

HONDURAS



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Sources: Second Administrative Level Boundaries Dataset (SALB), a dataset that forms part of the United Nations Geographic Database, available at: http://www.who.int/whosis/database/gis/salb/salb_home.htm, and the Digital Chart of the World (DCW) located at: <http://www.maproom.psu.edu/dcw>. The boundaries and names shown here are intended for illustration purposes only, and do not imply official endorsement or acceptance by the Pan American Health Organization.

water supply system, 31.7% lacked proper sanitation facilities, 16.8% were living in overcrowded conditions, and 21.2% had no livelihood (10). These averages for national indicators mask the even lower values associated with municipalities in western Honduras and the La Mosquitia area (department of Gracias a Dios).

Despite an improvement in many social indicators over the past 10 years, it is uncertain whether the country can achieve the Millennium Development Goals (MDGs) and its PRS objectives. One stumbling block is the pervasive corruption at all levels of the public and private sectors, which the public perceives as an obstacle to good governance and socioeconomic development (11).

While the adult literacy rate is 80% nationwide and 72% in rural areas, there are no figures available regarding functional literacy. The average number of years of primary school attendance is 6.2 at the national level and 4.5 in rural areas. However, there are significant disparities in these indicators from one department to another, with the lowest values once again being associated with western Honduras (10). The school attendance rate at the primary level was 65.9% in 2003.

The main sources of insecurity are drug traffickers and criminal gangs engaged in kidnapping, stealing vehicles, and “settling scores.” There are no anti-gang policies in place, only reactive measures such as the Anti-Gang Act of 2003 which, while initially effective in lowering the number of homicides, includes no strategies to ensure long-term sustainability.

Demographics, Mortality, and Morbidity

The country’s population grew by more than 600,000 inhabitants between 2001 and 2005, by which time it had topped the 7 million mark. Despite the steady decline in the annual rate of population growth, Honduras expects to add nearly 1 million inhabitants by the year 2010 and projects life expectancy to steadily increase while the share of its rural population continues to de-

cline (Table 1). The structure of the population in 1988 and 2005, by age and sex, is presented in Figure 1; it depicts a high proportion of young people and growing numbers of older adults (even though the dependency ratio remains high).

According to the 2001 census, the total fertility rate ranged from 3.2 children per woman in Francisco Morazán Department, which includes Tegucigalpa, the nation’s capital, to 6.3 in Lem-pira, one of the country’s poorest departments. The declining birth and general mortality rates rank the country’s demographic transition as moderate (10).

The crude mortality rate for 2005 put the number of annual deaths at approximately 35,000. According to data developed by the National Statistics Institute based on information from the National Registry of Individuals (Vital Statistics for 2003–2005, internal documentation), the non-reporting rate for mortality data, which hovered around 50% for decades, dropped to 42% in 2004 and to 37% in 2005, with departmental margins of difference of anywhere from 15% in Choluteca to 85% in Gracias a Dios for the last year of the reference period (personal communication, 25 July 2006). However, the coverage and quality of the medical registry for causes of death are still poor, making it difficult to establish national and by age and by sex mortality profiles. The only available profiles are based on mortality registries from the Ministry of Health and Honduran Social Security Institute (IHSS) hospitals, representing only 20% of the estimated annual number of deaths nationwide (Table 2).

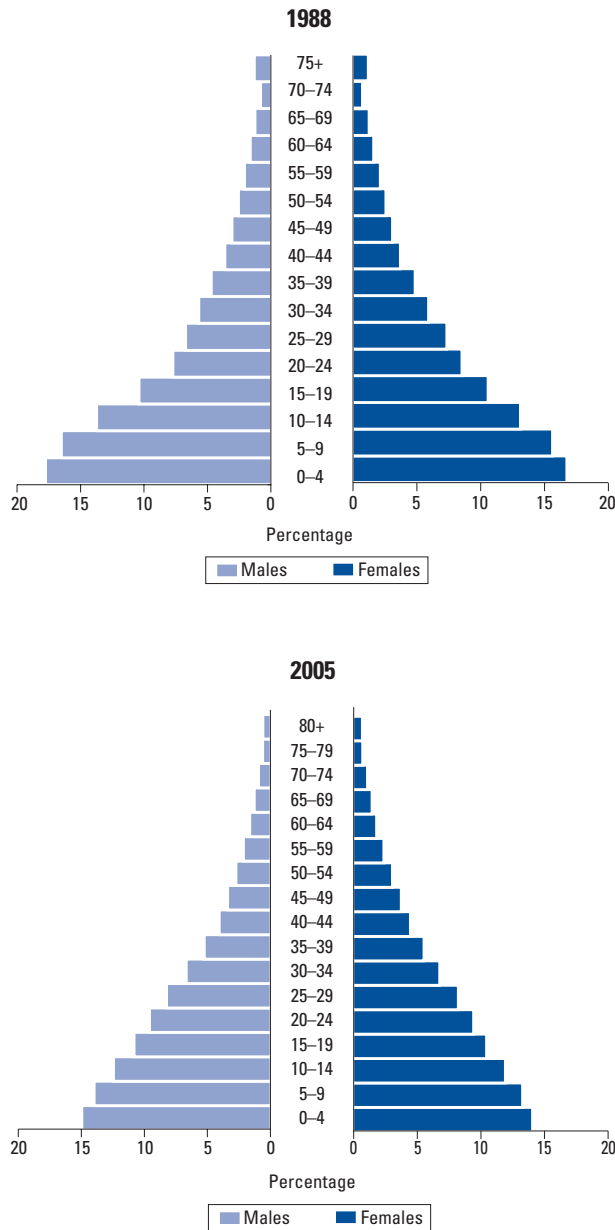
The country has a long history of natural disasters such as hurricanes, droughts, seismic events, floods, and landslides that have resulted in thousands of deaths, heavy infrastructure damage, and obstacles to development. Approximately 20% of the population lives in disaster-prone areas. The areas most vulnerable to hurricanes and flooding are the Atlantic islands and northern coastal lowlands, where there has been a heavy concentration of new settlements over the past few years. The eastern and west-

TABLE 1. Selected demographic information, Honduras, 2001, 2005, and projections for 2010.

	2001	2005	2010
Total population (number of persons)	6,530,331	7,197,303	8,045,990
Under 15 years of age	2,722,205	2,911,873	3,087,979
Over 64 years of age	239,994	278,762	332,554
Rural population (%)	53.7	51.3	48.7
Annual growth rate (%)	2.5	2.4	2.1
Total fertility rate	4.1	3.79	3.4
Crude mortality rate	5.2	4.9	4.6
Crude birth rate	32.8	30.8	27.8
Life expectancy at birth (years)	70.8	72.1	73.6
Men	67.5	68.7	70.1
Women	74.3	75.7	77.2
International migration rate	–2.5	–2.2	–2.2

Source: Instituto Nacional de Estadísticas (INE). Proyecciones de Población 2001–2015. Tegucigalpa: INE; 2004.

FIGURE 1. Population structure, by age and sex, Honduras, 1988 and 2005.



ern parts of the country have also sustained earthquake damage. Tegucigalpa, and, to a lesser extent, the northern and western reaches of the country, are at the highest risk of landslides caused by heavy rains and by severe environmental degradation.

Droughts have had a severe negative impact on the Honduran household economy, particularly in the southern part of the country. Their impact on water supply is felt nationwide, with the drawdown and, in some cases, total depletion of surface and

TABLE 2. Leading causes of mortality^a, Honduras, 2004.

Causes	% total deaths ^{a,b}
Certain conditions originating in the perinatal period	18.8
Congenital malformations, deformations, and chromosomal abnormalities	6.3
Diabetes mellitus	5.6
Cerebrovascular diseases	5.0
Events of undetermined intent	4.6
HIV disease	4.4
Influenza and pneumonia	4.3
Chronic lower respiratory diseases	4.0
Cirrhosis and other diseases of the liver	3.6
Ischemic heart diseases	3.1

^aBased on Ministry of Health and IHSS hospital data only.

^bRepresents only 20% of estimated annual number of deaths nationwide.

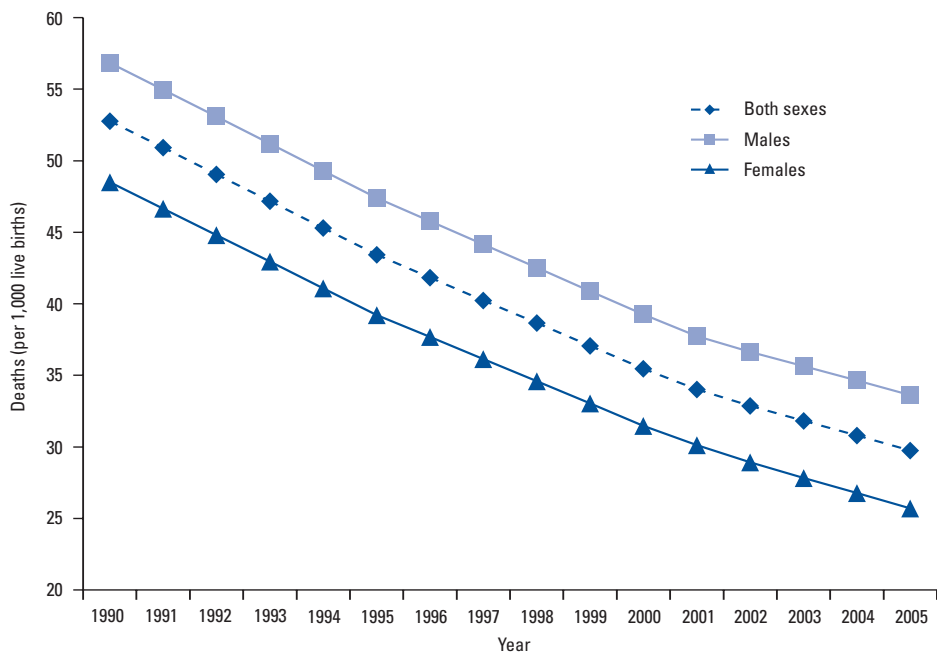
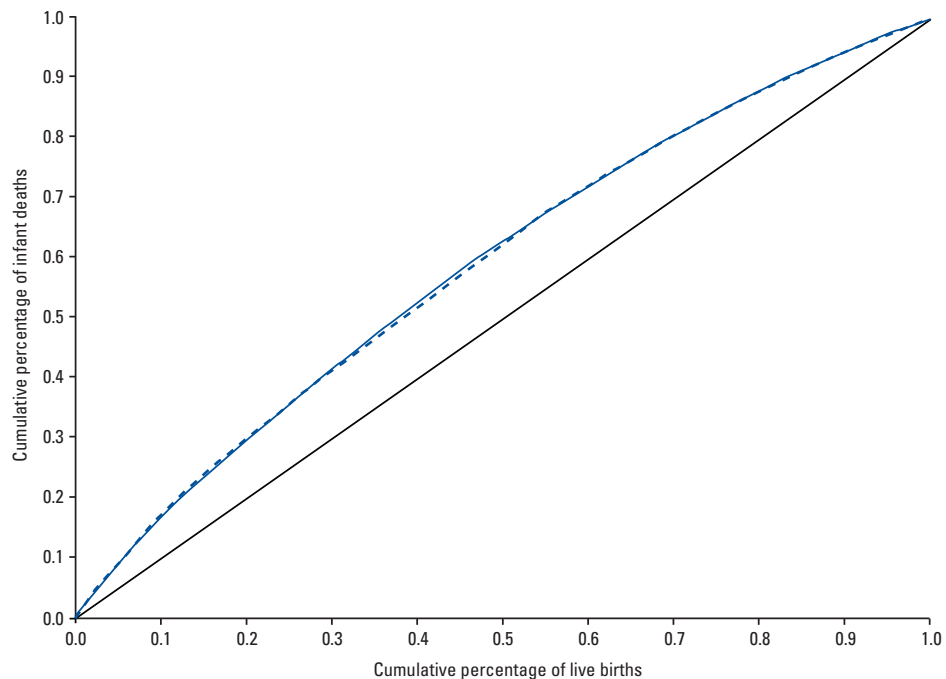
Source: Pan American Health Organization/World Health Organization-Honduras.

groundwater resources and the imposition of harsh rationing measures. The risk of drought may be heightened by unregulated human activity, which speeds up soil erosion and watershed degradation. More than 80,000 hectares of forest lands are lost every year, mainly in the southern and western parts of the country but also, to a lesser extent, in the central and eastern regions.

HEALTH OF POPULATION GROUPS

Children under 5 Years Old

Population projections based on the 2001 census put the infant mortality rate at 34 per 1,000 live births in 2001 and 30 per 1,000 live births in 2005 (12). Figure 2 illustrates the steady trend in infant mortality for both sexes that took place between 1990 and 2005. There are large variances between municipalities, with figures ranging from 17 per 1,000 live births in José Santos Guardiola (Islas de la Bahía) to 82 per 1,000 in Dolores Merendón (Ocotepeque) (Figure 3). The last census and recent family health surveys all show a high correlation between infant mortality levels and the mother's level of poverty and education. Thus, according to the findings of the 2001 National Epidemiological and Family Health Survey, the reduction in infant mortality rates during the final 15 years of the 20th century was achieved at the cost of a decline in so-called "high" socioeconomic status (with household socioeconomic status measured by a goods and services index consisting of nine household features or possessions: piped water, a toilet, electricity, a radio, television, refrigerator, telephone, personal vehicle, and an electric or gas stove. Household status was classified as "low" in the case of households possessing zero to two of these items, "medium" in the case of households with three to six items, and "high" in the case of households

FIGURE 2. Infant mortality trends, Honduras, 1990–2005.**FIGURE 3. Lorenz curve for infant mortality, municipal-level variances, Honduras, 2001.**

with seven to nine items) (13). The survey also found that the decline in infant mortality rates came at the cost of the post-neonatal mortality component, with no change in the level of the neonatal component.

According to 2001 census data, mortality rates for children under age 5 were higher in municipalities in the western part of the country. An extrapolation of the pattern of mortality for children in this age group since 1988 shows that, more than likely, at

the current rate of decline, Honduras should meet the infant mortality target established by MDG 4 (reduce by two-thirds the mortality rate for children under age 5) by the year 2015. In the absence of vital statistics data, population surveys identify the leading causes of death as trauma/asphyxiation and low birth-weight during the neonatal period, acute respiratory infections and acute diarrheal diseases during the postneonatal period, and acute diarrheal diseases and acute respiratory infections among children ages 1–4 (13). This mortality profile is consistent with health services statistics, which identify acute respiratory infections and diarrheal diseases as being the leading causes for seeking health care for the under-5 age group (14). The 2001 National Epidemiological and Family Health Survey found nearly one in five children under the age of 5 suffering from diarrhea that year, with an upward trend in prevalence rates over the previous 10-year period. The highest prevalence rates were associated with children aged 12–23 months and children of mothers without formal schooling or of mothers with only a primary-level education (13). Exclusive breast-feeding rates during the first five months of life were as high as 35%, even though 10% of infants in this age group were never breast-fed. A third of all children under age 5 suffered from iron deficiency and chronic malnutrition (13).

Children 5–9 Years Old

Stunting (low height for age) was present in slightly more than a third of schoolchildren ages 6–9 in 2001, affecting more males than females, and disproportionately affecting 9-year-olds and children living in rural areas. The rate of severe stunting in schoolchildren was 11.8%, ranging from a low of 0% in the municipality of Guanaja (Islas de la Bahía) to a high of 59.4% in San Francisco de Opalaca (Intibucá) (15).

Adolescents 10–14 and 15–19 Years Old

The median age of adolescents at the time of their first sexual experience was 18 for females and 17 for males. Nearly one-third of teenage girls were pregnant in 2001. The fertility rate for 15–19-year-old girls was 137 births a year per 1,000 population up to the year 1999 and had remained unchanged since 1986 (13).

Adults 20–59 Years Old

In 2001, women in the 20–24- and 25–29-year-old age groups had the highest fertility rates, at 229 and 202 children per 1,000 women, respectively (13). The use of contraceptive methods has been on the rise over the past several decades, particularly by women, with a sizeable percentage of males aged 15–44 adhering to their traditional gender-influenced role in matters of sexual and reproductive health and in household decision-making (16).

Data for 2001 showed 85% of pregnant women were receiving prenatal care; half of these services were being performed in

Ministry of Health facilities, and 56% of intakes of pregnant women for prenatal care took place during the first trimester of pregnancy. Anemia was present in 15% of nonpregnant women and a third of pregnant women, but only 41% of this latter group took iron supplements and 32% took folic acid (13). The share of women with access to Pap test screenings increased from 50% to 61% between 1996 and 2001; the largest increase was recorded among women in rural areas. However, challenges remain regarding the timely availability of test results, particularly in rural areas (13).

The most recent data available put maternal mortality rates for 1990 and 1997 at 182 and 108 per 100,000 live births, respectively (17). According to maternal mortality surveillance system data, most deaths in 2004 and 2005 involved young women between 19 and 35 years of age without formal schooling or with only a primary-level education and occurred during labor or the immediate puerperium (18). The leading causes of maternal mortality were hemorrhaging and hypertensive disorders, and a study of the proximate causes of death showed serious limitations as regards access to quality health care. These factors indicate that Honduras will need to overcome significant obstacles if it is to achieve MDG 5 (improving maternal health) by the year 2015.

Persons with Disabilities

There were 177,516 individuals (25.5 per 1,000 population) affected by some type of disability in 2002. The most common disabilities were related to mobility, dexterity, and vision (19). There were large differences in the numbers of men and women with upper-limb amputations, dementia, and chronic depression, with more males affected than females. The leading causes of disabilities were common diseases, congenital disorders, accidents, and violence. The age group most affected by disabilities was the population aged 18–64, including both males and females, with the western departments of Ocotepeque, Santa Bárbara, Lempira, and Copán reporting the largest number of persons with disabilities.

Ethnic Groups

Over half a million Hondurans are of indigenous or African descent. There are nine culturally differentiated ethnic groups: the Lenca, Chortí, Tolupán, Tawahka, Garífuna, English-speaking Black, Pech, Náhuatl, and Miskito. The health status of these groups reflects their impoverishment, lack of access to basic services, and limited social participation. Of special concern are the high prevalence of Chagas' disease among the Tolupán in central Honduras, the Lenca in the southwest, and the Chortí in the northwest; the surge in the incidence of HIV/AIDS among the Garífuna on the country's northern coast; and the high prevalence of accidents due to unprotected immersion among the Miskito people of Gracias a Dios.

HEALTH CONDITIONS AND PROBLEMS

COMMUNICABLE DISEASES

Vector-borne Diseases

After a surge in 2002 to nearly 32,000 cases, mostly in large cities, the number of cases of **dengue** fell and stabilized at approximately 19,000 per year in 2004 and 2005; 10% of the cases were identified as **hemorrhagic dengue fever**.

Malaria, largely that spread by the *Plasmodium vivax* vector, is endemic in Honduras, primarily affecting the northern and eastern parts of the country. There are 25 municipalities with a combined population of close to 350,000 showing rates of more than 1,000 cases per 100,000 population.

Of the nearly 1,000 cases of **leishmaniasis** reported in 2004, 96% involved cutaneous leishmaniasis; the remainder was associated with the mucocutaneous and visceral forms of the disease. The departments of Olancho, Choluteca, and Colón accounted for 66% of all cases (20).

There has been a significant improvement in the differentiation of *Rhodnius prolixus*- and *Triatoma dimidiata*-transmitted **Chagas' disease**. According to National Chagas' and Leishmaniasis Program data for 2004, a serologic survey of blood samples from schoolchildren under 15 years of age yielded a seroprevalence rate of 29% in La Paz and figures of from 3% to 7% in Copán, Lempira, Intibucá, Yoro, and Santa Bárbara (personal communication, 2 July 2005). Data produced by the Central Reference Laboratory for Chagas' Disease and Leishmaniasis, the Laboratory and Blood Bank Network, and the Honduran Red Cross put the seroprevalence rate in blood donors at just over 1% (personal communication, 2 July 2005).

Vaccine-preventable Diseases

The decline in the number of cases of vaccine-preventable diseases in the last two decades of the 20th century was impressive, particularly as regards diseases prevalent among children under

the age of 5. This decline is directly related to the gradual introduction of new vaccines as part of the national immunization program and the high vaccination coverage rates for children, women, and other at-risk groups. Table 3 presents a breakdown of vaccines introduced over the 1977–2003 period, along with the corresponding target population. Despite this progress, areas remain with a high prevalence of **rubella**, **mumps**, and **hepatitis A**. There has been an impressive decline in the incidence of **neonatal tetanus** in recent years. No cases of **diphtheria** have been reported since 1981, no cases of **polio** since 1989, and no cases of **measles** since 1996.

Intestinal Infectious Diseases

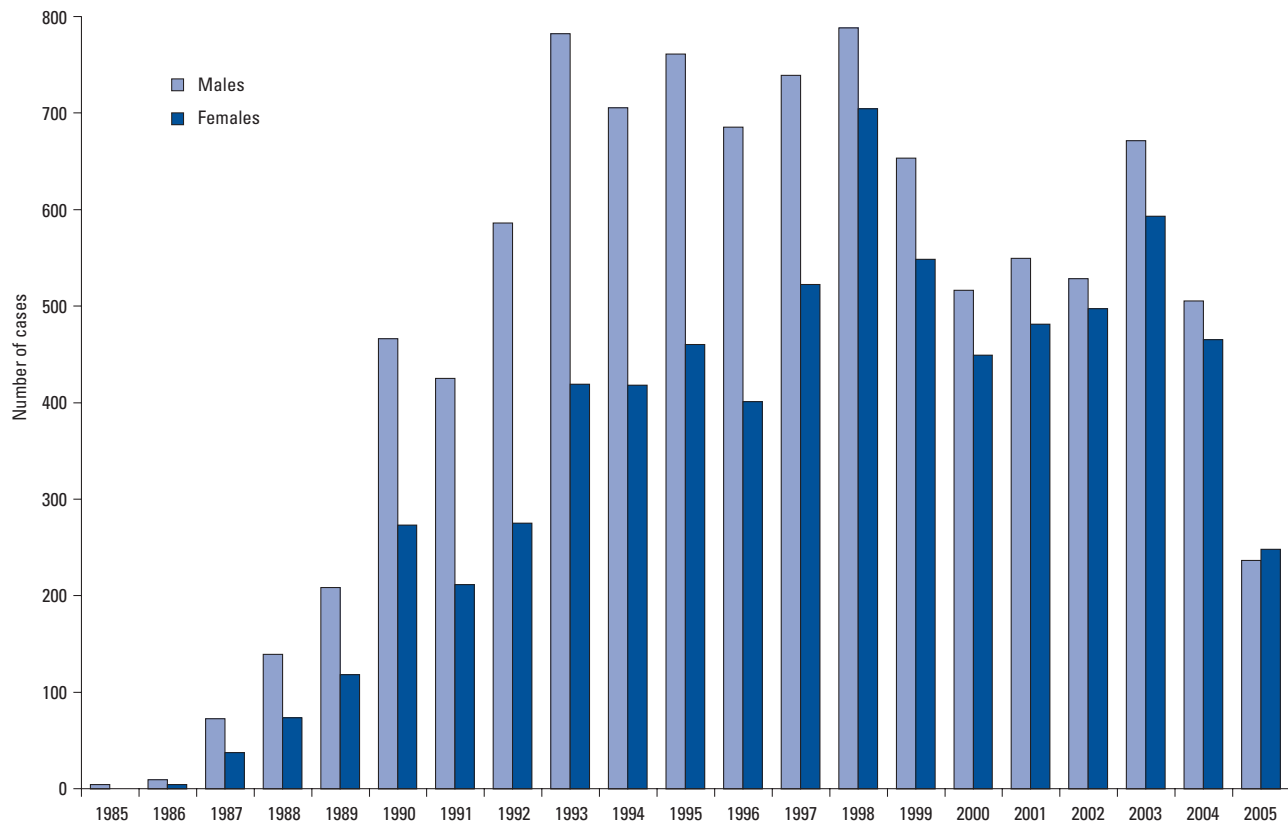
Of all reported cases of **acute diarrhea** each year, 77.0% involve children under the age of 5, with a prevalence rate of 22.5% in this age group and even higher rates in urban areas excluding Tegucigalpa and San Pedro Sula and rural areas, particularly La Mosquitia (Gracias a Dios). The most affected age group is that of children ages 6–23 months. Most children under age 5 suffering from diarrhea are treated with drugs (41.5% with pills, 37.1% with antidiarrheal medications, and 19.6% with antibiotics). During the last outbreak of diarrhea in 2001, 29.6% of children were given oral rehydration salts (Litrosol). That year, just over half the children suffering from diarrhea were fed less or prevented from eating certain solid foods during the diarrheal episode (13).

Chronic Communicable Diseases

Tuberculosis-associated morbidity slowly declined from 72 per 100,000 population in 1993 to 50 per 100,000 population in 2004; 54% of all cases occurred among males. However, the frequency of respiratory symptoms detection doubled over this same period. The incidence of **tuberculous meningitis** has remained under 1% since 1992. According to National Tuberculosis Control Program data from a 2004 assessment, the incidence of **HIV/tuberculosis coinfection** has been on the rise since 1986.

TABLE 3. Vaccines included in national vaccination program, by year of introduction, Honduras, 1977–2003.

Year	Vaccine	Target population
1977	BCG, OPV, DPT, measles	Children under age 1
1977	Tetanus toxoid (TT)	Pregnant women
1990	TT	Females ages 12–49
1994	Hepatitis B	At-risk groups
1995	Yellow fever	International travelers
1997	Measles, mumps, rubella (MMR)	Population aged 12–23 months
1998	Td (in lieu of TT vaccine), measles and rubella (MR)	Females ages 12–49
1999	<i>Haemophilus influenzae</i> type b (Hib)	Children under age 1
2000	DPT/HepB/Hib	Children under age 1
2001	IPV and DT, pediatric	At-risk groups
2003	Influenza	At-risk groups

FIGURE 4. New AIDS cases, by year and sex, Honduras, 1985–2005.

After a two-year hiatus, the National Leprosy Program reinitiated its activities in 1998 and, by late that year, had followed up on 78 patients, 13% of whom were still receiving multidrug therapy. The number of cases dropped to 72 the following year and stood at 35 by 2003.

Acute Respiratory Infections

Acute respiratory infections, including **pneumonia**, are still a leading cause of morbidity in children under age 5, particularly in the poorest municipalities in the country's western region. According to the findings of a 2001 survey of mothers who had lost children under 5 years of age, acute respiratory infections accounted for one out of every three deaths of children between the ages of 1 and 11 months and one out of every five deaths of children between 1 and 4 years of age (13).

HIV/AIDS and Other Sexually Transmitted Infections

AIDS has been present in Honduras since 1985. As of the end of 2005, there were just over 17,000 cumulative AIDS cases, with 970 new cases diagnosed in the year 2004 (for an incidence rate of 138 per 1 million population). San Pedro Sula and Tegucigalpa accounted for 40% of the new AIDS cases reported in 2005. The male-female ratio went from 2:1 to 0.95 at the beginning of the

last decade. Figure 4 shows the number of new AIDS cases, by year and sex, for the 1985–2005 period. The most affected age group was the population 25–34 years old, and the principal mode of transmission was heterosexual relations (88%). Nine percent of all new cases were due to perinatal exposure.

Zoonoses

The importance of **rabies** as a public health issue has steadily declined over the past decade due to high canine vaccination coverage. There have been no reported cases of canine rabies since 2003 and no cases of human rabies since the year 2000. There have been reports of isolated cases of rabies in cattle (one case in 2004 and another in 2005) (21).

NONCOMMUNICABLE DISEASES

Metabolic and Nutritional Diseases

A third of all Honduran children under age 5 are suffering from **iron deficiency** and from **chronic malnutrition** (13). The country was certified as virtually free of iodine deficiency disorders in 2002.

Various studies conducted between 2001 and 2004 found 2%–4% of children under age 5 suffering from **obesity**. Another survey of schoolchildren in Tegucigalpa found 20% affected by overweight and obesity problems. Meanwhile, a study of risk factors associated with **diabetes mellitus** and arterial hypertension in the adult population of Tegucigalpa in 2003 and 2004 found 36% of the subjects suffering from overweight and another 23% suffering from obesity (22). The study put the prevalence rate for diabetes mellitus at 7.8%, meaning that there were nearly 39,000 residents with diabetes in the nation's capital, 42% of whom were not even aware of their condition. The Ministry of Health put the incidence of diabetes in 2004 at 593 per 100,000 population.

Cardiovascular Diseases

The same study of risk factors associated with diabetes and hypertension found 19% of Tegucigalpa's adult population suffering from arterial hypertension, 53% with elevated total cholesterol levels, 37% with high LDL cholesterol levels, 34% with low HDL cholesterol levels, and 29% with elevated triglyceride levels. According to Ministry of Health data records, the incidence of hypertension in 2004 was 1,681 per 100,000 population.

Malignant Neoplasms

The National Cancer Program identified the leading cancer types in 1998 as being uterine, breast, skin, stomach, and ovarian. Data for 1998–2003 from the Emma Romero de Callejas Cancer Center, half of whose cases come from the department of Francisco Morazán, identified the most frequently occurring malignant cancers as being cervical (24.4%), breast (13.9%), brain (5.2%), and lymphoid leukemia (3.5%). Most cases of cervical cancer involved women between the ages of 35 and 54 who were in stages II or III, while 60% of breast cancer cases involved women between the ages of 40 and 59 in stages II or III. A population-based cancer registry was recently established by the Cancer Center with the goal of improving the capacity to monitor trends and patterns over time and thus better understand and address the national cancer burden.

OTHER HEALTH PROBLEMS OR ISSUES

Disasters

Since Hurricane Mitch in 1998, which affected countless lives and household economies, Honduras has not experienced another natural disaster of similar magnitude. However, numerous smaller hurricanes and storms cause fatalities and leave thousands of residents homeless every year. The most notable of these events were hurricanes Adrian and Beta, which struck in May and October of 2005, respectively, destroying homes and crops in Gracias a Dios, Atlántida, and Colón.

Violence and Other External Causes

Social insecurity, including homicides, suicides, traffic accidents, and gender-based violence, continued to rise during the 2001–2005 review period. According to the Criminal Investigations Bureau (DGIC), the largest numbers of complaints filed in 2003, in descending order, involved crimes against women, crimes against minors, and attempted homicides. Reports by the DGIC and the Department of Forensic Medicine attached to the Attorney General's Office show most violent deaths occurring in large cities, with 43% caused by gunshot wounds and involving mostly males and young adults aged 20–35 (23).

According to the DGIC, 8,877 complaints of domestic violence were filed between January and November of 2004. In 95% of the complaints, women were the victims; and in 94% of the complaints, the aggressors were male. Violence between intimate partners was responsible for 49% of the reported incidents, and in 74% of the cases, the violence occurred in the home. Many cases of domestic violence are believed to go unreported, although the establishment over the last few years of specialized prosecutors' offices for dealing with domestic violence cases has boosted the number of reported cases. During January and November of 2004, 394 women died as a result of instances of domestic violence.

The availability of data on accidents and other injuries is extremely limited and the data itself fragmented in nature. A recently established violence observatory bases its information on injuries from external causes on data from the Teaching Hospital in Tegucigalpa, where 3,704 injuries of this type were recorded during the first quarter of 2006; 51.3% of the injuries were accidental, 12.2% were caused by traffic accidents, 8.2% were intentional or caused by violence, 0.6% were self-inflicted, and 27.6% were of unspecified origin. A breakdown by gender revealed that 67.5% of all such injuries involved males and 32.5% involved females. The 5–14-year-old and 15–24-year-old age groups were the two groups most affected by injuries. Most intentional injuries were caused by a sharp object (34.4%), firearms discharge (24.9%), or a blunt object (23.3%), with most assaults being associated with attempted robberies (36.1%) or fights (24.9%) (24).

RESPONSE OF THE HEALTH SECTOR

Health Policies and Plans

Article 145 of the Honduran Constitution recognizes the public's right to health protection and establishes the State's responsibilities in this area. Other relevant national legislation includes the Civil Service Act, the Health Code and its accompanying regulations, the Environment Act and its implementing regulations, the Children's and Adolescents' Code, the Domestic Violence Act, the Equal Opportunities Act for Women, and the Special HIV/AIDS Act.

The Health Code stipulates that the health sector consists of public and private and national and international institutions and organizations providing health-related services. The Ministry of Health governs and regulates the sector, coordinates all health-related activities, sets health priorities, and charts the course of development efforts in the public and private subsectors. It formulates national plans and programs, establishes essential public health functions, issues regulations, and oversees and evaluates compliance with these, particularly as regards foodstuffs, beverages, drugs, cosmetics, hazardous substances, and medical facilities.

The current regulatory framework accords the Ministry of Health rather broad, detailed legal authority to effectively exercise its oversight functions. However, existing regulatory instruments are extremely fragmented, and the scope of the current Health Code is somewhat limited in light of the challenges presented by health sector reform and its implementation process. Clearly, there is a need for updated legislation and a more comprehensive legal framework better aligned to health sector reform priorities and goals.

Since 2005, the main functions of the Health Regulation Department have been the monitoring and regulation of health-related products, services, and facilities. To this end, it serves as the focal point for standard-setting, overseeing health system facilities, and enforcing applicable sanctions under existing regulations. The evaluation of essential public health functions underscored the existence of sound basic and subsidiary standards while, at the same time, highlighting the extent of noncompliance with these standards due, in part, to a lack of trained human resources. Areas considered especially weak were professional cer-

tification and facilities accreditation procedures, performance monitoring procedures for contracts with private services providers, and air and water quality control procedures.

Health Strategies and Programs

A number of policies and strategies formulated over the past few years have sought to improve health services coverage and otherwise extend the social safety net through health protection strategies. However, a large percentage of the population is still excluded from health services coverage, due to barriers to services access, inadequacies in continuity and the provision of viable and financially sustainable services, and/or the lack of culturally appropriate services which recognize and respect traditional ethnic values. Excluded population groups include the poor, rural residents, the indigenous population, and the unemployed, the underemployed, and workers in the informal sector. Table 4 presents the leading indicators of exclusion in health.

The Poverty Reduction Strategy has been unsuccessful in addressing the contributing factors to social exclusion. The most recent PRS progress reports show extremely slow progress in addressing poverty, health, water supply, and sanitation issues, indicating the need to revamp existing programs in these areas.

Likewise, policies designed to expand the social safety net have yet to make significant progress toward ensuring this type of protection for targeted population groups. While the IHSS has seen a sizeable expansion in its contributing base, the size of its beneficiary population increased by only around 3% between 2002 and 2004. Moreover, underemployment and informal

TABLE 4. Leading indicators of exclusion in health, by type, Honduras, 2004.

	Percentage
Coverage	
Population without health care	30.1
Population without health insurance	83.1
Financial and work-related accessibility	
Households living under poverty line	64.5
Population with per capita income under US\$ 1/day	41.1
Workers employed in the informal sector	55.9
Cultural accessibility	
Illiteracy among ethnic population	38.1
Average number of years of formal schooling among ethnic population	2.2
Structure	
Number of physicians per 1,000 population	0.8
Number of beds per 1,000 population	0.6
Processes	
Home deliveries	45.6
Pregnant women without health care during first trimester of pregnancy	43.6
Households without indoor plumbing	26.0

Source: Pan American Health Organization. *Exclusion in Health in Latin America and the Caribbean*. Washington, D.C.: PAHO, 2004.

employment levels continue to rise to the detriment of the formal employment sector.

The Ministry of Health conducted a second national evaluation of essential public health functions in March 2003. The functions in which performance was judged to be best were EPHF11 (reducing the impact of emergencies and disasters on health), EPHF2 (public health surveillance), and EPHF10 (public health research). The functions in which performance was deemed to be poorest were human resources development and training in public health (EPHF8), ensuring quality in personal and population-based health services (EPHF9), development of policy, planning, and managerial capacity to support public health efforts (EPHF5), capacity-building for public health regulation and enforcement (EPHF6), and evaluation and promotion of equitable access to basic health services (EPHF7). Performance was determined to be intermediate as regards EPHF4 (social participation and empowerment of citizens in health-related issues), EPHF1 (health situation monitoring and analysis), and EPHF3 (health promotion).

The Ministry of Health is responsible for the framing and implementation of major health strategies at the national and local levels. To this end, its central headquarters regularly carries out health programs, oversees regulatory issues, and provides technical support to its own regional offices, the IHSS, and the private subsector.

Strategies geared to preventing and controlling major health problems include reduction of infant and maternal mortality and malnutrition rates, measles eradication, rubella elimination, ensuring the continued eradication of polio, control of transfusional transmission of diseases, increased emphasis on comprehensive child health care and expansion of the Integrated Management of Childhood Illness (IMCI) component within child health services, participation in the Roll Back Malaria and Stop TB initiatives spearheaded by the Pan American Health Organization/World Health Organization (PAHO/WHO), and control of sexually transmitted infections and Chagas' disease. The synchronization and coordination of efforts by different international cooperation agencies and the Ministry of Health in controlling Chagas' disease, with the PAHO/WHO-Honduras country office serving as the technical secretariat of this effort, has been particularly noteworthy and led to significant achievements.

Despite the successes recorded to date, a persistent obstacle is the country's medicalized health care model with an emphasis on recuperative care and only a very limited preventive health component; this is, in turn, a byproduct of the educational and training models that continue to be used for incoming health professionals and those updating their skills.

Organization of the Health System

The health sector consists of the Ministry of Health, the Honduran Social Security Institute, and the private subsector, with

weak functional links between these entities. Until 2004, for administrative purposes, the Ministry of Health had been organized into eight health regions which, in turn, were subdivided into health districts, with the latter holding jurisdiction over outpatient facilities such as physician- and dentist-manned health centers, and rural health centers, and hospitals (with the exception of the six national hospitals attached directly to the Ministry's central headquarters). In May 2004, the Ministry was reorganized along functional lines and 18 Departmental Health Regions were created to coincide with the country's political-administrative subdivisions. In addition, two Metropolitan Health Regions were created: one in the municipality of the Distrito Central, of which Tegucigalpa forms a part, as the departmental capital of Francisco Morazán, and one in the municipality of San Pedro Sula, capital of the department of Cortés.

The IHSS is a decentralized government agency governed by a board of directors consisting of government representatives, employers, workers, and one member from the Honduran Medical Association and managed by an executive director. Its central level is divided into three national management offices, corresponding to the types of benefits administered: maternity health; disability, retirement, and death; and workers' compensation. IHSS coverage is in the process of being expanded through a network of public and private service providers and a national procurement office for outsourced services.

The IHSS central headquarters in Tegucigalpa has operational jurisdiction over the Central-Southern-Eastern Region including Danlí, Juticalpa, Choluteca, San Lorenzo, Tegucigalpa, Comayagua, Siguatepeque, and La Paz. The service area of its Northwest Regional Office based in San Pedro Sula includes San Pedro Sula, Puerto Cortés, Copán, Choloma, Villanueva, La Ceiba, Tela, Tocoa, Roatán, and Trujillo.

The IHSS delivers health care through in-house and outsourced services on three different levels: the primary level, providing family and community health services to enrolled social security beneficiaries; the secondary level providing outpatient and hospital care by referral; and the tertiary level consisting of the Tegucigalpa and San Pedro Sula specialty hospitals, treating patients referred by lower levels.

While only limited data are available, it is widely recognized that the health sector is highly segmented. According to a recent survey, 47% of the population visited a health facility when feeling ill; of this group, 58% sought care at a Ministry of Health facility, 7% went to an IHSS facility, 30% went to a private health facility, and the remainder consulted community health workers and pharmacies (25).

As stipulated in Resolution No. 895, the purpose of the 2004 Ministry of Health restructuring program was "to strengthen the administrative capacity of the . . . locally based health services system." Initially, the changes made in its administrative system were designed to decentralize or, more specifically, to "deconcentrate" management. The Ministry of Health is mounting pro-

grams geared to preparing local authorities to eventually take over decentralized powers and functions. Deconcentration based on a regionalization model transfers power mainly from the central to the subnational level, with very limited transfers of power to the local level. The public hospital network and operational levels have financial management authority over a specified share of financing to meet selected needs and are in charge of managing supplies and equipment. Some cooperation and investment projects have delegated responsibilities to health units at the local level, assigning them the necessary funding for such purposes. As the core policy for health sector reform, decentralization is possible only as part of a democratic process building solidarity and, more importantly, strengthening social participation and community empowerment. To this end, an effort is being made to strengthen channels of communication between the central, subnational, and local levels. The municipalities are beginning to undertake local health situation assessments with the involvement of all segments of the local community and to formulate integrated development plans.

Approximately 11% of the Honduran population and 37.1% of the working population is covered by the IHSS public health insurance subsystem. The IHSS provides health benefits to contributing wage earners covering all health risks, and maternity care and health care for children up to the age of 5 to indirect or noncontributing social security beneficiaries. There is no private social security coverage. There are 10 private insurance companies selling insurance plans covering medical care and hospitalization which are financed out-of-pocket by plan members; no data is available regarding the percentage of the population currently covered under such plans. There are no public funding mechanisms for private health insurance.

Public Health Services

Even though at one time Honduras was considered a model for the implementation of the primary health care strategy, currently major inequities in health care exist, community health workers and promoters are being called upon to complement or substitute for the limited availability of health services in some areas, and with few exceptions, there is no inter-agency or cross-sector coordination at any level. Moreover, large segments of the population are excluded from reaping the benefits of appropriate health technologies at an affordable cost.

Major ongoing health programs by the Ministry of Health include the HIV/AIDS Prevention Program, whose primary focus is on prevention and education, and, more recently, on the provision of antiretroviral drug therapy; the Sexually Transmitted Infections Control Program, which also includes a major educational component and administers standardized treatment protocols; the Tuberculosis Control Program, whose chief components are early detection based on screening tests and standardized treatment protocols and case follow-up; the Cervical Cancer Control

Program, which similarly emphasizes the importance of early detection through screening interventions; the National Oral Health Program, whose primary focus is community education and awareness-raising through nationwide campaigns promoting the use of fluoride and sealers and the provision of dental checkups to schoolchildren and pregnant women; and the Expanded Program on Immunization, which has achieved and sustained national vaccination coverage rates above 95% over the past several years. The Ministry of Health's Comprehensive Family Health Care Department administers women's health programs (prenatal care, deliveries, postpartum care, and family planning services), as well as those for children under the age of 5 and adolescents.

The weakness of the health information system in capturing epidemiological surveillance, health services, and vital statistics data is a serious problem in Honduras. The only available data for measuring morbidity comes from Ministry of Health reports and population surveys, while mortality weights are established based on special studies. Major improvements in the National Registry of Individuals helped reduce the underreporting of births from 32% in 2002 to 8% in 2005. However, the problem of underregistration of deaths persists, with a rate that stood at 37% in 2005.

Most health information comes from routine data reporting systems within the health services network, which includes outpatient as well as hospital services. The result is fragmentary data originating from a variety of intra- or interinstitutional sources. The Ministry of Health has various subsystems for the recording and transmission of data whose processing places additional pressures on health services, with the same item of data sometimes taking different routes up to the central level. Most data are compiled and transmitted in printed form, which hinders their interpretation at higher levels. The variety of different data formats and sources hampers data disaggregation, comparison, and other statistical processes. Health surveillance is based solely on data reported by Ministry of Health services, on the so-called epidemiological warning or "telegram" system, and on monthly transmissions of data regarding the status of 46 diseases or events requiring obligatory reporting.

The second highest rated essential public health function in 2003 was that of public health surveillance (EPHF2), due largely to the development of guides, the level of professional expertise, and the support and assistance available at the subnational level. However, health situation monitoring and analysis (EPHF1), and in particular, the development of technology, experience, and methodologies for the management, interpretation, and communication of information to those responsible for public health decision-making, health care providers, and the population at large, were shown to be areas where improvements needed to be made.

The Health Surveillance Office is establishing epidemiological analysis units at the national, subnational, and local levels to serve as data processing, data analysis, and decision-making

entities. As part of this effort, the teams who will staff these units are receiving capacity-building training and being provided with the necessary geo-referenced data analysis tools. Mapping of communicable disease risks is being undertaken, as well as the development of a municipal health needs index for assessment of six dimensions: access to water and sanitation services, urban development (overcrowding), human capital (primary education), access to health services (vaccination coverage), the supply of health services (physician-patient ratio), and health status (stunting in schoolchildren).

As regards the current status of water supply and sanitation services, most of the general population has access to a safe water supply, but less than half consumes properly disinfected water and more than 90% of all water supply systems provide only intermittent service. The coverage and quality of services delivery to the country's scattered rural and poor urban population are lacking. There are very limited wastewater treatment facilities despite the efforts made in several mid-size cities to build waste stabilization ponds. Two-thirds of the nationwide population has some type of excreta disposal facility, primarily latrines (35%), which are often-times the only solution available in rural areas (26).

The Ministry of Natural Resources and the Environment and the Pollutant Research and Control Center have an appropriate legal framework in place and have been endeavoring to strengthen environmental management by streamlining their procedures and promoting decentralization. However, capacity-building efforts for the monitoring and surveillance of health-related environmental factors need to be stepped up to bolster decentralization, intersectoral coordination, and institutional capacity. Until now, the coordination of these two entities with the Ministry of Health has been more the result of special circumstances than the product of a collective policy framed in conjunction with top decision-making authorities and implemented by intermediate- and local-level officials.

In order to ensure sustainability, there is a real need for an integrated surface and groundwater resources protection and management plan. This requires institutional restructuring in keeping with the provisions of the recently enacted Sector Framework Law, along with a financing policy and a financially sustainable services structure. Until the enactment of the Framework Law, there was no oversight or regulatory agency in this sector. There was, however, a wide variety of service providers, including the National Autonomous Water Supply and Sewerage Service, municipal government agencies and enterprises, semipublic enterprises, and a single private enterprise (in San Pedro Sula). Service providers in rural areas include municipalities and the Ministry of Health.

With municipal governments scheduled to take over responsibility for services delivery beginning in 2008, local water and sanitation authorities will need to build the necessary capacity, particularly in the case of the smallest municipalities. Utility companies will need to rectify their current lack of preventive

maintenance procedures to reduce the vulnerability of water supply and sanitation infrastructure.

In the wake of the devastation caused by Hurricane Mitch in 1998, an effort was made to better organize sector mechanisms for the prevention and mitigation of emergencies and disasters. The health sector has established good inter-agency coordination for alliance-building and adequate advisory assistance to the subnational levels of government, and has developed a disaster mitigation plan with appropriate policies and procedures. The Ministries of Health and Agriculture are heading up efforts to frame a National Influenza Pandemic Preparedness Plan.

The growth in international trade and travel has heightened the risk of disease importation, particularly from neighboring countries with which there is heavy freight, animal, and passenger traffic. Over the past few years, Honduras has been on alert against the possible introduction of SARS (severe acute respiratory syndrome), West Nile fever, and Venezuelan equine encephalitis into the country. The global avian influenza threat could have a serious impact on food safety and the national economy and, in the event of an influenza pandemic, human morbidity and mortality would likely far exceed the national response capacity.

Individual Care Services

According to data from a 2002 survey of health facilities, the Ministry of Health has the country's largest health facilities network, with 28 hospitals and 1,241 outpatient or maternal and child health care facilities. In addition to the two specialty hospitals located in Tegucigalpa and San Pedro Sula, the INSS has 10 outpatient facilities, with plans for further expansion. In the private subsector, nongovernmental organizations (NGOs) and other agencies and organizations operate 108 hospitals and 820 outpatient facilities. As of 2002, the country had 6,659 beds (0.97 beds per 1,000 population); of these, 4,656 beds were located in Ministry of Health facilities; 250 in IHSS facilities; 1,652 in the private for-profit subsector; and 101 in facilities run by NGOs and other agencies and organizations.

A National Blood Council was established in 1997 and charged with setting up a national blood system to ensure the population's access to an adequate supply of blood and blood products of acceptable quality. The regulations issued under the National Blood Policy, enacted in 1998, contain general policies and guidance for the utilization of blood and guidelines for the organization of a national blood system, with the National Blood Council, the National Blood Program, the Blood Bank Department within the Ministry of Health, and the public and private hospital transfusion services network serving as its implementing agencies. The network includes 22 blood banks (16 public, 2 run by the Honduran Red Cross, and 4 private) and 45 public and private transfusion services. That same year, the Ministry of Health designated the Honduran Red Cross as the agency in charge of the establishment, operation, and expansion of the National Blood

Improving Health through Cooperation and the Sectoral Approach

More than half of the population of Honduras lives in poverty. The two most vulnerable population groups are the indigenous and those of African descent, among whom obvious inequalities and disadvantages exist as regards economic condition, level of education, and access to services. The situation is even worse in rural areas, where 75% of the population is living in conditions of extreme poverty. The formation of sectoral committees as a tripartite discussion forum for government, civil society, and cooperation agencies was designed as a tool to improve the efficiency and effectiveness of efforts to monitor progress in the national reconstruction and reform process and implementation of the Poverty Reduction Strategy. The goal is to harmonize and improve planning, implementation, and management mechanisms and strengthen and ensure the rational financial management of resources in the education, health, water supply and sanitation, and agricultural sectors. The Ministry of Health and other interested stakeholders feel that the transition to a sector-wide approach (SWAp) is the best strategy for efficient budget management of health sector funding. Moreover, the Ministry of Health has framed the National Health Plan 2021 and National Health Policy 2006–2010 to serve as the blueprint for SWAp implementation.

Program (i.e., in charge of donor recruitment and selection, the preparation of blood components, the performance of immunohematological tests, the detection of infectious agents, and the storage and shipment of blood and blood products). Technical standards for the proper handling of blood and blood products were approved in 1999.

The screening of 100% of blood donations nationwide in 2002 and 2003 revealed the continued prevalence of HIV (0.3% for both years), hepatitis B (0.5% and 0.34%), hepatitis C (0.7% and 0.95%), and syphilis (1.2% and 1.31%). Screening tests for *Trypanosoma cruzi* yielded a seroprevalence rate of 1.4% among blood donors in 2003.

The country has high-tech laboratory and imaging diagnostic services located mainly in private facilities in large cities. The only specialized public facilities are the Thorax Hospital and the Santa Rosita Psychiatric Hospital.

Health Promotion

In the 2003 essential public health functions evaluation, health promotion (EPHF3) was considered to be an area in which national performance needed to be improved. While efforts continue to promote healthy behaviors and lifestyles, many challenges have resulted due to limited technical support at the subnational and local levels, insufficient alliances-building capacity, and weaknesses in planning and coordination of information and education strategies.

The formation of sectoral committees as a tripartite discussion forum for government, civil society, and cooperation agencies, designed as a tool to improve the efficiency and effectiveness of efforts to monitor the national reconstruction and reform process and implementation of the Poverty Reduction Strategy, has proven its efficacy over time. The goal is to harmonize and

improve planning, implementation, and management mechanisms and strengthen and ensure the rational financial management of resources in the education, health, water supply and sanitation, and agricultural sectors. The Government has decided to chart national policy at the sector level, based on long-term country programs rather than individual projects as it had been doing in the past, in line with its series of Health Sector Policies for 2002–2006, the Government Plan for 2002–2006, the Poverty Reduction Strategy, the MDGs, and the National Health Plan 2021 and has set for itself the challenge of structuring all future planning on the so-called “sector-wide approach” (SWAp).

The Ministry of Health and other interested stakeholders feel that the move to this approach is the best strategy for efficient budget management of health sector funding. In their view, other essential steps will include the designing of management tools to facilitate efforts to monitor and evaluate progress, the implementation of sectoral strategies, the establishment of procedures to ensure accountability, compliance with established standards for each strategy, budget performance monitoring for national and international cooperation funding, and an impact assessment of this new work modality.

The Ministry of Health has framed the National Health Plan 2021 and National Health Policy 2006–2010 to guide Ministry of Health and IHSS operations. These two tools are designed to serve as the blueprint for implementation of the SWAp approach, whose adoption is intended to ensure the most efficient use possible of available health sector funding and achievement of the MDGs through the Poverty Reduction Strategy.

Human Resources

One of the country’s lowest-scoring essential public health functions was that of human resources development and training

in public health (EPHF8). The most critical issues were the lack of a workforce classification system and, more specifically, of a staffing needs assessment, as well as a dialogue among academic training facilities, other national government authorities, and civil society for the framing of a national policy in this area. Other shortcomings included the absence of a performance evaluation system for public health personnel and the lack of job stability, incentives, and continuing education opportunities.

The ratios of physicians, professional nurses, and dentists per 10,000 population are estimated at 8.7, 3.2, and 2.2, respectively, taking into account the sum of human resources in public and private health facilities. As the institution overseeing the country's largest health facilities network, the Ministry of Health would be expected to possess the largest share of human resources. However, its ratios of physicians, professional nurses, and dentists per 10,000 population are a mere 2.4, 1.2, and 0.2, respectively. There are also large geographical disparities in health personnel deployment by department, with physician-patient ratios varying from 5.6 per 10,000 population in Francisco Morazán to as low as 0.9 in Santa Bárbara.

Health Supplies

There are 16,000 drugs currently available, most of which are imported brand-name drugs. There has been some improvement in the regulation of drugs, with all regulatory functions currently being exercised solely by the Ministry of Health. Health surveillance has been stepped up, particularly with respect to supervision of pharmaceutical establishments and the enforcement of penalties, including the shutdown of pharmacies without adequate management. Very few of the 67 existing pharmaceutical firms are in compliance with Good Manufacturing Practices requirements. To address drug supply problems, the Ministry of Health plans to restructure the entire system, focusing particularly on storage and inventory control issues.

Research and Technological Development in Health

As measured by the publication of scientific and technical health information and data, there is very little output from scientific activity. Contributing factors include limited funding for scientific activity and inadequately trained health researchers. The efforts mounted by various institutions forming part of the National Virtual Health Library Committee and headed up by the National Autonomous University of Honduras Medical Library to improve scientific and technical health information management and make such information available to students, health professionals, and researchers are commendable.

While there is a special agency in charge of developing a public health research agenda, the lack of political, technical, and financial support has hindered progress. The main source of funding is external cooperation. Similar challenges are faced by the

other agencies created by the Government to help promote health research, resulting in this function being left to individual professionals and academic institutions, whose research does not necessarily help build health knowledge or uphold the ethical principles governing such research.

Technical Cooperation and External Financing

International technical and financial cooperation plays a pivotal role in the Honduran economy and in the success of efforts to promote economic and social development within the framework of the Poverty Reduction Strategy and the MDGs. The Technical and International Cooperation Secretariat (SETCO) is a specialized agency in charge of setting government investment and spending program priorities and targets and monitoring progress toward the achievement of these. It is also responsible for the framing, negotiation, and monitoring of international cooperation policies and strategies. Sector projects and programs are identified, appraised, and selected by SETCO based on the Government Plan for 2002–2006 and the priorities established under the Poverty Reduction Strategy (27).

The flow of international technical and financial aid in the area of health increased significantly in the wake of Hurricane Mitch. However, the adequate channeling of funds to the population groups most in need and the capacity to maximize impact for recipient groups are still somewhat elusive goals.

External financing, including external grants and loans, accounts for close to 30% of the total budget. Figure 5 breaks down

FIGURE 5. Health budget, by financing source, Honduras, 2004.

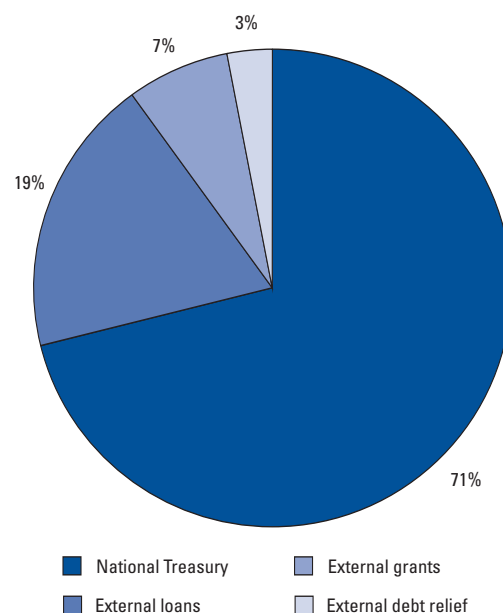


TABLE 5. Health projects, by funding type, Honduras, 1998–2003.

Country/agency/organization	Type of financing	Commitment (in US\$)
Total nonreimbursable funding		198,460,641
United States	Bilateral	47,760,000
Japan	Bilateral	23,272,425
Sweden	Bilateral	9,000,000
Canada	Bilateral	4,730,525
Germany	Bilateral	1,182,000
United Kingdom	Bilateral	849,000
Spain	Bilateral	11,716
	Total bilateral	86,805,666
WFP	Multilateral	55,891,452
European Union	Multilateral	30,381,454
UNDP (Global Fund)	Multilateral	20,842,930
UNESCO	Multilateral	4,177,811
Catholic Relief Services	Multilateral	200,000
	Total multilateral	111,493,647
World Vision	NGO	161,328
	Total NGO	161,328
Total reimbursable funding		92,400,000
IDB	Multilateral	36,000,000
Spain (AEIC)	Bilateral	29,300,000
World Bank	Multilateral	27,100,000

Source: Honduras. Secretaría del Despacho de la Presidencia. *Hacia un Programa Sectorial Ampliado*. Tegucigalpa, June 2004.

the health budget for 2004 by source of funding. The pattern of financing has not changed over the last several years and, according to data supplied by various international agencies, the volume of aid is expected to remain more or less the same over the next five years.

Between 1998 and 2003, Honduras signed 54 health agreements for a total of nearly US\$ 300 million (Table 5). Of the more than US\$ 198 million in nonreimbursable health project funding, the largest share comes from multilateral organizations such as the World Food Program (WFP), European Union, and the United Nations Development Program (UNDP), and U.S., Japanese, and Swedish cooperation agencies. Reimbursable project funding from sources such as the Inter-American Development Bank (IDB), Spanish International Cooperation Agency (AEIC), and World Bank amounts to more than US\$ 92 million. It is difficult to find current, detailed, official data on cooperation in Honduras, and there are serious underreporting problems with respect to the amounts involved and numbers of participating organizations.

There are a number of international cooperation discussion forums, including various United Nations inter-agency coordination committees, bringing together stakeholders on a regular basis. In addition, the health sector has several discussion and study groups, including the Health Sector Committee and the CESAR (Rural Health Care Centers) Committee, addressing nationwide health issues on an ongoing basis.

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