	26.2	23.4	24.5	21.7
Proportion of population aged 60 and over	12.9	14.4	13.7	15.7	14.8	17.3
Annual population growth rate	.52	.60	.63	.73	0.37	0.44
Total fertility rate	-	2.2	-	2.0	-	1.9
Crude birth rate per 1,000 population	19.3	17.1	17.9	15.7	15.0	13.1
Crude death rate per 1,000 population	9.3	6.1	9.5	6.6	8.6	6.3
Life expectancy at birth	68.8	77.9	71.5	77.2	73.7	81.1
Net migration balance	-42,025	-46,828	-18,054	-17,866	-24,279	-24,250

Sources: Department of Health, Auxiliary Secretariat for Planning and Development, Statistical Analysis Division. Planning Board of Puerto Rico, Office of the Census.

The birth rate fell from 23 to 18 births per 1,000 population between 1980 and 1990, and by 2004 it had dropped to 13.2. Total fertility has shown a similar trend, the rate being 1.9 children per woman for the period 2000-2004. This rate is below the population replacement level (2.1 children) and is among the lowest in the Region of the Americas.

For 2004, the rate of caesarean births in Puerto Rico was 47.7%, whereas the ideal rate at the international level is considered to be between 15% and 20%.⁷ Puerto Rico ranks close to first in the world for **caesarean** rates. Among the underlying causes of this phenomenon are the following:

- Physicians prefer to deliver by caesarean to avoid medical malpractice lawsuits
- Caesarian births make it possible to schedule deliveries to suit the wishes of pregnant women and the schedules and working days of physicians
- Alleged unavailability of physicians in delivery rooms

For the period 2000-2004, Puerto Rico had a crude death rate of 7.4 deaths per 1,000 population. Although the island has an aging population, this indicator has been declining since 1995, when the rate was 8.3 per 1,000 population — a reduction of 9.6% between 1995 and 2004. Men have higher crude mortality than women, although the difference has lessened over time.

⁵ Departamento de Salud. Informe anual de estadísticas vitales. Puerto Rico: 2004.

Table 2. MORBIDITY AND RISK FACTORS

Period/Indicators	1990-1994	1995-1999	2000-2004
Prevalence of low birthweight	9.6	10.7	11.5
Fertility rate among adolescent women	19.0	20.2	18.1
Annual prevalence of moderate and serious nutritional deficiency among children under 5	N/A	N/A	N/A
Prevalence of exclusive breast-feeding up to 120 days of age	N/A	N/A	N/A
Percentage of deliveries attended by skilled health personnel	99.7	99.7	99.8
Annual number of confirmed cases of vaccine-preventable diseases	9,899	6,956	2,374
Annual incidence of influenza infections	N/A	N/A	N/A
Annual number of confirmed dengue cases	11,628	7,603	4,093
Annual number of confirmed malaria cases	11	15	15
Annual incidence of TB	7.7	6.1	3.4
Annual incidence of sputum- positive TB	N/A	N/A	N/A
Annual incidence of HIV/AIDS	65.5	232.2	27.0
HIV/AIDS case ratio (male:female)	3.5	2.8	2.6
Annual incidence malignant neoplasms of the lung	15.4	15.7	15.2
Annual incidence of malignant neoplasms of the female breast	59.7	73.4	86.7
Annual incidence of malignant neoplasm of the cervix	10.5	10.9	9.8

Source: Department of Health, Auxiliary Secretariat for Planning and Development, Statistical Analysis Division.

Heart disease remains the leading cause of death at present; however, the number of deaths from this cause has shown a marked decline over the years, with the majority of diseases of the heart having been reduced considerably. Deaths from heart disease are concentrated mainly in the elderly population. The second leading cause of death is malignant neoplasms, followed by diabetes, cerebrovascular diseases, and Alzheimer's disease. Chronic pulmonary disease, hypertensive diseases, all external causes, pneumonia and influenza, and nephritis and nephrosis complete the list of the 10 leading causes of death.

Analysis of the causes of death by sex reveals significant differences. Among men, malignant neoplasms are the leading cause of death, while among women, heart disease ranks first. It is worth noting that among men, accidents and homicide are two of the 10 leading causes of death, while among women they do not appear among the first 10 causes. The five leading causes of death among women are chronic diseases. The death rate from Alzheimer's among women is almost double the rate among men. Mortality from AIDS has been greatly reduced, and while the disease was among the 10 leading causes of death during most of the 1990s, it now ranks 14th.

Table 3. MORTALITY RATES

	General	Maternal	Reportable communicable diseases	TB	AIDS	Malaria	Circulatory system diseases	Malignant neoplastic diseases	External causes
Periods									
1990-1994	7.7	16.6	40.5	1.9	37.8	0.0	239.9	120.2	73.0
1995-1999	8.0	14.5	32.1	1.5	26.3	0.0	239.0	122.0	73.8
2000-2004	7.4	13.7	18.2	0.4	16.0	0.0	206.0	123.6	58.5
Sex									
Men	8.6	-	-	0.6	25.2	0.0	224.6	146.9	103.3
Women	6.3	13.7	-	0.3	7.5	0.0	189.2	102.3	17.0
Geographic Area									
Urban	-	-	-	-	-	-	-	-	-
Rural	-	-	-	-	-	-	-	-	-

Source: Department of Health, Auxiliary Secretariat for Planning and Development, Statistical Analysis Division.

Violence is a leading cause of death among adolescents and young adults in Puerto Rico. Homicide has been the number-one cause of violent death since the 1990s, when the rate rose to a high of 28 per 100,000 population in 1994, the principal victims being men and young adults. Homicide rates in Puerto Rico are very high in comparison with the majority of the countries of the Americas. The death rate from traffic accidents was 13.7 in 2004, one of the lowest levels in recent years. A rising trend in deaths from suicide has been noted for the last two years: in 2004 the rate was 7.4 per 100,000 population, whereas in 2002 it was 6.4 per 100,000, the lowest rate in the past 40 years.

The maternal mortality rate in Puerto Rico tends to fluctuate, with the number of maternal deaths averaging 14.5 per 100,000 live births during the period 1991-2004. In 2004 the rate was 17.6 per 100,000 live births. However, the Maternal and Child Health Division of the Department of Health has conducted several reviews of the files of women who died within a year of childbirth in order to determine whether or not they met the criteria for maternal death. These studies have found serious underreporting, revealing that the actual number of maternal deaths is almost twice the number reported in the vital statistics kept by the Department. From 1991 to 2003, the Vital Statistics Report showed 114 maternal death, for an average rate of 14.5, while the Maternal Death Surveillance System recorded 208 cases, making the rate 26.4. The women who died were mainly between the ages of 20 and 34 (60%), married (45%), housewives (51%), residents of rural areas (55%), and had not completed high school (65%). The majority died in a hospital. The leading causes of death were hypertensive disorders (pre-eclampsia and eclampsia) (32%); causes occurring early in pregnancy (ectopic pregnancy, spontaneous and induced abortion) (11%); and sudden causes (obstetric pulmonary embolism and amniotic fluid embolism). Seven percent were associated with hemorrhage. It should be pointed out that the difference lies in the method used to collect the data. The vital statistics reports rely on data from death certificates and do not reflect information contained in the file of the deceased.

Infant mortality has shown a sustained downward trend. From a rate of 13.4 per 1,000 live births in 1990, it had fallen to 8.1 per 1,000 by 2004. In 2004, neonatal mortality was 6.1 per 1,000 live births and postneonatal mortality was 2.0 per 1,000. Disorders related to short gestation and to malnutrition were the leading cause of infant deaths (3.5 per 1,000 live births); congenital anomalies ranked second (1.1 per 1,000 live births) and other respiratory conditions originating

in the perinatal period (0.45 per 1,000 live births) ranked third. The vast majority of perinatal conditions are more prevalent among girls than boys.

Table 4. Infant Mortality

Characteristics	Neonatal (0 to 28 days)	Postneonatal (28 days to 1 year)	Infant (0 to 1 year)	Post-infant(1 to 4 years)	Total (1-5 years)
Period					
1990-1994	9.2	3.6	12.8	1.7	1.9
1995-1999	8.2	3.2	11.4	1.5	1.7
2000-2004	7.1	2.6	9.3	1.0	1.2
Causes					
Disorders originating in the perinatal period	.45	0.0	.45	N/A	N/A
Intestinal infectious diseases (IID)	.22	0.0	.22	N/A	N/A
Acute respiratory infections (IRA)	.45	0.0	.45	N/A	N/A
Congenital anomalies	.72	.39	1.1	N/A	N/A
Nutritional deficiencies	3.5	0.0	3.5	N/A	N/A
Other causes	.78	1.6	2.4	N/A	N/A
Geographic areas					
Urban	N/A	N/A	N/A	N/A	N/A

Source: Department of Health, Auxiliary Secretariat for Planning and Development, Statistical Analysis Division.

According to data from the Ongoing Health Study of Puerto Rico, in 2003 the prevalence rates for the principal health conditions on the island were: hypertension, 14.8%; asthma, 12.2%; diabetes, 7.8%; arthritis, 7.3%; and chronic sinusitis, 7.1%. For the population under 18 years of age, the most prevalent conditions were asthma (21%), chronic sinusitis (7.3%), and acute rhinopharyngitis (6.4%). In the population aged 18 to 44 years, the most prevalent conditions are asthma (10.0%), chronic sinusitis (8.3%), and migraine (7.0%). In the population aged 45 to 64 years, hypertension (30.5%), diabetes (15.2%), and arthritis (12.6%) are the most prevalent conditions. In the elderly population (65 years and over), hypertension is the most common condition (46.8%), followed by arthritis (32.3%) and diabetes (27.5%).

Analysis of morbidity from the most frequent reportable diseases during the period 1990 to 2004 yielded the following findings. The enteric diseases of highest incidence were salmonellosis, hepatitis A, shigellosis campylobacteriosis, and giardiasis. The highest morbidity rates for enteric diseases reported in 2003 were as follows: salmonellosis, 20.7 cases per 100,000 population; giardiasis, 9.4; hepatitis A, 2.6; shigellosis and campylobacteriosis, both 0.9. Among the diseases classified as Category II, those of highest incidence from 1990 to 2003 were influenza and influenza-like syndromes, gastroenteritis, conjunctivitis, and meningitis. Morbidity from these diseases remained below the expected levels, except in years in which outbreaks occurred. It is noteworthy that in 1993 and in 2003 conjunctivitis outbreaks affecting the entirety of Puerto Rico occurred, with an incidence rate of 1,453.20 and 1,437.96, respectively.

1.3.2. Millennium Development Goals

The Government of Puerto Rico has not officially adopted the Millennium goals as a basis for the development of public policy; however, seven of the eight goals have been part of the

Government program for several years. In fact, there are Government agencies whose purpose is to achieve several of the proposed goals and targets. In addition, there are agencies that have developed parallel programs and structures to meet needs identified in the targets established in other Millennium goals.

Goal 1— Eradicate extreme poverty and hunger

Target 1 –The minimum wage established for workers in Puerto Rico is US\$ 5.15 per hour. The Labor Department enforces compliance with this law and ensures that no employee receives less than minimum wage.

Target 2 – The Department of the Family maintains several United States federal programs whose purpose is to provide economic assistance to ensure that needy people, especially mothers with children, have sufficient income to enable them to cover their daily food needs. These programs include the Nutritional Assistance for Puerto Rico (NAP) program, Temporary Assistance for Needy Families (TANF) program, and the Food Distribution Program. Families of limited means also receive government services and assistance for various purposes through programs such as Employment Opportunities for NAP Participants and Economic and Social Rehabilitation for Families and through electricity and water service subsidies, extended childcare for children of working mothers, housing grants or subsidized housing, and education grants under the Work Incentives Act (WIA).

Goal 2 – Achieve universal primary education

Target 3 – The Department of Education offers public education free of charge for the entire student population, from kindergarten through twelfth grade. It is mandatory by law for children and young people to receive schooling, whether privately, publicly or in the home, from the age of 5 to the age of 21, or from kindergarten through twelfth grade.

Goal 3 – Promote gender equality and empower women

Target 4—The Constitution of Puerto Rico establishes the right to education for every person, regardless of its race, religion, sex, or physical or mental condition. The Department of Education is responsible for implementing this mandate, ensuring the right to education for every student. In fact, the majority of students in public schools are female, and every year more females than males graduate from twelfth grade (high school), university, and technical courses.

Goal 4 – Reduce child mortality

Target 5. The Department of Health has a Division of Mothers, Children, and Adolescents whose mission is to promote optimum health among women of childbearing age, infants,

children, adolescents, and families through a system of comprehensive health services. These services are implemented through various programs. The Department also has a Child Mortality Surveillance System that facilitates the collection and analysis of data for the development of public policy aimed at enhancing the well-being of children. Thanks to the Department of Health initiatives, infant mortality has declined steadily since 1990, when the rate was 13.4 per 1,000 live births. By 2004, the rate had dropped to 8.1 per 1,000.

Goal 5 – Improve maternal health

Target 6. The Division of Mothers, Children, and Adolescents also promotes the well-being of pregnant women. To that end, it recently developed a Maternal Health Surveillance System through which studies and research are conducted to detect and prevent possible causes of death. Maternal mortality has tended to fluctuate, with rates ranging from 21.7 per 100,000 live births in 1992 to 6.6 in 1998. The rate in 2003 was 13.8 and the average rate from 1990 to 2003 was 14.5 per 100,000 live births.

Goal 6 – Combat HIV/AIDS, malaria and other diseases

Target 7 – The Department of Health created the Office of HIV/AIDS and Communicable Diseases in 1990 to address the AIDS situation in Puerto Rico. A priority function of this office is to document the trend of communicable diseases in Puerto Rico. It carries out a variety of activities for that purpose aimed at reaching high-risk groups through both clinical and educational interventions at the primary and secondary levels. The Office is also responsible for providing services to the affected population through six programs that target both individuals and families. As a result of the strategies of prevention, early detection, and provision of drugs and treatment, it has been possible to prolong the life of many AIDS patients. Deaths from AIDS have been greatly reduced, as have the number of new HIV infections. In 1990, a total of 1,883 AIDS cases was recorded. In subsequent years the figure rose until reaching a high of 2,671 in 1993. Since then, the number of new cases has declined steadily, dropping to only 828 in 2005. For the past several years, no HIV-infected babies have been born.

Target 8 – Malaria is not an endemic disease in Puerto Rico, and the few cases that are reported occur in people who have traveled outside the country and come back infected with the disease. From 1990 to 2004 a total of 41 cases was recorded, making the average number of cases per year 2.7. The highest number, 8, was reported in 1997. No cases were reported in 2004.

Goal 7 – Ensure environmental sustainability

Target 9 – The Board of Environmental Quality, the Department of Natural Resources, the Planning Board, and the United States Federal Environmental Protection Agency (EPA) are the government agencies responsible for safeguarding the protection and proper use of the environment in Puerto Rico. They have developed various projects, strategies, and initiatives to promote sustainable development and to reverse possible damages to the environment and natural resources, including programs for recycling, reforestation of urban areas, reclaiming rivers and reservoirs, imposing fines for pollution of natural resources, reversing harmful channeling of rivers and streams, and others.

Target 10 – According to data from the 2000 census, 99% of the population had house connections to the drinking water supply system and 93.1% of households had drinking water service. The Water Supply and Sewerage Authority (AAA) reports that 54% of households had connections to the sewerage system.

Target 11 – No work has been done with respect to this target.

Goal 8 – Develop a global partnership for development

In our view, this goal is not applicable to Puerto Rico because the Constitution of the Commonwealth does not allow Puerto Rico to enter into commercial arrangements or treaties with other countries on its own, although we can establish cooperative agreements, exchanges, and support networks.

1.2. DETERMINANTS OF HEALTH

1.2.1. Economic Determinants

The health care services sector is an important component of Puerto Rico's economy. During the period 1999 to 2003, spending in the health sector rose from US\$ 10.1 billion to US\$ 12.2 billion at current prices. This growth in expenditures reflects both real growth in the amount of resources consumed by the sector and growth or inflation in the cost of such resources.

The public sector is an important component in the provision and financing of health care services of Puerto Rico. Since the 1950s, Puerto Rico maintained a dual health system, with a sizeable public component aimed primarily at meeting the needs of the medically indigent. In 1993, the Government embarked upon a health system reform process which was implemented gradually throughout the island between 1994 and 2000. The principal objective of the reform was to eliminate the dual system and facilitate access for the medically indigent to services provided by the private sector.

Spending on health services reflects consumer demand for health care services. In 1980, Puerto Rican families devoted 6.7% of their personal consumption expenditures to medical services and medicines. This proportion increased to 10.8% in 1990 and reached 17.0% in 2000.

Table 5. TRENDS OF SELECTED ECONOMIC INDICATORS

Indicators	2000-2005	Technical Notes
GDP per capita in US\$, in constant prices according to base year	US\$2,757	
Public expenditure per capita	US\$2,299	
Economically Active population (EAP):	1,385,000	
EAP 15-59 years of age		
EAP population employed	1,238,000	
Total public expenditure, as a percentage of GDP	20%	
Public expenditure on health, as a percentage of GDP	9%	Includes medical services (health "smart card" expenditures, Medicare expenditures, and other federal expenditures)
Public expenditure on health services, as a percentage of GDP	13%	Includes government and private expenditures
Private expenditure on health	US\$4,341	Includes spending on health services
Out-of-pocket expenditure (% of total health expenditure)	30%	Spending on medicines as a percentage of total spending
Annual inflation rate	8.7%	
Remittances as a percentage of GDP	N/A	
Foreign debt as a percentage of GDP	48%	
Percentage of female-headed households	21.3%	According to the 2000 Puerto Rico Population and Housing Census
Service of the foreign debt as a percentage of GDP	N/A	

Source: Planning Board of Puerto Rico

Despite the increase in consumer spending on health services, both by individuals and by the Government, in the early 1990s a large portion of the population did not have adequate medical services (Informe Económico al Gobernador, 1996). This situation is attributed to the fact that a high proportion of families had incomes under the poverty line, and those families could not afford medical services in the private sector and were therefore dependent on the services provided by the Government. According to the 1990 population census, 55.3% of families were living below the poverty line in 1989. The proportion was larger in some municipalities, especially those in the interior of the island, such as Adjuntas (79.2), Orocovis (75.1), Lares (74.1), Comerio (73.7), and Jayuya (73.5). The high poverty rates have been accompanied in recent decades by a high rate of growth in the cost of medical services.

Between 1980-1992, per capita personal income grew at an annual average rate of 2.1%, while the medical services price index showed an annual average increase of 5.9%. The latter growth rate surpassed, in turn, the average growth of the personal consumption expenditures index, which rose at an annual rate of 3.2% during the period.

In 1990, the Department of Health had 1,000 physicians to provide health services to 1.8 million people in Puerto Rico. In the private sector, there were 7,000 physicians providing services to the remaining 1.7 million people (the other half of the population) who had some type of health insurance. Of those 1.7 million people, 1.2 million had private insurance, 0.3 million had Medicare Part A and B, and 0.2 million were civil servants whose insurance premiums were partially covered by the central Government. Of the 1.8 million people who did not have health insurance, nearly 0.9 million were covered under the United States Medicaid program, and some 0.3 million were covered by the Commonwealth program. The remaining 0.6 million

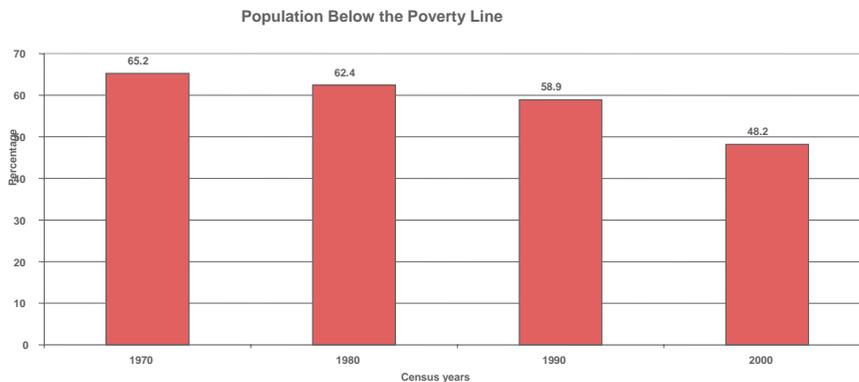
constituted a uninsured floating population. It can thus be deduced that the majority of the beneficiaries of public health care services were medically indigent.

1.2.2. Social Determinants

Poverty Levels

Poverty levels in Puerto Rico are calculated according to United States Census criteria, which indicate that poverty rates in Puerto Rico have been declining, dropping from 65.2% in 1970 to 62.4% in 1980 to 58.9% in 1990 and to 48.2% in 2000.

Figure 2. Population Below the poverty line



Source: United States Census Bureau, 1990 and 2000 census data for Puerto Rico; and Planning Board of Puerto Rico, Economic and Social Planning Program.

The last decade has seen the most dramatic reduction in the population living below the poverty line, the number having dropped from 2,057,377 to 1,818,687 between 1990 and 2000.

If the percentage of population living below and above poverty level is examined by age groups, it is evident that there are more poor people in the group aged 0 to 17 years (66.8% in 1990 and 58.4% in 2000), compared with other age groups. From the age of 18 on, poverty levels improve, up to the age of 75 years or more, which reflects a balance between those living below and above the poverty line.

Of the total population living below the poverty line, males account for 46.7% and females for 53.3%. It should be noted, however, that there are significant age differences in the pattern. The greatest decline was observed in the population aged 65 years and over, both for men and women, although for men it was greater. As a result, for the first time the elderly population had lower rates of poverty than the adult working-age population and the child population. Between 1990 and 2000, poverty among the elderly fell from 57.5% to 44.0%, an absolute reduction of 13.5%. According to the 2000 census, 48.2% of the total population, and 44.6% of all families, were living below the poverty line. In 68 of the 78 municipalities 50% of the population was living

below the poverty line. The distribution of poverty by municipality shows that the area with the highest poverty rates is the center of the island.

Education

School enrollment in Puerto Rico reflects certain gender differences. In the lower levels of the educational system, male enrollment slightly exceeds female enrollment, up to grade 12, especially in private schools. From grade 12 through the university level, female enrollment is greater and the gap between the sexes is more pronounced.

According to the 1990 census, the percentage of illiterate population (aged 15 and over) was 13.1. The 2000 census indicates that the proportion has declined to 10.4 (227,185 people). The educational level of the population aged 25 and over rose steadily during the 1990s. In the year 2000, three out of every five people had completed high school and one of every four (25.4%) had obtained some university degree (associate or bachelor's degree). Another 12.2% had attended university but had not completed a degree. Females have a higher level of educational attainment than males, especially at the university level (21.5% of women hold university degrees, compared to 17.9% of men). Analysis of the level of schooling among the population aged 16 to 19 in 2004 shows a general increase in school attendance, from 65.5% to 78.3%. School dropout rates range from 0.4% to 0.5% annually, which represents approximately 3,000 students.

1.2.3. Environmental Determinants

Water Pollution

Water quality in Puerto Rico ranges from excellent in mountainous areas to below the quality standards set by the Board of Environmental Quality (JCA) and the United States Environmental Protection Agency (EPA) in some rivers, reservoirs, and aquifers. Surface water is generally of poor quality owing to sewage, agricultural, and industrial effluents. JCA and EPA reports for 2003 estimated that approximately 40% of water bodies do not meet water quality standards. Studies by the United States Geological Survey (USGS) and the JCA throughout the island indicate that the principal contaminants in surface water include fecal bacteria, nutrients, and volatile organic compounds (USGS, 2002). These contaminants come from treatment plants, agricultural activities, septic tanks, and domestic wastewater. Approximately 19 places have been identified on the Island where aquifers are severely contaminated and water from these sources is unfit for human consumption. Water resources are also affected by land use. Indiscriminate urbanization and removal of flora and surface soil have disrupted watershed processes.

As mentioned above, according to data from the 2000 census, 99% of the population had house connections to the drinking water system. The AAA reports that it was providing drinking water service to 1,174,000 registered residential clients (households) in 2005. Based on the number of households reported in the 2000 census, which was 1,261,329, it can be concluded that 93.1% of households have drinking water service. However, some communities have developed their own drinking water systems. According to estimates of the Drinking Water Division of the Department of Health, approximately 2% of households receive service from such community systems. The AAA reports that 678,000 households—i.e., 54%—had connections to the

sewerage system. Water supply in urban areas is regular throughout the day, and all drinking water is disinfected by treatment plants.

Solid Waste

A crisis occurred in the management of solid waste in 1976 owing to the enactment of the Resources Conservation and Recovery Act (RCRA) by the United States Congress. This law imposed restrictions on sanitary landfills, leading to the closing of 34 waste dumps and leaving only 29 in operation. At that time, the Government tried to implement a public policy aimed at promoting reuse, recycling, and heat treatment of waste, but the policy did not yield the anticipated effects. As the system of sanitary landfills has continued to be the principal method of waste disposal, Puerto Rico currently faces another crisis. Between May and August 2006, the EPA ordered an additional five waste dumps to be closed within a year. These dumps process 29% of all solid waste, and the Government has a year to take the necessary measures. Estimates by the Solid Waste Administration (ADS) indicate that Puerto Ricans generate almost 5 million tons of waste a year, of which almost 2,600,000 are domestic waste (3.91 pounds per person per day). Most of these are processed in municipal dumps; only 15% are recovered for recycling.

Air Pollution

Air quality in Puerto Rico generally meets the established quality standards, although occasionally the EPA imposes fines on the Electric Power Authority for emissions with higher-than-permitted concentrations of sulfur. A determinant that contributes to air pollution is the excessive use of motor vehicles. It is estimated that in 2005 there were approximately 1,000,000 cars on the island. Dependency on automobiles has an impact on air pollution as a result of carbon monoxide emissions.

2. FUNCTIONS OF THE HEALTH SYSTEM

2.1. STEERING ROLE

Puerto Rico has not yet undertaken its steering role performance evaluation. However evaluations have been carried out that make it possible to identify in general terms the characteristics of some components of the sectoral steering role.

2.1.1. Conduct/Lead

- An extensive health database containing morbidity and mortality data is available; it is managed through a data repository that integrates the principal health databases.
- Data are accessible and of good quality.
- There is a lack of institutional capability for health situation analysis.
- Priorities and goals have been established on the basis of programming commitments, the adoption of the prevention policy of United States Department of Health and Human Services and its Healthy People 2010 initiative, measurement of the EPHFs, surveillance systems, and health indicators.

- Partnerships have been formed with the various representatives of the health sector for the implementation of health policy and programs.
- Capacity for mobilization of resources for the implementation of health policy.
- Initiation of health programs at the community level.
- A tendency to measure but not to evaluate.

2.1.2. Regulation

- There is a broad legal framework that ensures access, equity, and participation. The Department of Health has both internal and external regulatory bodies.
- The Department of Health accredits and certifies health care facilities such as laboratories, pharmacies, hospitals, diagnosis and treatment centers, orphanages, and convalescent homes; it also certifies the quality of water, foods, and technology and the competency of health professionals.
- Foods, drugs, technological equipment, the environment, and the health professions are effectively regulated.
- Regulations are in place to ensure the effective use of allocated funds.
- Resources exist to enforce regulations (laws, penalties, sanctions).
- The Department of Health has agreements with external regulatory agencies.
- As part of the regulatory function, resources are allocated for monitoring compliance.
- There is a lack of capacity to monitor and control the availability of human resources and ensure their sufficiency.
- There are enforcement mechanisms that ensure a high degree of transparency through administrative reviews (*vistas administrativas*).

Figure 3. Mapping of the Health Sector Monitoring and Enforcement in Puerto Rico

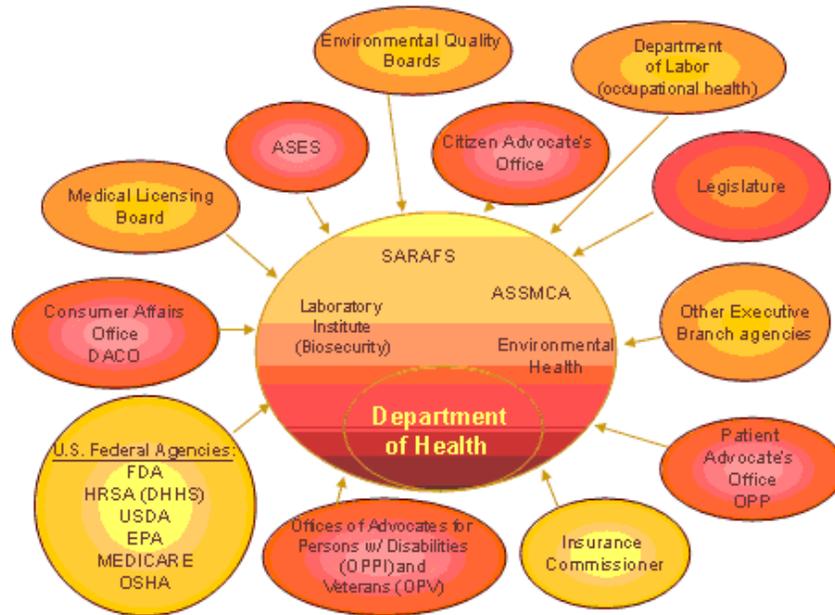
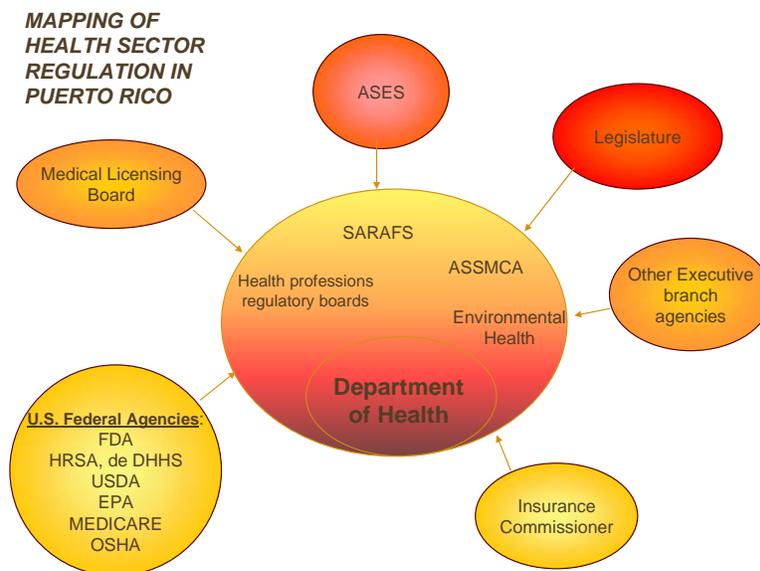


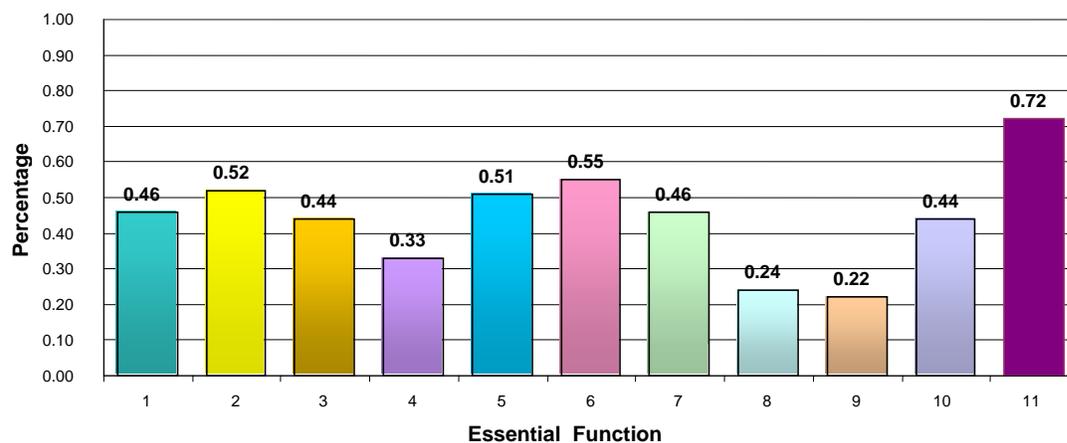
Figure 4. Mapping of Health Sector Regulation in Puerto Rico



2.1.3. Essential Public Health Functions

Measurement of the Essential Public Health Functions (EPHF) is part of PAHO's Public Health in the Americas Initiative, aimed at improving public health practice and strengthening the capacities of the national health authority through the definition and measurement of its public health functions. This initiative has served to foster greater understanding and development of public health and the EPHF. It has also enabled the assessment of the performance of public health practice in Puerto Rico. The first EPHF measurement workshop was held on 17 October 2001. A total of 168 health sector representatives from various levels of government and from the private sector took part. Representatives from academia, the health professions, and the community also participated. Six working groups were formed, each of which was given responsibility for measuring two functions.

Essential Public Health Functions – Puerto Rico, 2001



Results of the First Measurement

Of the functions evaluated, two thirds reflected performance of under 50%. The highest score obtained was for function 11, Reduction of the impact of emergencies and disasters on health. This can be interpreted as a result of the emphasis that the country has put on disaster management, both in the area of training and in operational issues. The second highest score was for function 6, Strengthening of public health regulation and enforcement capacity. Puerto Rico is perceived to have ample regulatory capacity. In third and fourth place were function 2, Surveillance, research and control of the risks and threats to public health and function 5, Development of policies and institutional capacity for public health planning and management.

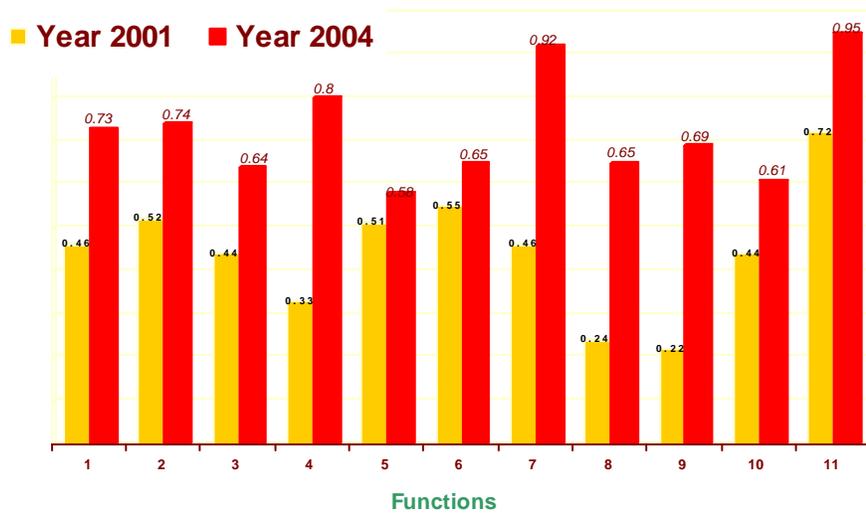
Among the factors that enhanced continuity in performance measurement and improvement processes was the creation of a work structure that facilitated and ensured such continuity. The Advisory Committee that oversees the work was kept active, as was the Coordinating Committee, which was composed of the people responsible for monitoring and follow-up of each function. The criterion for designation of those individuals was identification of the person in the administrative unit with the greatest responsibility for the function in question.

In addition, guidelines for evaluation, planning, and improvement were prepared. In a first phase, indicators for each function, problems, barriers, and limitations were identified, and improvement plans were established. Coordinators were required to submit periodic progress reports (concerning processes and outcomes) on the improvement plan to the Advisory Committee, which in turn analyzed the reports and submitted its recommendations.

Two workshops were also organized, one on project management and the other on critical evaluation of EPHF performance. All these factors contributed to the significant improvement noted in the second measurement exercise, which was carried out in May 2004. One hundred people participated in that exercise, the results of which reflected the efforts of the Department of Health to improve and strengthen performance of the essential public health functions.

Among the most important achievements were the following: reorganization of the Department of Health and creation of three auxiliary secretariats: Prevention, Health Promotion, and Health Protection; establishment of six regional community health offices, creation of the Quality Unit; establishment of a biosecurity laboratory; founding and initiation of the activities of the Public Health Leadership Institute of Puerto Rico (ILISAP); establishment of the Applied Field Epidemiology Program (PEAC); and implementation of a nutrition, physical activity, and physical well-being campaign, “*Salud te recomienda*” (dietary guidelines recommended by the Department of Health) and *Muévete Puerto Rico* (“Get Moving, Puerto Rico”). In addition, the creation of the Academy of Public Health Experts and many other initiatives helped strengthen the role of the Secretary of Health and the health authority in general.

Results of the Second Measurement



2.2. FINANCING AND ASSURANCE

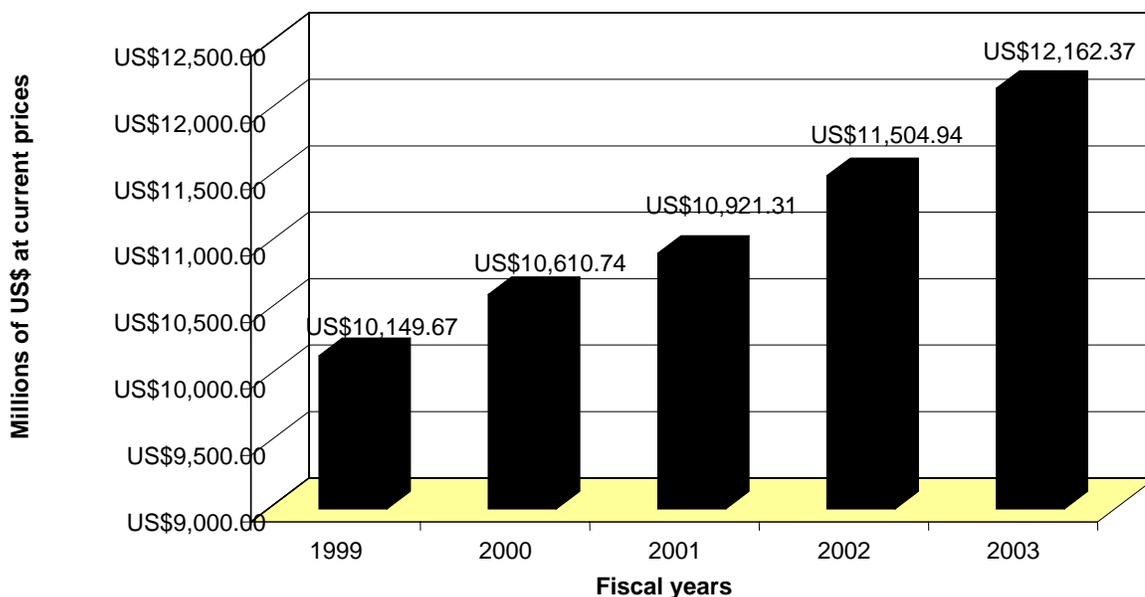
2.2.1. Financing

Aggregate Health Sector Expenditure

During the period 1999 to 2003, health sector spending in Puerto Rico grew from US\$ 10.1 billion to US\$ 12.2 billion at current prices (Figure 5).

Figure 5.

Estimated total health sector expenditure in Puerto Rico: 1999–2003



Sources: Planning Board of Puerto Rico, 1999-2003; Office of Management and Budget, 1999-2003; Office of the Commissioner of Municipal Affairs, 1999-2003; Health Insurance Administration, 1999-2003; United States Department of Health and Human Services, 1999-2003.

This growth in expenditure reflects both real growth in the amount of resources consumed by the sector and growth or inflation in the cost of such resources. This represents cumulative growth of 20% in health expenditures for the period analyzed. However, in order to measure real growth in the sector, it is important to deflate expenditures. The medical services price index was used for that purpose. When expenditures are deflated, cumulative growth for the period is reduced to 2%. This implies that most of the nominal growth in health sector spending was due to increases in the prices of the goods and services consumed. In other words, consumption or use of health services by the population has not grown as much as suggested by the foregoing figures.

With regard to the share of the health sector in the overall economy of Puerto Rico, in fiscal year 2003 the sector accounted for 16.4% of gross domestic product (GDP). This proportion has

fluctuated over the period, however. From 1999 to 2001, it diminished, but after 2001 it began to rise. It should be recalled that this proportion depends not only on the growth of the health sector, but also on the growth of the rest of the economy. If this proportion is adjusted for inflation, it falls to 13.1% in 2003. The reason is simple: when the current situation is compared to 1984, it is evident that the inflation rate in the health sector has been higher than in the rest of the economy. As a result, the real economic growth of the health sector has been smaller than that of the rest of the economy. Another way of looking at health sector spending is to calculate per capita expenditure. In Puerto Rico, per capita spending on health for fiscal year 2003 was US\$ 3,143 in current prices. This represents an increase of US\$ 466 in per capita expenditure in comparison with 1999.

Again, however, when the per capita expenditure for 2003 is adjusted for inflation, it becomes clear that the real per capita expenditure on health for the period 1999 to 2003 remained virtually unchanged. This means that the increase in health spending during the period 1999 to 2003 was caused by two principal factors: increases in the cost of health services and growth of the population. In 1999, the private sector accounted for 74% of the total expenditure, compared to 26% for the public sector. However, it is also true that the weight of the public sector grew over the period.

By fiscal year 2003, the proportion accounted for by the public sector had increased to 31.7%, while that of the private sector had declined to 68.3%. In terms of per capita health expenditure, in 1999 public-sector spending was US\$ 685 and private-sector spending was US\$ 1,993. In 2003, the corresponding figure were US\$ 997 and US\$ 2,146. When these figures are adjusted for inflation in prices, per capita expenditure for the public sector rises from US\$ 315 to US\$ 391, while private expenditure falls from US\$ 917 to US\$ 840. Surprisingly, there was an increase of US\$ 75 in per capita public spending, while there was an almost equal reduction in per capita private expenditure. This suggests that during this period (1999 to 2003) there was a redistribution of spending, with the State taking on a larger role in health care financing, rather than a real increase in health expenditure.

Public Spending

We have divided the public sector into three subsectors: Government of the Commonwealth of Puerto Rico, municipal governments, and federal Government of the United States. The Commonwealth Government component includes the expenditures of all Government agencies that are in some way related to the health sector. The municipal government component includes the health expenditure generated directly by the governments of the 78 municipalities of Puerto Rico. Federal Government expenditures include spending by agencies of the federal Government of the United States.

For 2003, as Figures 10 and 11 show, the United States federal Government was the largest public subsector, with an investment of some US\$ 2,390 million or 62% of total public spending. The Commonwealth Government ranks second, at about US\$ 1,431 million, or 37% of total public spending. In last place, the municipal governments have an expenditure of only US\$ 37.3 million, or 1% of total public spending. However, it is important to clarify that the role of the municipal governments is underestimated by these numbers, as since 1994 a large share of municipal health funds have gone to the Health Insurance Administration (ASES) to finance health system reform.

Commonwealth Government

The agency with the largest budget within the Commonwealth Government is ASES, with a total budget of US\$ 1,058 million for fiscal year 2003, which represents approximately one fourth of public spending on health in Puerto Rico. Next is the Department of Health, with a budget of US\$ 182 million for 2003, approximately 5% of total public spending.

Municipal Governments

The most significant contribution of the municipal government sector to health expenditure is the funds allocated to ASES through the Commonwealth Government. However, in addition to those funds, the municipal governments have two additional health allocations: premiums paid for health insurance plans of their municipal employees and spending on drugs and supplies by their health centers. These allocations generally account for only a minor share of total health spending in Puerto Rico.

United States Federal Government

Since 1999, United States federal Government funding for health services has increased markedly. The largest area of growth has been Medicare spending, which increased by more than US\$ 900 million between 1999 and 2003. This increase meant that Medicare became the single largest source of public funding for health services in Puerto Rico. This trend is explained in part by the increase in the elderly population and by changes in Medicare benefits. Medicare funding is expected to continue rising in the coming years.

Financing for health system reform (health insurance) for fiscal year 2002-2003 came from various sources.

Table 6. Financing for the Health Plan of the Commonwealth of Puerto Rico: Budget for fiscal year 2002-2003

Source	Amount	Percentage (%)
Medicaid	US\$ 189,000,000	14.8
SCHIP *	US\$ 26,000,000	2.0
Municipalities	US\$ 136,000,000	10.6
General Fund	US\$ 931,000,000	72.6
Total	1,282,000,000	100.0

Source: Departamento de Salud de Puerto Rico, Administración de Seguros de Salud. Plan de Salud del Estado Libre Asociado de Puerto Rico.

Private Expenditure

Private spending on health is the main source of financing for health services in Puerto Rico. This sector comprises two components: personal consumption expenditures, which come straight out of the pocket of consumers, and expenditures by private companies and corporations for health insurance premiums. Of the two, the largest expenditure has historically been direct, out-of-pocket spending by consumers. The latter amounted to US\$ 5,910 million in 1999 and to US\$ 6,917 million in 2003, an increase of more than one billion dollars in five years. Meanwhile, spending on insurance premiums (the measurement of which has been less precise

and the figure is therefore inexact) has fluctuated somewhat, but has shown an essentially downward trend.

Individuals

The figures for private consumption expenditures of individuals include spending on medical, dental, and other miscellaneous services; private hospitals; health insurance; funeral services; and medicines. Of these, medicines account for the largest share, followed by medical services and hospital expenditures. The figures on spending on insurance premiums by companies and corporations were obtained from reports submitted by insurers to government agencies. These figures are assumed to be underestimated because it was impossible to obtain data on all privately insured groups in Puerto Rico.

Nongovernmental Organizations

Community organizations are an important group in the health sector since the services provided by community and nonprofit entities are mainly health services. A study on nonprofit organizations in Puerto Rico, released on 4 March 1996 by the consulting firm Estudios Técnicos, Inc., noted that nonprofit organizations provide services and activities primarily in the health sector (72.4%), followed by the education sector (69.7%) and, in third place, the social services sector (60.4%). Donations from individuals and companies to nonprofit organizations and associations working in the health field constitute, according to various studies, the principal source of income for such entities. A 2002 study by the Medical School of the Universidad Central de Caribe, for example, listed a total of 78 private nonprofit entities that provide physical and mental health services and treatment for substance abuse.

2.2.2. Assurance

The Government of Puerto Rico, through its health system reform, has established basic, special, and mental health coverage plans for its beneficiaries. Under these plans, the following services are provided:

2.2.2.1. Benefits

The basic coverage benefits include hospital inpatient services; physician visits; surgical services; maternity services; preventive services such as annual vision, hearing, and nutritional screening; Pap smear, mammography; well-child care during the first two years of life; immunization; prostate cancer screening and other tests; mental health services (limited to detoxification and outpatient services; diagnostic tests; clinical laboratory analyses; X-rays; physical and respiratory therapy; emergency care services; dental services; prescription of drugs; and sea, air, and surface ambulance services. The basic coverage benefits are offered through primary care centers located in each municipality and by independent practitioner associations (IPAs).

The special coverage benefits include cardiovascular, neurovascular, and neurosurgical procedures; peritoneal dialysis and hemodialysis; neonatal intensive care; cancer treatment services; diagnostic tests such as CAT scan; MRI; cardiac catheterization; nuclear imaging; invasive cardiovascular procedures; lithotripsy; and endoscopy. Catastrophic coverage is

provided for AIDS, tuberculosis, leprosy, pacemakers, artificial valves and other heart devices; and treatment for substance abuse. Normally, insurance companies prefer to disburse payments for special coverage expenditures in order to maintain greater control over treatment provided for catastrophic conditions, as such services are very expensive.

Each primary care center is staffed by primary care physicians such as family medicine practitioners, internists, pediatricians, obstetricians-gynecologists, and generalist practitioners. These professionals are supported by additional physicians, depending on morbidity and mortality trends in the area and to assist in providing basic coverage services if necessary. They are also required to ensure support from other providers such as dentists, optometrists, clinical laboratories, radiography facilities, and pharmacies.

The special coverage is offered through a network of participating providers, who have contractual arrangements with insurers throughout the island. In addition, the plan includes coverage for Medicare beneficiaries who are medically indigent and have been certified as eligible by the Medicaid Program of Puerto Rico. For these “dual eligibles”, ASES has negotiated additional benefits with insurance companies. For those who have Medicare Part A, the insurer must cover all benefits not included in Part A that are covered under the plan contract. Similarly, for those beneficiaries who have Medicare Parts A and B, the plan must cover deductibles and copayments under Part B and provide pharmacy and dental coverage.

Mental health coverage includes screening, evaluation, and treatment services for mental health, psychiatric, and psychological disorders; ambulatory services; partial inpatient services; stabilization, detoxification, and medication services; ambulance services; education and prevention; intensive outpatient services for substance abuse, emergencies, and crisis intervention; pharmacy services; clinical laboratory services; and home-based services.

2.2.2.2. Population Coverage

According to data from the Office of the Commissioner of Insurance (OCS) in Puerto Rico, the number of beneficiaries of health care plans in 2003 was 3,154,582. This number reflects some double-counting, however, since a person may be covered by several insurers or organizations, and the way in which coverage information is compiled does not make it possible to identify such individuals.

In addition, there are many companies in Puerto Rico that offer their employees and executives health insurance coverage that is not reflected in the OCS data. Those employers who have self-insurance schemes, such as the Teachers Association of Puerto Rico and the Spanish Mutual Aid Society, are not included in the figure of 3.1 million beneficiaries.

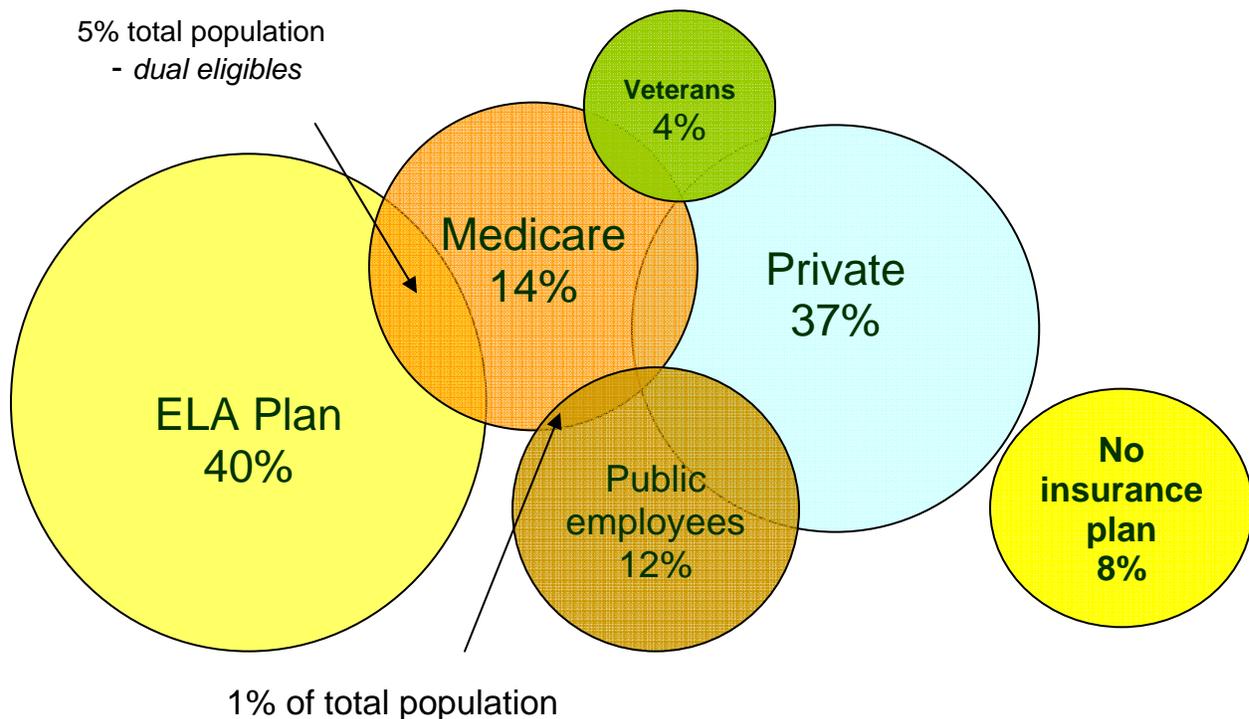
The following figure shows the population with health insurance plans and the proportion that they represent out of the total population (3,879 million).⁶ Based on existing regulations and available data, the areas in which eligibility overlapping exists can be identified. Those areas are:

⁶ Junta de Planificación de Puerto Rico, Negociado de Planificación Social y Económica, Oficina del Censo. Population estimate as of 1 July 2003.

- a. Medicaid (ELA Plan) and Medicare: 5% of the population have both plans. People in this group are known as *dual eligibles*, according to United States federal Government criteria.
- b. Civil servants: within this group there is a population of approximately 32,000 beneficiaries aged 65 with supplementary coverage who make up 1% of the total population.
- c. Although public employees may choose the ELA Plan, the figures presented include these people in the ELA plan and exclude them from the group of public employees.
- d. It can be estimated, based on 8.3% of the population,⁷ that there is another 9.8% with coverage under more than one plan, namely:
 - The Medicare population with supplementary private plans (there are no estimates for this population).
 - Beneficiaries under private plans for veterans (there are no estimates for this population).

Despite the existence of broad insurance coverage, it is estimated that in 2003 approximately 8% of the population had no health insurance whatsoever.

Figure 6.
Percentage distribution of the population of Puerto Rico by type of medical plan, 2003



⁷ Estimates of the Behavioral Risk Factor Surveillance System.

2.3. SERVICE PROVISION

2.3.1. Supply of and Demand for Health Services

2.3.1.1. Hospital Resources

One of the principal policies of the Government during the period 2001-2004 was to ensure that all municipalities on the island had emergency medical services that were open 24 hours a day, 7 days a week. This policy was intended to fill the gap left by the model of privatization of health facilities, which deprived the population of emergency services that had been offered by diagnosis and treatment centers. Under the health system reform process, those centers were sold to private medical groups or nonprofit corporations and became independent practitioner associations (IPAs). As a result, in 2001 only 58 of the 78 municipalities had emergency facilities operating 24 hours a day, 7 days a week. About 10 centers began to close facilities or shorten their service hours, shifting to the Government the responsibility and cost of subsidizing such services or reacquiring and equipping facilities that had been sold, in order to operate them under contract with third parties and thus ensure the provision of these services. As of the end of the four-year period, 89% of the Puerto Rico's municipalities had round-the-clock emergency medical services, including those that do not have hospital facilities.

Puerto Rico has an extensive and varied array of health services, which are provided under various financing and/or insurance modalities. The private sector is the largest provider of services, although the Government is responsible for the majority of high-risk cases, as most tertiary care services are provided by the State through the facilities of the Río Piedras Medical Center.

According to the *Registry of Hospitals and Health Facilities for 2002-2004*, prepared by the Auxiliary Secretariat for Regulation and Certification of Health Facilities (SARAFS), an agency of the Department of Health, there are currently 67 hospitals, 12 of which are public and the other 56 are private. Hence, 16.7% of the hospitals are public, while around 83.3% are private. This figure reflects the outcome of the sale of regional hospitals as part of the health system reform in the late 1990s.

The distribution of hospitals by health regions is as follows: 38% (27/67) of Puerto Rico's hospitals are concentrated in the San Juan metropolitan region; 16% (11/67) are in the region of Ponce; 13% (9/67) are in Arecibo, Caguas, and Mayagüez; and only 7% (5/67) are in Bayamón. The San Juan region has the highest proportion of hospitals per population, with a ratio of 1 hospital for every 40,420 inhabitants, while in the Bayamón region, the ratio is 1 per 120,144.

The distribution of hospital beds per 1,000 population also varies significantly. While the national average is 3.3 beds per 1,000 population, 40% of the 12,642 available beds are concentrated in the San Juan metropolitan region, which has a ratio of 5.0 per 1,000; Ponce has 16% and a ratio of 3.3; Caguas, 12% and a ratio of 2.7; Bayamón, 13% and a ratio of 2.6; Mayagüez, 11% and a ratio of 2.5; and Arecibo, 7.5% and a ratio of 2.0.

**Table 7. Public and private hospitals, San Juan metropolitan region and other regions
2002-2004**

Hospitals by sector	Number of hospitals	Metropolitan region	Percentage of hospitals in metro region	Other regions	Percentage of hospitals in other regions
Private	55	17	30.9	40	72.7
Public	12 *	10	83.3	2	16.7

Source: Auxiliary Secretariat for Regulation and Certification of Health Facilities, Department of Health.

* Of the 12 public hospitals, one is owned by the State Insurance Fund Corporation (CFSE), one by the municipal government of San Juan, six by the Department of Health, and four by the Mental Health and Addiction Services Administration (ASSMCA).

Table 8. Hospital facilities by type, location, and number of beds

Hospitals	Institutions	Total beds	Beds in metro region	Beds in other regions
Industrial Hospital (CFSE)	1	271	271	0
Cardiovascular	1	192	192	0
Pediatric	2	366	366	0
General	51	9,998	3,379	6,619
Psychiatric ⁸	8	1,496	676	820
Rehabilitation	1	32	32	0
Cancer treatment	2	229	143	86
Trauma	1	58	58	0
Total	67	12,642 338 people/bed	5,117 184 people/bed	7,525 154 people/bed

Source: Auxiliary Secretariat for Regulation and Certification of Health Facilities, Department of Health.

More than 350 private nonprofit organizations in Puerto Rico offer a variety of health and assistance services for patients, including health promotion and protection, disease prevention, and rehabilitation for a variety of physical and mental health conditions. Unfortunately, there is not a complete record of these organizations by categories of service and location, since they are not all regulated by a single Government agency. The facilities and services listed in Table 8 are therefore only a fraction of all the facilities and services available to individuals and communities. Moreover, under Law 102, which regulates health facilities in Puerto Rico, numerous facilities and services currently operated by both nonprofit and for-profit nongovernmental organizations are not classified as health facilities.

⁸ The psychiatric facility is a hospital that provides diagnostic, treatment, and residential care services for patients with mental disorders.

**Table 9. Distribution of ambulatory care facilities by sector and type of services
2002-2004**

Type of services	Number of facilities	San Juan-Fajardo	Other regions	Private	Government
Outpatient surgery	31	20	11	31	0
Dialysis	39	10	29	37	2
Emergency care services	3	0	3	3	0
Diagnosis and treatment center	141	36	105	86	55
Orphanage	36	6	30	36	0
In-home health services	45	13	32	45	0
Total	295	85	210	238	57

Source: Auxiliary Secretariat for Regulation and Certification of Health Facilities, Department of Health.

2.3.2. Human Resources Development

2.3.2.1. Supply and Distribution of Human Resources

With regard to the supply of human resources, Puerto Rico has 54,120 active health professionals, of which 8,225 are physicians, 24,777 are nurses, 2,779 are medical technicians, 2,428 are pharmacists, and 1,457 are dentists, this group making up 73.3% of all professionals. Of these health professionals, 38.8% are concentrated in the San Juan-Fajardo metropolitan region; the proportions of doctors and nurses in the metropolitan region are 42.4% and 38%, respectively. The majority (75.2%) of physicians and other health professionals (70.9%) work in the private sector; the rest work in public services (24.5%) or on a volunteer basis (0.3%).

Regarding medical specialization, around 23% of all physicians are general practitioners, 13.2% are internists, 11.5% are pediatricians, and the remaining 52.3% are distributed among various specialties, including obstetrics and gynecology, family medicine, general surgery, and anesthesiology.

Table 10. Health professionals overall and by region, 2001-2004

Overall and regions	Total physicians & other professionals	Physicians	Other health professionals	Nurses	Medical technicians	Pharmacists	Dentists	Other professions
Total	54,120	8,225	45,895	24,777	2,779	2,428	1,457	14,454
Arecibo	5,435	670	4,765	2,530	336	328	130	1,441
Bayamón	6,435	1,131	5,304	2,601	377	331	221	1,774
Caguas	7,042	996	6,046	3,070	308	339	190	2,139
Mayagüez	6,423	931	5,492	3,043	421	256	154	1,618
Ponce	7,794	1,010	6,784	4,116	409	255	166	1,838
Metropolitan	20,991	3,487	17,504	9,417	928	919	596	5,644

Source: Auxiliary Secretariat for Regulation and Certification of Health Facilities, Department of Health.

Clinical interventions involving direct patient care continue to be the predominant health care model. Health promotion and education activities remain quite limited, which points to the need to strengthen efforts to change the health care model through more energetic and comprehensive policies.

2.3.3. Equipment and Technology

One of the greatest strengths of Puerto Rico's health system since 2001 has been investment in mechanization and technology development to enhance processes and services in the health field. Both the public and private sectors have at their disposal significant technology resources for addressing the health needs of Puerto Ricans. In recent years, at a cost of more than US\$ 300 million, the Government has acquired highly sophisticated equipment for diagnosis and treatment, as well as information technologies and more advanced and secure systems for managing patient data, as will be seen in the chapter on technological progress. However, it should be noted that the immense majority of these resources are concentrated at the central level in the San Juan metropolitan region. Other health regions often lack even such essential resources as printers, photocopiers, personal computers, and Internet access.

2.3.4. Laboratories and Pharmacies

Puerto Rico has 771 clinical laboratories and 1,104 pharmacies licensed by the Auxiliary Secretariat for Regulation and Accreditation of Health Facilities (SARAFS). These facilities are distributed throughout the island. The ratio of laboratories to population is 1:4,939 and that of pharmacies is 1:3,449. (Table 11)

Table 11. Distribution of clinical laboratories and pharmacies by region and population, 2002-2004

Region	Population (2001)	Laboratories	Population/Laboratory	Pharmacies	Population/Pharmacy
Arecibo	416,693	100	4,166	143	2,913
Bayamón	785,369	131	5,995	213	3,687
Caguas	569,602	87	6,547	154	3,698
Mayagüez	546,957	136	4,021	169	3,236
Ponce	576,070	112	5,143	149	3,866
Metropolitan	913,919	205	4,458	276	3,311
Total	3,808,610	771	4,939	1,104	3,449

Source: Auxiliary Secretariat for the Regulation and Certification of Health Facilities, Health Department

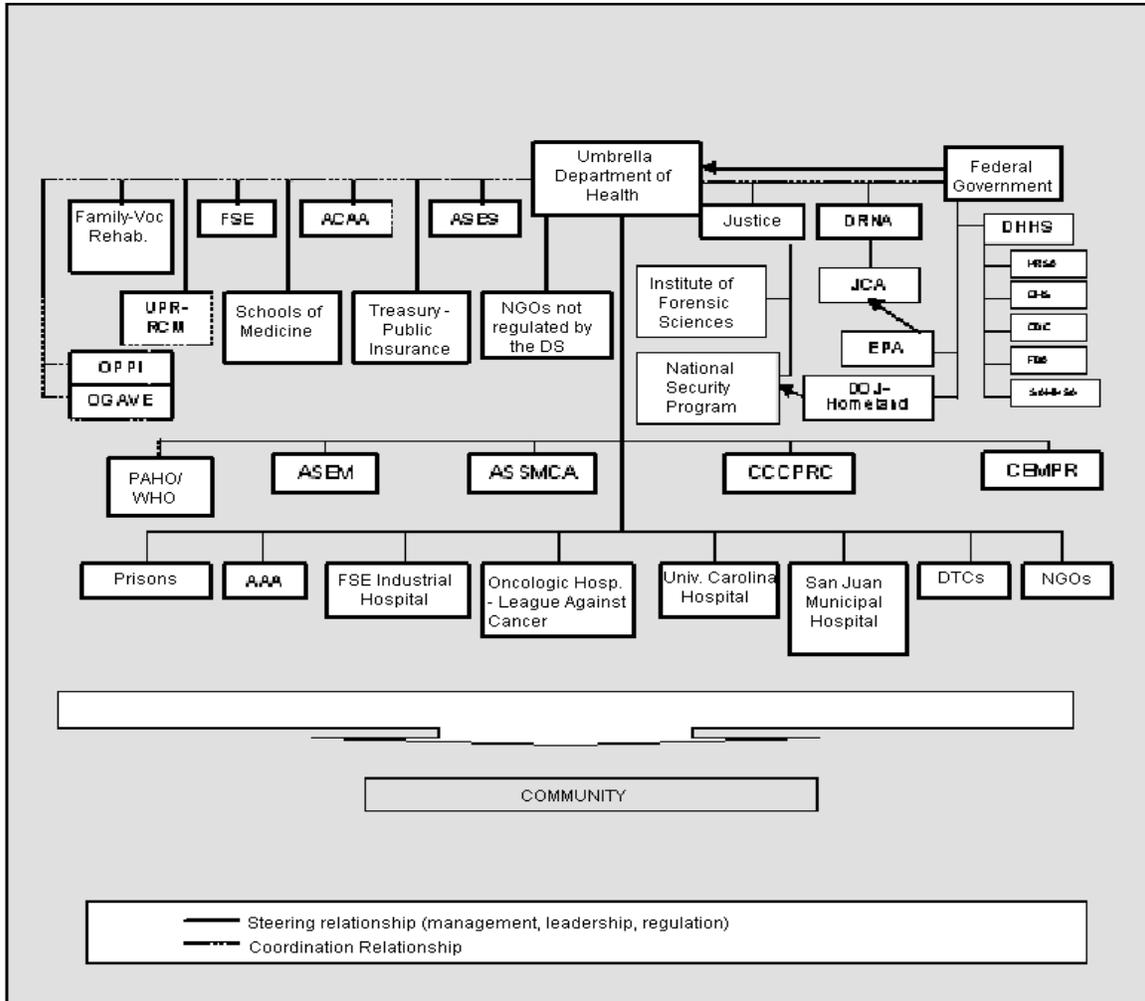
2.4. INSTITUTIONAL MAPPING OF THE HEALTH SYSTEM

Table 12: Institutional Mapping of the Health System

Functions Organizations	Steering Role		Financing	Insurance	Provision of services
	Leadership	Regulation and oversight			
Central Government Health Department Justice Department Armed Forces Others	Health Department Legislature	Insurance Commissioner Health Dept. US Federal and Commonwealth regulations	Commonwealth Funds Funds approved by United States	Central Government US Federal funds	Private and public sectors
Social security Institutions	N/A	N/A	N/A	N/A	N/A
Regional government (provincial, departmental)	N/A	N/A	N/A	N/A	N/A
Local government (<i>municipio</i>)	Municipio Central Government	Municipio Central Government	Municipio Central Government	Central Government	Municipio Central Government
Private insurers - Nonprofit - For-profit	N/A	Central Government	Private sector	N/A	N/A
Private suppliers - Nonprofit - For-profit	N/A	N/A	N/A	N/A	N/A

Figure 7 below shows the various components that are involved and have an impact in the health sector in Puerto Rico.

Figure 7: Health Sector Organizational Chart, Puerto Rico



3. MONITORING HEALTH SYSTEMS CHANGE/REFORM

3.1. IMPACT ON HEALTH SYSTEM FUNCTIONS

The public health system in Puerto Rico originated with the creation of the Department of Health as a public agency responsible for health pursuant to Law 81 of 14 March 1912. The Department acquired constitutional rank when the Constitution of the Commonwealth of Puerto Rico was adopted in 1952. Starting from that date, the health system began to grow and develop, strengthening and providing health services to the medically indigent population of Puerto Rico. At the same time, a private health sector grew alongside the public sector as a

result of the development of a health insurance system for which premiums were paid for the provision of health services by contracted providers.

The public health system was initially (in 1958) organized around the concept of regionalization of services. Accordingly, a structure of regions was created, with a hierarchy of health facilities with different levels of service and different target populations. An integrated system of authority was established to ensure the coordination of services. The structure was a decentralized one.

The Government of Puerto Rico, as the principal provider of health care to the medically indigent population, structured the delivery of medical and hospital services in the regions in line with this concept. Puerto Rico was divided into homogeneous regions. The criteria for delimitation of regions included size of the municipalities, political boundaries, transportation system, and epidemiological profile. Municipalities were included in this process, taking into account their population and proximity. Services were organized by level of complexity, use, and size of the population at the primary and secondary levels. The most specialized and highest-complexity services were offered at the central level and served a larger population. This made territorial and service integration possible and facilitated the administration of services with the aim of ensuring access to services for the medically indigent population.

Each region comprised two or three areas consisting of municipalities that had an area hospital providing care at the secondary level. Each of these hospitals provided services for three to seven municipalities. The three levels of care included in the system were: health centers or diagnosis and treatment centers located in every municipality (primary level), area hospitals (secondary level), regional hospitals (secondary and tertiary levels), and the Río Piedras Medical Center (specialized tertiary or supra-tertiary levels). The size of the island, coupled with the existence of adequate road and transportation systems, made service integration relatively easy.

Each municipality had a primary health services center, which served as the gateway to the health care system. These centers offered basic diagnostic, treatment, and prevention services provided by health teams consisting primarily of general practitioners, supported by specialists and other health professionals. The primary health service centers included health centers, diagnosis and treatment centers (DTCs), and public health units (PHU). This level served patients with relatively uncomplicated medical conditions whose management did not require the use of surgical procedures or high-tech medical equipment.

At the secondary level, municipalities had area hospitals, which provided support for the primary health services in managing more complex cases that required more specialized, secondary level services. Specialized medical services were offered at this level, including internal medicine, pediatrics, surgery, obstetrics, and gynecology. Subspecialties were also sometimes available. Emergency, inpatient, and outpatient clinical services were provided.

At the tertiary and supra-tertiary level, care was provided for patients with more complex clinical conditions than those treated at the secondary level which required specialized personnel and highly technological diagnostic equipment. The regional hospitals of Caguas, Arecibo, Fajardo, and Bayamón, together with the medical centers of Ponce, Mayagüez, and San Juan, made up the tertiary level, with the Río Piedras Medical Center constituting the supra-tertiary level. There were also intensive care units such as the Medical Intensive Care Unit and the Coronary Intensive Care Unit.

Between 1952 and 1959, organizations were created in the private sector whose purpose was to provide health insurance plans through which access to health services would be provided by a network of contracted providers throughout the island. The State became responsible for providing services to the uninsured medically indigent population, while the private sector served the population that could afford to pay for insurance.

The system of public services continued to grow and diversify. Three medical centers were created, in San Juan, Ponce, and Mayagüez. The Pediatric Hospital and the University Hospital for Adults were opened and together became the teaching hospital for medical students and residents from the Medical School of the University of Puerto Rico. In 1965, the federal Government of the United States amended its Social Security Act and included Puerto Rico in the Medicare program for people over 65 years of age and the Medicaid program for low-income people, which brought the Commonwealth federal fund transfers. This measure strengthened the delivery of services. That decade also saw considerable institutional development of government services, as well as continued development of the insurance industry.

The insurance industry also began to diversify, and a government insurance scheme was created to cover automobile accidents. An organization to deal with occupational injuries and/or disorders was also established, and an insurance plan for public employees was put in place.

In the 1970s, the service regionalization structure was evaluated and reorganized with a view to enhancing its efficiency and cost-effectiveness, but without any fundamental change in the conceptual underpinnings of the system. To that end, the island was divided into seven health regions. The aim of this system was to ensure equity and access to health services. In 1976, a government agency was created to address the problem of drug addiction.

That same year, the law was amended and the General Health Council was created. A broad regulatory base was established for hospital facilities and health services in both the public and private sectors; for the purchase, registration, and distribution of drugs; and for health professionals. The mid-1980s saw the establishment of family health centers which employed a preventive approach to family medicine at the grassroots level. Among the first steps toward the privatization of services was the contracting of private services as a means of facilitating the administration of services. Later, two important projects were undertaken, one involving the privatization of certain health services through contracts for the lease of public health facilities and the other integrating the primary health services that had been offered by diagnosis and treatment centers with the secondary-level services provided by area hospitals. Later on, it was recognized that technologies needed to be upgraded in order to provide more specialized services, and the Cardiovascular Center of Puerto Rico and the Caribbean was established.

The motive for the change in the model of services was the existence of two health systems: one offered by the State to the medically indigent, providing direct clinical services through the Department of Health, and the other offered by private insurance companies that contracted with private providers. Service in the private sector was perceived to be efficient and of high quality, whereas in the public sector there was deemed to be a lack of equality in access to and quality of services. Moreover, the administration of public fiscal resources was considered deficient, and it was expected that the Government would be hard-pressed to meet the projected rise in health care costs.

In the face of this situation, a reform of the health system was proposed, founded on the following basic principles: eliminate inequality in medical care, ensure access to health services, improve the quality of services, and increase efficiency and effectiveness through competitive mechanisms. The Department of Health was given responsibility for policy-making, regulatory, and oversight functions in relation to all health sector matters.

The first effort made towards that end was the adoption of Law 72 of 7 September 1993, which created the Health Insurance Administration of Puerto Rico (ASES). This corporation became responsible for administering the Government Health Plan. It was authorized under the law to contract for medical services through commercial insurance companies, which in turn subcontracted with service providers. The health services model thus changed to one of managed care provided through a system of capitation payments, with deductibles for oral health services. ASES is a semi-public agency which is responsible for ensuring access and quality of services for the medically indigent population.

Health Insurance Administration of Puerto Rico (ASES)

The Health Insurance Administration of Puerto Rico (ASES) is a public corporation created by Law 72 of 7 September 1993. The agency has the following functions:

1. Negotiate and contract with insurers for medical, hospital, and ancillary services, as well as dental, mental health, and pharmacy services, in the context of a package of benefits affording access to health care providers within a closed network under a model of care coordinated and managed through a primary care physician (PCP).
2. To oversee, monitor, and evaluate clinical and non-clinical operations in accordance with Commonwealth and United States federal requirements and regulations.

To finance its operations, the agency has an allocated budget of US\$ 1.4 billion dollars, distributed as following: (1) general funds, 68%; (2) United States federal Government contributions (Medicaid and SCHIP), 14%; (3) municipal contributions, 11%; (4) other contributions (Police of Puerto Rico, Department of the Treasury, among others), 7%.

Currently, ASES coordinates and administers three types of health insurance plans:

1. Government Health Plan (PSG, its Spanish acronym): this plan is available only to medically indigent Puerto Ricans who are certified as being eligible for the Medical Assistance Program of the Department of Health. ASES contracts and negotiates with the following entities, which are certified by the Centers for Medicare and Medicaid Services (CMS) to offer the Plan to beneficiaries:

- 1) Managed care organizations (MCOs)
- 2) Managed behavioral health care organizations (MBHO)
- 3) Third-party administrators (TPAs) of the Government Health Plan
- 4) Health care organizations (HCOs)
- 5) Pharmacy benefit managers (PBMs)

- a. The PSG provides basic coverage, including medical and hospital services, surgical services, obstetrics-gynecology, ancillary services, laboratory services, radiology, emergency care, dental services, mental health care, health education, and preventive services.
- b. Special coverage is also now available for services for high-risk conditions such as cancer. Coverage for children with special needs is also provided.
- c. Mental health services are provided under contract by third parties on a capitation basis. The benefits included in this coverage are:
 - 1) Psychiatric inpatient care
 - 2) Partial hospitalization
 - 3) Services for substance abuse
 - 4) Psychiatrist and psychologist consultations
 - 5) Others
- d. Pharmacy/medicine coverage is overseen by a pharmacy benefit manager, who maintains and administers the list of preferred medicines. The pharmacy benefit manager receives an administrative fee.
- e. Under the PSG, there are currently two service delivery modalities: direct contracting, in which the ASES assumes the risk of the special coverage, and contracting with a TPA to handle processing and payment of claims, in addition to providing a support network of medical-hospital services that the HCO cannot supply. The risks of the basic coverage plan are administered and managed by the HCO.

1) Regional Integrated Services Model

This model is an expansion of direct contracting, with some differences, including:

- a) HCO provider network
 - b) Network of services and Commonwealth and municipal health programs;
 - c) Secondary support network of contracted MCOs/TPAs;
 - d) Reinsurance policy provided by MCOs/TPAs, ensuring maximum liability for risk of the Government of Puerto Rico;
 - e) Integration of physical and mental health care for PSG beneficiaries.
- f. The pharmacy coverage is administered by pharmacy benefit managers, of which there are currently two: MC-21 for geographic area 1 (east, southeast, southwest, north, and northeast), and Caremark for the geographic area 2 (metro-north, San Juan, and west).

covered under a public insurance plan that is subsidized by employer contributions. Responsibility for the provision of services is shared by the private and public sectors.

3.2. IMPACT ON THE GUIDING PRINCIPLES OF HEALTH SECTOR REFORM

The Governor of Puerto Rico, the Honorable Aníbal Acevedo Vilá, appointed a special Health Reform Evaluation Commission under an executive order issued on 18 February 2005 to evaluate Puerto Rico's health system. This Commission submitted its final report in November 2005. The report, together with the reports on health sector analysis in Puerto Rico and on the measurement of the essential public health functions, provides a baseline for measuring and evaluating the performance of the Puerto Rican health system subsequent to the implementation of the reform in 1993. They also provide, for the first time, an exhaustive assessment that will facilitate decision-making and the development of public policy aimed at achieving a health system that meets the needs of the population in general.

Health system reform in Puerto Rico has had an impact on the organization and management of health services, particularly in the area of service delivery based on a model of managed care. The Health Reform Evaluation Commission, after a study and critical assessment of health conditions among the population of Puerto Rico and of the state of the health system, recognized that the existing model of health services delivery needed to be changed. According to the report, the Commission engaged in a process of objective introspection on the basis of a clear "x-ray" of the health system of Puerto Rico and the public policy underpinning it. The Commission's findings are summarized below.

1. Problems of access, efficiency, and equity impeding the delivery of the highest possible level of health care, despite the considerable resources invested for that purpose.
2. Curative and rehabilitative services, as well as primary and secondary prevention services, of questionable quality.
3. Severely eroded physician-patient relationship.
4. Dissatisfaction among both providers and beneficiaries with the Government Health Plan.
5. Doubtful cost-efficiency, given that, of all the countries in the world, Puerto Rico is the one that invests the most resources in health as a proportion of gross national product and yet health outcomes are lower than all industrialized countries with which Puerto Rico is compared.
6. Risk transfer improperly penalizes primary care physicians by imposing on them financial risk (not envisaged in Law 72 of 1993) for services provided by other providers to beneficiaries registered with their primary care centers. This mechanism is likely to lead to ethical dilemmas for primary care physicians faced with the choice of denying needed services or delaying clinically necessary tests.

7. The education of health professionals has been seriously affected by the lack of public policy to support medical education and training, leading to the loss of clinical teaching facilities and of faculty and legal immunity. Primary care professionals, especially doctors and nurses, are also being lost.
8. The reality of medical malpractice in Puerto Rico is that there is an imbalance between protecting the right of patients to seek redress and protecting the right of all to have access to physicians and specialists when needed. Seventy percent of malpractice cases are closed without payment because they are deemed to be frivolous or without merit, but they still put physicians at risk of having to close their practices, retire, reduce the number of high-risk procedures they perform, or leave Puerto Rico.
9. The cost of drugs is several times higher than it was when the State was procuring them. Furthermore, 20% of prescriptions account for 80% of all drug costs. In the primary care services, there are examples of patients being denied drugs and also of medical offices dispensing drugs directly.
10. Conflicts are being seen with regard to respect for core bioethical principles such as autonomy and justice, as is evident in the criteria established, for example, for access to good health care.
11. The Office of the Patient Advocate has identified three deficiencies in the current system that totally deprive patients/users of the essential tools that would enable them to take control of their own health care. These are: rationing of services to reduce costs; a health care model designed to react to acute disease, neglecting preventive care; and lack of user access to knowledge and information/education, which is indispensable if people are to make responsible decisions about their own health care.
12. The health system is fragmented. The Government offers services under a salary or fee-for-service payment scheme. The primary care centers in the managed care system have two different service modalities: one that provides basic coverage through health services organizations and special coverage through insurance companies. The second modality offers both types of coverage, basic and special, through independent practitioner associations. Under both modalities, primary care physicians are paid on a *capitation* basis. Both modalities provide dental care through insurers on a fee-for-service basis. At the same time, private insurance plans offer services on a fee-for-service basis. There is insufficient articulation and interaction among these three subsystems of the health system. The fragmentation of the system is also manifested in the lack of uniform guidelines and protocols for service provision among the different insurers, and in the inefficient and irrational use of the abundant existing resources. The latter situation also reflects a lack of adequate planning, as services are not integrated into an overarching model that transcends the confines of short-term curative care or of contracted insurers.
13. The fact that there are two health care financing systems (one private and one governmental) promotes inequality with respect to the right to health services.
14. Mental health problems are highly prevalent. It is estimated that more than 600,000 people in Puerto Rico suffer from some sort of mental health disorder. There is a

widespread perception that this is the principal health problem in Puerto Rico, and that, generally speaking, the mental health of the population seems to be declining.

15. The mental health system is completely fragmented and disjointed. Physical and mental health services are not at all integrated, and patients, family members, and even behavioral science professionals are frustrated and discouraged. There is a lack of linkage among the government, private, and community-based components. In addition, there is documented evidence of deficient care in the private system, which is not providing a comprehensive response to the nature and scope of existing mental health problems.
16. With regard to the leadership capacity of the Department of Health for public policy formulation and implementation, the findings were:
 - a. Limited resources for health promotion, disease prevention, and health protection.
 - b. Insufficient budgetary resources to continue paying off debts for the construction of health facilities which have since been sold.
 - c. Furthermore, the Health Department is obligated to pay high rental charges for facilities, many of which are unsuitable for providing public health services at the local and regional levels.
17. Formal structures have been created within the Department of Health for health promotion and protection and disease prevention. There have also been isolated efforts by insurance companies to carry out projects for the prevention and management of chronic diseases. Some health communication and education strategies and community-based initiatives have been undertaken, but they have been very limited in number. Articulation among these three key components of public health action (promotion, prevention, and protection) is inadequate. There has been no declaration of public policy concerning disease prevention and health promotion and protection, and there is lack of programmatic coordination within the Department and between the Department and the services that are offered in the private sector and at the grassroots level. There is also a lack of evidence-based indicators of the effectiveness of these three fundamental components of physical and mental health. The Commission did acknowledge, however, that a process aimed at improving this situation has been launched, and some regional activities are being carried out with a view to solving the problem.
18. There is no coordination or joint work among the governmental entities that administer public funds for health services (e.g., ASES, ACAA, and CFSE), nor is there any collaboration among these entities in contracting with health care providers.

The current health system has spawned a growing population of uninsured Puerto Ricans who do not qualify for the Government Health Plan, but do not have the economic means to purchase private health insurance. There is a lack of reliable data on the epidemiological profile and health needs of the uninsured population in Puerto Rico. We do not have any studies on that population, and only fragmented data from various sources are available.

19. The private sector of Puerto Rico's health system is primarily oriented towards curative care and rehabilitation. It offers few health promotion, disease prevention, and health

protection services aimed at meeting specific needs of the Puerto Rican population, such as health education and preventive initiatives designed to address the deterioration in health status caused by unhealthy lifestyles, such as poor eating habits, lack of physical activity, sedentary lifestyles, and high incidence of obesity, smoking, alcoholism, and drug dependency, to mention a few of the most common high-risk lifestyles that jeopardize the health of the island's inhabitants.

20. The Commission looked at health systems outside Puerto Rico and found that, while no health system is perfect, some achieve better health outcomes, at lower cost, with greater accountability and transparency, and greater satisfaction on the part of both consumers and providers.
 - a. Every industrialized country in the world, except for the United States of America and Puerto Rico, have universal health care systems. They all spend less on health care than the United States and Puerto Rico.
 - b. Some countries (e.g., Spain and the United Kingdom) have socialized systems, in which health care is financed and provided by the government.
 - c. Other countries, such as France, Germany, Canada, and Australia, have systems that are financed by the government, but services are provided by private-sector organizations.
 - d. The World Health Organization has identified Finland (ranked as the best), France, Italy, Japan, Singapore, Spain, and the Scandinavian countries as the countries with excellent health care systems.

In short, some twelve years after the implementation of health sector reform and the changes arising out of the adoption of Law 72 of 7 September 1993, the Commission concluded that:

1. The health system existing in Puerto Rico in 2005 is not effective. No improvement is being seen in the health of the people, whether they are served by the private sector or by the Government Health Plan. Rather, health indicators appear to be stagnant. Furthermore, there is a high degree of dissatisfaction among patients and among providers of the various health services.
2. The system is not efficient, as evidenced by the relatively small improvement in health status in comparison to the resources invested for that purpose.
3. The system is not equitable. There are marked disparities among beneficiaries of the Government Health Plan, Medicare beneficiaries, and beneficiaries covered by private or commercial plans. Moreover, the current system has created a high proportion of uninsured population.

The Commission's evaluation clearly identifies the strengths and weaknesses of the system and the limitations of the health care model with regard to equity, distribution of resources, access, effectiveness, efficiency, sustainability, and social participation.

Strengths of the managed care system:

- The current model provides broad basic coverage with extensive benefits.
- There is a special coverage option for high-risk and therefore high-cost cases.
- Beneficiaries have access to private hospitals and health care facilities.

- Beneficiaries have access to a wide array of oral health services on a fee-for-service basis.
- Drugs are provided essentially free of cost.
- The system provides broad geographic coverage, encompassing all 78 of the country's municipalities.
- Beneficiaries have the freedom to choose any provider they like within a defined network of providers.
- The system offers a large pool of health care professionals with excellent academic and clinical training and with a serious commitment to enhancing the well-being of all Puerto Ricans.
- The various components of the system are willing to acknowledge their limitations and are receptive to change.
- Even with its deficiencies, the system meets the basic health needs of most of the population.
- The system has increased access to health services, but not to the extent required in the case of hospital, diagnostic, and mental health services.
- Private enterprise is willing to cooperate with the government administration within the context of its interests.

Weaknesses of the managed care system:

- Inequities in service are created by the transfer of risk to primary care physicians, leading to service rationing.
- Free access to certain services, such as drugs and specialized medical services, is limited (which is tantamount to rationing of services).
- The number of people without health insurance has increased disproportionately.
- Groups of eligible but uninsured people have been created: people who are not eligible for the Government Health Plan, but who cannot afford a private medical plan.
- Medical providers, hospitals, and emergency care facilities have incurred significant debt as a result of providing health services to uninsured people.
- The doctor-patient relationship has been eroded by capitation payment incentives.
- Primary and secondary prevention programs have been consistently, continually, and systematically weakened.
- Service quality indicators have deteriorated, as evidenced by vaccination rates in the pediatric population and the increase in caesarean deliveries.
- There is a perception among beneficiaries that health status has declined owing to difficulties in accessing mental health services and obtaining drugs needed to manage chronic conditions such as diabetes, hypertension, and asthma, combined with deficiencies in land transportation services.
- Lack of integration and periodic analysis to demonstrate the cost-effectiveness of current models of health services delivery.
- Lack of strategic and integrated planning.
- Incomplete and fragmented monitoring and evaluation of health services.
- Various government agencies involved in administering insurance and providing health services.
- Absence of or limited control by the Health Department.
- Poor continuity in treatment of patients covered under the Government Health Plan.
- Limited service at the Trauma Hospital due to lack of the necessary resources and increased demand for such services.

- There is a lack of flexibility to respond to challenges and opportunities in the external environment.
- Steering and oversight functions are not being carried out effectively.
- There are serious deficiencies in the clinical skills of many of the primary care physicians who form the foundation of the health system.
- Puerto Rico does not have a truly comprehensive, integrated, efficient, and cost-effective health system that responds to the health needs and aspirations of Puerto Ricans.
- Medical service providers face ethical dilemmas.
- Costs continue to rise unacceptably.
- The disease prevention and health promotion and protection activities of the health sector have been severely curtailed.
- Economic considerations take precedence over public health considerations.
- The collection and analysis of data for public policy-making has decreased substantially.
- A sizeable segment of the population (7% to 10%) now lacks health insurance.
- The number of clinical teaching facilities for the training of doctors and other health professionals has declined by 67%.
- Health indicators not only have not improved substantially, but in some cases they have worsened (e.g., crude mortality).
- The capacity of the State, through the Department of Health, to formulate public policy has diminished.
- Greater emphasis has been placed on acute treatment of patients at the expense of disease prevention and health promotion and protection activities.
- The current model has allowed private insurers to become involved in policy-making, which should be the province of the lead State agency in the health sector.
- There is general dissatisfaction among patients covered under the Government Health Plan.
- Information systems are inefficient and deficient.
- Fragmentation and lack of coordination hinder continuity of medical care.

With regard to the indicators suggested for assessing the effectiveness of health sector reform (reduction of infant and maternal mortality, mortality from malignant neoplasms, and incidence of tuberculosis and HIV/AIDS), maternal mortality in Puerto Rico fluctuates, while infant mortality has shown a steady decline in the years since the early 1990s and during the first five years of the 21st century.

Maternal mortality, which averaged 16.6 maternal deaths per 100,000 live births during the period 1990-1994, fell to 13.7 per 100,000 live births during the 5-year period 2000-2004. This amounts to a reduction of approximately 17.5% in maternal mortality rates. Infant mortality dropped 24.2% during the same time period. Over the 5-year period 1990-1994, the infant mortality rate was of 12.8 per 1,000 live births, and declined to 9.7 per 1,000 for the period 2000-2004. The percentage of low birthweight babies, in contrast, increased during the same period. During the period 1990-1994, 9.6% of newborns had low birthweight; a decade later, during the period 2000-2004, the percentage had increased to 11.5% of live births.

The incidence of breast cancer among women has increased substantially, rising from 59.7 new cases per 100,000 women in the period 1990-1994 to 86.7 per 100,000 in the period of 2000-2004. In tandem with the increase in incidence, there has been an increase in breast cancer death rates. In 1995, the mortality rate was 16.9 per 100,000 women, while in 2004, the rate was 20.5 per 100,000. Cervical cancer incidence and mortality, on the other hand, both declined

during the period under study. Although the incidence of cervical cancer increased slightly during the period 1995-1999, going from 10.5 to 10.9 per 100,000 women, the rates declined considerably during 2000-2004, dropping below the rates recorded for the period 1990-1994. For 2000-2004, cervical cancer incidence was 9.8 per 100,000 population, which amounts to a decline of 11% in comparison with the rate in the previous period (1995-1999). Similarly, mortality from this cause fell during the period under study. During the years between 1995 and 1999, cervical cancer mortality was 2.5 per 100,000 women, compared with 2.3 per 100,000 in 2004.

The incidence of tuberculosis and HIV/AIDS has fallen considerably in the years since the early 1990s and during the first five years of the 21st century. The incidence of tuberculosis was 7.7 per 100,000 population in the period 1990-1994, but then decreased steadily, reaching 3.4 per 100,000 population in the period of 2000-2004. The reduction in the incidence of HIV/AIDS during the same period was even more marked. From a reported incidence of 65.5 per 100,000 population in the period 1990-1994, it dropped to 27 per 100,000 population during the 5-year period 2000-2004. It is important to point out, however, that unlike the aforementioned diseases, which declined steadily, the incidence of HIV/AIDS rose sharply in the period 1995-1999, averaging 232.2 per 100,000 population. Hence, the decline in incidence between the two time periods was proportionally greater.

3.3. IMPACT ON THE HEALTH SYSTEM

The health system of Puerto Rico has undergone significant changes in the past 12 years. Up to 1993, health services in Puerto Rico were provided by a mixed public–private system, in which the private sector served those who had the means to pay or were covered by a health insurance plan (health services plan) paid for directly by them or provided by their employers. To meet the demand for health services, the private sector had a network of 56 hospitals and numerous health care centers and facilities providing ambulatory services, following to a certain extent the evolution of health services in the United States.

At the same time, the Department of Health was responsible for meeting the needs of the medically indigent population, through a regionalized system developed in Puerto Rico in the 1950s, which was subsequently modified over the years. In essence, this system offered primary care services through a network of diagnosis and treatment centers distributed in each of the 78 municipalities, including emergency care services and supported by laboratory, radiography, and pharmacy services.

By 1993 many of these centers were already offering specialty services in the areas of internal medicine, obstetrics and gynecology, and pediatrics. In addition, they housed public health services offered by the Commonwealth and by United States Government programs that supported Commonwealth public health services.

Commonwealth programs included environmental health services, public health services, vaccination services, and infectious disease services, among others. These programs were supported by maternal and child health programs and programs for migrant farm workers programs, among other programs that received United States Government funding for their operation.

With this mixture of services, it was common to find family health centers, such as the one in the municipality of Barranquitas that offered dental and nutrition services, services provided by social workers and nurse epidemiologists, and a whole range of other prevention-oriented services.

As the concept of the family health center developed over the years, a large number of expensive facilities were designed and constructed in the various municipalities. These centers applied a very specific family medicine model, in which ambulatory care facilities were staffed basically by a team made up of a physician, a public health nurse, and a health assistant. Each team was assigned a specific population, which they were expected to serve continuously and in keeping with the population's needs.

This primary health care system was supported by a secondary care system comprising a network of subregional and regional hospitals and, at the tertiary and supra-tertiary level, the Río Piedras Medical Center. These hospitals offered, in addition to inpatient services, specialized and ultra-specialized external clinic services in various areas of medicine. They were also teaching facilities offering residencies for medical students, most of them approved in the various specialties.

The regulatory foundation that facilitated the implementation of health sector reform was laid during this time. Law 41 of 3 August 1993 amended Law 103 of 12 June 1985, permitting the leasing of hospital facilities. However, when it came to applying the law, legal and organizational problems emerged in the delivery of services, necessitating a reevaluation of the law. On 7 March 1995, draft legislation was submitted with a view to facilitating the sale as well as the leasing of private-sector facilities.

In 1993, the Government launched a reform process that dramatically changed the way in which health services were provided to the country's medically indigent population. Law 72 transformed the health system of Puerto Rico: the Government essentially ceased to be a supplier of services and began to contract with private companies for services for the medically indigent. This law, known as the Health System Reform Act, created the Health Insurance Administration of Puerto Rico (ASES), which in turn established the Government Health Plan for the medically indigent.

ASES is responsible for contracting with insurance companies and administering a health services system that provides access to adequate hospital and medical care for the entire medically indigent population of Puerto Rico.

Subsequently, Law 190 of 3 September 1996, known as Government Health Facility Privatization Act, established a legal framework authorizing the Secretary of Health to engage in leasing, sub-leasing, sale, or transfer arrangements, or to establish other contracting models in government health institutions in Puerto Rico. This law gave rise to a process of sale and leasing of government facilities throughout the island, the essential aim being to use such facilities to provide health services to the general population, regardless of user's ability to pay.

The "Reform of the Reform" was launched in 2001 with the aim of overcoming many of the problems that had arisen with the implementation of health sector reform. Among the most important bills submitted to the legislature was the one creating the Office of the Patient's Advocate (OPP), which was eventually enacted as Law 11 of 2001 and became an instrument for upholding the Charter of Patient Rights established under Law 194 of 25 August 2000.

In 2002, Law 72 of 1993 was amended by Law 105 of July 2002, which authorized direct contracting for health care providers, weakening the control of insurers, which theretofore had been solely authorized by law to contract with providers. Subsequently, under Law 334 of 2003, ASES staff were empowered to contract directly with health providers.

Another important piece of legislation is Law 3 of 2003, which prohibits the sale, transfer, exchange, or alienation of health care facilities to private interests. As a result, the Department of Health retained ownership of 22 diagnosis and treatment centers. Subsequently, the law was relaxed to permit the leasing of health services to nonprofit corporations and corporations specializing in health services.

Health data published by PAHO indicates that in 2004 life expectancy at birth for both sexes in Puerto Rico was 75.9 years, (80.2 for women and 71.5 for men). Between 1990-2000, this indicator increased by 2.6 years for men and by 2.7 years for women.

The birth rate dropped from 18 to 13.1 per 1,000 population between 1990 and 2003. The total fertility rate in 2003 was 1.8 children per woman – below population replacement level (2.1 children) and among the lowest rates in the Region of the Americas. There were 50,803 births in Puerto Rico in 2003. Crude mortality for 2002 was 7.3 per 1,000 population. Between 1995 and 2002, this indicator decreased by 12%.

Heart diseases are the leading cause of death in Puerto Rico, followed by cancer, diabetes, chronic pulmonary diseases, and hypertension. Accidents, cerebrovascular diseases, Alzheimer's disease, pneumonia, and homicide complete the list of the 10 leading causes of death in Puerto Rico.

Deaths from heart disease have continued to decline over the years, and malignant neoplasms are expected to become the leading cause of death in Puerto Rico in the coming years. The trend of cancer rates has remained stable in recent years, neither increasing nor decreasing appreciably.

According to information submitted to the Health Reform Evaluation Commission by the Medical Association of Puerto Rico, between 2000-2003 there was a rise in mortality from the most common causes, such as diabetes mellitus, pneumonia and influenza, cancer, emphysema, and septicemia. Mortality from these same causes had shown a downward trend between 1995 and 1997, when the health reform process was still incomplete. That trend reflected the impact of the previous system. The Medical Association also points out that the increase in health spending brought about by the reform does not appear to have helped to improve the country's health. Rather, the data suggest the contrary.

The Commission's report indicates that in its interviews with the public, many people alluded to rationing of services in some areas, notably specialized services, high-cost drugs, and procedures involving the use of sophisticated technology. There were also many complaints about mental health services, which were viewed as limited, disjointed, and inaccessible. However, when vital statistics information is reviewed, it has to be concluded that the existing information is not sufficient to draw a conclusion on the impact of health system reform on public health levels among the people.

In the area of information systems, the Commission concludes that the initiatives carried out in Puerto Rico by the Government in the area of health are, for the most part, still in the process of being implemented and that there are significant problems that need to be addressed.

A subcommittee appointed to evaluate drug coverage under the reform concluded that it is satisfactory, but the Commission noted serious weaknesses in the system. Before the reform, the drugs provided by family health centers were limited, which created a type of rationing resulting from lack of funding for this area within the Department of Health. The cost of drugs has since escalated dramatically, and any rationing that might occur implies savings primarily for primary care groups and pharmacy service managers. One of the age groups most affected by the rationing of drugs is the elderly.

With regard to the needs of the elderly population, it should be noted that over the last six decades one of the fastest-growing groups has been the group aged 60 and over. According to the 2000 census, Puerto Rico has 585,701 people over 60 years of age—15.4% of the total population.

The leading causes of death in this population are heart disease, malignant neoplasms, diabetes mellitus, cerebrovascular and cardiovascular diseases, and pneumonia. As pointed out by the subcommittee, lack of prevention, education, and access to essential health services could be related to mortality in this age group.

There is great concern over the high cost of drugs, difficulty in receiving prescriptions, difficulties and long delays in obtaining specialist referrals, and lack of transportation to enable people to get to medical appointments, all of which are seen as serious problems for the elderly arising from health system reform.

Generally speaking, it can be concluded that 12 years after its implementation, health system reform in Puerto Rico has fallen short of the expectations for change in health services.

3.4. ANALYSIS OF ACTORS

PUBLIC SECTOR

Governor--Anibal Acevedo Vilá

Establishes public policy for the Commonwealth

Legislative Assembly—Representatives and Senators

Establishes and enacts laws; approves the country's general annual budget

Department of Health—Secretary of Health—Dr.. Rosa Pérez Perdomo

Implements public policy; establishes standards and regulations in the area of health; lead agency in the health sector; regulates and oversees service providers; provides specialized and high-risk health services

Health Insurance Administration of Puerto Rico (ASES)—The agency that contracts for health services under the Government Health Plan

Office of the Commissioner of Insurance—Regulates and oversees insurance companies, including those that provide health services

Health care providers

- Public hospitals run by the Department of Health (12 hospitals)
- Mental Health and Addiction Services Administration (ASSMCA)
- Medical Services Administration of Puerto Rico (ASEM)
- Cardiovascular Center of Puerto Rico and the Caribbean
- Industrial Commission
- State Insurance Fund Corporation (CFSE)
- Medical Emergency Corps
- Forensic Sciences Institute

Other providers of health services

- Corrections Administration
- Juvenile Institutions Administration
- Vocational Rehabilitation Administration
- Auto Accident Compensation Administration (ACAA)

Agencies that advocate for a specific populations

- Office of the Patient Advocate
- Office of the Advocate for Persons with Disabilities
- Office of the Citizens Advocate
- Office of the Veterans Advocate
- Office of Elderly Affairs
- Medical Licensing Board (TEM)
- Office of Consumer Affairs(DACO)
- Labor Department (Occupational Health)

Environmental regulatory agencies

- Environmental Quality Board
- Solid Waste Authority (ADS)
- Department of Natural and Environmental Resources
- Water Supply and Sewerage Authority (AAA)
- Treasury Department—Agency that pays all Government expenditures
- Office of Management and Budget—Allocates funds from the general budget to all Government agencies

Others

- Judicial system
- State Agency for the Emergency Management and Disaster Management
- Industrial, Tourism, Educational, Medical & Environmental Control Facilities Financing Authority (AFICA)

PRIVATE NONPROFIT ENTITIES

- Association of Hospitals of Puerto Rico
- Medical Association of Puerto Rico
- Association of Mayors
- Association of Visiting Nurses
- Association of Orthopedists
- Association of Podiatrists
- Association of Psychologists
- Hemophilia Association
- Diabetes Association
- Physiotherapy Association
- Association of Surgeons of Puerto Rico
- Association of Nursing Professionals
- Lifelink (organ donation)
- Heart Association
- Parkinson's Association
- Alzheimer's Association
- Cancer Association
- Lung Association
- Epilepsy Association
- Puerto Rican Foundation for Health
- Society of Medical Graduates of the University of Puerto Rico
- Suicide Foundation
- Society of Microbiologists
- Down's Syndrome Association

PRIVATE FOR-PROFIT ENTITIES

Insurance companies

- Blue Cross
- Triple S
- Humana
- COSVI
- MCS—Medical Card System

- First Medical
- SIMED (medical malpractice)

OTHER FOR-PROFIT ENTITIES

- Private hospitals (55 hospitals)
- Entities/institutions that provide health services (DTCs, convalescent homes, and others)
- APS Healthcare (mental health services)
- FHC Health System

UNITED STATES FEDERAL GOVERNMENT

- National Center for Health Statistics
- Department of Agriculture (USDA)
- Environmental Protection Agency (EPA)
- Veterans Administration
- Medicaid
- Medicare
- Center for Disease Control and Prevention
- Social Security Administration
- SAMHSA
- Department of Health and Human Services
- Food and Drug Administration
- Health Resources and Services Administration (HRSA)
- Occupational Safety and Health Administration (OSHA)

OTHERS

- PAHO
- WHO
- NAPHSIS

UNIVERSITIES

- UPR Medical Sciences Campus
- Medical School of Ponce
- Medical School of Bayamón
- Medical School of Caguas
- Technical schools

LABOR UNIONS

- General Union of Workers—(UGT)
- Labor Unit for Nurses and Health Workers (ULEES)

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