
ARGENTINA

GENERAL SITUATION AND TRENDS

Socioeconomic, Political, and Demographic Overview

The Argentine Republic is a federal democracy and, accordingly, all powers not expressly vested in the national government are attributed to the provinces. The Constitution—as amended by a constitutional convention in 1993—is the supreme law of the land and all legislation must conform to its precepts.

Argentina has an area of 3,761,274 km² and shares borders with five other countries. It is divided into 23 provinces and a federal district (*Capital Federal*), which are responsible under the constitution for the health and protection of the population. Within the general framework of political, economic, and social reforms that the country has embarked upon, the structure of relationships between the central and provincial governments, and between the State and society in general, is changing.

Since taking office in 1989, the present administration has implemented three economic stabilization plans. The most recent one—the Convertibility Plan—was unveiled in early 1991. It tied the local currency to the United States dollar and set a course for structural adjustment based on export-driven growth. As a result, the Government has been able to shore up the country's fiscal accounts and generate surpluses to pay its financial commitments.

Fiscal adjustment efforts have sought to cut productivity costs by scaling back government spending through such measures as privatizing State-run companies, tax reform, more efficient staffing patterns and levels, a new fiscal pact between the federal and provincial governments, and the updating of labor legislation to allow for more flexibility in civil service. Hand in hand with these changes came a substantial reform of the pension system and a new policy framework for the social security system.

Studies by the UN Economic Commission for Latin America and the Caribbean (ECLAC) have shown that sustained ex-

port growth beginning in 1990 led to a trade surplus that—coupled with the abundant supply of external credit and capital inflows—spawned a surge in local demand for goods and services. This, in turn, triggered a boom in imports, especially with the lowering of customs tariffs that had been responsible in part for negative trade balances in preceding years. Demand for goods and services stabilized around 1995, and favorable conditions on international markets led to expansion in the country's exports, bringing trade flows back into balance and boosting economic activity. Although the ratio of foreign debt to exports improved somewhat (dropping from a factor of 5 in 1994 to 4.3 in 1995, while interest as a percentage of exports of goods and services remained stable at 21%–22%), the total foreign debt rose from US\$ 58,413 million in 1991 to approximately US\$ 96,000 million in 1996 and continues to be a heavy burden for the country.

The prospect of broader regional integration under the economic integration treaty signed by Argentina, Brazil, Paraguay, and Uruguay, MERCOSUR, makes economic stability all the more important. In addition to fostering trade in the subregion, MERCOSUR has been instrumental in forging closer macroeconomic ties among the countries. In 1995, for instance, Argentine exports were able to satisfy a jump in consumer demand in Brazil.

The financial crisis that shook the Mexican economy at the end of 1994 had repercussions throughout the Region, albeit of much lesser magnitude. Despite a fledgling capital market and sparse internal savings, however, Argentina was able to consolidate its monetary and fiscal policy and thereby shore up its economic model. The subsequent contraction of the economy in 1995 was short-lived; progress continues to be made, but it has come at a high social cost.

Economic indicators for the 1991–1996 period confirm the success of the Convertibility Plan and other adjustment efforts in strengthening the country's macroeconomic situation: inflation was reined in and the gross domestic product (GDP), exports, and capital flows all improved. Following a

jump of 84.00% in 1991, the consumer price index (CPI) rose only 10.3% in 1992. As inflation continued falling, so did shifts in the CPI, which stood at 3.9% in 1994 and only 1.5% in 1995. By 1996, the CPI rise was only 0.4%, and investment rates had returned to positive figures. GDP growth from 1990 to 1994 showed a cumulative rate of 35.0%.

The Argentine labor market in 1995 was influenced by stable prices and a drop in economic activity—both of which were factors that affected wage and employment trends. For example, even though GDP grew between year-end 1990 and year-end 1994, overall employment decreased. This drop, coupled with the influx of new entrants into the labor market, led unemployment rates to increase, despite the period's economic expansion. The surplus in the supply of labor was further compounded by broad fluctuations in labor market activity and demand.

The recession was already apparent in early 1995, and employment began to drop dramatically. Unemployment surged to 18.4% in April, and underemployment rose to just over 11.0% of the economically active population (EAP). Employment levels continued to fall during the first months of 1996. Although the metropolitan Buenos Aires area was hit hardest, other areas were not immune. In Argentina's major cities, open unemployment (expressed as a percentage of the EAP) soared from 6.0% in October 1991 to 16.4% by October 1996.

In the years following the hyperinflationary period (1989–1990), short-term fluctuations in real wages abated, and the evolution of pay levels was similar in the various sectors and employment categories. In the industrial sector, however, real wages crept downward despite higher productivity levels, falling 7 points between 1991 and early 1995 (using 1991 as a base level of 100). By early 1993, the cost of the basic food basket for an average family had risen 56%, but industrial wages had increased by only 27%. Further adjustment measures were unveiled in 1995: higher-level civil service salaries were pared back, the tax base for income and personal-property taxes was broadened, and payment plans for outstanding taxes were put in place; legislation was passed limiting pension outlays. Employment levels in the industrial sector declined over the course of 1996, while real wages remained virtually unchanged.

The new labor reform package included authorization for small and medium-sized companies to revise their employee-termination policies (e.g., they would now pay fewer associated costs for the termination of recent hires) and redefine job positions. A new kind of apprenticeship contract was created for people under 25, whereby trainees would not be considered full-benefit employees. Accordingly, hiring them would not produce any social-security obligations or any other costs for the company when their contracts expired. Legislation was also passed changing the system of compen-

sation for work-related accidents, replacing employer payments with a compulsory insurance scheme.

The country's vibrant economic activity between 1990 and 1994 did not bring about any change in income distribution. Between 1992 and 1994, income levels rose significantly among the top 10% of Argentina's wealthiest households, but the increase was considerably smaller for the poorest 40% of the population. In other words, the gains secured in terms of better wealth distribution over the first two years were lost.

The shift from inflation to stability and from economic stagnation to economic growth in the first half of the 1990s brought an end to these two factors that had pushed the neediest sectors of society into poverty. The labor market, however, could not offset the accumulated setbacks; on the contrary, it created new sources of vulnerability that, in effect, undermined the progress made thus far. Unemployment continues to accentuate the unequal patterns of growth.

On the Human Development Index (HDI), Argentina was given a value of 0.839 in 1991, placing it among those countries having high human development. The figure in 1993 was slightly higher (0.884). Estimated HDI values for the various provinces point to considerable differences in socioeconomic conditions and are evidence of the complex geography of human development.

The Permanent Household Survey conducted in 1994 by the National Statistics and Census Bureau showed significant variation from one city to another in the percentage of households and persons with unmet basic needs. The incidence of poverty ranged from 32.2% of households in Palpalá (Jujuy province) to 8% in Río Gallegos (Santa Cruz province). For individuals, the highest percentage of unmet basic needs (35.5%) was in Resistencia (Chaco province) and the lowest in two locations in Tierra del Fuego province, Río Gallegos (8.9%) and Ushuaia (8.5%). The discrepancy between these two measures of poverty incidence reflects the fact that households with unmet basic needs are normally larger.

Compared with the October 1995 level, the 1996 Permanent Household Survey showed an increase in the number of people living in poverty in the metropolitan Buenos Aires area. This is a continuation of the trend seen since 1994, and it also is linked to the area's rising unemployment, higher prices for basic staples, and increase in the number of families who are forced to live in substandard dwellings. According to the 1991 census, 30% of the total of 10 million homes had some substandard condition. The emergence of new shantytowns and housing takeovers also are consequences of this situation.

Early in 1996, the Epidemiology Directorate of the Ministry of Health and Social Action began working with PAHO to design a situational-analysis methodology that could generate political and technical criteria to define risk groups, implement geographical targeting, and identify critical problem areas. Such indicators as general living condi-

tions, use of health care services by the population, and the overall health situation would be measured in 524 observation units (or “departments”) into which the country had been subdivided.

Data were first stratified by living conditions, taking into account for each department the percentage of homes with unmet basic needs, illiteracy rates, population lacking coverage under an individual health plan or an *obras sociales* employee-benefits plan, population over 60 years of age, and years of potential life lost (YPLL). Summary indicators were constructed and then plotted along a bell curve. After allowing for standard deviation, five categories were identified: atypical, favorable, average, unfavorable, and precarious. Most of the departments (60.9%) fell in the average range and accounted for 61.2% of the total population; 17.8% of the departments were ranked as having unfavorable or average living conditions (5% of the total population). In other words, the groups with the least favorable living conditions were found in the less densely populated departments.

The population’s use of health care services was analyzed according to the number of doctor visits and hospital discharges. Data came just from the public subsector, and were presented mainly by service provider rather than by the patients’ area of residence. In the departments for which data by patient residence were available (19.3%), those with lower population densities showed a higher rate of hospital discharges than did departments with higher population densities.

In terms of the overall health situation, a study on preventable deaths revealed that—except in the category ranked as having “atypical” living conditions, where preventable deaths were identified exclusively in the age group older than 50 years—preventable deaths occurred in the age group 1–4 years old in every category, although they were highest in the category of “unfavorable” living conditions. The data clearly showed that the number of preventable deaths in the 1–4-year-old age group increased as the quality of life worsened. The data also showed that the more favorable conditions were found in the more heavily populated departments located along or near major national highways, thereby establishing a correlation between geodemographic characteristics and the stratification by living conditions.

The 1991 National Population and Housing Census projected a total population of 35,219,612 for 1996. The average annual growth rate was expected to be 1.261%, lower than in previous periods. The projected male-to-female ratio was 0.96 for 1996 and subsequent years, up to 2005. The total fertility rate continued declining, going from 3.15 children per woman in 1980 to a projected 2.82 for the period 1990–1995 and 2.62 for 1995–2000. The figure varied from one province to another, ranging from 1.58 children per woman in the federal district to 3.58 in Misiones. The birth

rate declined very slightly, but steadily, from 19.8 per 1,000 population in 1993, to 19.7 per 1,000 in 1994, and 18.9 per 1,000 in 1995.

Life expectancy at birth for the total population was estimated at 71.93 years for the period 1990–1992 (75.69 years for women and 68.44 years for men) and 75.59 years for the period 1995–2000 (75.75 years for women and 69.55 years for men).

Looking at the country’s age distribution, children under 15 years old accounted for less than 30% of the overall population, while persons over 60 years represented 13% of the total. The population’s median age in 1985 was 27.6 years, and was projected to rise to 28.4 years by the year 2000. The population over 65 years of age represented 9.0% of the total in 1990, is currently estimated at 9.5%, and is expected to reach 9.8% by the year 2000, with a strong predominance of women. In terms of age structure, the 60-and-older age group (13.9% in 1995) had grown, while the other two cohorts—24 years old and younger (46.0% in 1995) and 25–59 (40.8% in 1995)—had shrunk.

In 1996, the urban population was projected at 88.6% of the total population, concentrated mainly in seven cities of more than 500,000 inhabitants. A full one-third of the country’s population lived in the metropolitan Buenos Aires area; elsewhere in the country, residents of suburban and rural areas were moving to provincial capitals. More than one-half of the country’s urban population lived in cities of 500,000 or more inhabitants.

Mortality and Morbidity Profile

Argentina’s mortality profile improved over the 1990–1995 period. A total of 268,997 deaths were reported in 1995, of which 9,708 (3.6% of the total) were due to ill-defined causes. The total mortality rate was 7.7 per 1,000 population. Maternal mortality, which had risen between 1994 (3.9 per 10,000 live births) and 1995 (4.4 per 10,000 live births), experienced a decrease of close to 14.0% in 1995. Infant mortality fell 15.7% between 1990 and 1995, reaching a level of 22.2 per 1,000 live births. Similar declines were observed in neonatal and postneonatal mortality over the same period, falling by 14.7% and 16.0%, respectively.

In 1995, infant mortality in the city of Buenos Aires stood at 13.1 per 1,000 live births, contrasting with the provinces of Chaco and Formosa, which had levels of above 30 per 1,000 live births. Eleven provinces had infant mortality rates above the national average. The northwest and northeast regions of the country showed the highest levels, but with gradual declines everywhere except in Formosa, San Juan, and Tucumán, where the rates increased. The province of Tierra del

Fuego had the lowest rate of all, with 11.1 deaths of children under 1 year of age per 1,000 live births.

Neonatal mortality was higher than postneonatal mortality in all provinces. Early neonatal was higher (10.8 per 1,000 live births) than in late neonatal mortality (2.8 per 1,000). Nationwide, postneonatal mortality rose by 6.2% between 1994 and 1995, rising from 7.6 per 1,000 live births to 8.1 per 1,000. The increase was seen in all provinces except Chubut, Jujuy, La Rioja, Santa Fe, and Tierra del Fuego. Some 60% of all neonatal deaths could have been prevented by timely diagnosis or treatment during pregnancy and childbirth or for the newborn, and 54.4% of them avoided through prevention, treatment, or both.

Of the 8,570 fetal deaths, 65.2% were classified as late fetal deaths. Fetal mortality in 1995 was calculated at 13.0 per 1,000 live births, although figures varied significantly from one region to another. Low birthweight (<2,500 g) was registered in two-thirds of all fetal deaths. Between 1990 and 1995, the percentage of newborns weighing less than 2,500 g increased from 6.1% to 6.6% nationwide. Underreporting makes it impossible to identify which provinces have greater incidences of low birthweight.

An analysis of mortality by leading cause of death and by sex reveals that the number of deaths attributable to heart disease nationwide fell 10.9% between 1990 (252.6 per 100,000 population) and 1995 (227.7 per 100,000 population). Over the same period, mortality from cerebrovascular diseases and accidents also decreased significantly, by 16.7% (from 80.8 to 69.2 per 100,000 population) and 16.4% (from 32.6 to 28.0 per 100,000), respectively. Deaths from malignant tumors registered a smaller decline, falling from 143.7 per 100,000 population in 1990 to 141.6 per 100,000 in 1996.

Heart disease, malignant tumors, and cerebrovascular diseases were the leading causes of death among both sexes. For men, the death rate from heart disease in 1995 was 244.5 per 100,000 population, while for women it was somewhat lower, 206.4 per 100,000. The male death rate was also higher for malignant tumors (157.6 per 100,000, compared with 124.1 per 100,000 for women) and cerebrovascular diseases (70.4 per 100,000, compared with 66.5 per 100,000 for women). Accidents were the fourth most common cause of death among men, with 6,766 of the total 9,740 accidents ending in death (39.7 per 100,000 population); the specific mortality rate from this cause among women was 16.1 per 100,000 population.

The most striking change in the country's mortality profile has been the increase in the contribution of deaths from pneumonia and influenza since 1994. These diseases ranked fifth as a cause of death in males, displacing conditions originating in the perinatal period. Among women, deaths from pneumonia

and influenza rose from the sixth leading cause in 1990 to the fourth in 1995. Also worth mentioning is the increase seen in female mortality from infectious causes as of 1995.

Conditions originating in the perinatal period were the leading cause of infant mortality (7,125 deaths), accounting for 50% of deaths from all causes in children under 1 year old. The specific mortality rate from this cause dropped 17.1% between 1990 and 1995 (from 1,267.2 to 1,081.6 per 100,000 population). Congenital abnormalities were the second most common cause (396.8 per 100,000). Deaths from pneumonia and influenza (690 in 1995) declined 5.7% between 1990 and 1995, and intestinal infectious diseases moved from fourth to sixth place.

Among children 1–4 years old, accidents were the leading cause of death by a wide margin (16.9 per 100,000 population). Although the 1990–1995 period saw a 28.9% drop in mortality from accidents, this cause still claimed 458 lives in 1995 (21.4% of all deaths), of which approximately 45% were traffic accidents or accidents in the home. The risk of dying from pneumonia and influenza dropped nearly 22.0% in 1995, moving this group of causes into fourth place. Mortality from intestinal infectious diseases also declined, and these diseases no longer rank among the five leading causes of death. The relative decrease in deaths from these leading causes is responsible for the relative increase in mortality from congenital anomalies and heart disease.

Accidents were also the leading cause of death in the age group 5–14 years old, with 571 deaths in 1995 (8.6 per 100,000 population). Nevertheless, mortality from this cause dropped 26.7% between 1990 and 1995. Malignant tumors were the second most common cause of death (3.7 per 100,000 population). Mortality from cancer decreased 45.9% (244 deaths).

In the population aged 15 to 49, heart diseases and malignant tumors represented the first and second most common causes of death in 1990, at rates of 33.8 and 33.7 per 100,000 population, respectively. In 1995, there was a decline in mortality from heart diseases (27.9 per 100,000), leaving malignant tumors as the leading cause that year (31.1 per 100,000 population). Accidents continued to be the third most common cause of death in this cohort (25.1 per 100,000).

In the age group 50–64 years old, mortality from heart diseases and malignant tumors exhibited patterns similar to the previous age group. The number of deaths attributable to heart diseases declined considerably between 1990 and 1995, dropping from 340.8 to 289.3 per 100,000 population. Mortality from malignant neoplasms fell slightly, and malignant tumors came to rank as the leading cause of death.

In the population 65 years of age and older, heart disease continued to be the leading cause of death in the 1990–1995 period. Tumors and cerebrovascular diseases ranked second

and third; mortality from pneumonia and influenza increased 21.0%.

An analysis of mortality based on years of potential life lost (YPLL) from the leading causes of death revealed that accidents were the number-one cause of death among persons between the ages of 0 and 64 years, followed by conditions originating in the perinatal period and heart diseases, in that order. Accidents and perinatal conditions took the highest toll, since each such death was responsible for the loss of an average of 53.6 and 63.5 years of potential life, respectively. If children under 1 year of age are not included in the calculation, accidents remain as the leading cause, but suicide ranks fifth. Each death from these two external causes represented, on average, 50 and 32 YPLL, respectively.

SPECIFIC HEALTH PROBLEMS

Analysis by Population Group

Morbidity data for this analysis were difficult to collect, because in Argentina records are not generally kept on patient visits, nor are periodic health surveys conducted.

Health of Children

Of the 14,606 deaths among children under 1 year of age reported in 1995, 56.2% were males. Although mortality from conditions originating in the perinatal period declined 17.1%, they continued to be the leading cause of death between 1990 and 1995, accounting for 48.8% of the total. Deaths from pneumonia and influenza rose nearly 6.0%, while those caused by intestinal infections dropped. The apparent increase in deaths attributed to congenital abnormalities may be due to the relative decrease in the other causes. Accidents climbed from the fifth most common cause in 1990 to fourth in 1995. Although accidents were responsible for only 4.0% of all deaths, their risk to children under 1 year of age rose considerably. Data collected from records of discharges from public-sector hospitals give an idea, albeit partial, of morbidity in this age group. Conditions originating in the perinatal period, intestinal infectious diseases, and pneumonia accounted for 60.3% of hospitalizations.

A total of 2,142 deaths were reported in children between 1 and 4 years of age; 54.3% in males. The specific mortality of this cohort fell from 1.2 per 1,000 population in 1990 to 0.8 per 1,000 in 1995. The high number of deaths from preventable causes underscores the need for a more comprehensive approach to health care for this group. Morbidity data based on discharge records from public hospitals show that, in 1992, 43% of hospital visits were due to diseases of the res-

piratory system and intestinal infections. A 1994 survey covering eight major cities found that more than two-thirds of Argentina's children had presented with episodes of upper respiratory infections.

In the age group 5–9 years old, accidents continued to be the leading cause of death, although their actual number was much lower than for other childhood age groups. A significantly higher number of cases occurred among boys. The 251 accidents reported in 1995 accounted for 28.6% of all deaths in this age group; over one-third were from traffic accidents. Malignant neoplasms, especially those of lymphatic and hemopoietic tissue, constituted the second cause of death (147 cases in 1995).

In the northern provinces, moderate chronic malnutrition was detected among children entering first grade. A prevalence of 11.8% was calculated for Jujuy; in the more densely populated provinces, levels were much lower (prevalence of 4% in Córdoba, La Pampa, Rosario, Mendoza, and Río Negro). According to data from public hospitals, diseases of the digestive and respiratory systems accounted for one fourth of all cases of hospitalization. Fractures were the third most common diagnosis and reflect, by inference, morbidity from accidents.

Health of Adolescents (10 to 19 Years Old)

A total of 1,064 adolescents between the ages of 10 and 14 died in 1995. The risk of dying from an accident—especially traffic accidents (130 deaths in 1995)—was much higher in this age group than it was for children. The general profile of mortality and morbidity was similar to that of the 5–9-year-old age group, except that suicides (32 deaths) and homicides (14 deaths) begin to gather importance as causes of death in this age group. Almost two-thirds of all adolescent deaths were males.

The health of young people between the ages of 15 and 19 was closely linked to their greater use of tobacco, alcohol, and psychoactive drugs, and the resulting deaths from accidents, homicides, and suicides. Sexual initiation occurred between the ages of 15 and 19 years for 50% of the population, and this was a factor in sexually transmitted diseases (STDs), AIDS, and unwanted pregnancies.

External causes were the most frequent cause of death among adolescents in 1995. Specific mortality from traffic accidents was 23.8 per 100,000 population; from suicide, 10.3 per 100,000; and from homicide, 8.8 per 100,000. With a male-to-female ratio of 3:1, these three causes accounted for 29.7% of all deaths in this age group. Malignant neoplasms and cardiovascular diseases ranked second and third. Mortality from obstetric causes was less than 3.0 per 10,000 live births.

Hospital admissions of adolescents at public-sector facilities were attributed, in order of importance, to obstetric causes, abortions, and diseases of the digestive system.

Health of Adults (15 to 60 Years)

Cardiovascular diseases, malignant tumors, and accidents were the leading causes of death among adults. Accidents were the most prevalent external cause of death among persons 30 years and younger, followed by suicide (574 deaths in 1995). From age 30 on, the leading cause of death shifted toward cardiovascular diseases and malignant tumors. Males accounted for more than 50% of all deaths.

The scant information available on contraceptive use was based on a survey conducted in Buenos Aires and six other cities. Roughly 60% of Argentine women used some form of family planning. Among adolescents under age 20, that percentage dropped to levels as low as 30% and 50%, and was indirectly proportional to the individual's level of formal education and directly proportional to the level of unmet basic needs. The ratio between normal deliveries and cesarean sections ranged from 1.8 to 4.4 in the areas studied.

Of the 290 maternal deaths reported in 1995, two-thirds were due to direct obstetric causes in which the preventable risk factor was greater than 80%. For indirect obstetric causes, the preventable risk factor was over 50%. However, these figures do not reflect the true seriousness of the situation, since underreporting is estimated in more than half of these cases. Maternal mortality fell from 5.9 per 10,000 live births in 1985 to 4.4 per 10,000 in 1995, a decline of 34.1%. Even so, the level is still considered to be high, bearing in mind that 96.0% of deliveries between 1990 and 1995 occurred in health care facilities. Women from northern and western Argentina were found to bear children at a younger age, and their fertility rates were higher than the national average (total fertility rate of 2.58 for the period 1990–1995). Such regional differences are cause for concern, and the fact that 11 provinces had a maternal mortality rate of over 5.0 per 10,000 live births underscores the seriousness of the problem. The higher rates were attributed to abortions and direct obstetric causes. Seventy percent of the deaths from direct obstetric causes occurred subsequent to a cesarean section, and the most common complication was septicemia. These two causes of death, both of which are avoidable, accounted for 67.3% of all maternal deaths. Risk of maternal death was highest for females below age 15 and over age 35. Nearly three-fourths of these deaths were among women from lower socioeconomic strata.

According to data from public hospital records, morbidity in this group presented a pattern similar to that of the 15-to-24 age group, with a clear predominance of obstetric causes

and abortions (20.8% of all diagnoses). The third most common cause of morbidity were diseases of the digestive system, e.g., ulcers of the stomach and duodenum, appendicitis, disorders of the gallbladder, and cirrhosis of the liver.

Health of the Elderly (60 and Older)

Heart diseases, malignant tumors, and cerebrovascular diseases were the three leading causes of death in this age group, although mortality had declined considerably. In 1995, the mortality profile underwent a marked change as deaths from heart disease and cerebrovascular diseases fell 10.9% and 16.9%, respectively, between 1990 and 1995, and malignant tumors became the leading cause of death (922.3 per 100,000 population). That notwithstanding, more than one-half of the deaths in this age group continued to be attributable to heart diseases and malignant tumors.

Mortality from pneumonia and influenza increased significantly in this cohort, rising from the fifth leading cause of death in 1990 to the fourth five years later (208.0 per 100,000 in 1995). Heart diseases, malignant tumors, and cerebrovascular diseases accounted for 63.2% of all deaths in 1995; next in order were pneumonia and influenza (4.0% of the total).

Morbidity data were collected from statistics compiled by the National Social Services Administration for Retirees and Pensioners (INSSJyP) under its Comprehensive Health Care Plan (the PAMI plan). Based on a sample of 500,000 beneficiaries from the three sectors that provide health care (public sector, *obras sociales* plans, and private sector), an examination of the principal diagnoses indicated that diseases of the digestive system, cardiopulmonary diseases, and respiratory diseases accounted for 29% of all hospitalizations. Men showed a greater incidence of genitourinary and respiratory diseases, while endocrine diseases (mainly diabetes mellitus), nutritional deficiencies, and injuries were the main causes of hospitalization among females. In outpatient services, the most common causes of morbidity reported were cardiovascular diseases, followed by diseases of the musculoskeletal system and connective tissue, and endocrine and metabolic diseases. Patient visits from males were mainly for specialized consultations related to the urinary system, while diseases of the musculoskeletal system and connective tissue were the most common cause among women.

Family Health

The National Council on Children and the Family—an agency of the Secretariat for Social Development, which reports directly to the Office of the President of the Republic—provides assistance for teenage mothers nationwide. Between

1985 and 1993, the percentage of children born to mothers under the age of 19 rose from 13.3% to 15.7%. The provinces with the highest percentages of adolescent mothers (>20%) were Catamarca, Chaco, Corrientes, and Misiones. Of these young mothers, 1.1% were illiterate and 11.8% had not finished primary school.

Workers' Health

Data compiled by the Ministry of Labor from a broad sample of companies showed that most work-related accidents between 1991 and 1993 occurred in the food and metallurgical industries. During that period, the accident rate rose 5%. This apparent increase in the risk of accidents in all industries (except textile and nonmetallic mineral) was attributed to better reporting by the companies.

Among the so-called "occupational diseases," psychiatric disorders were especially prevalent in the transportation sector, where workers are exposed to highly stressful conditions; construction workers, on the other hand, suffered mainly from joint-related ailments, respiratory conditions, and alcohol addiction. The food and metallurgical industries accounted for 47.1% of all occupational diseases, and incidence rates were high. It was in the sanitation and basic metal industries, however, that occupational diseases (although lower in absolute numbers) posed the highest risk, followed by the metallurgical, nonmetallic mineral, and construction industries.

The Argentine work force in 1995 included an estimated 200,000 children and adolescents between the ages of 10 and 14; in the country's major cities, an additional 24,000 were engaged in some marginal economic activity such as begging or selling small items or services.

Health of Indigenous People

Since health statistics for Argentina are not broken down by ethnic group, the necessary data are not available to accurately diagnose the health situation of the indigenous population. Nevertheless, the experience of local programs—such as those for the prevention of cholera and Chagas' disease, environmental sanitation, and maternal and child health—points to generally poor health conditions in this population group. In the wake of the cholera epidemic, which hit indigenous communities particularly hard, an agreement was signed by the Ministry of Health and Social Action, the Ministry of Labor, the social security system, the provincial governments, and indigenous organizations, setting up the Health Program for Indigenous Peoples. The program was launched in the northern provinces in January 1994 and has thus far trained and outfitted 250 indigenous health agents who provide pri-

mary health care in their communities; gradually, these agents have been incorporated into the local health teams. Initial coverage efforts focused on communities at risk, for a total of 40,000 persons.

Analysis by Type of Disease or Health Impairment

Communicable Diseases

Vector-Borne Diseases. The risk of infection by *Triatoma infestans* was present across 86% of continental Argentina. Efforts to control transmission of Chagas' disease had significantly reduced household infestation indexes, which were estimated at 4% in many areas. In Santiago del Estero (the province where the disease was most endemic), acute cases had fallen 90% since the 1980s. Serological prevalence among the general population was less than 8%. Thirteen percent of the infected population was under 20 years of age, while persons over age 60 presented the highest rates (>10%). In 1996, the serological prevalence as detected at blood banks stood at 3.7%. The lower infection rate among young people was attributed to the decrease in *Trypanosoma cruzi* transmission after vector-control strategies and serological controls began to be implemented at blood banks in the 1980s. The benefits of these actions were evident in the drop in serological prevalence among 18-year-old males reporting for military service: from 10.3% in the late 1960s to 1.8% in 1993.

The program to control Chagas' disease aims to increase the number of homes sprayed with insecticide while promoting surveillance and control actions toward the ultimate objective of halting vectoral transmission of this disease. The program was able to meet 90% of its target of spraying 685,000 homes in 1996.

The incidence of Argentine hemorrhagic fever, which had been declining since 1988, experienced an increase in 1990, with 727 cases reported (2.2 per 100,000 population). After an initial doubling of reported cases in the provinces of Buenos Aires, Córdoba, and Santa Fe, the level dropped and eventually stabilized in the following years. In 1995, only 65 cases were reported (0.3 per 100,000 population). This dramatic decline in incidence was attributed to the application of Candid#1 vaccine, an attenuated live-virus vaccine that was developed with international cooperation.

The downward trend observed in malaria incidence since 1989 was reversed in 1993, and by 1995 annual case reports had risen to 1,065. Most of these were imported cases, with Jujuy, Misiones, and Salta being the provinces most affected. Given the steady decline in the number of autochthonous cases, the increase in the overall level (incidence of 3.3 per 100,000 population in 1995) was mainly due to imported cases associated with the steady migration into the country

from southern Bolivia. In 1996, 2,020 cases were reported, with the proportion of native cases remaining the same (44.0%). Salta—the province with the most cases—continued to display residual endemic conditions. All reported cases of malaria involved *Plasmodium vivax* infection.

No cases of yellow fever were reported; vaccination coverage has been provided for groups at risk since 1946. A total of 98,700 doses of yellow fever vaccine were administered in 1995.

Vaccine-Preventable Diseases. From 1991 on, the highest number of cases of diphtheria reported in any single year was five; no cases were reported in 1996. The incidence of whooping cough declined over the five-year period, with 737 cases reported in 1996 (2.2 per 100,000 population). Twenty-six cases of neonatal tetanus were reported between 1993 and 1996; a program to eradicate this disease was unveiled in July 1994.

A serious measles epidemic swept Argentina in 1991, striking at a rate of 129.1 per 100,000 population. A mass vaccination campaign was launched in 1993, targeting all children under age 15. Nationwide coverage reached 97% among children under 1 year old, and new cases fell back sharply, with only 655 cases reported in 1995 (2.0 per 100,000 population).

The last reported case of wild poliovirus occurred in 1984. In June 1994, the health authorities declared the disease eradicated in Argentina.

In 1992, the country was hit by an epidemic of mumps and rubella, with more than 80,000 cases of each disease reported. Case reports remained within expected levels during the years that followed. At the time, neither disease was part of the Expanded Program on Immunization (EPI), but both have been slated for inclusion as of 1997.

Cholera and Other Intestinal Infectious Diseases. The first cases of cholera in the 1992 epidemic were reported in January among indigenous communities in the province of Salta, along the Bolivian border. The pathogen isolated was *Vibrio cholerae* O1 biotype El Tor. Subsequent epidemic outbreaks of cholera occurred in 1993 and 1994, striking mainly the population over 15 years old (56.5%) and children 1 to 4 years old (23%–25%). Jujuy and especially Salta were the provinces hardest hit, accounting for 94.3% of all cases. The main foci were located in three areas along the Bolivian border in northern Salta: Pilcomayo, Bermejo, and San Martín, in descending order. Incidence peaked in 1993 at 2,080 cases (6.5 per 100,000 population) and a case fatality rate of 1.6%; in 1995, incidence dropped to 188 (0.6 per 100,000 population), only to rise again to 474 cases in 1996 (1.4 per 100,000). The case fatality rate remained stable at 1.1% in 1995 and 1996.

Diarrheal diseases were reported among children in all age groups. In order to provide benchmarks for early detection of

cholera cases and to track the increase in cases of diarrhea among older children, in 1992 the reporting categories were changed from under and over 2 years of age to under and over 5 years of age. The steady increase observed in the number of reported cases of diarrheal diseases since 1992 was attributed to better reporting practices.

Typhoid fever registered a slight decline between 1989 (1.1 per 100,000 population) and 1996, when 275 cases were reported (0.8 per 100,000 population). Incidence was highest in the provinces of Buenos Aires, Salta, and Formosa, at rates equal to or greater than 6.0 per 100,000 population.

Acute Respiratory Infections. A total of 561,189 cases of influenza (161.4 per 10,000 population) were reported in 1996. The increase in reported cases during that year was ascribed to a combination of better reporting and a real increase in morbidity in Santa Fe, La Pampa, and the northern provinces. Historically, the city of Buenos Aires has had the lowest rates; in 1996, 9,777 cases were reported (32.3 per 10,000 population). The influenza virus, type A (H3N2) was isolated in 1993, followed later by the influenza B virus, involving a strain similar to B/Panama/90. The incidence of pneumonia was much lower and stood at 91,740 cases in 1996 (26.4 per 10,000 population), although improved reporting had contributed to a general upward trend. Here too, the highest incidence was found in the northern part of the country.

Rabies. Human rabies is now a controlled disease thanks to the success of prevention and animal vaccination programs that have reduced the incidence of animal rabies by 99%. In 1994, a single case of human rabies was reported, the first one since 1985.

AIDS and Other STDs. AIDS was first reported in 1982 and incidence has grown with each passing year. From 720 cases in 1991, the number rose to 1,624 in 1995. Underreporting is thought to be very high, with the actual number of cases estimated to be at least 40% higher than the reported level. The serological prevalence of the human immunodeficiency virus (HIV) was calculated at 0.3% among blood bank donors. Although the disease was present throughout the country, 90% of all cases were reported in the provinces of Buenos Aires, Córdoba, and Santa Fe, which account for over 60% of the total population. A full 75% of the cases reported in the province of Buenos Aires were concentrated in the metropolitan Buenos Aires area; most of the cases in the other two provinces were reported in the cities of Córdoba and Rosario, respectively.

As of 1992, the pattern of distribution by sex began to shift, dropping from 4.1 male cases for each female case that year to 3.5 in 1996. In the province of Buenos Aires, the shift was even more marked, dropping to 3 male cases for each fe-

male case; Buenos Aires was also the province with the highest percentage of female and pediatric cases (52% of all cases).

Sixty-one percent of all AIDS patients were between 20 and 34 years of age. Before 1989, though, the age group with the most cases had been the 30–49 age group. This shift toward a younger age group is attributed to an increase in intravenous transmission associated with drug use. The average age was 33 years among males and 28 years among females.

The epidemic's profile has changed not only in terms of the higher number of women infected (rising from 0 cases in 1985 to 21.9% of cases in 1996), but also because of the gradual spread of intravenous drug addiction as a means of transmission. Sexual transmission, which accounted for 100% of cases between 1982 and 1985, dropped to roughly 50% of cases in 1996; 40% to 45% of cases were transmitted by way of blood, and from 5% to 10% were cases of perinatal transmission. For the 1992–1996 period, a full 68.5% of the cases were associated with heterosexual transmission, an HIV-positive mother, or intravenous drug addiction.

Other STDs (including syphilis and gonorrhea) remained relatively stable over the period, although the incidence of syphilis was lower. Widespread underreporting continues to distort the true picture of the health situation with regard to these diseases. Provisional figures on incidence for 1996 indicated 1,339 cases of primary and secondary syphilis, 3,246 cases of unspecified syphilis, and 6,620 cases of gonorrhea. Congenital syphilis was first reported as a separate category in 1994; 275 cases were reported in 1996. This trend is attributed in part to better case reporting. Misiones and Santa Fe were the provinces with the highest incidence.

Emerging and Re-emerging Diseases. Reported cases of meningococcal encephalitis started to show an increase as of 1989. In 1993, incidence was highest in the province of La Pampa with 79 cases (30.4 per 100,000 population), followed by Misiones with 205 cases (26 per 100,000). A total of 3,793 episodes were reported for the country as a whole (11.2 per 100,000 population). Tierra del Fuego, Formosa, Buenos Aires, Tucumán, Chaco, and Santa Fe all reported levels above the average. Children under 5 years old were the age group most severely affected (56.3%).

Bacterial meningitis accounted for most of the cases (roughly 69% of the total), although the viral meningitis was on the rise, accounting for 20% of the total in 1994. In 1991, *Neisseria meningitidis* surpassed *Hemophilus influenzae* as the most prevalent causative agent of meningitis: the former accounted for over 45% of cases in 1993–1994, while the latter was identified in roughly 20% of cases (showing a slight increase in 1994). Pneumococcus infection also was identified in roughly 20% of cases. Meningococcal infections were reported in children between the ages of 0 and 9 years, al-

though they were concentrated in the age group 1–4 years old. *H. influenzae* infection was found mainly among children under 1 year old and in the 1-to-4 age group. Meningococcal meningitis remained constant at around 800 cases a year from 1993 on, while the incidence of meningitis from *H. influenzae* dropped to 300 cases in 1996.

Cuban AB meningococcal vaccine was tested by immunoassay in the province of La Pampa in 1994. A total of 9,339 doses were administered to children between the ages of 2 and 14, with coverage estimated at 82.5%. The results had not yet been evaluated.

Hantavirus pulmonary syndrome was first reported in 1981. Of the 81 cases confirmed as of early 1997, 39 of them (48.1%) occurred in 1996 and presented a case fatality rate of 55%. Six provinces reported cases, with the highest levels being registered in Río Negro and Salta. The causative agent identified in Argentina was the Andes virus, a variant of the USA virus that had triggered an epidemic in the United States. The proven chain of transmission is from reservoir (a wild rodent of the genus *Oligoryzomys flavescens*) to humans; however, person-to-person transmission is thought to be possible as well, and is currently under study.

Hepatitis case reporting has improved since 1993. A diagnostic laboratory network was set up, comprising 14 regional sentinel units for viral hepatitis, and reporting is being monitored more closely, with data broken down by type (A, B, other, and unspecified). The serological prevalence of hepatitis B and C was 0.6% and 0.7%, respectively, based on donors screened at blood banks. In 1993, reported cases of hepatitis A began to show an increase; by 1994, the disease had assumed epidemic proportions, with an incidence of 28,488 cases (87.4 per 100,000 population) that climbed even further to 32,880 cases in 1995 (100.8 per 100,000). With regard to hepatitis B, data from blood banks revealed a serological prevalence of 0.6% in 1996 among the general population; the percentage was higher for at-risk populations (e.g., health workers), however, owing not only to better quality reporting but also to case detection efforts undertaken prior to the hepatitis B vaccination campaign for health workers at high and medium risk. The goal is to vaccinate 95% of these workers; 60% coverage has been attained. Vaccine is also administered to newborns of HBsAg-positive mothers and, since 1996, to personnel of the armed forces and the penitentiary system. The vaccination target for 1997 was to provide coverage for all children 0 to 16 years old who live in at-risk areas.

Chronic Communicable Diseases. A total of 12,185 cases of tuberculosis were reported in 1991, the year with the lowest incidence in the 1991–1995 period (37.3 per 100,000 population). From that year on, reported cases increased and, in 1993, they reached a total of 13,914 (41.3 per 100,000

population). Jujuy and Salta were the only provinces reporting more than 100 cases per 100,000 population. Some 13,450 cases were reported in 1995, representing a decline of 1.7% over 1994 and 3.4% over 1993. Underreporting is suspected to be high. Recent data point to a potentially explosive situation, given the rise in the number of reported cases, the decrease in preventive and bacteriological diagnostic measures, and the increase in drug-resistant forms (primary resistance was reported to be 12.4% and acquired resistance 41.3%). The association between tuberculosis and AIDS continued to grow: tuberculosis was present in 17% of AIDS patients in 1996.

The incidence of leprosy changed very little. Approximately 500 new cases were reported each year (1.5 per 100,000 population), mainly in the provinces of Misiones, Corrientes, Chaco, Formosa, and Santa Fe.

Noncommunicable Diseases and Other Health-Related Problems

Nutritional Diseases and Diseases of Metabolism. The studies conducted in this area present partial or limited data, making it difficult to draw comparisons and estimate indicators at the national level. Iodine deficiency and, even more so, iron deficiency were reported in the age group 1–6 years old. The prevalence of iron deficiency anemia in children ranged from 24% to 47%, depending on the province; there was a strong correlation with socioeconomic level.

The most frequent nutritional disorder among pre-school and school-aged children was growth retardation (i.e., below normal height-for-age) owing to chronic malnutrition. Although the range varied significantly from one region to the next, case reports were concentrated in the northwestern and northeastern provinces and in periurban areas around major cities. In the province of Buenos Aires, 8.5% of schoolchildren were short for their age (below the tenth percentile), compared with 18%–24% in the northwestern region and 16% in the northeastern provinces. According to an anthropometric analysis of data compiled from medical examinations of 18-year-old males reporting for compulsory military service in the 1992–1993 period, recruits from the northern provinces and from Patagonia were found to be up to 8 cm shorter than the average height for Buenos Aires.

The prevalence of chronic malnutrition as measured by body mass index (BMI < 18.5) was calculated at 4.2%, with the highest levels being recorded, once again, in the northwestern and northeastern areas of the country. At the same time, 19.5% of the population was classified as overweight (BMI > 25) and 4.1% as obese (BMI > 30), making this the most widespread type of malnutrition for the country as a whole; figures indicated an upward trend in almost all the provinces.

Cardiovascular Diseases. Aside from nutrition-related factors, arterial hypertension also plays a role in cardiovascular risk. Among adults 18 to 59 years of age, 13% of males and 7% of females suffered from high blood pressure. Smoking—to cite another contributing factor—had a prevalence of 40% among men and 32% among women; and an estimated 75% of the population led sedentary lifestyles. Of the various types of heart diseases classified (ICD-9, 390–429), acute myocardial infarction was the leading cause of morbidity and mortality, with a rate of 44 per 100,000 population in 1995 and a male-to-female ratio of 2:1.

Malignant Tumors. Mortality from malignant tumors remained relatively stable over the 10-year period ending in 1995. The overall rate was 141.6 per 100,000 population in 1995, making malignant tumors the second leading cause of death that year. The absence of a national registry of tumors makes it impossible to identify the exact profile of morbidity from this cause.

The mortality rate from malignant tumors was calculated at 157.6 per 100,000 population among men and 124.1 per 100,000 population among women. Tumors of the trachea, bronchus, and lung were the leading cause among males (accounting for 24.3% of the total), followed by prostate cancer (11.0%). Among females, the most frequent cause was breast cancer (21.2%), followed by cancer of the colon (8.8% of all deaths from malignant tumors).

Stomach cancer was the third most common cause of death in this category among men. Among women, malignant tumors of the respiratory tract and lungs ranked third, surpassing cancer of the uterine cervix and taking the place of stomach cancer among the leading causes of death from malignant neoplasms.

Accidents and Violence. Accidents were the fourth leading cause of death. Despite a drop from 32.6 per 100,000 population in 1990 to 28.0 per 100,000 in 1995, accidents remained a serious health problem and were responsible for the loss of considerable years of life potential lost (estimated total YPLL of 522,966). Their relative weight in the five leading causes of death increased among children under 1 year old, remained relatively stable in the 1–4 age group, decreased considerably in the 5–14 group, and remained constant in the 15-to-49 group. There was a strong predominance of males (4:1) in accident-related deaths (6,766 deaths, representing 69.4% of the total). Among external causes, traffic accidents were responsible for 3,797 deaths (20.8%); suicide, 2,241 (12.4%); and homicides, 1,472 (8.2%). These three causes accounted for 41.4% of all deaths from external causes in 1995. However, the high number of deaths from injuries undetermined whether accidentally or purposely inflicted (4,542 cases) indicates that these percentages may be even higher.

Behavioral Disorders. Information on the prevalence of mental illness is very scant. Data from public-sector establishments are incomplete, but indicate that 2.5% of all hospitalizations were related to this category of diseases. Mental illness was more predominant among males and among the 30-to-55 age group. Mental disorders accounted for an estimated 5% of all hospital admissions nationwide.

Different studies placed the prevalence of smoking at somewhere between 40% and 50% for males and between 25% and 35% for females. An increasing percentage of adolescents were becoming addicted, and teenagers over 15 years of age were estimated to smoke 1,500 cigarettes per capita per year. Of the total number of deaths (268,997 for all age groups in 1995), 20% could be attributed to smoking, given its direct association as a risk factor for cardiovascular and cerebrovascular diseases and cancer of the respiratory tract.

Studies on the prevalence of alcoholism do not provide full data, but they do indicate a high percentage of alcoholics among economically active males (between 30% and 50%). Recently, there has been a trend toward alcohol use at younger ages: in the metropolitan Buenos Aires area, for instance, 70% of adolescents drank beer on a daily basis.

Industrial Accidents and Natural Disasters. Twenty-nine industrial accidents were reported in 1995, resulting in 15 deaths. In 1996, a total of 24 accidents were reported in the chemical industry: 85% were chemical spills, 8.3% involved leaks, and 4.2% were fires. Of these accidents, 62.5% occurred during transport operations and 37.5% at fixed installations, leading to the exposure of 1,035 persons and chemical intoxication of 19.

Periodic flooding is another source of growing concern, given the vulnerability of many residents in at-risk areas. The danger of flooding and the damage it wreaks is exacerbated by improper land use, deforestation, and inappropriate building practices.

RESPONSE OF THE HEALTH SYSTEM

National Health Plans and Policies

The national health policies adopted in July 1992 were designed to ensure the population's right to health on the basis of the principles of equity, solidarity, efficiency, effectiveness, and quality; enhance the accessibility, efficiency, and quality of health care; strengthen health promotion and protection by targeting specific population groups; and redefine the role of the State in line with federalization and decentralization efforts. Steps were taken to revamp the health care system—including reform of the *obras sociales* em-

ployee-benefit plans—and a series of new initiatives were unveiled, such as the National Program for Quality Assurance in Medical Care, the Self-Managing Public Hospitals Program, and the Compulsory Health Plan. Health promotion and disease prevention were given a higher profile through a variety of programs and concerted epidemiological and preventive actions, such as studies on prevalent diseases and vaccination campaigns. Among the relevant strategies adopted in this regard, special mention can be made of the programs to eradicate polio, measles, and tetanus, programs to control and eliminate cholera and Chagas' disease, AIDS control programs, and support for maternal and child health.

These changes in the health sector were preceded by broad-based reform in the country's retirement and pension system, which now combines compulsory and voluntary coverage modalities. The compulsory portion has two components: the government-administered component is financed through tax revenue (on a pay-as-you-go basis) and guarantees a standard minimum benefit according to principles of redistribution and insurance; the private component is geared toward savings and security, and takes the form of individual member-capitalized savings plans or company-managed plans that are funded by joint employee and employer contributions, fully and individually capitalized and regulated by the government (i.e., fully funded plans). The voluntary plans are identical in all respects to the fully funded plans with the exception that they are capitalized exclusively by the beneficiary.

In 1995 and 1996, a new system was devised for managing occupational hazards: private operators were brought in as a way of eliminating one of the inherent weaknesses in the previous system, which assigned full liability to employers. The new system introduced entirely new guidelines and arrangements and allowed for the rapid organization of a structure encompassing 43 specialized insurance companies, 380,000 participating firms, and some 3.5 million workers. Over 24,000 workers receive monthly benefits under this legislation. Overseen by the Superintendency for Occupational Hazards (which is linked organizationally to the Ministry of Labor and the social security system), the new system is looking to extend coverage beyond the formal labor market, while updating the accident information system and broadening the initiative's general objectives of accident prevention and mandatory implementation of plans to improve working conditions and settings.

Health Sector Reform

Current health reforms respond to the macroeconomic objective of paring back the costs of productive activity. Change

is also sweeping the health sector at the microeconomic level, as it learns to work with new actors (i.e., insurance companies) and other intermediaries, as well as with new forms of contracting that are redefining its relationship with the private sector.

Until recently, health care costs were managed through a system of egalitarian benefits, fixed-percentage payroll deductions, the Redistribution Fund of the *obras sociales* employee-benefit plans, and additional contributions from employers. Under the *obras sociales* plans, payments were made pursuant to agreements with service-provider groups, i.e., the physicians' association or the association of private clinics and sanatoriums. The main form of contractual relationship was fee-for-service.

The National Health Insurance Administration (ANSSAL) regulates prices (by establishing weighted values for each type of service on the basis of a national fee table), enforces guidelines and regulations, administers subsidies paid out of the Redistribution Fund, and allocates funding for public hospitals (whose services are often used by *obras sociales* plan beneficiaries). In an attempt to circumvent this regulatory structure, service providers have engaged in such practices as billing for services not actually provided, performing unnecessary procedures, and invoicing patients directly for any amounts that exceed the ANSSAL-set fees.

This fee-for-service approach—combined with insufficient management control in the *obras sociales* plans—gave rise to a series of incentives in the system that led to a health care structure based on increasingly expensive curative services and characterized by overbilling, overtreatment, the subcategorization of specialties, and heavier use of technology. Private-sector growth and the steady introduction of technology produced a glut of service providers, making it virtually impossible to financially sustain the burgeoning delivery structure. New sources of financing had to be found. The solution ultimately adopted was to have plan members pay a higher share for the lower-cost and less complex care services; the idea of institutional prepayment was developed by the service providers themselves.

In other words, the system shifted from a fee-for-service basis to a capitation-based system that concentrated the risk in the provider organization. The private subsector took on a greater role in providing health care services, as the role of the *obras sociales* and public subsectors shrank in the face of fiscal constraints, lower wage levels, unemployment, and lower employer contributions.

In 1993, the Government gave approval for plan members to move from one *obras sociales* plan to another. A reform program (known as the PROS program) was launched in 1995 to get the *obras sociales* plans and the INSSJyP's PAMI plan on a solid enough financial footing so they could pay "eligible" debts and come up with new contracting arrangements that

would guarantee their viability, financial soundness, and ability to honor outstanding commitments. Decree 206/97 extended the deadline for *obras sociales* plans to join the PROS program to 30 April 1997, and moved to 30 August 1997 the deadline for members to switch to any prequalified plan that had submitted a proposal for institutional modernization within the PROS framework. According to data from the National Social Security Administration (ANSES), some 150,000 requests to switch plans had been received as of May 1997. The PAMI plan, which provides health care coverage for retirees and their dependents, was transferred to the national budget by executive order in 1995. In March 1997, the Government declared its intervention complete in this area and, from that point on, the plan was to be managed exclusively by its beneficiaries, i.e., the retirees.

Reform of the *obras sociales* plans led to the formulation of the Compulsory Health Plan (PMO). To develop, negotiate, and implement this proposal, a commission was set up that included the Ministry of Health, ANSSAL, and Argentina's largest labor union, the Confederación General del Trabajo. The approved PMO opened the way in late 1996 for full beneficiary mobility in choosing an *obras sociales* plan. In January 1997, Law 24,754 (governing private-sector activity in this area) made it compulsory for voluntary insurance plans to offer PMO coverage as well. This legislation supersedes and overrides all existing agreements; any user may demand the coverage established in the PMO, which encompasses transplants, dental care, services for hemophiliacs, dialysis for chronic patients, and psychological care. The PMO is the cornerstone of compulsory insurance reform, since it defines the product that the *obras sociales* plans will compete with each other to supply.

ANSSAL, the National *Obras Sociales* Board (INOS), and the National *Obras Sociales* Directorate (DINOS) were merged to create the National Health Services Superintendency, a decentralized agency under the Ministry of Health and Social Action. The agency enjoys administrative, economic, and financial autonomy, and is responsible for supervising, inspecting, and overseeing all the players in the National Health Insurance System. The superintendency will focus its action on monitoring the PMO and the National Program for Quality Assurance in Health Care at service providers throughout the system, enforcing guidelines pertaining to self-managed public hospitals, and ensuring the exercise of people's right to freely select the *obras sociales* plan of their choice.

Organization of the Health Sector

Institutional Organization

The health services system in Argentina is composed of three main subsectors: the public subsector (i.e., government-

provided financing and services), the *obras sociales* (employee-benefit plans formerly run by unions and now organized by professional category), and the private subsector (prepaid voluntary insurance plans based on actuarial risk). There is a strong bias toward curative care, with emphasis on hospital services. Although national, provincial, and municipal policies all define primary health care as their basic strategy, most of the jurisdictions that have adopted this strategy approach it in the form of “programs” to be carried out at the primary care level.

The public subsector provides care services through the public network. After a prolonged process, hospitals were decentralized in 1991 and directors were given administrative flexibility. Local authorities outsourced such non-core activities as food services and housekeeping, and the new system of self-management allowed them to charge the *obras sociales* plans for services provided to plan members as well as others with the ability to pay. The Ministry of Health and Social Action transferred the remaining medical care services that were under its jurisdiction to the provinces and *municipios*; from that point on, its sphere of activity has been limited to central planning and evaluation. This reform brought with it significant improvements in terms of planning, statistics, data analysis, data banks, systems automation, and communications between the provincial and the central levels.

In December 1996, the Ministry of Health and Social Action was reorganized into two separate units: the Health Policy and Regulations Secretariat and the Health Programs Secretariat, each with oversight responsibility for several decentralized agencies. The Health Policy and Regulations Secretariat oversees the INSSyP; the National Food, Drug, and Medical Technology Administration; and the National Health Services Superintendency, while the Health Programs Secretariat oversees the Dr. Carlos Malbrán National Health Institutes and Laboratories Administration, the National Institute for Centralized Coordination of Ablations and Implants (INCUCAI), the National Center for Social Re-education (CENARESO), the National Institute for the Rehabilitation and Support of the Disabled, Baldomero Sommer National Hospital, Professor A. Posadas National Hospital, and Dr. Manuel Montes de Oca National Facility.

The *obras sociales* plans are a system of compulsory social insurance that includes other benefits in addition to health care. Their financing comes from employer and employee contributions; many of them do not provide services directly, but rather subcontract with the private sector. In all, there are currently some 300 such plans (between the union-related plans and those for management-level employees), but the figure is expected to drop to around 80 after the processes of institutional modernization and sector reform have been completed. Roughly 10% of the overall contribution goes into the Redistribution Fund, an ANSSAL-administered equalization fund

that subsidizes plans having lower capitalization levels. In 1994, the amount managed by the *obras sociales* plans came to a total of US\$ 2.5 billion. The Government is expediting deregulation of the sector in order to foster competition between the *obras sociales* plans and private (prepaid) health insurance companies, encourage beneficiaries to take an active role in choosing their *obras sociales* plan, and guarantee that all plans afford the basic benefits package of main services, diagnoses, and treatments (PMO) as required by law.

In 1993, the National Tax Directorate (DGI) was charged with levying, collecting, and allocating all social security funds, including contributions to *obras sociales* plans. Late in 1996, the DGI, ANSES, and ANSSAL began working on a beneficiary profile to be used in carrying out this activity.

In the private subsector, the two main subgroups are: professionals who provide independent care services to members of *obras sociales* or private, prepaid plans; and health care facilities that are contracted by *obras sociales* plans. A few non-profit agencies are active in this subsector as well. In recent years, some of the larger service providers have merged, crowding out smaller firms that were unable to attain economies of scale. Most of the private providers are located in the country's major cities. When Argentina privatized its national retirement scheme and set up pension fund administrators, a series of new and related services came into existence linking health, retirement, and life insurance.

There are over 200 private, prepaid medicine companies (the lack of a central registry makes it difficult to know exactly how many). The number of beneficiaries covered is estimated at two million. The October 1996 legislation that deregulated the *obras sociales* plans and established controls for prepaid medicine also authorized private medical companies to function as *obras sociales* plans. Accordingly, they are subject to the same controls, are required to be financially solvent, and must meet specific medical care requirements.

Organization of Health Regulatory Activities

The current reform process called for new legislation on sector organization, regulation, oversight, and control. Statutes, decrees, resolutions, and ordinances were enacted in such areas as health policy approval, organizational changes in the Ministry of Health, the creation of agencies to oversee new programs or perform supervisory, oversight, or control functions, the operation of various health-sector entities (self-managed public hospitals, *obras sociales* plans, the PAMI plan, and the private subsector), food and drug regulations, and environmental protection. In some instances, however, enabling regulations are lacking, enforcement structures are fragmented, and overlapping responsibilities create conflict with other jurisdictional levels. Coordination is still at an in-

ipient stage, bearing in mind that under the country's federal system of government not all subnational jurisdictions have to adopt the norms and procedures generated at the national level.

The State's regulatory role is outlined in the National Program for Quality Assurance in Health Care and in the new procedures instituted to upgrade the certification and recertification of health professionals. A call has been issued to academic, scientific, and professional groups, as well as to health service providers, to take part in preparing regulatory guidelines for diagnosis and treatment procedures and the organization and operation of health services. In this connection, highest priority has been attached to reaching consensus in such areas as the accreditation of specialties, professional certification and recertification, standardization of degrees and titles, and interinstitutional arrangements for redesigning academic curricula and in-service training.

The National Program for Quality Assurance in Health Care oversees the exercise of professional activity in this sector and, accordingly, examines the health team's overall professional performance as well as specializations, registration, certification, and recertification. In this regard, the Ministry of Health has provided crucial input through its work with the Argentine Association of Medical Schools, the National Academy of Medicine, the Argentine Medical Association, the Argentine Medical Federation, the Ministry of Education, medical societies, and scientific associations in order to ensure proper preparation of the human resources that make up the health team.

The Ministry of Health's National Health Resources Commission has updated procedures for medical accreditation, licensing, certification, and recertification. The National Coordination Commission for Human Resources in the Pharmaceutical and Biochemical Professions has analyzed proposed profiles and areas of responsibility for biochemical specialties and has taken up the matter of pharmaceutical certification raised by the Argentine Pharmaceutical Federation.

The National Food, Drug, and Medical Technology Administration (ANMAT) is a decentralized agency that serves as a national reference center and training site for specialized human resources. Its mandate includes quality control, and it is the highest authority for matters pertaining to the control and inspection of the safety and quality of all products likely to have an impact on human health.

Argentina's national surveillance system is linked to the WHO International Drug Monitoring Center, and a national drug surveillance system was inaugurated in 1993. Food quality is monitored through a surveillance strategy based on concerted action by hospitals, other institutions, and the Ministry of Health and Social Action. Work has also begun at ANMAT toward organizing the inspection, control, and surveillance of medical technology.

In 1993, a policy framework for the system of self-managing public hospitals was adopted. The goal was to decentralize public hospitals in operational terms, boost their institutional management capacity, and make them more efficient and financially self-sustaining. Some of the core features of the system are the ability of public hospitals to incorporate at the request of the authorities, the requirement that entities of the National Health Insurance System make immediate payment for services received by their respective beneficiaries, and unrestricted contracting between these entities and self-managing public hospitals. These hospitals must meet a series of general conditions, although individual performance standards can be set by each province. The system also outlines specific functions and responsibilities, including the obligation to provide egalitarian and undifferentiated care to the entire population and to provide care services to those who lack coverage or the means to pay. The policy framework furthermore allows for participation by the provincial governments. Since most public hospitals are not owned by the national government, their inclusion in the national registry has depended on local government decisions.

Argentina is a regular participant at MERCOSUR meetings designed to deepen the process of regional integration with regard to foods, drugs, the environment, and the safety of consumer products. In the health sphere, however, several items of paramount importance remain unaddressed, such as consensus on regional guidelines and the standardization of relevant policy. Argentina is also an active participant in MERCOSUR's cooperation arrangements (information and communications systems, border health, medical technology and care, and technical cooperation).

Health Services and Resources

Organization of Services for Care of the Population

Health Promotion. Reform of the State has led not only to the aforementioned technical and political restructuring of the Ministry of Health and Social Action but also to a reorientation of strategies and programs in several core technical units, such as the Maternal and Child Health Program. In 1994, an initiative entitled "Commitment to Women and Children" was formulated, national strategies and targets were set, and substantial central-government funding was re-allocated for the implementation of provincial programs (whose management responsibilities have increased).

The Ministry of Health stepped up its health promotion and protection efforts by establishing programs for public awareness, health education, and tobacco and health, and encouraging a shift in service networks' care focus. A fledgling movement combining cultural, political, social, economic,

and intersectoral interests has been advocating the adoption of public health policies that promote changes in the population's lifestyles.

The Ministry's promotion and protection activities have also addressed air quality, workers' health, pesticides, waste disposal, and basic sanitation, including a special effort to lower arsenic levels in water in areas where high concentrations of arsenic in the water supply is endemic. The evaluation of environmental health risks was another topic of special concern and, accordingly, the Argentine Environmental Waste Management Network (REMAR) was set up, comprising the Ministry of Health, the Secretariat for Natural Resources and Sustainable Development, the Argentine Industrial Union, the General Federation of Industries, Coordinación Ecológica del Área Metropolitana Sociedad del Estado (CEAMSE), and PAHO. At the provincial and municipal level, responsibility for environmental protection is shared by various institutions.

Disease Prevention and Control Programs. Argentina's Program for the Prevention and Control of Communicable Diseases merits special mention. The national vaccination program seeks to increase levels of vaccine coverage and surveillance under the Expanded Program on Immunization and to enhance coordination with provincial programs; as a specific initiative, a campaign to eliminate measles has also been launched. In 1996, coverage stood at 89.7% for polio vaccine, 82.8% for DTP, 100% for BCG, and 100% for measles vaccine. The system for communicable disease surveillance has also been upgraded, resulting in an increase in case reportings. The 1992–1994 period witnessed an intense mobilization effort to deal with the cholera outbreaks; programs were established for public awareness, health education, training for personnel, and outfitting of services. Poliomyelitis was declared eradicated in 1994. At present, campaigns are under way for the eradication or elimination of measles, neonatal tetanus, leprosy, diphtheria, human rabies, and Chagas' disease. The program is currently emphasizing health situation analyses that could be useful in identifying at-risk areas and groups for the principal health problems and establishing an early warning system capable of detecting outbreaks of emerging and re-emerging diseases.

Virtually all the provinces are participating in the National Human Retrovirus and AIDS Control Program, which works to enhance capabilities in diagnostic laboratories and medical care services, the awareness and knowledge of at-risk groups, and epidemiological surveillance. In 1996, a new initiative was launched in Argentina under the Joint United Nations Program on HIV/AIDS (UNAIDS), guiding principles and mandates were defined, and a thematic group was set up.

Epidemiological Surveillance and Public Health Laboratories. The National Epidemiological Surveillance System dates back to the 1950s, when monthly data were already reported for communicable diseases by jurisdiction. The system was reformulated in 1993 under the auspices of the National Epidemiology Directorate of the Ministry of Health and Social Action, and case reportings subsequently increased by around 174% between 1993 and 1996. Almost all data came from the public subsector and referred to morbidity as recorded by outpatient, emergency, and inpatient services. In 1996, the National Network of Argentine Public Health Laboratories (RELAS) was created, linking various networks of laboratories.

Water Supply and Sewerage Systems. The service infrastructure in this subsector presents yawning inequalities. Urban growth over recent decades did not benefit from proper planning and, as a result, the problems of Argentina's major urban centers progressively worsened. Inadequate water supply and excreta disposal generate high-risk conditions that especially endanger the country's poorer areas.

The Undersecretariat for Water Resources Management of the Ministry of Economic Affairs and Public Works and Services concluded a study in late 1996 that presents an updated overview of water supply and sewerage coverage. Data from cities of more than 10,000 inhabitants (84% of the total population) are compared and analyzed. From 1991 to 1995, the study showed that service coverage rose from 71% to 81% for water supply and from 37.3% to 50% for sewerage. An estimated 6.6 million people lacked access to public water supply and nearly 17 million had no sewerage connections. These figures were somewhat lower for the scattered population (around three million) that cannot be served by public service networks. Water supply coverage exceeded 90% in seven provinces, and sewerage coverage reached a level of 84% in the province of Tierra del Fuego. In the metropolitan Buenos Aires area, coverage at year-end 1995 was 78% for water supply and 61% for sewerage (up from 46% in 1991, a reflection of the efforts made).

An estimated 10% of all sewage was treated, creating a situation that undoubtedly contributes to higher levels of environmental pollution. As of the end of 1996, privatized systems covered 65% of the total population served; municipal or provincial systems covered 25%; and the remaining 10% was in a state of transition.

National action in the areas of water supply and sewerage coverage is coordinated by the Public Works and Communications Secretariat and the Water Management Undersecretariat, both under the Ministry of Economic Affairs and Public Works and Services. The country's National Water and Sanitation Agency is part of the Water Management Undersecretariat.

Municipal Solid Waste Disposal (Including Hospital Waste). No reliable data were available on municipal solid waste. In the metropolitan Buenos Aires area, each resident produced around 0.88 kg of solid waste per day; collection coverage stood at 91%, and the sanitary landfill situation was considered good. Elsewhere in the country, solid waste disposal was a serious environmental and public health problem owing to inappropriate siting of landfills. Recycling had not yet been incorporated on a large scale in waste management systems, and reported levels were insignificant. Only 50% of poor homes in the metropolitan Buenos Aires area received regular waste collection services.

A study on hazardous waste carried out by the province of Buenos Aires in late 1991 estimated that the chemical, petrochemical, and oil and gas industries produced roughly 29.9% of all waste. Various sources calculated hazardous waste production at between 50,000 and 100,000 tons a year for the province of Buenos Aires, the country's most highly industrialized province. As of January 1996, the company responsible for solid waste collection had counted 103 garbage dumps in the metropolitan Buenos Aires area alone; these dumps received around one million tons of household and hazardous waste and occupied a total surface area of 557 hectares.

As for hospital waste, data from the Ministry of Health and Social Action indicated a total of 155,749 hospital beds in 1995, with an estimated 1.0 to 1.5 kg of hazardous waste generated per bed per day. Over 50% of this waste was concentrated in the city and province of Buenos Aires.

Prevention and Control of Air Pollution. Environmental quality suffered from a wide range of problems. Generally speaking, though, environmental conditions were poor in marginal urban areas and in regions undergoing rapid economic development. The monitoring system continued to be deficient. Many of the stations included in the Global Environment Monitoring System did not have permanent monitoring systems in place, making it impossible to undertake a specific analysis. Even though maximum contaminant levels had been exceeded on only a few occasions, specific instances of pollution caused by mobile or fixed-point sources had particularly deleterious effects for specific population groups. The privileged geographic situation of the city of Buenos Aires favors the dissipation of ambient contaminants, thus helping to keep pollution levels below international limits. However, certain areas of the city (i.e., the urban core and surrounding areas) commonly have levels of gaseous contaminants and particles that exceed those limits, e.g., the daily carbon monoxide level was between 1.5 and 6 times the legal limit for air quality in Buenos Aires.

In 1991, two new offices were created: the Secretariat for Natural Resources and the Human Environment, linked directly to the Office of the President of the Republic, and the

Water Management Undersecretariat, under the Ministry of Economic Affairs and Public Works and Services. The Federal Council on the Environment (COFEMA) was set up in 1992 and provided a central forum for government representatives from all the provinces. In 1994, the Federal Environmental Pact was signed as a further step toward building consensus in the area of environmental policy.

As of the end of 1996, only 43.5% of the provinces had specific structures (and specific assigned responsibilities) in place to address environmental issues at the governmental level. In the other provinces, these responsibilities were fragmented among various areas; a similar situation was observed at the *municipio* level. Fragmentation is not necessarily a problem in and of itself, but such low levels of coordination greatly hinder the planning and implementation of activities. The provinces did not always adopt standards and procedures that were agreed upon at the national level. Furthermore, legislation on pollution control is not compiled into a single compendium, so enforcement is difficult at times. National legislation takes a sector-based approach that sometimes prevents concerted action for dealing with specific environmental problems; in other cases, it limits itself to regulating the management of individual areas.

Food Assistance Programs. Food assistance is one of the specific components of the Social Plan. Revenue share-outs are used to distribute powdered whole milk to at-risk children and pregnant women as a way of preventing malnutrition. This program has been an incentive for health check-up attendance. Beneficiaries are selected on the basis of unmet basic needs.

The Maternal and Child Health and Nutrition Program focuses on nutritional support and food supplements for pregnant women and children under 6 years old. These activities are carried out as part of child health and development actions.

The Children's Food and Nutrition Program of the Social Development Secretariat provides food supplements as part of the actions geared toward improving living conditions and access to appropriate and adequate food for children between the ages of 2 and 14. In 1996, the Maternal and Child Health Directorate of the Ministry of Health and Social Action earmarked US\$ 46,299,290 for this program.

Organization and Operation of Personal Health Care Services

Insurance Schemes and Coverage. Given the overlapping of categories and coverage levels, the exact extent of health insurance coverage is hard to estimate. According to the 1991 National Population and Housing Census, 62.2% of the population had some kind of insurance coverage, although specific percentages varied from one region to the next (from 79.5% in

Buenos Aires to 42.1% in Jujuy). The percentage of the population not covered by an *obras sociales* or other kind of health care plan also varied from jurisdiction to jurisdiction, ranging from Formosa (56.39%), Santiago del Estero (54.08%), Chaco (51.23%), Misiones (48.96%), Salta (41.83%), and Corrientes (47.53%), at one extreme, to the federal district (19.49%) and Santa Cruz (22.94%), at the other.

Studies conducted by ANSES in 1992 revealed that nearly 80% of all beneficiaries in the *obras sociales* subsector were covered by the 34 largest plans; the 10 largest *obras sociales* plans covered one half the beneficiary population; the 30 largest plans covered nearly 75%; and the 40 largest plans covered 80%. Based on INDEC figures, ANSES projected that members of ANSSAL-associated *obras sociales* plans would total approximately 8 million by 1997; provincial plans would have a total membership of 6.5 million; the PAMI plan would cover 4.5 million beneficiaries; other *obras sociales* and health care systems (prepaid medicine and *obras sociales* plans for university and armed forces personnel) would cover some 5.5 million; and the population served by the public subsector would total 12.3 million persons.

Outpatient, Hospital, and Emergency Services. Public hospitals provide care services for the poor and, on a reimbursable basis, for members of *obras sociales* plans. They also cover demand from social sectors having greater ability to pay, they provide emergency and accident care, and they perform the functions of a medical school. Free public care services—despite the prevailing crisis—have had to absorb the increase in demand created by the shrinking coverage of many *obras sociales* plans, and in the final analysis have ended up subsidizing the system. For patients who have some kind of insurance coverage, however, self-managed public hospitals are now authorized to bill third-party insurers, be they *obras sociales* plans or some other type of insurer. The public subsector continues to be the principal provider of emergency and psychiatric services and of care for the chronically ill.

In 1995, the Ministry of Health and Social Action conducted a survey of the country's health care facilities and found that they had increased from 9,051 in 1980 to 16,085 in 1995. The largest increase was observed in establishments that did not offer inpatient care (they more than doubled), while those that did offer such care grew by around 10%. Of the total number of establishments, 43.3% were in the public subsector, 1.4% were operated by *obras sociales* plans, 55.2% were privately run, and 0.1% were "mixed." Compared with the structure in 1980, the share of the private subsector had increased (up from 44.6%), with a consequent reduction in the shares of the other two subsectors. At the same time, a new kind of establishment (classified as "mixed") appeared on the scene combining features of the public and private subsectors.

The number of available beds rose from 145,690 in 1980 to 155,749 in 1995, for a 1995 rate of 4.5 beds per 1,000 population. This indicator represented a drop from the 1980 level; in other words, the number of beds increased at a slower rate than the population did. Bed availability in 1995 broke down as follows: 54% in the public subsector (62.5% in 1980), 2.8% in the *obras sociales* subsector (5.5% in 1980), 43.1% in the private subsector (32% in 1980), and 0.1% at mixed-administration establishments (which did not exist in 1980). Two trends came together to create this situation: the number of beds available in the public and *obras sociales* subsectors was dropping just as more beds were rapidly becoming available in the private subsector, outpacing the decrease in the other two subsectors.

A series of new care and service delivery arrangements also surfaced: emergency transport services, which provide in the street and for home emergencies; day hospitals and short-stay facilities, which introduced new formats of inpatient care; and vaccination centers, which apply vaccines as an exclusive service or in combination with other treatments (in 1980, vaccinations were performed at outpatient clinics or, on occasion, at health care facilities with inpatient services). New trends continue to take shape. More and more, establishments operating under a given company name are using differentiated resources to do business at different sites, while other companies are operating under different names at the same site. At least two new forms of care delivery have appeared that mix public and private-subsector modalities. One is the presence of private diagnostic services at public-sector inpatient facilities (an outgrowth of service fragmentation); and the other is the siting of public-sector primary care centers in buildings that belong to community development associations, neighborhood associations, or others. In the provinces, the number of such facilities varies according to the type of unit and the subsector under which they operate.

In 1996, there were 824 self-managing public hospitals, offering a total of 62,402 beds (almost 75.3% of the country's public beds). Under the new arrangements, *obras sociales* and other plans will have to pay for services provided at these hospitals to plan members.

Auxiliary Diagnostic Services and Blood Banks. Plans have been under way since 1996 to institute laboratory control procedures aimed at guaranteeing high-quality diagnoses. Since 1984, the Chagas National Epidemiological Research Institute has overseen quality control of procedures and reagents. Hemotherapy services are coordinated by the Argentine Hemotherapy and Immunohematology Association. The organization of data from serological tests and reagents was performed as an entirely separate activity from quality control until 1992. The initiative launched that year to eliminate *Triatoma infestans* and screen all blood used for

transfusions made it possible to build a continuously updated database that covers both public and private institutions. Argentina has 776 registered hemotherapy services and blood banks, some of which serve as compilation points for data from various centers. Included in this number are 536 laboratories that screen blood for transfusions and perform other blood control functions for various institutions. Currently, serological testing is done for hepatitis B and C, *Trypanosoma cruzi*, HIV, and syphilis. All donors in both the public and private subsectors are screened.

Specialized Services. The public subsector has 40 mental health establishments, including 35 residential care facilities for chronic patients. These facilities account for the highest percentage (98%) of the total 15,069 beds available. The private subsector operates 187 establishments, including residential care facilities for cases classified as acute, chronic, acute chronic, or of undetermined duration; these are the most common type of private facility (139) and account for the highest percentage of available beds (80% of the total 9,047 beds for mental health care in the private subsector). From these data it can be seen that virtually all the resources for chronic patient care are located in the public subsector.

Twenty-four establishments with a total of 953 beds provide physical rehabilitation services. Nine of these establishments (532 beds) are in the public subsector and ten (421 beds) are in the private subsector.

Inputs for Health

Drug prices were deregulated near the end of 1991, along with the legal mark-up limits that retail pharmacies may charge. Drug registration procedures were streamlined in 1993, resulting in considerable time savings; drug surveillance and inspections were stepped up as well. The private pharmaceutical sector instituted new drug distribution, administration, and dispensing systems that are used by *obras sociales* plans and prepaid systems for which specific regulations are not yet in place.

Following prolonged parliamentary debate on the issue, the new Patent Act was passed into law in late 1995. The sector was becoming progressively more concentrated as mergers and acquisitions were rapidly negotiated by multinational laboratories. Of the top 20 companies in terms of sales volumes in 1996, 10 were Argentine firms (with 54% of the market) and the other 10 (with 46% of the market) were multinationals.

In the period 1993–1996, the pharmaceuticals market showed a steady downward trend in the number of units sold, for an accumulated drop of 15.8% (from 482 million units in

1992 to 406 million in 1996). Retail sales, however, rose from US\$ 2,575,000 to US\$ 3,644,000 over the same period, representing point-of-sale price increases of between US\$ 5.34 and US\$ 8.98 per unit.

Except for those included under special programs, the public subsector does not cover drugs for outpatient care. The public-sector *obras sociales* plans defray a percentage of members' drug costs and fully subsidize all the uncommon, high-cost drugs included in the PMO. Prepaid medicine companies also cover about 50% of beneficiaries' drug costs.

Efforts to contain drug spending began in the 1980s when several price controls were implemented. The controls were based on PAMI-defined treatment modules or on reference prices set by the Medical Care Institute (IOMA); success was limited in both instances. The effective deregulation of prices triggered a jump in spending in 1992 estimated at around US\$ 1 billion. Actions to contain spending by promoting more rational use of inputs have not had the intended impact.

Human Resources

Work Force Size. The current size of the health work force cannot be determined accurately in view of the fact that no comprehensive studies have been done since 1980. That year, the health sector employed some 210,000 persons, equivalent to approximately 2.9% of the national work force. Estimates made in 1985 (but based on 1980 data) indicated that some 400,000 persons were employed in the health sector (4% of the economically active population). Argentina's health work force presents an inverted pyramid structure in which the professional categories greatly outweigh the technical and support categories.

Total personnel in the various nursing categories was estimated at 85,000 (on the basis of figures from 1988 and 1994): 1,000 graduate nurses (1.2%), 25,000 tertiary-level nurses (29.4%), 49,000 nursing auxiliaries (57.6%), and 10,000 lay nurses (11.7%). Many lay nurses were receiving training to become nursing auxiliaries as part of a policy that has led to a significant increase in the number of nursing auxiliaries and professional nurses over the past five years: the number of auxiliaries had already doubled, and provincial professionalization programs were expected to train an additional 10,000 tertiary-level nurses by the year 2000.

Training. The training of health human resources exhibits some very specific characteristics owing to the medical model's hegemony over the sector. There are seven public and seven private medical schools, which together form the Argentine Association of Schools of Medical Sciences (AFACIMERA). The country has two other private medical schools that are not members of the association.

Universities train some 3,500 physicians each year. Available data indicate, however, that fewer than 1,000 university residencies are made available each year, a level that could drop even further in light of recent budgetary restrictions. Very few public universities—and none of the private ones—have their own hospital.

Medical residencies in a limited number of specialties are offered at the national universities, and recent graduates are thus able to continue studying and defer their entry into the labor market. According to data from the Ministry of Health and Social Action, a total of 1,700 residencies were available in all of Argentina in 1995. Privately-operated and *obras sociales* establishments offer a wide diversity of residencies and, on occasion, enter into agreements with universities located in their respective catchment areas. Overall, residency prospects are very dim for a high percentage of graduates.

The medical schools—represented by AFACIMERA—have been working with the Ministry of Culture and Education to improve medical training and thereby raise Argentina's health levels. An agreement was signed in 1994 defining mechanisms for self-evaluation of medical curricula and, in December 1996, a second agreement was formalized setting forth the necessary conceptual and methodological bases for moving ahead with the accreditation of medical programs. The two agreements, each with its own specific objectives, created a framework for consultation between the Government and the academic sector aimed at building consensus before setting the new guidelines. Medical schools were called upon not only to incorporate technological and scientific advances, but also to be responsive to changes and needs in the health sector. Under the current reform process, the PMO has increased the demand for a specific professional profile (i.e., general practitioners) and this demand must be met by the system that trains the country's health personnel; changes will also need to be made in working arrangements and in the management of the system that uses these resources.

Schools of dentistry (seven public and two private) are organized under the Argentine Association of Schools of Odontology (AFORA). Self-evaluation and external evaluation processes and accreditation of graduate curricula are at various stages of progress. Advanced training is offered in a variety of formats, ranging from specialization courses, refresher training, and residencies to master's and doctoral programs.

Argentina's medical and dental schools are now facing other challenges as well, as regional economic integration imposes new demands in terms of personnel training, flows of health goods and services, individual health, and the environment.

Continuing Education. A continuing education program is currently under way at several health services in the province of Córdoba, with the stated purpose of strengthen-

ing management capacity and adjusting nursing services and hospital administration on the basis of an analysis of specific problems.

Labor Market for Health Professionals. Many areas of the labor market need to be studied in greater detail, data need to be updated, and points of consensus need to be established. In 1992, there was an average of only one physician for every 367 residents, although the level ranged from one physician per 113 people in Buenos Aires to one per 911 in Formosa. At a ratio of 1 nurse for every 4 physicians, and 5.4 nurses per 10,000 population (with broad regional variations), levels in this category, too, were considered insufficient.

Research and Technology

Organization and Financing of Scientific Activity and Training of Human Resources. Reorganization of the science and technology sector began with the transfer of the Science and Technology Secretariat (SCyT) to the Ministry of Culture and Education. The SCyT formulates sector policy, draws up the National Multiyear Plan for Science and Technology, prepares the national budget for the sector, and sets sector priorities.

The Secretariat's current management attaches high priority to regional integration, with special emphasis on MERCOSUR as a forum for promoting scientific and technological research, closer cooperation between research institutions, exchanges, and training. The SCyT plans to launch joint efforts for technology management, applied research, and social issues. The 1997 budget for the science and technology sector was US\$ 777.4 million, with 69% of that amount corresponding to payroll costs.

The Ministry of Health operates a multi-city network of national research institutes covering the fields of epidemiology, viral diseases, genetics, nutrition, and health laboratories. Over the course of the past five years, the Ministry has lent support for studies on the effectiveness of vaccines against Argentine hemorrhagic fever and meningitis, diagnosis of Chagas' disease, specific chemotherapy for leishmaniasis, and various research projects on hantavirus, leprosy, tuberculosis, goiter, accidents, nitrite contamination, acute respiratory infections, mental retardation, fibrocystic disease of the pancreas, and AIDS, to name just a few.

Scientific and Technical Documentation: Access, Production, and Dissemination. The dissemination of science and health information enjoys a certain level of importance in the Argentine market. According to data from the Argentine Publishers' Association, approximately 8% of all books published between 1993 and 1996 dealt with subjects related to

the health sciences. There are 117 health-related journals: 80% of articles were on clinical research, 11% on biomedicine, and 9% on public health.

A 1996 survey conducted by the National Health Sciences Information Network identified 250 individually-operated health science libraries, most of which lacked appropriate infrastructure, specialized staff, and the necessary resources for proper knowledge dissemination. In this connection, it should be noted that the Ministry of Health and Social Action and many of the provincial ministries lack documentation centers for use by sector services. The main health science libraries are located at universities or in the private sector.

The field of applied information sciences has benefited from the development of the Electronic Network for the Health Sector, which links over 1,500 institutions and serves as a hub for the country's various networking initiatives.

Expenditures and Sectoral Financing

Expenditures. Most of the country's health spending is financed by the State and by the *obras sociales* plans through payroll deductions. Spending by these two subsectors as a percentage of GDP grew between 1980 and 1994 from 3.6% to 4.4%. According to data from the Ministry of Health and Social Action, health spending by these two subsectors in 1994 accounted for 16.49% of all public spending, for a per capita level of US\$ 388 in public health expenditure that year.

Total health spending in 1995 was calculated at US\$ 20,147 million, broken down as follows: public sector (i.e., national, provincial, and municipal governments) US\$ 4,676 million; *obras sociales* plans (national and provincial schemes, and the PAMI plan) US\$ 7,055 million; and private sector (prepaid and out-of-pocket) US\$ 8,416 million.

Cutbacks in federal funding between 1980 and 1994 were offset by a significant increase in provincial and municipal spending (35.8% increase in 1994–1995). The broader presence of municipal flows was due in part to the decentralization of a number of services by the provincial governments, with municipal expenditures ultimately accounting for US\$ 580 million (equivalent to 0.23% of GDP).

Despite some intermediate oscillations, public health spending as a percentage of GDP climbed from 1.24% in 1980 to 1.71% in 1994. Data compiled by the Economic Planning Secretariat, the Finance Secretariat, and INSSJyP indicated the following percentages for public health spending in 1995: national government 4.8%, ANSSAL 2.6%, INSSJyP/PAMI 22.6%, federal transfers to the provinces 0.8%, provinces and municipalities 36.1%, national *obras sociales* plans 20.9%, and provincial *obras sociales* plans 12.2%.

As these figures show, the percent share of the national *obras sociales* plans fell sharply—from 32.7% to 23.5%—be-

tween 1992 and 1995. Also worth noting is the fact that PAMI coverage represented between one fifth and one fourth of all public spending. The expansive trend observed in the national *obras sociales* plans in the 1980s was reversed in the 1990s; the provincial *obras sociales* and PAMI plans, on the other hand, practically doubled their spending levels.

Total health spending by the non-private sectors (i.e., the public sector and *obras sociales* plans) was estimated at US\$ 11,073 million in 1994. According to the Economic Planning Secretariat of the Ministry of Economic Affairs, this spending represented 4.44% of GDP in 1994 and 4.70% in 1995. The rise was attributed to increased activity under the PAMI plan.

Private-sector spending as a percentage of GDP declined from 4.5% in 1970 to 2.7% in 1993. The outlook for the future is one of continued restraint in this area, and spending is not expected to outpace the level of overall economic growth. A November 1995 survey revealed that 34% of out-of-pocket spending by families in the metropolitan Buenos Aires area went toward drugs, 18% toward private insurance premiums (the level was 26% for the federal district), 10% for doctor's visits, 17% for visits to other health professionals and dentists, and the remainder for inpatient care and other headings.

Between December 1991 and December 1996, the consumer price index (CPI) for health goods and services grew at more than double the rate of the general CPI (53.25% against 25.5%). Between May 1991 and May 1995, service costs (physicians' and dentists' fees and prepaid medicine premiums) jumped nearly 87%, while drug prices rose a full 59%.

Information from the Economic Planning Secretariat indicates that consolidated public spending represented 18.04% of GDP in 1994 and was distributed thus: education 3.83%; health, social action, and sanitation 5.26%; housing 0.47%; social security 6.84%; labor 0.76%, and other urban services 0.88%. Consolidated public spending in the social sectors as a percentage of GDP in 1995 was 18.41%; expenditure in the health sector as a percentage of GDP was 1.75%.

The trends in spending on health, education, and culture over recent years reveal no clear correlation between the level of wealth generated (GDP) and public outlays for health and education. Such spending remains a function of budgetary constraints.

The Ministry of Health, the provincial health ministries, and the municipal health secretariats spent an estimated US\$ 800 million on health prevention and regulatory activities (US\$ 2 per capita). Outlays to hospitals and health centers were calculated at US\$ 4 billion. Cost-recovery arrangements have become increasingly widespread: in the first six months of 1996, 824 self-managed hospitals billed an estimated US\$ 6.8 million through automatic debiting systems. This figure is equivalent to approximately 1.5% of the resources allocated by the public sector. An additional US\$ 80 million was paid to public hospitals by the *obras sociales* plans.

Financing. Argentina's health sector is financed through various channels. The national government (the federal administration and its decentralized agencies) earmarks funds from the National Treasury (except for ANSSAL and the PAMI plan); the provincial governments and the city of Buenos Aires allocate resources from the federal tax share-outs they receive and from their own tax revenues and transfers from the federal government; the municipal governments assign a portion of the tax share-outs they receive from the provincial governments as well as their own levies; the national and provincial *obras sociales* plans use funds from employee and employer contributions (and, sometimes in the latter case, from the provincial government); the PAMI plan draws on payments by contributing and non-contributing members and employer contributions; and out-of-pocket family spending is used to defray the costs of voluntary insurance or coinsurance, make copayments, and purchase goods and services directly.

Expressed in terms of percentages, these funding sources break down as follows: public subsector 21.76% (national government 1.94%, provincial governments 16.34%, municipal governments 3.48%), *obras sociales* plans 36.34% (national 15.17%, PAMI plan 12.03%, provincial 7.13%, other 2%); and the private subsector 41.9%, which can be further broken down into indirect (prepaid health care plans) 19.26% and direct (drugs, health care services) 22.64%. Within the public subsector, the national government provides resources for health system financing through various central or decentralized agencies; this source accounts for a very small share of health spending, representing between 0.22% and 0.40% of GDP and between 5.4% and 9.0% of public health spending (over the period 1993–1996).

According to Finance Secretariat data, the national public subsector disbursed a total of US\$ 1,197,499,497 in 1996, distributed thus: financing 44.85%, care 31.57%, investment 5.2%, prevention and care 4.42%, administration 3.95%, prevention 2.88%, training 2.47%, research and production 1.97%, regulation, control, and supervision 1.63%, and standardization 0.33%. As can be seen, the bulk of the budgeted amount went to financing and care. The “financing” heading included, in addition to ANSSAL's Redistribution Fund, allocations for the Garrahan Hospital. The funding earmarked for prevention was low. The “investment” category included projects that were funded partly by multilateral lending agencies and were not exclusively physical infrastructure or equipment projects (as can be seen in the structure of spending by economic use), but rather included technical assistance and training components.

Upon analyzing the changes that have occurred in allocation levels over time, it can be seen that funding for medical and other residencies and for investments has risen, although such funding's share in the total remains insignificant. The

jump in the financing level in 1996 was due to the purchase, with a loan from Spain, of medical equipment that was distributed among various jurisdictions.

The national *obras sociales* plans are funded through mandatory employee and employer contributions. Between 1993 and 1995, the exact payroll percentage of these contributions was modified three times with an eye to bringing labor costs down. Pursuant to Decree 492/95, the rate now stands at 5%, nearly 17% below the percentage stipulated in Law 23,660/89 (the National Health Insurance Act).

While it is true that ANSSAL is included in the national public sector budget, its status as regulatory agency for the health insurance industry and coordinator of the Redistribution Fund makes it necessary to analyze it in conjunction with the national *obras sociales* plans. Of the total amount collected by these plans in 1996, US\$ 340 million went to ANSSAL and US\$ 2,592 million to the plans *per se*. Between 1993 and 1996, there was a slight decrease in the total amount collected (from US\$ 3,400 million to US\$ 2,932 million).

The legislation that reformed the *obras sociales* system (Decree 492/95) set a new rate for employer contributions and stipulated that a portion of the Redistribution Fund resources be distributed automatically so as to ensure a minimum coverage of US\$ 40 per entitled beneficiary under the national *obras sociales* plans. An estimated US\$ 35.9 million was distributed under this arrangement during the last quarter of 1995 (US\$ 12 million monthly average) and US\$ 180.7 million in 1996 (US\$ 15 million per month).

The PAMI plan provides health care and other benefits to the population covered under the National Retirement System; it is financed with payments from contributing and non-contributing subscribers and employer contributions. Data from ANSES indicate that these resources rose from US\$ 1,758,150 in 1992 to US\$ 2,602,700 in 1995, and then fell to US\$ 2,458,800 in 1996. PAMI health care spending followed an upward trend from 1992 to 1994 but then dropped in the following two years, when the plan was transferred to the national budget. By that time, though, these outflows (i.e., health care plus other benefits) had already risen well beyond the level of incoming revenue, and the plan fell deep into debt with government agencies (Banco Nación, ANSES, and ANSSAL) and with service providers. The tensions triggered by the resulting financial imbalance led to the current process of rationalization under way at the INSSJyP/PAMI.

External Technical and Financial Cooperation. According to data from the Ministry of Health and Social Action, the main projects benefiting from external financial cooperation were:

The Maternal and Child Health and Nutrition Program (PROMIN). This program is targeted at the poor population and assigns top priority to the strategies of primary health

care, child development centers (as a referral level), food supplements, and institutional strengthening of the sectors responsible for program activities. The program has a budget of US\$ 160 million, toward which the International Bank for Reconstruction and Development (IBRD) is providing US\$ 100 million; disbursements are scheduled through 1999. The rest of the budget is covered by the federal government (US\$ 40 million) and the provincial and municipal governments (US\$ 20 million).

The Health Sector Reform Project (PRESAL). The PRESAL project is bolstering reform in the three subsectors (public, private, and *obras sociales*) by redefining implementation arrangements and relationships and promoting cooperative and competitive synergy among them, with an eye to efficient, equitable, and high-quality medical care. The project has three components: countrywide studies, pilot experi-

ments with self-managed hospitals, and nationwide implementation of the reform, including self-managed public hospitals and training. The budget of US\$ 144.65 million is funded in part by the IBRD.

The *Obras Sociales* Reform Program. Negotiations have been concluded for an IBRD loan to finance the reform program as well as institutional strengthening. The program will seek to shore up the financial positions of the *obras sociales* and PAMI plans and, as part of a gradual restructuring effort, to adjust staffing levels in line with the profiles best suited to achieving the stated objectives. The program has a total budget of US\$ 375 million.

The Health Infrastructure Rehabilitation Program. Financed by the Inter-American Development Bank (IDB), this US\$ 64.09-million program will build four highly complex provincial hospitals.