

# HEALTH SYSTEMS PROFILE PANAMA

MONITORING AND ANALYZING HEALTH SYSTEMS CHANGE

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## EXECUTIVE SUMMARY

The Republic of Panama is a sovereign independent state with a democratic government elected every five years. It has a land area of 75,517 km<sup>2</sup>, divided geopolitically into nine provinces, three indigenous regions, 75 districts or municipalities, and 623 mayoral jurisdictions. Its public health system is organized into 14 health regions. According to the last census, Panama's population went from 2,329,329 to 3,228,186 in the previous decade, representing an increase of approximately 899,000 in 10 years, and 63.5% of the country's inhabitants live in urban areas. According to the 2003 Living Standards Survey (ENV-2003), 37% of the population are below the poverty line, with 17% in the category of extreme poverty, and 10.7% are illiterate.

From an epidemiological standpoint, like many of the countries in the Region, Panama is undergoing a process of epidemiological "dollarization," in which infectious diseases typical of underdevelopment continue to be present and coexist alongside a growing prevalence of chronic and social diseases characteristic of the developed countries. These circumstances, coupled with the country's demographic transition, impinge on the health-disease process and pose current and future challenges for a care model still marked by considerable fragmentation and segmentation. As a result, sizable pockets of exclusion continue to exist, especially among the most vulnerable populations living in peri-urban belts of extreme poverty and marginalized areas.

In 2005 the nominal GDP was approximately \$14,000, one of the highest in the Region. Social spending represented 20.12% of all public expenditure, and national per capita spending on health was roughly US\$ \$300.

One of the current challenges is to redirect this care model so that it will be truly integrative and include not only those who are disadvantaged in term of human rights but also those who suffer from disabilities, who, according to preliminary data from the First National Disability Survey, dated February 2006, represent nearly 11% of the population in the nation's socioeconomic context.

The public health subsector consists of the Ministry of Health, the Social Security Fund (CSS), and the Institute of National Water Supply and Sewerage Systems (IDAAN). According to estimates, 60% of the population is covered by the CSS and 40% by the Ministry of Health, which, in addition to being a major service provider, is also the body that governs the National Health System. As such, it sets policy, regulates actions, and acts as the health authority. The two entities that finance public health services and medical care in the country are the Ministry of Health and the CSS, which together provide nearly 70% of the funds used, while the remaining 30% comes from pockets of citizens.

With regard to the delivery of services, the sector has a ratio of 11 physicians and 10 professional nurses for every 10,000 inhabitants. Panama, like a number of other countries in the Region, is engaged in reform and modernization of the State, which to a certain extent has included the health sector. In this area, the most notable accomplishment has been the opening in 1998 of San Miguel Arcángel Hospital as an integrated hospital care facility in the San Miguelito-Las Cumbres-Chilibre Health Region (RSSM).

The current administration's main policy objective in the health area is to provide universal access to comprehensive health programs and improve the quality of services so that gaps are reduced, especially as they refer to the economically disadvantaged population. To reach this objective, the current administration has continued with some of the programs initiated in previous administrations, such as the effort to extend coverage to vulnerable populations, known as FOGY. At the same time it is also launching new initiatives such as health caravans and the Social Protection System (an opportunity network) that have clearly defined objectives, components, and target populations, as well as estimated total costs, sources of financing, and requirements for multilateral international cooperation. Steps have also been taken to design and apply criteria for the selection of households or families in extreme poverty to benefit from intersectoral interventions.

## 1. HEALTH SYSTEM CONTEXT

### 1.1 HEALTH SITUATION ANALYSIS

#### 1.1.1. Demographic Analysis

As of 1 July 2005, the Panamanian population was estimated at 3,228,186, with a slight predominance of males: 50.4% to 49.6%. In 1990, 53.7% of the population was concentrated in urban areas, and by 2005 this proportion had risen to 63.5%, for a percentage increase of 18.2%. During the same period, the population residing in rural areas declined by 21.2%. The male-female ratio in urban areas was close to 1:1, while in rural areas it was 1.1: 1.0 throughout 1990-2005.

**TABLE 1. ESTIMATED POPULATION AS OF 1 JULY  
1990, 1995, 2000, AND 2005, BY SEX, PANAMA**

Indicator	Population as of 1 July			
	1990	1995	2000	2005
<b>Total population</b>	2,410,916	2,670,413	2,948,023	3,228,186
Males	1,220,458	1,349,150	1,488,568	1,628,720
Females	1,190,458	1,321,263	1,459,455	1,599,466
<b>Urban population</b>	1,295,390	1,564,815	1,834,240	2,050,965
Males	628,287	764,545	900,802	1,011,700
Females	667,103	800,270	933,438	1,039,265
<b>Census estimate of indigenous population</b>	194,269	239,750	285,231	345,621
Males	100,149	123,136	146,122	176,502
Females	94,120	116,615	139,109	169,119
<b>Percentage under 15 years of age</b>	35.2	33.3	31.9	30.4
Males	35.4	33.6	32.2	30.8
Females	35.0	33.0	31.5	30.0
<b>Percentage 60 years of age and over</b>	7.2	7.5	7.9	8.7
Males	7.0	7.3	7.7	8.4
Females	7.3	7.7	8.2	9.0

**Note:** The indigenous population of 1990 and 2000 corresponds to census counts. The figures for 1995 and 2005 are intercensal estimates based on the growth rates for each sex.

**Source:** Office of the Comptroller of the Republic, Bureau of Statistics and Census. Estimaciones y proyecciones de la población total del país, por sexo y edad: años 1950 – 2050, Boletín no. 7.

According to the census, the country's estimated indigenous population has steadily increased: in 2005 it was 1.8 times larger than it was in 1990. At the beginning of this time span, indigenous ethnic groups represented 8.1% of the Panamanian population, and by 2005 the proportion had increased to 10.7%, representing a percentage increase of 32.1% for the period

1990-2005. The male-female ratio is similar to the situation in rural areas. The following indigenous ethnic groups live in Panama: the Kuna, Emberá, Wounaan, Ngobe-Buglé, Bri Bri, and Naso, and nearly two-thirds of the total indigenous population belong to the Ngobe-Buglé ethnic group.

In terms of the special geographical and historical characteristics of the Panamanian nation, non-indigenous groups represented 91.9% of the total population in 1990 and 89.3% in 2005. Although population records do not distinguish between types of non-indigenous groups, the majority are indigenous Hispanics, or persons of mixed race, and there is also an Afro-Colonial population of descendants of African slaves who were brought to the area during the Spanish colonization and an Afro-West Indian population who are descendants of English- or French-speaking West Indian laborers.

The proportion of the national population under 15 years of age declined from 35.2% in 1990 to 30.4% in 2005, for a decrease of 13.6%, with a male-female ratio of 1:1. During the same period, the group aged 60 and over rose from 7.2% to 8.7% of the total population, representing an increase of 20.8% in this age group, with no significant difference between the sexes. The Republic of Panama has completed the third stage of demographic transition, with a moderate to low natural growth rate – i.e., about 2% a year, with values ranging between 1.75% and 2.07% between 1990 and 2005. The pattern has been similar for both males and females, with a slightly higher rate for females.

**TABLE 2. PRINCIPAL DEMOGRAPHIC INDICATORS BASED ON POPULATION ESTIMATES AND PROJECTIONS FOR SELECTED FIVE-YEAR PERIODS**

Indicator	5-year period			
	1990	1995	2000	2005
<b>Crude birth rate</b>	26.17	24.60	23.42	22.00
% of underreporting	6.20	5.45	...	
<b>Total fertility rate</b>	3.04	2.83	2.75	2.66
<b>Crude death rate</b>	5.35	5.21	5.12	5.10
% of underreporting	23.90	20.50	...	
<b>Infant mortality rate</b>	28.30	25.35	22.18	19.41
Males	32.45	29.30	25.83	22.65
Females	23.93	21.20	18.35	16.00
% of underreporting	38.40	35.55	...	
<b>Life expectancy at birth</b>	72.37	73.33	74.26	74.74
Males	69.75	70.74	71.75	72.25
Females	75.13	76.04	76.90	77.36
<b>Geometric growth rate</b>	2.07	2.03	1.92	1.75
<b>Net migration</b>	-3,500	9,500	9,500	6,000

Note: The indigenous population of 1990 and 2000 corresponds to figures counted in the census. The figures for 1995 and 2005 are intercensal estimates based on the growth rates for each sex.

Mortality has begun to decline in Panama, and partly because of this trend, fertility rates are also starting to go down. In terms of total fertility rate, the data show that during the period

1950-1955 a woman's average number of children was 5.7. During 1970-1975, the average was down to 4.9 children per woman, and this indicator dropped from 3.04 in 1990 to 2.66 children per woman in 2005, representing a decline of 12.5%. According to projections, this sustained and gradual reduction will continue, and it is expected to reach replacement level by about 2020.

Panama's birth rate was considered high during 1960-1970, but it declined to moderate levels in 1980-1990, and by 2000 it was showing a marked downward trend. Since 1960, the rate has fallen by 44.6%, from 41.0 per 1,000 population that year to 22.7 per 1,000 in 2004. There has also been a steady decline in the figures reported for general mortality. The 1930s had a mortality rate of 28.3 deaths per 1,000 population; by the 1950s, the rate had fallen to 15.2 deaths per 1,000; and during 1990-1995 it dropped to 5.3 deaths per 1,000, reflecting a consistent downward trend in general mortality. Since then, the total death rate has remained around 5 deaths per 1,000 population. General mortality is 1.4 times higher among males.

The impact of the country's decline in mortality is clearly reflected in the increase in life expectancy at birth, which went from 59.3 years in 1960 to 74 years in 2000-2005. The increase in years of life gained was smaller between 1990 and 1995, when it went from 72.37 to 73.33 years, respectively. There were differences between the sexes: the average of life span of males was 58.3 in 1960 and rose to 72.25 years in 2005, for a gain of 14 years, while the life expectancy of women went from 60.4 to 77.36 years, representing an increase of 17 years. However, a comparison of the 1990-1995 and 2000-2005 administrations shows men gaining 2.03 years and women only 1.71 years.

Panama ranks among the countries with the highest life expectancy at birth, a reflection of its low level of childhood and general mortality. However, within the country there are marked discrepancies between the provinces that mirror differences in living conditions. In the last 14 years (1990-2004), the provinces of Panama, Los Santos, and Herrera have had the highest life expectancy (and lowest mortality), with the average life span ranging between 72.4 and 76.7 years. This group is followed by Coclé, Chiriquí, and Colón, 70.2 to 75.5 years. The figures for Veraguas and Bocas del Toro were from 66 to 73 years, and Darién has continued to have levels of 70 years. These three provinces are home to most of the indigenous population and in recent decades have been considered the most disadvantaged in the country. Finally, the Kuna Yala Territory had a life expectancy of about 70 years for the period 1998-2004, and the territories of Ngobe-Buglé and Emberá had estimated life expectancies of 66.7 and 64.8 years, respectively, for 2000-2004.

**TABLE 3. LIFE EXPECTANCY AT BIRTH, BY HEALTH REGION  
PANAMA: 1970-2002**

Region	YEARS				
	1970	1980	1990	1998	2000 -2005 *
<b>Total</b>	65.24	70.07	72.2	74.13	77.4
<b>Bocas del Toro</b>	53.44	61.43	65.96	69.63	70.72
<b>Coclé</b>	64.79	68.45	71.00	73.89	74.38
<b>Colón</b>	61.47	67.28	70.18	73.35	71.97
<b>Chiriquí</b>	63.19	67.69	70.58	73.17	75.50
<b>Darién</b>	49.61	57.74	62.86	64.70	68.95
<b>Herrera</b>	65.28	70.52	72.42	74.74	75.80
<b>Los Santos</b>	68.03	72.05	73.84	75.84	75.86
<b>Panamá</b>	71.46	74.65	75.00	76.31	76.67
<b>Veraguas</b>	59.18	64.27	67.68	70.42	73.04
<b>Kuna Yala</b>				70.46	69.69
<b>Ngobe-Buglé</b>					66.74
<b>Emberá</b>					64.78

Source: Office of the Comptroller of the Republic, 2005.

**TABLE 4. LIFE EXPECTANCY AT BIRTH. KUNA YALA TERRITORY  
PANAMA: 1995-2002**

Kuna Yala Territory	1995	1996	1997	1998	2002
<b>Total</b>	69.61	69.89	70.17	70.45	68.7
<b>Males</b>	67.39	67.64	67.89	68.14	65.8
<b>Females</b>	71.88	72.20	72.52	72.84	71.9

Source: Ministry of Health. Department of Health Situation and Trend Analysis, Statistics Section., 2002.

Between 1995 and 2000 there was a sizable increase in the migration balance, but this trend had begun to reverse by 2005.

### 1.1.2. Epidemiological Analysis

In 2004<sup>1</sup> the country's recorded crude death rate was 4.2 deaths per 1,000 population, with underregistration estimated at 16% for general mortality. Three out of every 5 deaths occurred in health institutions, and 9 out of every 10 were certified by a physician. Only 2.9% of the deaths were attributed to "symptoms and signs not classified elsewhere." In that year the leading causes of death, based on an abbreviated list of 103 groups of

conditions, were: “diseases of the circulatory system” (119 per 100,000 population), malignant tumors (72.7 per 100,000), external causes (43.6 per 100,000), diseases of the respiratory system (40.1 per 100,000) and certain infectious and parasitic diseases (31.7 per 100,000).

In the ranking of specific causes of mortality, cerebrovascular diseases headed the list (44.7 per 100,000) and diabetes mellitus was in third place (24.4 per 100,000). These were followed by HIV/AIDS in sixth place (14 per 100,000), pneumonia in seventh place (13.6 per 100,000), land motor vehicle accident in ninth place (12.8 per 100,000), homicide in 11th place (10.2 per 100,000), malignant tumor of the prostate in 14th place (8.2 per 100,000), diarrhea of presumed infectious origin in 20th place (6.1 per 100,000), hypertensive diseases in 22nd place (5.7 per 100,000), pulmonary tuberculosis in 23rd place (5.5 per 100,000), malignant tumor of the cervix in 24th place (4.4 per 100,000), and malignant tumor of the breast in 25th place (4.2 per 100,000). The ratio of years of productive life lost due to deaths from accidents, suicides, homicides, and violent acts, as well as chronic noncommunicable diseases, has risen significantly in absolute terms.

### Trends in Risk Factors for Live Births

#### Prevalence of Low Birthweight

In the years 1990, 1995, 2000, and 2004, the prevalence of low birthweight remained stable, with figures ranging between 8.1% in 1990 and 8.8% in 2004. According to records from the Office of the Comptroller of the Republic, in 2000 and 2004 the prevalence of low birthweight was lower in rural areas than in the cities and lower than the national average.

**TABLE 5. PATTERNS OF SELECTED RISK FACTORS IN LIVE BIRTHS BY URBAN- RURAL LOCATION: 1990, 1995, 1997, 2000, 2003, AND 2004**

Indicator	Population as of 1 July			
	1990	1995	2000	2004
<b>Prevalence of low birthweight</b>	8.1	8.7	<b>8.2</b>	<b>8.8</b>
Urban	...	...	8.5	8.9
Rural	...	...	7.9	8.4
<b>Professionally attended deliveries</b>	86.3	88.3	90.5	91.3
Urban	99.3	...	99.6	99.7

<sup>1</sup> Contraloría General de la República, Dirección de Estadística y Censo. Estadística Panameña, Situación Demográfica, Estadísticas Vitales: Volumen III-Defunciones, 2004. Panama, May 2005.

Rural	75.4	...	81.3	77.8
<b>Fertility rate in adolescent females (15-19 years old)</b>	87.9	89.8	91.9	81.5
Urban	31.3	36.5	36.7	36.1
Rural	58.0	51.7	53.7	45.5

**Source:** Office of the Comptroller of the Republic. Bureau of Statistics and Census. Vital Statistics Section.

### Professionally Attended Deliveries

A look at this indicator shows that coverage with professionally attended deliveries has been increasing steadily: between 2000 and 2004 the proportion rose from 86.3% to 91.3%, representing an increase of 5.8%. Nevertheless, there is inequity in access to these health services, since the figures are close to 100% in urban areas while the rural rates have failed to exceed 81% and increased very little during the years under study.

### Fertility Rate in Adolescent Women

In 1990, 1995, and 2000 this indicator rose steadily from 87.9 to 91.9, but in 2004 it was down, having declined 11.3% from 2000. The lowest rates were in urban areas, although an increase occurred in 1995 and the rate has remained near that level. In 1990, adolescent fertility in rural areas was 1.85 times greater than in the cities, but the gap has been gradually narrowing, and in 2004 the rate was only 1.26 times higher in rural areas.

### Malnutrition in Children Under 5

According to the Living Standards Survey, 6.8% of the population under 5 years of age had a moderate to serious nutritional deficit in 1997. The geographical distribution of the problem shows that in urban areas 2.9% of the population under 5 had a moderate to serious nutritional deficit, whereas in rural areas these figures reached 6.8% and 21% in the non-indigenous and indigenous populations, respectively. This same survey, conducted in 2003, showed that the prevalence of moderate to serious nutritional deficit has remained unchanged at the national level and in indigenous rural areas, but it has increased by 44.8% in urban areas and declined by 17.6% in non-indigenous rural areas.

### Incidence of Malignant Neoplasms

A look at the cases of cancer over the five-year periods from 1990 to 2005 shows that in 1990 the five main malignant neoplasms found in the Panamanian population have been tumors of the uterine cervix, prostate, female breast, stomach, and trachea, bronchi, and lung, in that order. Tumors of the trachea, bronchi, and lung were not included in the top

five diagnoses in 1995 or 1999; instead, tumors of the skin were in fifth place. Projections for the 2005 suggest that if risk conditions are unchanged, the patterns of cancer incidence will be similar.

**TABLE 6. INCIDENCE OF THE PRINCIPAL MALIGNANT NEOPLASMS  
REPUBLIC OF PANAMA. 5-YEAR PERIODS. 1990 TO 2005 (rates per 100,000 population)**

TYPE OF CANCER	YEARS							
	1990		1995		2000		2005 *	
	No.	RATE	No.	RATE	No.	RATE	No.	RATE
CERVIX	623	81.0	670	76.9	586	58.6	801	71.6
PROSTATE	200	25.6	400	45.3	640	63.4	648	57.5
FEMALE BREAST	174	22.6	297	34.0	349	34.9	483	43.2
STOMACH	272	11.3	276	10.4	300	10.2	496	15.4
COLON	109	4.5	125	4.7	197	6.7	247	7.6
TRACHEA, BRONCHI, AND LUNG	212	8.8	173	6.5	201	6.7	351	10.9
OTHER MALIGNANT NEOPLASMS	1,189	49.6	1,469	55.8			2,918	78.0

\* Estimated data.

In terms of cancer morbidity in the five-year periods from 1990 to 2005, there was an 11.6% decline in cervical cancer: in 1990 the rate was 81.0 cases per 100,000 population 15 years old and over, and the expected rate in 2005 was 71.6 cases per 100,000 in the same age group. On the other hand, the rate for prostate cancer was expected to be 2.2 times higher in 2005 than it was in 1995, and the rate for female breast cancer in 2005 was expected to be twice as high as it was in 1999.

It is important to note the rising trends for cancer in general and breast cancer, as well as the fluctuating patterns for prostate cancer and the stable trends for cancers of the uterine cervix, stomach, colon, skin, and trachea, bronchi, and lung. The incidence of cancer of the lung, trachea, and bronchi is nearly 2.5 times greater in males than females, and the ratio for stomach cancer is almost double for males. For cancer of the colon, the ratio is 1:1.

### **Mortality Due to Selected Causes**

#### Overall Mortality

In the 1990, 1995, 2000, and 2004 periods, overall mortality hovered around 4 deaths per 1,000 population. In the male population it ranged between 4.6 and 5 deaths per 1000 population, while in the female population it was around 3.4 to 3.6 deaths per 100,000. The percentage of underreporting has been 23.9% and 20.5%, respectively.

**TABLE 7. MORTALITY IN PANAMA DUE TO SELECTED CAUSES,  
BY PERIOD OF OBSERVATION**

Periods	General	Maternal	Communicable diseases	TB	HIV/AIDS	Malaria	Diseases of the circulatory system	Malignant neoplasms	External causes
<b>1990</b>	4.1	0.5	20.1	5.3	2.6	0.0	104.8	57.8	51.0
<b>1995</b>	4.2	0.8	18.3	6.7	11.2	-	111.2	60.9	59.7
<b>2000</b>	4.1	0.6	35.8	6.8	16.9	0.0	110.2	67.9	46.8
<b>2004</b>	4.2	0.4	31.7	5.8	14.0	0.1	119.1	72.7	43.5
<b>Males</b>									
<b>1990</b>	4.6	.	20.9	5.7	4.6	...	110.2	62.8	82.0
<b>1995</b>	5.0	.	20.7	8.9	18.0	-	121.6	68.8	96.4
<b>2000</b>	4.8	.	47.1	9.1	25.1	...	117.5	75.4	77.3
<b>2004</b>	4.9	.	39.5	6.9	20.5	1.0	126.8	75.5	71.5
<b>Females</b>									
<b>1990</b>	3.5	0.5	19.4	4.9	0.6	...	99.2	52.6	18.8
<b>1995</b>	3.4	0.8	15.8	4.3	4.2	-	100.6	52.7	22.2
<b>2000</b>	3.5	0.6	24.2	4.5	8.5	...	102.7	60.1	15.8
<b>2004</b>	3.6	0.4	23.7	4.6	7.4	1.0	102.1	69.7	15.0

Source: Office of the Comptroller of the Republic, Bureau of Statistics and Census, Vital Statistics Section.

### Maternal Mortality

Maternal mortality has been falling over time. During the period from 1970 to 2003 the rate declined from 1.4 deaths per 1,000 live births to 0.7, for a percentage difference of 50%. Between 1980 and 2004 the rate has stabilized within a range of 0.4 to 0.8 per 100,000 live births, the lowest rate being reported in 2004. Internationally, Panama is one of the Group III countries with a high rate of maternal mortality.

In 1995, four of the country's 10 provinces had maternal mortality rates of over 1.0 per 1,000 live births: Colón, with 2.5 maternal deaths per 1,000 live births; Darién, 2.7 per 1,000 live births; Herrera, 1.9 per 1,000; and Kuna Yala Territory, 3.7 maternal deaths per 1,000. In 2003, the provinces that exceeded the level of 1.0 per 1,000 live births were Bocas del Toro, Darién, and the territories of Kuna Yala and Ngobe-Buglé, with rates ranging from 1.3 to 4.9 maternal deaths per 1000 live births. Bocas del Toro had the lowest of these rates, and Kuna Yala Territory was at the high end of the scale. In these regions the population is widely dispersed and geographically inaccessible, and a high proportion are indigenous. In addition, the levels of schooling are low and poverty rates are high in these rural areas.

Toxemia and hemorrhage alternated as the top-ranking specific cause of maternal mortality in the last 15 years. In 1995, the leading causes of maternal death was hemorrhage followed by toxemia, while in 1996, the leading causes of maternal mortality were complications of the puerperium followed by hypertensive disorders of pregnancy (toxemia). In 2003, the leading specific causes of maternal mortality were hemorrhage (26.8%), indirect obstetric causes (24.4%), hypertensive disorders of pregnancy (17.1%), abortion (12.2 %%), and sepsis (9.7%), and other direct obstetric causes accounted for the remaining 9.7%.

### Communicable Diseases

Mortality from communicable diseases has ranged between 18.3 deaths per 100,000 population in 1995 and 31.7 per 100,000 in 2000. For every year studied, this rate has been higher in men, and the gaps were most evident in 2000 and 2005, when the rates were 1.7 and 2.0 times higher, respectively, in men than in women.

Mortality from tuberculosis has ranged between 5.3 and 6.8 deaths per 100,000 population, with rates in men twice as high as those for women in 1995 and 2000. Mortality rates from HIV/AIDS increased 438%, from 2.6 deaths per 100,000 population in 1990 to 14.0 deaths per 100,000 in 2004. Although the rates have been higher in men than women throughout the years under study, the breakdown by sex shows that in 1990 the rate was 7.7 times higher in men, and since then the gap has been narrowing steadily, becoming only 2.7 higher than women in 2004.

The mortality from malaria was 0.1 per 100,000 population in 2004, with a male-female ratio of 1:1.

### Diseases of the Circulatory System

Mortality from diseases of the circulatory system has been on the rise, with rates increasing from 104.8 to 119.1 deaths per 100,000 population over the years 1990, 1995, 2000, and 2004. The male population is more affected. This group of diseases of the circulatory system includes cardiovascular diseases, ischemic diseases of the heart, hypertensive disease, and atherosclerosis. The pattern varies depending on the province, with the highest rate in Los Santos. In 1991 Colón was in second place, followed by Panamá, and Herrera, in that order. In 2000, Herrera ranked second, followed by Colón and Panamá, and in 2002 Colón was back in second place with Veraguas in third and Panamá in fourth.

**TABLE 8. MORTALITY FROM CARDIO-CEREBROVASCULAR DISEASES BY PROVINCE, PANAMA: 1991-2000-2002 (rates per 100,000 population)**

Province	Years					
	1991		2000		2002	
	No.	Rate	No.	Rate	No.	Rate
Total	2575	105.7	3000	105.1	3246	109.5
Bocas del Toro	39	37.9	60	42.6	46	45.9
Coclé	176	97.5	176	88.0	190	91.3
Colón	296	166.8	275	137.4	276	128.6
Chiriquí	329	85.2	400	92.3	417	110.1
Darién	13	26.9	18	27.5	20	39.3
Herrera	120	112.4	152	146.1	153	145.4
Kuna Yala	162	76.0	4	10.0	8	23.6
Los Santos	136	171.2	163	205.0	184	216.1
Panamá	1300	116.0	1529	111.8	1688	116.2
Veraguas	4	11.2	223	99.4	254	117.3
Ngobe-Buglé	-	-	-	-	10	8.5

ICD-X codes for cardio-cerebrovascular diseases.  
Source: Office of the Comptroller of the Republic, mortality database.

### Malignant Neoplasms

The highest numbers of deaths from cancer during the five-year periods under study were from cancers of the stomach, prostate, and trachea, bronchi, and lung. A look at mortality from the seven leading causes of death from cancer malignant neoplasms shows that the highest rates were from cancers of the prostate, uterine cervix, and stomach. Female breast cancer is rising, having increased by 70% between 1990 to 2000. A similar pattern is projected for the year 2005.

**TABLE 9. LEADING CAUSES OF MORTALITY FROM CANCER PANAMA. 5-YEAR PERIODS: 1990 TO 2005 (rates per 100,000 population)**

LEADING CAUSES OF DEATH FROM CANCER	5-YEAR PERIODS							
	1990		1995		1999		2005 -	
	No.	RATE	No.	RATE	No.	RATE	No.	RATE
CERVIX	109	9.2	97	7.5	144	8.0	141	8.8
SKIN	7	0.3	5	0.2	5	0.5	12	0.4
PROSTATE	136	11.2	182	13.7	231	16.6	241	14.8
FEMALE BREAST	63	5.3	79	6.1	99	9.0	130	8.2
STOMACH	174	7.3	193	7.3	213	6.9	279	8.6
COLON	69	2.9	82	3.1	130	5.0	126	3.9
TRACHEA, BRONCHI, AND LUNG	171	7.1	144	5.5	182	6.2	246	7.6
OTHER MALIGNANT NEOPLASMS	669	27.9	819	27.7	792	31.0	1,137	34.6

\* Estimated data.  
Rates not standardized, based on the entire population.  
Source: Office of the Comptroller, records for the year 2000.

**TABLE 10. LEADING CAUSES OF DEATH FROM CANCER  
PANAMA. 5-YEAR PERIODS: 1990 TO 2005 (rates per 100,000 population)**

LEADING CAUSES OF DEATH FROM CANCER	5-YEAR PERIODS							
	1990		1995		1999		2005 .	
	No.	RATE	No.	RATE	No.	RATE	No.	RATE
CERVIX	109	14.2	97	11.1	117	11.7	141	12.6
SKIN	7	0.3	5	0.2	16	0.5	12	0.4
PROSTATE	136	17.4	182	20.6	247	24.5	241	21.4
FEMALE BREAST	63	8.2	79	9.1	131	11.6	130	11.7
STOMACH	174	7.3	193	7.3	221	6.9	279	8.6
COLON	69	2.9	82	3.1	153	5.0	126	3.9
TRACHEA, BRONCHI, AND LUNG	171	7.1	144	5.5	186	6.2	246	7.6
OTHER MALIGNANT NEOPLASMS	669	27.9	819	31.1	867	31.0	1,137	34.6

Note: Mortality from cancer of the cervix, prostate, and female breast was recalculated based on the population of greatest risk over 15 years of age.

Mortality rates from 1990 through projected figures for 2005 show the following trends:

- Cancer of the uterine cervix has remained steady. When the rates are adjusted by age, taking into account the at-risk population of 15 years of age and over, the pattern is the same. However, when the standardized rates are compared with nonstandardized rates, the adjusted rates are higher. For example, the standardized rates for 1990 are 54.3% higher than the nonstandardized rates (9.2 deaths per 100,000 females in the general population vs. 14.2 deaths per 100,000 women 15 years of age and older), and in 2005, according to projected figures, there is an increase of 43.2% (8.8 deaths per 100,000 females vs. 12.6 deaths per 100,000 women 15 and over).
- Prostate cancer is on the rise. Overall mortality for this type of cancer is estimated to be 2.6 times greater in 2005 than it was in 1990, representing an increase of 32%. When mortality from this cancer is calculated for the male population 15 years of age and older, there is also a rising trend, but the percentage increase between 1990 and 2005, based on the projected rate for that year, is 23%.
- Female breast cancers are also on the rise. Compared with the figures for 1990, the number of cases almost doubled by 2000 and, according to projections for 2005, the increase will be eightfold. In terms of incidence, the increases relative to the 1990 rates were 46.5% in 2000 and 91.2% in 2005. The number of deaths from this cause is estimated to have doubled by 2005. The mortality rate is rising as well: the rate for 2005 is estimated to be 1.5 times greater than in 1990. The pattern is similar with rates for the female population over 15 years of age.
- Cases of malignant neoplasms of the stomach and of the trachea, bronchi, and lung are also on the rise, with a projected increases in incidence between 1990 and 2005 of

36.2% for the stomach and 23.9% for the trachea, bronchi, and lung. With regard to mortality, the percentage increase was 17.8% for the first type and 7.0% for the second group of cancers.

- The trend in incidence of malignant neoplasms of the skin indicate that there will be 3 times more cases in 2005 than there were in 1990. Of all the malignant neoplasms, skin cancer has the highest percentage increase in the number cases, with an incidence rate that has doubled during the period under study, but the mortality rate remains stable at under 0.5 deaths per 100,000 population during the period.
- In 2002, malignant neoplasms were 1.3 times more men than women died from these causes, and in general, all types of cancer were more common in men than women except for the types characteristic of the female sex, such as carcinomas of the uterine cervix, ovary, breast, and other parts of the uterus.

### External Causes

For several decades, external causes have ranked among the leading causes of death in Panama, alternating in first place with malignant neoplasms and cerebrovascular disease. These cases include suicide, homicide, and other violent acts, and they affect the Panamanian population of all ages, but they have their greatest impact on youth and adults of reproductive age. Over the decades, mortality from external causes has ranged between 46.8 to 53.4 deaths per 100,000 population, but the proportion of deaths from this group of causes has increased by 5%.

**TABLE 11. IMPORTANCE OF EXTERNAL CAUSES IN GENERAL MORTALITY.  
PANAMA: 1960, 1970, 1980, 1990, 2000, 2003.**

Year	Total no. of deaths	Deaths due to external causes		Rank of cause	% of deaths per cause
		No.	Rates		
1960	8,387	520	48.3	3	6.2
1970	10,225	754	52.6	2	7.3
1980	7,959	1,035	53.4	1	13.0
1990	9,799	1,232	51.0	2	12.5
2000	11,841	1,337	46.8	2	11.3
2003	13,248	1,492	47.9	2	11.3

Source: Office of the Comptroller of the Republic, 2003.

During the period 1980-2003, there were 23,034 deaths due to external causes, with an annual average of 1,212 deaths and a monthly average of 101 deaths. Every day 3.4 people die from this cause. During the same period, "other accidents" accounted for the largest share of external causes, representing 46% of the total, followed by traffic accidents, 32.7%. Together, accidents accounted for more than 3 out of every 4 deaths due to external

causes (78.7%). However, there has been percentage increase in homicides and suicides as external causes of death, while the percentage due to accidents has declined.

**TABLE 12. AVERAGE ANNUAL, MONTHLY, AND DAILY DEATHS DUE TO EXTERNAL CAUSES. PANAMA: 1980-2003.**

Year	External causes	Homicides	Suicides	Traffic accidents	Other accidents
<b>Total</b>	23,034	3,403	1,526	7,526	10,579
<b>Annual average</b>	1,212	179	80.3	396	556.8
<b>Monthly average</b>	101	15	6.7	33	46.4
<b>Daily average</b>	3.4	0.5	0.2	1.1	1.5

Source: Ministry of Health, Department of Health Situation and Trend Analysis, 2005.

An analysis of figures for every fifth year shows that in 1980, 1985, 1990, 1995, 2000, and 2003 external causes were the number one cause of death in the population 15 to 44 years of age and the second most important cause in the group aged 45-65, except that in 2000 these causes ranked third as a cause of death in this age group.

**TABLE 13. ANNUAL DEATH RATES BY CAUSES. REPUBLIC OF PANAMA: 1980-2000. 2003 (rates per 100,000 population)**

Year	External causes		Homicides		Suicides		Traffic accidents		Other accidents	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
1980	1,035	52.9	41	2.1	39	2.0	364	18.9	591	30.8
1981	949	49.5	48	2.4	37	1.9	361	18.1	503	25.6
1982	901	49.6	41	2.6	23	1.1	397	19.4	440	21.9
1983	1,011	48.4	50	2.4	39	1.9	368	17.6	554	27.0
1984	1,049	49.2	59	2.8	29	1.4	357	16.7	604	28.8
1985	956	49.2	109	5.3	53	2.4	362	16.6	432	20.2
1986	991	48.8	116	5.5	74	3.7	385	17.3	416	19.0
1987	1,157	50.9	156	6.9	86	3.8	402	17.7	513	23.0
1988	1,107	47.7	160	6.9	87	3.7	355	15.3	505	22.1
1989	1,373	57.9	123	5.1	70	2.9	334	14.1	846	36.3
1990	1,232	51.3	241	10.0	74	3.0	358	14.9	559	23.3
1991	1,279	52.3	220	9.0	68	2.7	339	13.8	652	26.7
1992	1,345	54.0	287	11.5	89	3.5	408	16.3	561	22.5
1993	1,368	53.9	255	10.0	96	3.7	442	17.4	575	22.7
1994	1,506	58.3	299	11.5	100	3.8	495	19.1	612	23.7
1995	1,571	59.7	351	13.3	111	4.2	495	18.8	614	23.3
1996	1,375	51.4	205	7.6	112	4.1	417	15.6	641	24.0
1997	1,524	56.1	292	19.2	143	9.4	527	34.6	562	36.9
1998	1,458	52.8	246	8.9	145	5.2	563	20.4	504	18.2
1999	1,430	50.9	243	8.6	143	5.1	544	19.4	500	17.8
2000	1,337	45.4	286	9.7	144	4.9	428	14.5	479	16.2
2001	1,348	44.9	308	10.3	162	5.4	431	14.3	447	14.9
2002	1,434	46.9	365	11.9	160	5.2	448	14.6	461	15.1
2003	1,492	47.9	356	11.4	195	6.3	550	17.7	391	12.6

Source: Office of the Comptroller of the Republic, 2003.

In 1990, mortality from this cause was 51.0 and the provinces with the highest rates due to this cause were Colón, Darién, and Panamá (67.5, 63.9 and 56.6 deaths per 100,000 population, respectively). In 1995, Colón was the province most affected by this pathology, with a rate of 105.1, while Los Santos and Panama reported rates of 65.1 and 62.6 deaths per 100,000 population, respectively. The geographic distribution of deaths due to external causes in 2003 shows that 6 of the 14 health regions had rates above the national average: Colón, Los Santos, Eastern Panamá, the Metropolitan Area, San Miguelito, and the territory of Kuna Yala. In fact, 1 out of 5 deaths due to external causes occurred in the Metropolitan Health Region and about 1 in every 3 (35%) were reported in the Metropolitan Area and San Miguelito.

The sex distribution of overall mortality in Panama shows that males are 1.3 times more likely to die than females. In the case of external causes, the risk of dying is nearly 5 times greater for men than women.

#### Infant Mortality

The period between the 1960s and the 1990s saw a general downward trend in infant mortality in Panama, starting from a baseline of 56.9 child deaths for every 1,000 live births in 1960. A look at the years 1990, 1995, 2000, and 2005 indicates that infant mortality declined from 28.3 to 19.41 deaths per 1,000 live births, representing a decrease of 31.4%. This indicator is considerably affected by underregistration, which was estimated at 38.4% in 1990 and 35.55% in 1995. For the years 1990, 1995, 2000, and 2005 infant mortality was 1.4 times higher for boys than girls.

**TABLE 14. INFANT MORTALITY IN THE REPUBLIC, BY SELECTED CAUSES, BY PERIODS OF OBSERVATION (rates per 1,000 live births)**

	Neonatal (0-28 days)	Postneonatal (28 days to 11 months)	Infant (under 1 year)	Post-infant (1 to 4 years)
<b>Total for the Republic</b>				
1990	12.0	6.9	18.9	6.1
1995	10.6	6.0	16.6	5.4
2000	9.7	7.0	16.7	5.9
2004	8.4	6.5	14.9	5.8
<b>Disorders originating in the perinatal period (birth trauma/asphyxiation and prematurity)</b>				
1990	8.9	0.2	9.2	.
1995	...	...	8.1	.
2000	...	...	7.1	.
2004	...	...	10.9	.
<b>Intestinal infectious diseases (IID)</b>				
1990	0.1	1.0	1.0	0.5

1995	...	...	0.7	0.4
2000	...	...	0.7	0.4
2004	0.1	0.7	0.8	0.5
<b>Acute respiratory tract diseases (ARI)</b>				
1990	..	.	13	16
1995	..	.	9	26
2000	-	-	-	-
2004	-	-	-	-
<b>Birth defects</b>				
1990	121	80	201	18
1995	...	...	230	34
2000	164	127	291	31
2004	148	126	274	296
<b>Nutritional deficiencies</b>				
1990	-	35	33	22
1995	...	...	29	28
2000	-	-	-	-
2004	-	21	21	65

• Null quantity or zero, • Not applicable, • Information unavailable  
Source: Office of the Comptroller of the Republic, Bureau of Statistics and Census, Vital Statistics Section.

The geographical breakdown reveals inequalities in infant mortality. In 1960, 1970, 1980, 1990, 2000, and 2003, the province of Bocas del Toro had rates above the national average, and the following provinces also reported rates above the national average: in 1960, Colón, Bocas del Toro, Chiriquí, Coclé, and Veraguas; in 1970, the foregoing provinces plus Darién; in 1980, Bocas del Toro, Chiriquí, Coclé, and Herrera; in 1990, Bocas del Toro, Coclé, Colón, and the territory of Kuna Yala; in 2000, Bocas del Toro, Chiriquí, Darién, and Kuna Yala; and in 2003, Bocas del Toro, Darién, and Kuna Yala.

**TABLE 15. INFANT MORTALITY RATE BY YEAR AND BY PROVINCE.  
PANAMA: 1960-1970-1980-1990-2000-2003  
(rates per 1,000 live births)**

Year	Total	Area		Provinces									
		Urban	Rural	Bocas	Coclé	Colón (1)	Chiriquí	Darién	Herrera	Los Santos	Panama	Veraguas	Kuna Yala
1960	56.9	53.1	59.3	70.6	59.04	81.4	61.6	56.3	45.0	49.6	47.7	62.4	-
1970	40.5	29.8	48.8	52.0	44.6	44.6	44.6	63.6	39.5	30.2	33.7	47.3	-
1980	21.7	19.4	23.9	37.3	26.3	20.5	26.0	12.4	23.2	14.2	19.7	16.8	-
1990	18.9	17.9	19.7	33.9	20.3	25.5	17.6	17.6	10.6	9.0	17.1	16.5	32.6
2000	16.7	N/A	N/A	27.2	15.5	16.8	18.6	32.4	11.5	14.7	14.9	13.1	27.3
2003	15.2	N/A	N/A	37.6	14.9	13.5	15.2	29.2	11.3	10.4	12.5	10.8	20.5

Note: Since 1999 these figures have no longer been reported by area.

Sources: Office of the Comptroller of the Republic, Vital Statistics Section; Ministry of Health, Department of Health Situation and Trend Analysis, 2000.

### Neonatal and Postneonatal Mortality

A look at the patterns for neonatal and postneonatal mortality shows the following:

- Neonatal mortality (deaths occurring within less than 28 days of life) has been on the decline, with rates dropping from 12.0 deaths per 1,000 live births in 1990 to 8.4 per 1,000 in 2004, representing a 30.0% decrease.
- Postneonatal mortality (28 days to 11 months) remained steady during the same period, with figures fluctuating between 6 and 7 deaths per 1,000 live births. The highest of these rates were in 1990 and 1995.

In general, deaths of children under 1 year of age in Panama are mainly caused by factors related to pregnancy and childbirth, such as prematurity and congenital malformations or infectious diseases and malnutrition. In terms of all infant mortality, infectious diseases (vaccine-preventable, diarrheal, and respiratory diseases) headed the list of the five leading causes of death in the 1960s and 1970s, accounting for about 60.0% of these deaths, while in the 1980s and 1990s there is an epidemiological transition toward endogenous causes, which accounted for 76.3% and 84.7% of the deaths, respectively.

By the year 2000, pneumonia and diarrhea and gastroenteritis of presumed infectious origin had appeared among the five leading causes of death in infants under the age of 1 year. In 2003, accidents, self-inflicted injuries, assaults, and other violent acts ranked as the third most important cause of death in this age group, with a total of 55 deaths, a proportional mortality ratio of 6%, and a mortality rate of 8.9 deaths per 10,000 live births. In other words, 1 out of every 17 children under 1 year of age died from this cause.

Nearly 4 out of 6 deaths (64.6%) involved endogenous causes, in particular certain conditions associated with children under 1 year, a heading that includes diseases of the mother that affect the newborn, obstetric complications, delayed growth, malnutrition and immaturity, birth traumas and hypoxia, asphyxiation, and other respiratory conditions of the newborn, to mention a few. This group of causes accounts for between 30% and 50% of the deaths of this category. Another group of causes is congenital anomalies, which includes, among other conditions, spina bifida and hydrocephalus, cleft palate and lip, and congenital anomalies of the heart and circulatory system, which together are associated with 34% to 45% of the deaths in this age group.

Since 1990, the group of nutritional deficiencies has ranked among the leading causes of death in children under 1 year of age, which saw a 43.1% increase between 1990 and 2000. In 2003, the rate was similar to what it had been in 2000 – namely, 5.5 deaths per 10,000 live births. However, the proportion of deaths due to malnutrition declined from 1 in every 32 deaths in 1990 to 1 in 28 deaths in 2003. In general, infant mortality is higher in males than in females, except for deaths from pneumonia.

## Perinatal Mortality

During the period from 1987 to 2003, perinatal mortality, including both late fetal mortality and early neonatal death – that is, death occurring in the first 7 days of life, has been declining steadily. In 1987 the national rate was 17.5 per 1,000 pregnant women, and by 2003 the figure had fallen to 11.9 per 1,000, following a small uptick to 18.1 per 1,000 in 1990. The risk of death occurring in the perinatal period was 1.5 times greater in 1987 than in 2003, and the overall decline during the period was 32%.

**TABLE 16. PERINATAL MORTALITY PER YEAR BY PROVINCE,  
PANAMA: 1987-2003 (rates per 1,000 pregnancies)**

Year	Total	Area		Province									
		Urban	Rural	Mouths	Coclé	Colón (1)	Chiriquí	Darién	Herrera	Los Santos	Panamá	Veraguas	Kuna Yala
1987	17.5	19.1	16.2	11.6	23.8	14.4	17.5	13.0	16.3	12.6	18.8	16.4	12.2
1988	16.8	18.7	15.3	14.8	24.0	8.8	18.9	14.1	16.3	14.7	17.5	13.8	20.6
1989	17.3	19.8	15.1	13.5	18.9	16.1	18.1	20.1	12.8	11.5	18.7	13.3	21.8
1990	18.1	20.9	17.2	12.9	19.5	22.0	19.9	9.2	16.2	9.6	19.2	15.8	5.7
1991	16.0	18.7	13.9	9.4	19.6	17.3	17.6	17.6	15.2	10.2	17.9	7.9	7.0
1992	17.2	18.9	15.6	13.1	19.6	15.0	17.9	15.5	18.1	11.9	18.8	13.2	13.5
1993	16.9	19.8	14.1	10.6	18.4	14.2	15.1	12.9	17.2	11.0	20.0	12.9	13.7
1994	16.8	19.0	14.6	13.6	14.9	20.0	16.1	13.1	12.5	14.4	18.3	11.7	14.9
1995	15.1	16.8	13.6	13.4	17.5	14.3	12.5	18.4	18.3	20.3	15.5	14.6	13.9
1996	14.5	--	--	15.8	13.4	13.4	15.7	18.0	15.3	16.2	14.7	12.0	13.9
1997	13.5	14.1	12.7	11.1	14.2	12.4	11.1	14.1	14.6	12.3	14.3	13.7	16.6
1998	12.3	14.0	11.2	12.9	12.1	6.2	12.6	10.7	14.4	13.2	14.1	7.7	6.5
1999	13.1			13.6	9.2	7.3	14.8	17.8	15.1	15.8	13.6	12.6	14.4
2000	12.3			14.9	14.5	9.1	13.0	19.4	13.8	14.6	11.3	12.4	14.4
2001	12.8			20.5	14.1	9.8	16.1	19.9	14.7	13.5	11.1	10.5	17.8
2002	11.9			11.3	12.0	14.1	13.8	20.0	10.2	11.9	10.7	12.0	10.9
2003	11.9			11.3	13.9	12.2	12.0	21.9	15.4	9.5	10.9	10.2	19.2

Sources: Office of the Comptroller of the Republic, Vital Statistics Section; Ministry of Health, Department of Health Situation and Trend Analysis, 1999.

Paradoxically, for every year from 1987 to 1998, perinatal mortality was greater in urban areas than in the countryside, and the urban figures were higher than the national average. The risk of dying was 1.2 times greater in urban areas, where professional delivery care is more widely available. It is important to ascertain whether this situation reflects underregistration or deficiencies in the quality of care. During the entire period from 1987 to 1998 the rates for the province of Panamá were higher than the national average. However, it was surpassed five years ago by the provinces of Chiriquí, and Darién. Veraguas is the only province in the country that consistently had figures lower than the national and rural averages during the period (1987-1998). In 2003, the province of Darién and the territory of Ngobé Bügle had the highest perinatal mortality in the country, followed by the province of Herrera and of the territory of Kuna Yala, with rates in the ranges of 19.4-21.9 and 16.9-19.3 deaths per 1,000 pregnant women, respectively.

In recent years, the leading causes of early neonatal mortality have been, in descending order, hypoxia, asphyxiation, and other respiratory conditions of newborn,

septicemia of newborn, delayed growth, malnutrition and immaturity, and birth trauma. For some of these conditions, there was a direct correlation with tobacco use during pregnancy.

A geographical comparison of infant mortality and perinatal mortality shows that in 2003 the provinces of Los Santos and Veraguas had similar rates; Bocas del Toro had the highest infant mortality rates in the country but perinatal rates lower than the national average; and Darién and the territory of Kuna Yala had very high of infant mortality and the highest perinatal mortality rates as well.

### **1.1.3. Millennium Development Goals (MDG)**

A little progress can be cited on the goal to reduce poverty: the population earning less than 1 balboa a day has declined. At the same time, however, there are sizable gaps in poverty levels between the urban and rural and rural indigenous populations, most notably with respect to the last-mentioned. There is great inequality in the distribution of income, and the percentage of low-weight children under 5 remains unchanged, with a high concentration of this condition in rural indigenous groups.

The current rate of progress is not sufficient to be able to say that the goal will be met by the year 2015. There continue to be vulnerable sectors of the population such as indigenous groups and children. Nor is the situation equitable between the geographical areas, among the various human groups, among age groups, or between the sexes. It is not enough to achieve the goal at the country level; progress has to be for all the human groups, and this is the challenge to be addressed in the next 10 years.

With regard to universal primary education, Panama has almost achieved this goal. However, some work remains to be done in terms of the quality and effectiveness of the educational system. Also, variations from the national average continue to exist for certain human groups in access to schooling, dropout rates, quality of learning, effectiveness of the school system administrative structure, and incorporation of new technologies.

There is a close correlation between illiteracy and poverty, which leads to other inequalities such as limitations in access to health, housing, gender equity, political involvement, and protection of the environment. Panama is poised to set a new goal: namely, 11 years of basic general education for all: 2 for preschool + 6 for the primary grades + 3 for middle school.

In general, progress has been made in promoting gender equality and the autonomy of women. However, parity has not yet been achieved in primary education, especially in the rural and indigenous populations. At the secondary and advanced levels however, females are in the majority. Literacy levels are lowest among indigenous women. The country's educational achievements have not yet been reflected in the labor market in terms of

employment and wages. The lowest-paid employees are female workers in the non-agricultural sector. This gender inequality has held back the involvement of women in the political process: their participation is still minor, but it is increasing. Much work remains to be done in order to achieve true gender equality in the various areas of national life. The challenge is to turn the rights that have been formally granted to women on paper into real equity.

Maternal mortality has been steadily declining since 1990, especially in rural and indigenous areas, where it has been a serious public health problem that has mirrored some of most serious inequities in living conditions. This indicator reflects the state of health of women of childbearing age, as well as their access to health services and the quality of care that receive, including lack of access to contraception, all of which have contributed to deaths and health impairments that could have been entirely avoided with adequate monitoring and care.

This situation is especially impacted by inequality between urban, rural, and rural indigenous populations in terms of access to skilled professional delivery care. It is further complicated by problems associated with poverty, malnutrition, unequal access to education, geographical dispersion, and, by extension, lack food security, substandard housing, and inadequate environmental health conditions, among other determinants, which are concentrated inequitably in population segments that are more excluded from Panamanian society and have lower levels of human development. Panama faces major challenges in achieving this goal and intends to redouble its efforts.

It can be said that the most difficult goal for Panama to achieve is the reduction of poverty, essentially because of the poor distribution of wealth and the inequality that pervades national society in all orders of life: health, education, housing, political participation, and conservation and development of the environment. The easiest goal for Panama to achieve has been universal primary education, which in quantitative terms is almost a reality. In this latter regard, the challenge is to guarantee access and longer stays in schools for the groups that lag behind the most, and to improve the quality of learning and preparedness for the labor market.

Another goal of a cultural nature is the one for gender equality and the autonomy of women. Even though much remains to be done, the status of Panamanian women, especially in terms of education, is higher than in other countries of the area.

The goals that have to do with the health sector – infant mortality, maternal health, HIV, malaria, and other diseases – still need considerable attention. The trends observed in recent years do not reflect substantial improvements, and consequently extra effort needs to be devoted to improving the quality and coverage of health services, not only in terms of care but also, and more importantly, for the prevention of disease.

Another goal that requires special attention is development of the environment, which has been deteriorating. For Panama, it is essential that one of our most important resources, the Canal, has sufficient water. Also, as deforestation expands at an ever-faster pace, the population is not being offered sustainable alternatives for the appropriate exploitation and development of natural resources.

The goal that refers to the World Development Association is of the utmost importance for Panama, because for some time now the country has not been considered to have critical needs, and it is not given priority for international financing. The reality is that the inequalities in Panama are enormous and the poorest living conditions continue to exist alongside the best, and these inequities must be rectified. International cooperation is needed in order to achieve equity for the entire population.

## **1.2 HEALTH DETERMINANTS**

### **1.2.1. Political Determinants**

Since 1903, the Republic of Panama has been a sovereign independent state with a government that is democratically elected every five years by direct universal suffrage. The State is organized in three powers: Executive, Legislative, and Judicial. The country is divided politically and administratively into 9 provinces, 3 indigenous territories that have the same level as provinces, 75 districts, and 623 mayoral jurisdictions (two of them territorial).<sup>2</sup>

As of 2006 Panama has an estimated population of 3,283,959 (the 1990 census was 2,410,916, and the 2000 census was 2,948,023),<sup>2</sup> with a population density of 42.3 inhabitants per km<sup>2</sup>, ranging from 1.7 in the Sambú District, Emberá Territory, to 6,630.1 per km<sup>2</sup> in San Miguelito, in the province of Panamá. The indigenous populations constitute approximately 10% of the total population (8.3% in 1990 and 10.1% in 2000) and consist of several clearly defined ethnic groups: the Wargandi, Madungani, Bri Bri, Kuna Yala, Emberá-Wounaan, Ngobe-Buglé, and Teribe-Bokota.<sup>3</sup> The Ngobe-Buglé represent 64.5% of the country's indigenous population.

Social policy is implemented by the public institutions constitute the Social Cabinet in the Executive Branch (the Ministries of Health; Education, Housing; Work and Labor Development; Youth, Women, Children, and the Family; and Public Works and Economy and Finance). Policy guidelines on health development are found in both the Plan for

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<sup>2</sup> Panama, Contraloría General de la República, Dirección de Estadística y Censo. Panamá en cifras: años 2000-2004. November 2005.

<sup>3</sup> CELADE. Los pueblos indígenas en Panamá: Diagnóstico socio demográfico a partir del censo del 2000. Proyecto BID-CEPAL "Los pueblos indígenas y la población afro descendiente en los censos", Santiago, Chile: United Nations. June 2005. LC/W.20.

Governance and Health Policies and Strategies, which govern the actions, plans, programs, and projects aimed at promoting a model for health care.

Currently the chief political and social problems affecting the health situation and the delivery of health services are unemployment, poverty, malnutrition, lack of opportunities for the rural sector, and changes occurring in the habits and customs of the population.

### 1.2.2. Economic Determinants

Panama is considered an upper-middle income country, and it is recognized as one of the most important economies in Central America and the Region. In 2005 it had a nominal GDP of US\$ 13,939.5 million and a per capita GDP of US\$ 4,084 (6.4% and 4.3% respectively), that are reflected in its sustained growth.<sup>4</sup> Its long-term annual growth rate is 4.5% and its per capital growth rate is 2.0%, which for the period 1961-2004 was the fifth highest in the region.<sup>5</sup> The majority of its growth is in the sector services (80% of the GDP), with few links to the rest of the economy, while the manufacturing and construction together contribute 12% and the agricultural sector accounts for the remaining 8%.

**TABLE 17. PRINCIPAL ECONOMIC MACRO INDICATORS, PANAMA, 2005**

Indicator	2005
GDP at 1996 prices (millions of US\$)	13,939.5
Estimated real GDP growth	6.4%
Per capita GDP at 1996 prices (US\$)	4,318
Inflation rate	2.9%
Open unemployment rate	7.2%
Domestic debt (millions of US\$)	2,651.6
Foreign debt (millions of US\$)	7,579.7
Public debt (% of current GDP)	66.2%

Source: Ministry of Economy and Finance.

Alongside these positive economic indicators, however, the marked social and economic inequities in Panama place it among the five lowest-ranking countries in the Americas terms of distribution of wealth. These inequities pose one of the main structural barriers that prevent Panamanian society from achieving what the World Bank has defined as “Inclusive Development.” As a result, vulnerable groups such as women, older persons, indigenous groups, persons of afro-West Indian descent, the disabled, religious minorities,

<sup>4</sup> Panama, Ministerio de Economía y Finanzas, Dirección de análisis y políticas económicas. Estadísticas económicas 2005. April 2005.

<sup>5</sup> ECLAC, Statistical Yearbook for Latin America and the Caribbean, Santiago, Chile: United Nations, April 2005. LC/G.2264-P/B.

and those of specific sexual orientation do not enjoy the benefits of the country's economic development.

### 1.2.3. Social Determinants

According to the 2003 Living Standards survey, about 4 out of 10 people live in poverty (36.8% of the population consume a maximum of B/. 953 per person a year) and 508,700 of the country's inhabitants live in extreme poverty (16.6% consume only B/. 534 a year person to the year). Children under 6 years old are the most affected by poverty. Three out of every 10 live in extreme poverty (29.2% of children between 0 and 5 years of age) and more of half live in poverty (54.1% of children between 0 to 5 years old).

The distribution of per capita consumption in 2003 was highly unequal, with a Gini coefficient of 0.47. The limited consumption level of the first quintile of the population (4% of total consumption, with an average annual consumption of B/. 371 per person). This means that for 1 balboa consumed by a person in the top quintile (51.9% of total consumption, with an average annual consumption B/. 4,803 by person), a person in the lowest quintile consumes only 8 cents, or in other words, the person in the top consumption quintile consume 13 times more.

In 2005, the economically active population (EAP) numbered 1,325,150 (63.3% of the population aged 15 more and over). While 86.4% of the EAP were employed, 43% of them were engaged in informal activities.<sup>6</sup> Unemployment was 9.8% (7.6% of the men and 13.3% of the women). The median monthly wage for non-indigenous employees 15 years of age and over there was located in B/. 322.3. Average annual income in the provinces ranged from B/. 370.5 in the region of the Ngobe-Buglé (men: B/. 513; women: B/. 228) to B/. 3,138 in the province of Panamá (men: B/. 3,977; women: B/. 2,299).

A human development index of 0.804 places Panama among the higher-ranking countries,<sup>7</sup> or 56th among 177 countries evaluated, while its human poverty index, 7.7%, places it in 9th position among 103 developing countries. A component-by-component analysis of the differences in HDI shows that the area of greatest progress and the least disparity is life expectancy at birth. The index for the province that made the least progress (Emberá Territory, 0.657) was still 76.4% of the level achieved by the province with the most progress (Panamá, 0.860). The gap for education is wider: the index for the province with the lowest results (Ngobe-Buglé Territory, 0.396) represented only 51.8% of the level for the

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<sup>6</sup> Panama, Contraloría General de la República, Dirección de Estadística y Censo. Cifras Definitivas de la Encuesta de Hogares 2005. August 2005.

<sup>7</sup> UNDP, Human Development Report 2005. International Cooperation at a Crossroads: Aid, Trade and Security in an Unequal World. New York, 2005.

province with the most progress (Panamá, 0.764). The least progress and the widest gap of all were for the component corresponding to a decent Living Standards, which combines indicators for income, employment, housing, and basic services. Here the index for the province with the least achievement (Emberá Territory, with 0.108) was only 17.9% of that for the province with the highest level of achievement (Panamá, 0.605).<sup>8</sup>

**TABLE 18. SOCIOECONOMIC INDICATORS BY PROVINCES ACCORDING TO HDI, PANAMA:  
2005**

Human Development quintile	Province/region	Human Development Index (2002)	Per capita average annual income (2000)	Dependency ratio (1,000 inhab.)	Median age (years)	Total fertility rate	Infant mortality rate (per 1,000 live births)	Total life expectancy (years)	Average annual growth rate (per 100 inhab.)
Lowest {0.416}	Ngobe-Buglé	0.400	124	977.1	16.6	4.68	46	68.21	2.61
	Emberá	0.416	364	997.2	16.6	5.03	52.79	66.41	0.38
	Kuna Yala	0.468	352	877.3	20.2	3.52	47.26	70.92	0.47
Low {0.621}	Darién	0.536	824	794.8	19.9	4.19	37.16	70.24	0.81
	Bocas del Toro	0.629	1,034	782.8	19	3.86	25.84	71.87	2.33
	Veraguas	0.634	1,080	658.2	25	2.95	16.81	74	0.31
High {0.678}	Coclé	0.649	1,110	667.2	24.4	3.06	19.5	75.28	1.18
	Colón	0.695	1,899	595.4	24.3	2.78	18.7	73.02	1.62
	Herrera	0.702	1,558	554.7	29.8	2.27	15.12	76.72	0.45
Highest {0.734}	Chiriquí	0.704	1,527	591.1	26.3	2.58	16.04	76.39	1.06
	Los Santos	0.724	1,632	513.7	33.1	1.99	14.74	76.78	0.44
	Panama	0.743	2,957	492.5	27.6	2.26	11.69	77.25	2.13

Source: UNDP; Office of the Comptroller of the Republic.

## 2. HEALTH SYSTEM FUNCTIONS

### 2.1. STEERING ROLE

Articles 109 and 110 of the Political Constitution of the Republic of Panama makes it compulsory for the State to ensure that the entire Panamanian population has access to comprehensive prevention, treatment, and rehabilitation services. This constitutional

<sup>8</sup> UNDP; Panama, Informe Nacional de Desarrollo Humano, De la invisibilidad al protagonismo: la voz de la juventud, Panama, 2004

mandate resulted in Cabinet Decree 1 of 15 January 1969, which created the Ministry of Health and established it as the National Health Authority attributed with four basic functions. At the same time, however, health care is also provided by other governmental organizations – namely: (1) the Social Security Fund (CSS), to which the function of providing assurance and social security has been delegated, and (2) the Ministry of Economy and Finance, which is responsible for the financial management of the country, including financing for the health sector.

### **2.1.1. Implementation of General Health Policy**

The Ministry of Health retains the managerial role, although it shares its duties with other entities such as the Gorgas Memorial Institute for Health Studies (GMI), created under Law 78 of 17 December 2003, responsible for scientific and technological research in the health field; the Health Technical Council, in charge of advisory services to the Ministry of Health on granting authorization or permission for individuals to freely practice medicine and medically related professions, in conjunction with the University of Panama; and the National Environment Authority, with which it shares responsibility for regulation of the environment. The Ministry of Health is also entrusted with the delivery of health services, a job that it shares with the private sector, the CSS, and NGOs, among others.

This apparent division of responsibility is more a reflection of the country's segmented/fractional health system model than it is a characteristic of a structured and systematically implemented reform. As a result, there may still be some duplication of functions and processes and segmentation of plans and services. The duties of the Ministry of Health also include overseeing the National Water Supply and Sewerage Systems Institute (IDAAN), created under Law 28 of 29 December 1969, which is responsible for ensuring that water supply and sewerage systems are built for communities with populations of over 1,500. The Ministry of Health also meets the needs of settlements with fewer than 1,500 inhabitants through national funds or bi- or multilateral cooperation. In practice, economic constraints make it difficult for the Ministry to perform its duties in terms of surveillance and quality control of services.

With regard to specific functions, the sector has no unified planning system, and as a result the Ministry of Health and the CSS each formulate, implement, monitor, and evaluate their own plans, projects, and programs, although they may support one another from time to time in this regard. The Ministry formulates health policies every fifth year, but other organizations and sub-sectors do not usually participate in this process, which means that they only have institutional scope. The last round produced a set of policies that were

published in a free pamphlet and widely distributed throughout the country. There were eight policies:

1. Strengthen the capacity for management of the Ministry of Health.
2. Strengthen the Care Model for Families, Communities, and the Environment
3. Ensure healthy and sustainable environments
4. Strengthen the Primary Environmental Care Strategy
5. Implement new models that involve citizen participation
6. Transform Health Management
7. Strengthen the Health Human Resources System
8. Promote Health Research

The list shows that the Ministry of Health has given priority to strengthening the national health authority and intends to shore up the steering role and primary care itself as an operational pillar of its five-year policy, as reflected in the first and second components of policy 2. Emphasis is being placed on the development of a primary health care strategy that focuses on human rights using a gender approach at all levels of health system management. There are also policies that take the second and fifth policies into account in encouraging health promotion and citizen participation in the social production of health.

In addition, the policy document mentioned above defines institutional actors and their responsibilities in attaining the national health objectives, which are closely aligned with the Millennium Development Goals (MDG), especially in terms of reducing maternal and infant mortality and addressing the challenge of HIV/AIDS. Finally, the document explains the mechanisms designed to monitor and evaluate the impact of health policies, which have been called "Management Agreements."

These agreements reflect the commitments assumed to fulfill the specific goals set forth in the Integrated Regional Plans (MINSa-CSS) prepared by the 14 health regions. The four national hospitals have also signed Management Agreements with the Ministry of Health. This accountability module is now beginning its second year and is about to be evaluated for the first time, so it is premature to speak of its results.

### **Information Systems**

Although the Ministry of Health has its own information system, the State entity officially responsible for gathering data is the Office of the Comptroller of the Republic, which brings together information from various sources, including the Ministry of Health; the Civil Register (vital events); the Ministry of Economy and Finance; and the Social Security Fund (CSS), to mention the most important ones. Although the Ministry of Health collects and

analyzes relevant data on the population's state of health, there are other entities that gather and analyze data that may not necessarily be shared with the Ministry of Health on a regular and systematic basis, which is why the reason why this area is managed in a piecemeal way.

Recent studies have confirmed the need to set up mechanisms that will make it possible to correlate the health of the population with their socioeconomic characteristics in order to identify inequalities and excluded vulnerable groups. These studies also point out the need to encourage systematic use of this kind of information in the decision-making process, especially at the decentralized level.

Although the Panamanian health information system has made it possible to have general information about the health status of communities and has been adequate to meet the country's basic information needs, recent assessments have revealed major shortcomings that need to be corrected in the near future. It has been shown for example, that the underregistration of vital events in urban areas can be as high as 25%. It has also been shown that the data collection instruments and methodologies do not allow full sharing of information between the CSS and the Ministry of Health, not to mention private service providers, which adds to the problem of underregistration.

Moreover, data processing is done manually in many cases and is not broken down by ethnic and/or socioeconomic groups or by populated areas, which further impedes the measurement of internal inequalities – a very important aspect of the country's social problems. To correct the shortcomings, this year the Ministry of Health, working with the other entities participating in the information system and PAHO/WHO in Panama, developed and submitted a proposal to the Health Measurement Network (HMN), which was approved and has been being implemented since 2006.

### **2.1.2. Regulation, Surveillance, and Social Involvement**

Regulation and surveillance come under the General Health Directorate in the Ministry of Health (DIGESA), which is responsible for most of the areas that the Ministry, as the national health authority, is responsible for in the country. The bureaus of Prevention and Health Promotion, Health Services Delivery, Pharmacy and Drugs, and the Department of Food Protection do the work of regulating public health, as stipulated in the Public Health Law of 10 November 1947. Until recently they were unable to impose sanctions, but that situation was changed with passage of the Law on Coercive Jurisdiction in 2006. Over the years there have been several failed attempts to update and amend the Public Health Law.

Within this legal framework, DIGESA is responsible for safeguarding the health of the population and the environment and perform the duties associated with the regulation and of

surveillance of health, carrying out technical processes associated with the regulation of research, technology development, ethics, biosafety, management of service delivery, food protection, and epidemiological, entomological, and zoonotic surveillance. Although traditionally DIGESA has approached its role in a centralized manner, the current administration has considered shifting to a social participation strategy that would involve the community in these processes. This approach would be identified as one of the pillars of the health policy. In the past, efforts have focused on strengthening the Health Committees and the Rural Water Supply Administrative Boards, which are the local expressions of the community participation process in Panama. Both entities were created through legal regulation and for the purpose of encouraging the community participation in the process of identifying problems, planning, execution, administration, regulation, and evaluation of actions in the operational units. Other forms of community participation have been encouraged, including activities carried out jointly with community leaders and groups, and implementation of such voluntary health groups as Health Promoters and Guardians.

Currently, the National Government is enlisting the involvement of community groups and special interest groups in the formulation, execution, and control of health programs for adolescents, older adults, diabetics, hypertensives, and partners of persons living with HIV/AIDS, among others. Other initiatives are the National Sexual and Reproductive Health Commission and the first Advisory National Council on the Social Integration of Persons with Disabilities and their Families (CONADIS). The last-mentioned, which is overseen by the President of the Republic and other Cabinet Ministers, involves a number of civil society organizations and is operating under a National Strategic Plan for 2005-2009.

### **2.1.3. Management of International Cooperation**

The management and negotiation of international cooperation is the responsibility of the Ministry of Economy and Finance, which works in close collaboration with the Ministry of Foreign Affairs and the Coordination of International Cooperation under the Presidency of the Republic. However, each ministry has its own international cooperation offices, which are in charge of the internal coordination of technical assistance for project development and of follow-up on international commitments already in place. Thanks to the work of these government entities, Panama enjoys the benefit of several types of international cooperation, which can be classified as either bi- or multilateral.

## **Bilateral Cooperation**

This type of cooperation implies direct negotiations and alignment of agendas with the donor countries. In many cases, investments of this kind correspond to the particular interests of the entities concerned and are distributed irregularly in the country.

- a) Reimbursable bilateral cooperation, based on government-to-government credits, corresponds to funding for physical assets, equipment, and supplies that involves economic groups and companies in the donor countries, such as providers of services, supplies, equipment, or even personnel who directly perform the work. An example is the Panama Bay Sanitation Plan, important not only for the tourist industry but also for public health, which will be financed jointly by international banks and the Government of Japan. The initial contribution from the international banks for the first phase amounts to approximately US\$ 45 million.
- b) Nonreimbursable bilateral cooperation, in which the transfer of cooperation resources ultimately involves an obligation to provide a counterpart in-kind or cash contribution. This modality is being used in negotiations with the Embassy of Japan, the Embassy of Canada, the Embassy of the United States, the US Agency for International Development (USAID), the European Economic Commission (EEC), the Japan International Cooperation Agency (JICA), and the Spanish Agency for International Cooperation (AECI). A concrete example in this area is the arrangement between the Ministry of Health and the government of the United States for strengthening the Gorgas Memorial Institute for Health Studies, both in the diagnosis of emerging and reemerging infectious diseases and the development of P3-level laboratory security. Other examples of this type of cooperation in Panama are projects financed by JICA for HEMORED (as yet not executed), for improving the quality of the Central American provider network (currently under way in the indigenous regions), and for quality improvement in hospitals and selected regions, which entail a sizable training component. In this same of cooperation, the Ministry of Health has created a technical commission to develop a project for national neonatal screening, based in the Children's Hospital which would serve as a reference center, with a view to preventing prenatal, metabolic, endocrine, and infectious conditions that lead to disability and generate high socioeconomic costs for the nation.

## Multilateral Cooperation

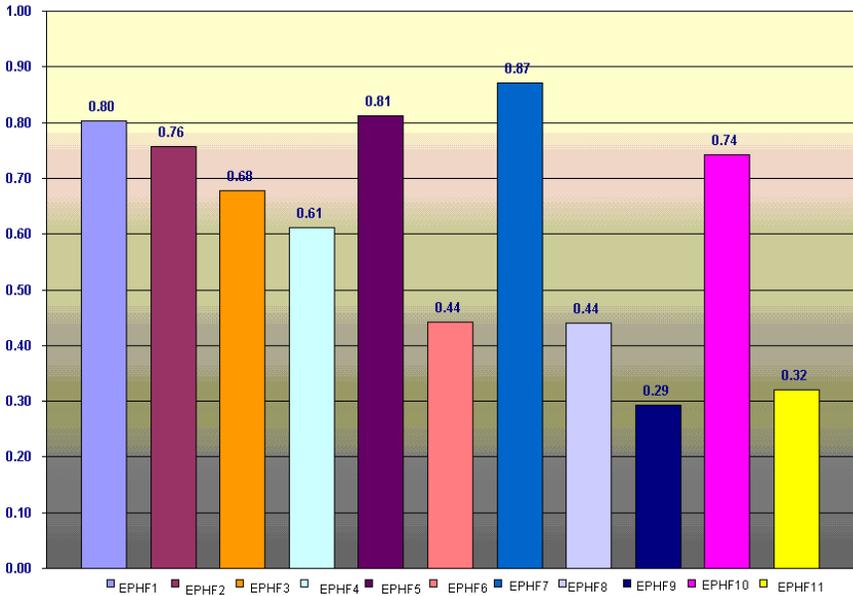
- a) Reimbursable multilateral cooperation. This category applies to several projects. The Ministry of Health currently has a share in two loans from the Inter-American Development Bank (IDB) amounting to US\$ 80 million. The first, for a total value of US\$ 50 million with an external contribution of US\$45 million, is for the channeling and treatment of wastewater for neighborhoods that dump their waste in the Panama Bay (see project mentioned above). A second loan, for a total value of US\$ 50 million with an external contribution of US\$ 35, is for the Multi-phase Health Sector Institutional Transformation Program – a contribution that is very significant for the Ministry of Health. The first phase of this initiative got under way in 2002 and is expected to continue through 2007, when a second phase will be negotiated. Broadly speaking, the project has three clearly differentiated components: the first, budgeted at US\$ 5.8 million, is aimed at strengthening the steering role of the Ministry of Health; the second, corresponding to the largest contribution (US\$ 28 million), is for expanding coverage to unserved regions based on the model of contracting external organizations (EO) and establishment of a Comprehensive Health Services Plan (PAISS); and the third component, with US\$ 10 million, is for increasing productivity in the health services. A look at the distribution and execution of funds shows that the second component has the greatest relative weight and the highest percentage of execution to date (US\$27.1 million and 79%), which is consistent with the emphasis that the current Government is placing on the reduction of poverty and social exclusion.
- b) Nonreimbursable multilateral cooperation. Since Panama is not regarded as a priority country for funding by many of the lending agencies, the relative weight of nonreimbursable resources in the General Health Budget has been less than 1% (US\$ 10,000,000) a year over the last 10 years, according to information from the Ministry of Health's National Directorate of International Affairs. By the same token, the country does not qualify for debt relief or global funds such as PSAP, the GAVI Alliance, or Conservation Investments and Incentives (CIII). The Global Fund to Fight AIDS, Tuberculosis, and Malaria has allocated only US\$ 570,000 for the tuberculosis component, which will begin to be executed this year. The Health Metrics Network has set aside US\$ 100,000 to strengthen Panama's health information system. In general, can be said that the Panamanian government strives to remain in the category of countries that benefit from nonreimbursable international cooperation through the establishment of strategic partnerships at the regional and international level, taking advantage of spheres of action identified by international forums while at

the same time adhering to the country’s priorities as set forth in the Plan for Governance. With regard to the presence of United Nations agencies, the latest information indicates that PAHO/WHO, UNDP, UNICEF, UNFPA, UNHCR, WFP, UNAIDS, and FAO all have offices and accredited representatives in the country. Their cooperation has included contributions on perspectives and strategies for meeting the Millennium Development Goals, increasing and generalizing the exercise of individual freedom, and ensuring access to opportunities.

**2.1.4. Essential Public Health Functions (EPHF)**

In 2001, with support from PAHO/WHO, the Ministry of Health conducted its first measurement of Essential Public Health Functions (EPHF), and the results were published and distributed. However, according to official sources, this document was not widely distributed nor is there evidence that a plan for improvement has been developed or implemented, which means that little follow-up can be expected.

**FIGURE 1. ESSENTIAL FUNCTIONS: RESULTS OF MEASUREMENT, PANAMA, 2001**



Based on the figure above, which summarizes the results obtained from this exercise, it can be concluded that 11 EPHF functions studied, Function 7 “Evaluation and Promotion of Equitable Access to Necessary Health Services,” with a score of 0.87, and Function 5 “Development of Policies and Institutional Capacity for Planning and Management in Public Health,” with a score of 0.81, got the highest evaluations. This finding

reflects the Ministry's efforts to improve its planning and health service delivery mechanisms for population groups that are economically disadvantaged. However, a further look shows that this does not mean that the services are of optimal quality: at the other end of the spectrum were Function 9 "Quality Assurance in Personal and Population-based Health Services", with a score of 0.29, and Function 11 "Reducing the Impact of Emergencies and Disasters on Health," with a score of 0.32. Although the explanation is not that simple, the low score for Function 11 may have something to do with the relatively low occurrence of disasters in Panama compared with its neighbors in the subregion. However, in recent years, the country has had flooding in its western sector and east of the province of Panamá, which has taken a toll in human lives and economic losses which have more to do with shortcomings in urban health and sanitation than with the disaster itself."

The score obtained for Function 9 reflects the progressive decline in steering capability as a result of managerial fragmentation, which in turn leads to segmentation of plans and programs to the detriment of the quality of services offered to the poorer populations. The result is bound to be reflected in the proportionate weight of financial resources devoted to "out-of-pocket expenditures." This regressive effect is a clear expression of the poor quality of services offered and/or the exclusion of certain communities and/or population groups from services provided by the State.

The rest of the functions deserve a more detailed analysis – except Function 1 "Monitoring, Evaluation, and Analysis of Health Status," which with a score of 0.80 was in the top quartile, corresponding to above-average performance. The other scores warrant more detailed investigation because of their medium- and long-term implications either with or without State investment, in the context of a process of strengthening public health in the country. This subject will be revisited in a second measurement exercise and during preparation of a joint plan for improvement that is being implemented by the Ministry of Health in collaboration with PAHO/WHO during the second half of 2006.

## **2.2. FINANCING AND ASSURANCE**

### **2.2.1. Financing**

According to figures published by WHO, Panama's estimated health expenditure of US\$ 1,154 million in 2004 places it among the countries of the Region that allocate the highest percentage of their gross domestic product to health (8.4% in 2004). In that same year, it is estimated that nearly US\$ 360 million (31%) of this amount went directly to the citizens, either as out-of-pocket expenditures or prepaid insurance premiums. The rest of the resources (about US\$ 794 million) are divided almost equally between the Social Security

Fund (US\$ 363 Million) and the Ministry of Health (US\$ 431 million). In per capita terms, Panama spends approximately US\$ 363 dollars per person per year.

A look at the funding reported by the Ministry of Health as external investments in health shows that in the last seven years this class of non-returnable resources came to under US \$10 million a year, or less than 1% of all funding. It is because of this situation, as well as the country's high per capita GDP, low infant mortality, and relatively low percentages of total poverty, that the international cooperation agencies do not regard Panama as an investment priority.

Thus it can be seen that the resources for health are derived largely from the public treasury and worker-employer contributions. A high percentage goes to cover payroll (up to 70%) and subsidies for services provided by the 14 health regions, the network of public providers, and the CSS. Negotiation of the respective final budgets, although there are some differences between the two entities, is largely based on historical estimates. They are then submitted to the Ministry of Economy and Finance for preliminary approval. The Ministry, for its part, combines the health component with the other categories and submits an annual budget to the Legislative Assembly, which, after a debate influenced by both political interests and technical concerns, approves it either with or without modifications.

In the case of the CSS, the budget is approved by its Governing Board, which includes seats not only for the two parties (workers and employers) but also the Ministries of Labor, Health, and Economy and Finance. Once approved, this budget is divided into two major categories – operations (95%) and investments (5%) – and distributed to the network, based on historical and more recent estimates (in the case of the Ministry of Health), for signature of the Management Agreements and the corresponding Minister or Director of the entity concerned. Increases in the budgetary allocation, taking into account additional income or extrabudgetary resources, go through the same phases of execution, negotiation, and documentation of needs.

The Office of the Comptroller of the Republic has control over the use of resources, and it authorizes expenditures before they can be executed. Third-level hospitals and specialized national institutes enjoy special administrative status and are governed by a board of trustees which is chaired by the Minister of Health or his or her delegate. These boards have autonomy to govern the entity, and they select a manager, who is also their legal representative. The manager also answers to the Minister of Health.

Other sources of funds for the Ministry's Public Network include reimbursements or copayments, the amount of which is usually determined by the respective boards, but it is usually less than 1% of the actual cost of the service or more than 5% of the resources available. These copayments apply for services provided at the first level of care, but when patients are unable to pay at the time they receive care, they are not denied the service. The

present has been gradually eliminating this practice, but in many cases there have not been any alternative sources of income and this has seriously compromised the financial stability of the public hospitals and the entire network of Ministry of Health services.

Other resources come from service delivery agreements between the CSS and the Ministry of Health which apply to first-, second-, and third-level health care facilities that offer services to either the insured or uninsured population, depending on the circumstances, based on a predefined fee schedule for health services and products. Although this mechanism is not very expeditious or efficient, since the public network cannot identify members of the CSS and reimbursement is very slow, it does represent some resources that are administered directly by the regions or the boards of trustees in the case of the national hospitals. The exception is San Miguel Arcángel Hospital (HISMA), which has a management model in which the contributed resources are shared between the CSS and the Ministry of Health and deposited to a common fund handled by an outside agency, the National Coordinator of Health (CONSALUD). These resources are used to pay for the care of subscribers who belong to that hospital, which is administered by a private entity (subsidy demand).

### **2.2.2. Assurance**

Panama has a classic Bismarckian social security system, which is administered by the CSS. This mandate comes from two sources: the first is the National Constitution, Article 109 of which firmly establishes the right of citizens to social security, and the second is the Organic Law on the Social Security Fund, initially formulated in 1954 and modified by recently approved Law 51 of 2005, which seeks to guarantee the financial sustainability of insurance for disability, old age, and death. As it might be expected with this type of reform of the pension sector, the most important changes that were introduced are directly related to increases in fee caps, number of weeks required, and retirement age, and it also introduced a personal savings program, although it is administered by the CSS itself. Article 134 of Law 51 makes it mandatory for the CSS to offer preventive programs and coordinate actions and services with the Ministry of Health, which could be the beginning of a process of functional integration in the future, especially in the capital city.

The Social Security Fund is an autonomous and independent entity which has been assigned to the health sector. Its purpose is to guarantee its beneficiaries the economic means for subsistence in the event of disease, maternity, disability, old age, widowhood, homelessness, or occupational injury or illness, as well as aid for families and funeral assistance when needed, subject to terms, limits, and conditions set forth in the Constitution and under the law, and within the financial capabilities of the institution.

The Organic Law on the CSS establishes the modalities of affiliation and the system's group of beneficiaries. Basically, there are two types of members: compulsory members, consisting of formal workers in the public and private sector and self-employed workers who provide services to the Government or formally to private enterprises, and voluntary members, including employees of international organizations, personnel working in the diplomatic missions, individuals not subject to the compulsory system, and employed minors, who have the same benefits as workers of legal age. In general, beneficiaries also include the spouse or permanent companion and his or her dependents until they reach majority (18 years of age or 25 years if they are duly verified students), provided they are not voluntarily emancipated and are registered in a formal educational system in the country. Dependents with disabilities are beneficiaries for life.

**TABLE 19: INSURANCE COVERAGE, 1990, 2000,2004,2005, PANAMA**

<b>Year</b>	<b>Total population</b>	<b>Economically active population</b>	<b>Total insured population</b>	<b>% of beneficiaries / total population</b>
<b>1990</b>	2,398,042	820,005	1,214,660	50.7%
<b>2000</b>	2,815,644	1,088,974	2,011,352	71.4%
<b>2004</b>	3,172,360	1,357,272	2,003,108	63.1%
<b>2005</b>	3,228,186	2,555,501	2,121,838	65.7%

According to this table, the CSS would nominally cover 60% of the population. However, the precise actual coverage is unknown for several reasons. (1) The CSS does not maintain a regularly updated roster of beneficiaries, and thus its data may be at variance with the actual situation. (2) The CSS does not share its databases with the public system, which means that members and beneficiaries may use the public Ministry of Health network, and in many cases they may take advantage of both services. (3) The Ministry of Health network is totally open and much broader, geographically speaking, and in some places it is the only service available. Although there are compensation agreements and a degree of informal operational integration between the two major providers in the interior areas of the country, the mechanisms that make it possible to identify the member population are the social security card and the records on file, which are not always kept up to date, and this affects billing for reimbursement of the cost of services. In Panama City, the only service contracts with the CSS are in the Children's Hospital and the National Oncological Institute. CONSALUD, which works with San Miguel Arcángel Hospital, categorizes users based on their socioeconomic situation and their Social Security affiliation.

The CSS benefits seek to provide security against the risks associated with disease and maternity through preventive and curative health services at three levels of care and rehabilitation services for any covered contingency, including diseases that are considered catastrophic or high-cost, on equal terms for all beneficiaries and members. In addition, the CSS provides economic services in the form of a subsidy to members who suffer from a disease or injury that results in temporary inability to work and is not the result of a disease or work-related accident, a maternity subsidy that covers the period of leave recognized for pregnant employees (90 days), a subsidy for disability, a contingency for retirement due to old age, and a death benefit.

The CSS provides most of its health services through its own network of salaried personnel. On occasion, it purchases health services from third parties in both the public and the private sector under a fee-for-service arrangement. Since it is a legally independent agency, it makes its purchases directly, through negotiations with national and international providers. Sometimes it makes joint purchases with the Ministry of Health, although there are no formal or systematic integration mechanisms in this regard or in any other areas of procurement or supply.

Under its constitutional mandate, the Ministry of Health guarantees comprehensive health care at all three levels, including the provision of drugs to all who use their facilities regardless of their status or ability to pay. However, since the country does not have a standard package of minimum services that must be provided, the quantity, type, and quality of the services delivered is limited to the particular entity's capacity and resources to provide them, it varies considerably from one place or care level to another (segmentation of health plans).

There is a similar situation with prepaid insurance. All the schemes in Panama under a system of reimbursement or discounts that vary depending on the type of insurance, the amount of the premium, and insurance company. Since these schemes are not regulated, the levels of coverage vary.

## **2.3. HEALTH SERVICES DELIVERY**

### **2.3.1. Health Services Supply and Demand**

The country's health services network comprises three large sub-sectors: the public, the social security (CSS), and the private (no data available). The public system is divided into 14 health regions in which there is parallel presence of both the public Ministry of Health network and the CSS. In principle, this network should be sufficient to cover the entire Panamanian population. However, both the network itself and the human resources are distributed unevenly, with a greater concentration in urban areas and fragmentation of the

system, with segmentation in the portfolio of services at the expense of the population, especially those who are not members of social security and live in remote and/or rural areas.

The information currently available is insufficient to determine what percentage of the population has guaranteed access to health services. The evidence suggests that indigenous populations and people who live in remote areas do not have access because of economic challenges (both related costs and out-of-pocket expenditures), geographical barriers, and, above all, lack of infrastructure and technical personnel. There are no statistical data available on real coverage broken down by sex or ethnic groups, and the unmet demand is not measured systematically.

**TABLE 20: MINISTRY OF HEALTH FACILITIES**

Type of installation	Number
Specialized national hospitals	4
Specialized national institutes	1
Regional hospitals	14
National Hospital for Chronic Diseases	1
Rural hospitals	11
Ministry of Health/CSS Integrated Regional Hospital	1
Polyclinics	3
Health centers	185
Health sub-centers	110
Health posts	455
Health promotion centers	7
GRAND TOTAL	792

In June 2006, two comprehensive rehabilitation (REINTEGRA) centers were set up. These are executing units that are attached administratively, technically, and functionally to the Chiriqui and Veraguas Regional Directorates, located on the premises of José Domingo de Obaldia and Luis “Chicho” Fábrega Hospitals.

**TABLE 21: CSS HEALTH FACILITIES**

Type of installation	Number
Specialized national hospitals	2
National Hospital for Chronic Diseases	1
Sectoral hospitals	8
Polyclinics	25
Local primary health care units	13
Health care and prevention centers	27
GRAND TOTAL	76

The Ministry of Health and the CSS coordinate the action plans and management models of its respective service provider institutions. There is a certain amount of deconcentration of functions in the health regions, the four national hospitals, and the specialized CSS clinics. However, management may be considered centralized with a strongly hierarchical structure.

The Plan for Governance calls for development of a unified system of public health services and universal coverage through the operational collaboration of the Ministry of Health and the CSS, but the mechanisms for achieving this have not been established, nor does the recent update of the CSS statute define a clear model of this kind. The Ministry of Health establishes and periodically reviews plans for extending comprehensive health services to scattered and vulnerable populations. Both systems are in the process of qualifying, certifying, and accrediting their hospitals. Steps are being taken to ensure that the primary, secondary, and tertiary care levels are integrated and coordinated in both systems, and the Ministry of Health is currently promoting reorganization of the health services network and updating the primary care and hospital treatment protocols as a basis for establishing a unified system of referral and cross-referral.

### **Programs for Vulnerable Populations**

The Ministry of Health, through the National Directorates of Health Services Delivery and Health Promotion and Disease Prevention and the National Office for Integrated Health of Persons with Disabilities, have developed and implemented programs to meet the needs of these populations. Some of the programs cover mental health, sexual, and reproductive health, comprehensive stewardship of the environment, maternal health, care of persons with disability, and care of children, adolescents, and adults. All these programs are part of the health services that the Ministry offers free of charge to the entire population at its facilities, which offer all three levels of care (including drugs), as does the CSS for its members and beneficiaries with its own network.

Special mention should be made of the strategy being promoted by the Presidency known as "Social Protection System - Opportunity Network." designed to raise the capacity of some 76,590 households living in extreme poverty. The health aspect of this initiative involves offering regular community services free of charge for marginalized populations and those living in remote areas using contracted outside providers, fairs, health, caravans, and mobile tours of integrated teams. The CSS, in turn, is supposed to offer services in areas where the Ministry of Health does not have installed capacity to serve these groups. However, coordination has been hindered by the fact that the CSS does not participate regularly in the meetings on this subject.

### **2.3.2. Management of Health Human Resources**

From the mid-1980s until the end of the nineties (1999) the Ministry of Health was managing its personnel so effectively that it actually became an outstanding example in the Region. However, this, like other important issues that it should be addressing as the

national health authority, has ceased to be a priority within the Ministry, and one of the results has been the unequal geographic allocation of human resources, to the detriment of the poorer and more remote regions of the country. This situation prevails despite the economic incentives offered to encourage the internal migration of professionals, including a regular additional allowance of up to 40% of their base salary. Studies done by the Ministry show that the indigenous areas have only one-tenth as many health workers per 100,000 population compared with the rest of the country.

A program for the certification of human resources got under way at the end of 2005 following implementation of the regulations corresponding to Law 43 of 2004, which created the Councils and Interinstitutional Procedures for the Certification and Re-certification of Health Professionals. This program was halted in mid-2006, however, because the Ministry of Health repealed the regulations in question under Executive Decree 329 of that same year. It is expected that the program will be revisited in the not too distant future.

The following table shows the quantity and labor origin of human resources in the country.

**TABLE 22: HEALTH HUMAN RESOURCES AND THEIR INSTITUTIONAL DISTRIBUTION**

NATIONAL POLICY DIRECTORATE MEDICAL REGISTRY AND HEALTH STATISTICS SECTION (REMES) HUMAN RESOURCES, PANAMA: MINISTRY OF HEALTH AND CSS 2005 1/												
ENTITY	TOTAL	GEN. PHYSIC.	INTERN.	SPECIALIST	DENTIST	NURSE	LABORATORY	PHARM.	NUTRIT	REMES	TECHNIC.	ADMINISTRATIVE
TOTAL	255162	1373	278	2344	884	3375	831	683	81	1569	6518	7226
MINSA	8622	466	74	477	396	1241	178	85	18	496	2738	2453
C.S.S.	14050	861	48	1562	463	1700	583	581	61	957	3309	3925
Hospital Trusteeship	2229	36	156	296	9	428	66	15	2	103	413	705
J. COM-COM.SALUD	254	10	0	9	16	6	4	2	0	10	54	143
OTHERS	7	0	0	0	0	0	0	0	0	3	4	0

[\*REMES = Medical Registry and Health Statistics]  
Includes all Ministry of Health facilities.  
1/ Information as of February 2005  
2/ Does not include Rafael Esteves de Coclé Hospital, San Miguelito  
Source: Medical Registry and Health Statistics.

### 2.3.3. Drugs and Other Health Products

Although the country does not maintain a list of essential drugs, but there is a national policy on drugs and medical and surgical equipment that was recently enshrined in a law. The purpose of the law is to give people access to quality drugs that meet criteria of bioequivalence and interchangeability as a means of cutting costs; provide for regular updating of the list of essential drugs to reduce the burden that they represent to the system and ensure their equitable availability in the different regions; standardize criteria for national purchases and establish a uniform national single price, including for CSS, in order to rationalize the use of resources; and exercise strict control over the providers of these drugs and medical-surgical supplies of public health interest by implementing the aforementioned

unified public health registry, together with systems for post-sale monitoring and technical or pharmacological surveillance. Similarly, in the area of treatment protocols, the two entities currently are engaged in the same process and have developed standardized protocols for the management of pathologies of public health interest such as tuberculosis, malaria, and HIV/AIDS.

#### **2.3.4. Equipment and Technology**

The Ministry of Health's investment in maintenance and technological support (less than the 0.6% of its budget) is a direct reflection of the lack of a definite plan in this area. There have also been major shortcomings in the area of quality assurance and steps have been initiated to correct them through implementation of a Framework Program on the Evaluation and Improvement of the Quality of Care, which is being promoted jointly by the Ministry and the ICGES and financed by JICA. This program focuses on the development of projects to improve the quality of care in 24 health care facilities (in the Health Regions of Coclé, Colón, Eastern Panamá and Western Panamá), 16 health centers, and 4 hospitals in these regions. The program also includes implementation of a system for receiving complaints and conducting user satisfaction surveys. Starting last year, the country is also working with PAHO to implement a system for managing laboratory quality and the National System of Blood Bank Supplies and Blood Transfusions. The training and implementation phase will be completed by the end of 2006.

### **3. MONITORING AND ANALYSIS OF CHANGE/REFORM PROCESS**

#### **3.1. EFFECT ON HEALTH SYSTEM FUNCTIONS**

The guiding principles of the health sector reform process in Panama, which got underway in the 1990s, were unification of health system, a comprehensive approach to service delivery, equity, universal access, and improved efficiency – the same as in the rest of the Region. However, in reality the reform process has not had the expected impact or achieved the radical changes that were sought. On the contrary, as a result of changing political circumstances and lack of continuity in policy-making, the process so far has been limited to a health region in the metropolitan area of Panama City that has been identified to serve as a pilot – namely, the San Miguelito-Las Cumbres-Chilibre Health Region, and in particular, San Miguel Arcángel Hospital (HISMA). Thus the impact of the process has been limited to this region. Failure to extend it further has perpetuated segmentation and

fragmentation of the system and exclusion of large marginal populations from access to basic health services and, as a result, profound internal inequities in the country.

Given this background, the present chapter will focus its analysis on what happened in the pilot process. Since changes have not been made in the overall model, the accomplishments of the pilot cannot be extrapolated to other geographical areas of the country. Historically, this process has its origins in the document "Public Policy: Social Development with Economic Efficiency" which served as an important component of the 1994-1999 Plan for Governance, as well as the document "Health Policy" that appeared at the same time. The pilot project was started in 1999, just at the end of the administration, but it had not been completely finalized, and therefore its continuity became dependent on the political will of the incoming government.

After a series of negotiations that resulted in some changes in the original model, the incoming administration's advisory team decided to incorporate the pilot project into its initiative Public Policy 1999-2004: "Policies and Strategy of Social Development," and thus the possibility of completing implementation of the pilot by the end of 2005 was assured. The model has remained in place without significant modifications since then. During 2001-2002, as part of the pilot project, World Bank funding was used to create joint Ministry of Health/CSS planning and information units in each of the country's 14 health regions for the purpose of developing a Health Sector Strategic Plan. Further, a Ministry of Health/CSS agreement for interinstitutional coordination resulted a few later months (at the end of 2003) in the startup of another pilot project entitled "Herrera Observatory," which was put on hold in late 2004 to allow the incoming administration to decide on whether or not to continue with it.

Unfortunately, these integration initiatives did not receive the necessary political support to make them a fundamental part of the health plan of the new administration. This direction became even more apparent when scant attention was given to the subject of unification during discussions of the new Organic Law on the CSS, which was approved at the end of the 2005. Indeed, the new law makes little mention of the need for joint institutional planning and fails to go very deeply into the need for integration. In the opinion of experts, the possibility of integration is becoming increasingly remote because of territorial attitudes on the part of the CSS. Even though unification of the system is still included in the Plan for Governance and current health policies, since 2004 it has become more difficult to revisit the issue of sectoral reform.

In addition to the political climate of a democratic government and the reformist wave throughout the region in the 1990s, there were also technical factors that facilitated initiation of the process and, more specifically, the decision to turn the San Miguelito, Las Cumbres and Chilibre Health Region into a pilot demonstration area. Among the most important factors were: (1) a new second-level hospital was being built in the Region which provided

the perfect opportunity to show off a new model of hospital management; (2) the health region's socioeconomic characteristics were of interest – namely, a migrant working-class population of around 400,000, about half of them affiliated with the CSS, with limited access to health services because of inadequate infrastructure in the area; (3) the area had a history of social and community involvement; and (4) personnel were available who were trained in the primary health care model.

Thus, the prevailing political situation and the opportunities just mentioned came together to allow for the implementation of an integrated health service delivery model in the hospital (HISMA). For the most part this model separates the functions of service delivery and insurance, if not financing, and has made major improvements in the efficiency and coverage of the services offered. In other words, it might be said that the most significant changes brought about with the model had to do with the distribution and utilization of resources. According to the new model, resources were to be used mainly to meet the demand rather than to finance the supply.

This shift in focus led to several structural and functional changes. (1) An independent legal entity (CONSALUD) was created to handle purchasing and disbursements, which are funded by annual contributions from the CSS and the Ministry of Health, among other institutions (US\$ 6.5 million each from the Ministry and the CSS). (2) The legal and normative structure was altered to make HISMA a public agency which, although built and equipped by the Ministry of Health, would nevertheless be governed by private law, manage its own installations, and contract the services of private health care providers (physicians, laboratory, pharmacy, etc.). (3) CONSALUD pays HISMA for pre-agreed upon activities and comprehensive packages. (4) The first-level network is composed of existing CSS and the Ministry of Health facilities.

HISMA provides hospital services to all inhabitants affiliated with the hospital who live in the area. For uninsured patients in the "A" socioeconomic category and insured patients in the region there is no charge, the remaining uninsured patients pay according to a copayment table that takes into account their socioeconomic status. (5) The region has a unified referral and cross-referral system known as SULCUS that has links between the service networks. (6) Within the hospital, purchases and contracting arrangements are governed by private law.

With regard to separation of functions, such as that of serving as the national health authority, even though Law 27 of March 1998 created the National Health Coordination (CONSALUD) as a decentralized legal agency responsible for the financing of health services delivery throughout the country, this function has not been implemented and its sphere of activity has been limited to HISMA. In terms of management changes, two entities have taken over part of the work of the Ministry of Health. One of them, which has been

autonomous since 2004, is the Gorgas Memorial Institute for Health Studies (GMI), which has taken on the management of health research. The other is the National Institute of Water Supply and Sewerage Systems (IDAAN), which, as its name indicates, is responsible for with the provision of drinking water and the sanitary disposal of wastewater and excreta in populations of over 2,500.

As a part of a World Bank-funded program to strengthen hospital management, support has been given to strengthening the role of hospital trustees and managers at HISMA, Santo Tomás Hospital, and José Domingo de Obaldía Hospital. In addition, management agreements have been made between the Ministry of Health and national hospitals such as the National Oncological Institute and Santo Tomás Hospital, which are administered by trusteeships, in order to guarantee a flow of resources that is consistent with the performance of these entities. However, Law 4, which created the decentralized public management model, has yet to be implemented since it was enacted five years ago.

Even though the Panamanian Constitution, which went into effect in 1972 and was last amended in 2005, calls for organic and functional integration of the Panamanian health system, and the last amendment of the Social Security Law includes at article that mandates joint coordination between the two institutions, the goal remains unmet. There continues to be duplication in the delivery of health services, and the CSS continues to manage insurance.

### **The Right to Health and Insurance**

As pointed out earlier, in Panama health is a constitutional right that is associated with the right to life. Thus, it is up to the State to guarantee all possible means to preserve it. Indeed, health is an inalienable right that the Panamanian population has enjoyed since promulgation of the Constitution of 1946. In an effort to uphold civil rights in the area of health, the administrations in power over the last five years have taken steps to improve access and reduce exclusion, especially of poor and vulnerable populations. Concrete examples of these policies include:

- a) Creation and implementation of the basic Plan for Comprehensive Health Care Services (PAISS), which includes health promotion, specific health protection activities, early detection, first-level curative and rehabilitation, has been taken to communities via comprehensive care tours and health fairs (both institutional and with Ministry of Health personnel), organized at first by NGOs and now carried out by extra-institutional organizations (EO), in areas where Ministry of Health facilities are nonexistent;
- b) Health Caravans, created by the current administration as a part of the Ministry's response to the expansion of health services coverage, which provide second-level

services (including ambulatory surgery) not offered by the PAISS or covered by either of the two mechanisms described above;

c) The Panama Social Protection System, which provides health services specially geared to the needs of populations in extreme poverty for communities that are without such services; and

d) Approval of standards and public policies such as those that promote the provision of free services on a priority basis for especially vulnerable indigenous populations, persons with disabilities, and the mother-child population.

However, these policies do not appear to be sufficient to reduce exclusion and inequities in health, which continue to persist.

### **Modalities of Decentralization**

The practice of signing management agreements has continued to be implemented, and so far the 14 health regions and the four national hospitals have signed agreements as prerequisites for the allocation of annual funds from the budget. This practice could be interpreted as a gradual and progressive transfer of responsibilities, powers, and resources to the health regions. The CSS has not taken any steps in this direction. Panama continues to have a centralized management model with deconcentration of some of the managerial functions at the public level. In the case of the National Oncological Institute, Santo Tomás Hospital, and Children's Hospital, the legislation that governs them does not require them to sign agreements of this kind, so they are given the funding allocated to them under the National Budget Law.

### **Social Participation and Social Control**

The health policies for 1997 through 2009 clearly establish the intention of the current government to strengthen the health system's mechanisms for social participation, moving progressively from a model of purely operational involvement to a model of co-management of the services (boards of trustees and water administration boards). It can be said that increased social and community involvement is one of the aspects of the reform that has received the most attention. Through the recent strategy to foster the development of health guardians, more than 400 family health councils have been established in country – 40 of these the San Miguelito-Las Cumbres-Chilibre Health Region alone.

### **Financing and Expenditures**

The HIMSA financing scheme has not changed, and its largest sources of funding continue to be the Ministry of Health and the CSS. At the overall level, even though the net percentage of GDP has shown little variation with a slight tendency to decline, the total

amount of resources devoted to health has increased over the last five years because of the sustained growth of the GDP, and Panama remains one of the countries with the highest expenditure on health. However, as it was pointed out in Chapter II, this increase is not due to the creation of new sources of financing, increases in coverage, or real improvements in the state of health. The process of compensating for the cost of services provided to the insured and uninsured populations attended at Ministry of Health or CSS facilities is also unchanged; however, because of social security reforms, the future trend will be toward lower utilization of outpatient services and hence a reduction in funds transferred from the CSS to the Ministry of Health.

### **Availability of Services**

The RSSM offers different packages of health services for men and women, in which specific health problems are emphasized. To encourage male consultations and increase health care opportunities, the San Isidro Health Center recently extended its hours to serve the public 24 hours a day, including consultations on Saturdays and Sundays, and other health centers are extending their hours later during the work week. This strategy has also been implemented in other health regions as part of the strategy to expand Ministry of Health coverage.

Currently the HIMSA Board of Trustees, as part of its strategy to increase its range of services and supply more of them, has arrangements with fourteen (14) outside companies for medical and surgical services, internal medicine, gynecology, obstetrics, pediatrics, and other services, under a contract modality that includes performance and production indicators. In addition to extending schedules and making them more flexible (remaining open up to 7 days a week, 24 hours a day at some sites), the current Administration has initiated a campaign to rehabilitate installations that are in poor condition, and this effort has also resulted in a small increase in the availability of services.

For its part, the CSS, as a result of the new law, has embarked on a process of transforming its health services, seeking operational coordination with the Ministry of Health, and introducing a proposed new model. The most significant changes are: (a) transformation of a curative individual-care model to a population-based family approach that includes getting involved in activities traditionally associated with public health; (b) definition of the schedule of services, and hence the corresponding resources, by level of complexity and standardization of these criteria at the national level; (c) operational application of the concept of quality and implementation thereof at the national level; (d) introduction of the concept of community participation in health management; and (e) creation of legal

instruments that make it possible to supplement Ministry of Health care for vulnerable populations and unprotected non-members.

### **Evaluation of Results**

Some special background needs to be taken into account before going into this aspect in depth. First, Panama has not had an systematic, orderly process of health reform. On the contrary, the process has consisted of a series of isolated and discontinuous events. Second, there has not been enough time to measure the impact that a reform might have on the health of the RSSM population. And finally, after an appraisal conducted by PAHO/WHO in 1999-2000, there have been two additional unrelated evaluations done under consultancies paid for the Ministry of Health with resources from the World Bank, which have made it difficult to track the changes. However, after several internal discussions among the group responsible for preparing this chapter, it was decided to use the systemic evaluation model that takes inputs, processes, and outcomes into account in order to assess the progress that has been made.

To begin, it was decided to assess the many inputs, instruments, tools, and methodologies that have been developed as part of the sectoral reform process to improve effectiveness in the RSSM that have been extrapolated to other hospitals and health regions in the country. The following come to mind in particular: the model document on community, family, and environmental care; guidelines for reorganization of the Ministry of Health/CSS health service delivery network, Ministry of Health/CSS agreements for interinstitutional coordination, HISMA health care protocols and protocols for the treatment of the pregnant woman in the RSSM, a unified system of referrals and cross-referrals, the CONSALUD-HISMA contract programs, involvement in management, standards for the qualification and certification of service providers, use of a gender approach in health situation analysis for the RSSM; system for identifying RSSM health service users (issuance of cards), and categorization of the population according to origin to facilitate access by those living in extreme poverty. It is important to emphasize that all these documents/tools have been implemented and are available to be evaluated in detail, either as a whole or individually.

With regard to perceived **quality**, the evaluation of this area was conducted in 2004-2005 by a recognized private company based on a social marketing exercise and initial, medial, and final evaluations of the perceptions of RSSM users. One of the company's conclusions noted the lack of systematic mechanisms for measuring the satisfaction of users treated at the HISMA and hence the need to put such mechanisms in place. This led to the recommendation that the results of user perception surveys be disseminated every six months and that a system be set up for receiving complaints. The CSS is currently in the process of adopting such a model.

In April 2004, under a Ministry of Health-World Bank Reform Project, a second evaluation of the HISMA management model was undertaken. HISMA was compared with six other traditionally administered public hospitals. HISMA turned out to have better indicators for the variables of production, quality, and management, which made it possible to conclude that in the area of **management, managerial effectiveness, and efficiency**, the performance of HISMA was highly rated and corresponded to the newly implemented management model. In addition, the results showed categorization of the population by place of origin helps to facilitate equity and that the existence of a program contract encourages efficiency and accountability. HISMA is the only hospital in the country that has full control of its accounts, has maintained a stable budget allocation for seven years, and has shown improvements in the production of services.

In the area of **social participation and social control**, the results are equally gratifying. The model in place since 1999 provides for establishment of the HISMA Management Council, the highest authority in the institution's trusteeship, with the participation of civil society and representatives of trade associations, civic clubs, local authorities, health employees, the Ministry of Health, the CSS, and employers, among others. This experiment has been successfully extended to other institutions governed under trusteeship, such as the Santo Tomás Hospital and the one recently creation for José Domingo de Obaldía Hospital, with both trusteeships helping to improve the administrative role and control of management. In addition to the notable increase in health councils described earlier, there is progress in the implementation of health guardians, previously called health workers, who perform a similar function within the organization. The following table provides a chronological summary of major periods of change and the stakeholders involved. As it can be seen, the private sector has not taken part in any of the processes or played an active role in reform, which means that their system has not seen any change in this regard.

**TABLE 22. STAGES IN THE PROCESSES OF CHANGE AND PARTICIPANTS**

Health system functions	1990-1994			1995-1999			2000-2005		
	Public	Private	Social Security	Public	Private	Social Security	Public	Private	Social Security
<b>Steering role</b>	✓	✓	✓	✓ ***	✓	✓	✓ ♠	✓	✓
<b>Financing</b>	✓ Ⓟ	☒	⊖ ☒	☑ Ⓟ ✓	☒	☑ ⊖ ☒	☑ Ⓟ ✓	☒	☑ ⊖ ☒
<b>Insurance</b>	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖	⊖
<b>Service delivery</b>	✓	☒	⊖	Ⓟ ✓	☒	⊖	Ⓟ ✓	☒	⊖

Source: Focus groups.

✓ = Ministry of Health   ♠ = Not applicable   ⊖ = CSS   ☒ = Private sector   Ⓟ = Board of Trustees (HISMA)   ☑ = Ministry of Health/CSS CONSALUD

\*\*\* Deconcentration process in Metropolitan Region and San Miguelito

♠ Management agreements in the regions.

With regard to **improved access**, from the information available it is not possible to document conclusively whether or not there has been a reduction in the health service access gap. However, the aforementioned evaluations by the World Bank showed that the uninsured population in the San Miguelito Health Region is the population that most frequently uses the services of HIMA and that the region's member population rose from 50% in 1990 to 63.1% in 2004, representing a real increase of 13 percent. On the other hand, the data do not show that access was improved by the elimination of language or cultural barriers. This finding is compatible with the fact that the reform was carried out in the metropolitan area where there is not a significant indigenous population.

In summary, it may be concluded that, although the current administration says it is interested in advancing a sectoral reform process that will result in a unified public system, there are stakeholders that are indifferent on the subject (CSS) and others that oppose the unification process (trade associations, unions, etc.) because it implies financial modifications in their arrangements with the CSS. If these barriers are not overcome in the near future, it will not be possible to take the pilot experiment to the next level and the reform process will come to an end.

### 3.2. EFFECT ON THE GUIDING PRINCIPLES OF HEALTH SECTOR REFORMS

Even though the country has no specific information available for assessing the impact of health sector reform (HSR), we can show the results of some measures that have been applied that will demonstrate the sustainability of the changes being promoted, since important aspects of this type of HSR have been in place for some time. They are reviewed

below.

### **Equity of Access**

A gender approach to analysis of the situation yielded knowledge about the specific needs of men. For example, limitation of access because of schedule constraints led to the decision to extend hours of operation on weekdays and keep health centers open on weekends increase opportunities to receive care. Extended schedules continue to expand coverage in RSSM health care facilities. Equal access was also facilitated by the health caravans and fairs organized in 2004, 2005, and 2006.

The Social Protection System (SPS), aimed at those living in poverty and extreme poverty, got under way in 2006. Its goal is to expand the coverage of care to the priority population and improve access to basic health services through a Social Protection Network that links together programs and projects in various public institutions. The aim of the Social Protection system is to reduce the social vulnerability of families living in extreme poverty by facilitating equity of access to health services.

### **Equity of Coverage**

The model that combines primary family care with community and environmental care facilitates the primary health care strategy, health promotion, and service delivery in the San Miguelito Health Region, as well as the work of health promoters and teams. These activities are greatly increased compared with 2004-2006.

### **Technical Quality**

As a planning tool to promote quality, during 1999-2000 all the RSSM health centers signed management commitments. In addition, a treatment protocol was developed for pregnant woman as part of the effort to improve the quality services provided. Since December 1998, HISMA has had protocols in place for all its basic specializations, developed in preparation for handling the new user population. Also, the central level conducts performance audits in all the country's regions with a view to promoting quality management and health care.

During 2005-2006, the central level of the Ministry of Health signed management agreements with the 14 health regions. The preamble of the document emphasizes that the basic purpose of institutional modernization is to strive for quality, efficiency, and effectiveness in health services delivery. The agreement includes such topics as production, performance evaluation, incentives, effectiveness of services, evaluation indicators, protocol for monitoring and evaluation, sectorization, basic health teams, protocol treatments,

response to suggestions and complaints, user satisfaction surveys, and organization of committees, councils, boards, and networks to encourage social participation,– all of them aspects of changes being promoted as part of health sector reform.

### **Perceived Quality**

HISMA conducts user perception surveys every six months, sent out to 85% of the population that uses their facilities, to find out if they were satisfied with the care they received. In addition, the RSSM administers user perception surveys in the health centers, which lead to the incorporation of improvements in health management. The management agreements now also call upon each of the 14 health regions to conduct user satisfaction surveys and set up a mechanism for receiving suggestions and complaints.

### **Efficiency of Resource Allocation**

Every institution prepares an annual operating plan (AOP) in which it summarizes its programmed activities in support of the list of services it provides and formulates a budget that takes into account the production structure required in order to execute its mandate. This information is then passed on and integrated at the regional level so that the budget can be appropriately distributed between the national level and the regions. The budget process is geared toward procuring specific products and supporting the pilot health sector reform project, and in general it promotes the management and internalization of theoretical concepts and the need to implement changes in order to improve management.

### **Efficiency of Resource Management**

HISMA is the only hospital in the country that has been able to contain its costs. From 1998 up to the present, date, costs have been kept under US\$ 13 million, the hospital keeps a full accounting; activities, performance, and production are measured; and it has standardized treatment protocols.

### **Effectiveness**

In a 2004 comparison of the HISMA management model with six traditionally managed hospitals, HISMA came out better in all three variables: production, quality, and management.

### **Sustainability**

A new set of health policies was recently published for 2005-2009. The document emphasizes, among other points, the need to strengthen the combined family, community, and environmental care model, build up the information system so that a gender approach

can be used for health situation analyses in order to ensure continuity in the formation of basic health teams, and continue with work on qualification, certification, and accreditation, among other points. It covers the important aspects of health sector reform mentioned above, which have been being promoted throughout the process, thereby benefiting sustainability, ensuring extension of the process initiated in the pilot and the RSSM regional model to the rest of the country, and guaranteeing sustainability of the process based on national resources.

### **3.4. THE STAKEHOLDERS**

In the process of conducting this analysis it was possible to identify nine social stakeholders that are thought to determine the main characteristics examined in Panama's health system profile. Of these, seven were groups and two were individuals. Five were regarded as active stakeholders and four as liabilities. A look at the position taken by each of them with regard to health sector reform revealed significant differences. A majority were "strongly in favor," and three had a score of 15; these were followed by two who were "somewhat in favor," each with a score of 8; three were neutral, with a score of 6; and finally, one was "strongly opposed," with a score of 2.

Analysis of these results using the proposed methodology showed that those who were opposed to reform had the highest index of all – namely, 0.1 – and corresponded to powerful groups in Panamanian society that influence public opinion on matters having to do with the national interest. They include citizen groups such as the National Front for the Defense of Social Security, which brings together professionals from education, health, labor, universities, student political organizations, teachers' associations, construction workers' unions, and indigenous and rural groups who represent the country's marginalized population. A clear example of their influence could be seen when they organized a national work stoppage for more than 30 days so that they could introduce amendments to Bill 51 on social security – a stoppage that cost the Panamanian economy many millions. Their argument against the reform is based on a history of government improvisation coupled with a sense of loyalty to the CSS.

At the opposed extreme, with the lowest index (0.04), are the social stakeholders who strongly support sector reforms, including the Minister of Health, the Director of the Social Security Fund, and other political authorities. This polarization may be due in part to past administrations' historically demonstrated lack of continuity in carrying out reforms, and the group with the highest index considers that this group is associated with the lack of continuity in these processes. Ironically, however, history shows that failure to implement the

system in its entirety was due precisely to lack of political will to carry on with processes that had been initiated under previous administrations.

The intermediate range was occupied, in descending order, first, by a group of “neutral” stakeholders (a) with an index of 0.07, consisting of rural water supply administrators (the JAAR network), health committees, and hospital trustees. These protagonists are in a position to have significant impact because they represent community and social participation at all levels of the sector. Their “apathy” has left the detractors with no real opposition. Their behavior could also be the result of insufficient publicity, sensitization, and persuasion regarding the reform issue, resulting in a distorted perception, or it could reflect challenges experienced by trustees of hospitals under the Ministry of Health in maintaining their autonomy. The group “somewhat in favor” of the reforms (b) were the family councils in the San Miguelito district and patients organizations, with an index of 0.06. This group has very special determinants and characteristics that are important to look at. In the first place, they are composed of stakeholders who are basically clients of the system being considered for reform, and therefore they speak from experience. Secondly, their participation in the reform processes reflects their level of identification with its objectives, and their support of the proposed reforms is not associated with a specific chronological period of political involvement or influenced by external factors such as wage increases or consolidation of power or leadership. Finally, the fact that organized patient groups and family councils stepped forward to participate in this experience was the result of wide dissemination of the characteristics and scope of the proposed changes in the system, coupled with effective involvement of these groups, making it possible for them to understand the populations’ interests, needs, and demands, and this shows the positive social impact that the reform has made in the district of San Miguelito.

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