PROFILE OF THE HEALTH SERVICES SYSTEM

MEXICO

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PROGRAM ON ORGANIZATION AND MANAGEMENT OF HEALTH SYSTEMS AND SERVICES
DIVISION OF HEALTH SYSTEMS AND SERVICES DEVELOPMENT
PAN AMERICAN HEALTH ORGANIZATION

EXECUTIVE SUMMARY

(Not to exceed 2 pages)

1.- CONTEXT

1.1 Political Context The United Mexican States is a representative democratic republic consisting of 31 states and a Federal District, joined together in a federation. The federal and state governments have the same hierarchy, espouse the principles of autonomy and association, and change every six years. The municipal level constitutes the third order of government and is comprised of 2,444 municipalities, which hold elections every three years. The Political Constitution establishes a separation of powers: the Executive, Legislative, and Judicial.

The presidential elections of July 2000 witnessed the triumph of a political party that differed from the one that had governed the country for seven decades. These elections led to shift in the composition of the national Congress, which for the first time was not dominated by any of the major parties. The state governments are run by the various political parties. The topics that dominated the political debate in 2001 were the law on indigenous rights and culture in the social sector, and fiscal reform, which was designed to increase tax revenues. As part of this reform the government proposed a 15% tax food and drug purchases, which was voted down by the Congress.

The government's priorities, objectives, and strategies are outlined in the National Development Plan 2001-2006, divided into three major work areas: i) social and human development; ii) economic growth with quality, and iii) social order and respect. The health sector belongs to the first of these areas, and its main objectives are the following: to improve the levels of well-being, equity, personal skills, and confidence in institutions; live in harmony with nature; and promote social cohesion.[1]

1.- Economic Context The economic reform process of recent years has been characterized by the lowering of tariffs and subsidies to national producers, the elimination of import permits, the liberalization of trade, the restoration of fiscal revenues, the reduction of public-sector finances, the deregulation of domestic production, and the granting of legal autonomy to the Central Bank. Mexico has heightened its presence in the hemispheric and global geopolitical and economic scene with its entry into the North American Free Trade Agreement (NAFTA) and the Organization for Economic Cooperation Development (OECD), together with the signing of trade agreements with the European Economic Community and certain Latin American and Asian nations.[2]

SELECTED ECONOMIC INDICATORS, MEXICO, 1997-2000

Indicator	Year			
	1997	**1998**	**1999**	**2000**
GDP (thousands of pesos) 1	3 174 275	3 846 350	4 583 762	5 432 355
GDP per capita US$ (PPP value) 2	8 110	7 450	8 070	**N/D**
GDP per capita US$ (current value) [2]	3 700	3 840	4 440	**N/D**
Annual average GDP growth3	6.8	5.0	3.7	6.6
Health expenditure as a percentage of social expenditure1	**N/D**	33	35	34

Source: [1]DGIED/SSA National Health Accounts System. Mexico City. 2001 (up to 1998, FUNSALUD data).
[2]OPS/OMS Indicadores básicos de 1999, 2000, y 2001. Washington, D.C.
[3]INEGI.. National Accounts System, Mexico INEGI, 2000.

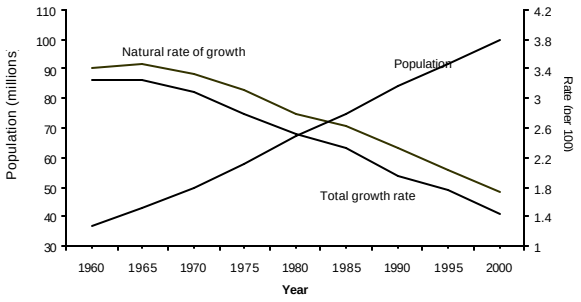
The gross domestic product (GDP) experienced growth between 1997 and 2000. However, the economy remained stagnant in 2001, largely due to the recession in the United States. GDP per capita grew between 1997 and 1999 in current values, but not in terms of the PPP, while health expenditure as a percentage of social expenditure showed very little variation. The value of exports was US$ 122 billion in 2000, 23% higher than in 1999, with an 89.5% growth in oil exports and an 18.5% growth in non-oil exports. The balance-of-trade deficit stood at US$ 4.5 billion. The current account deficit was financed chiefly with long-term external sources and direct foreign investment. Inflation was below 10% in 2000 and continued to decline in 2001, thanks to monetary and fiscal austerity and the strength of the Mexican peso. The Mexican economy's links with the United States have grown; 60% of the foreign investment came from that country in 2000, and it was also the market for 90% of Mexico's exports.[3]

The United Nations system (UN) provided US$ 6.655 billion in financial cooperation in 2000, with the World Bank contributing US$ 6.141 billion. Investment resources from the International Finance Corporation totaled US$ 318 million. The technical cooperation funds from UN agencies and programs came to slightly more than US$ 82.5 million.[4]

1.3. Demographic and Epidemiological Context. The total population of Mexico in 2000 was 97.4 million. The national population growth rate was estimated at 1.4, while the rate of natural increase was 1.8 (see Figure 1).

According to the 2000 census, 51.2% of the country's population are women and 48.8% men. Of this population, 33.4% is under the age of 15 (10.9% under 5 and 22.5% between 5-14 years of age), 64.5% is over 15 (4.9% is 65 and older, and 59.6% between the ages of 15 and 64), and 2.1% do not indicate their age. The dependency rate that year was 64.3%, with 6.1 dependents for every 100 inhabitants between the ages of 15 and 64.

FIGURE 1: TOTAL AND NATURAL RATES OF POPULATION GROWTH. MEXICO 1960 - 2000



Source: Estimates and projections of CONAPO.

Women of childbearing age (15 to 49 years) accounted for 52.2% of the total female population in 2000. The total fertility rate fell from 2.7 in 1997 to 2.4 in 2000. The highest values were found in the states of Guerrero (3.03 per 1,000 women of childbearing age), Puebla (2.98), Chiapas (2.94), and Oaxaca (2.92). Women aged 25-29 living in rural areas have a higher average number of children (2.3) than do those in urban areas (1.4). Internal migration intensified between 1997 and 2000, with the population living outside its place of birth reaching a figure of around 18%. The states of Quintana Roo (51.6%) and Baja California (41.4%) experienced the greatest net inflows, and the Federal District (33.2%) and Zacatecas (30.5%) the heaviest

outflows. Between 1995-2000 approximately 1.6 million Mexicans left the country, 96.1% of them heading toward the United States. This resulted in a loss of slightly more than 301,000 persons to international migration in the year 2000[5,6].

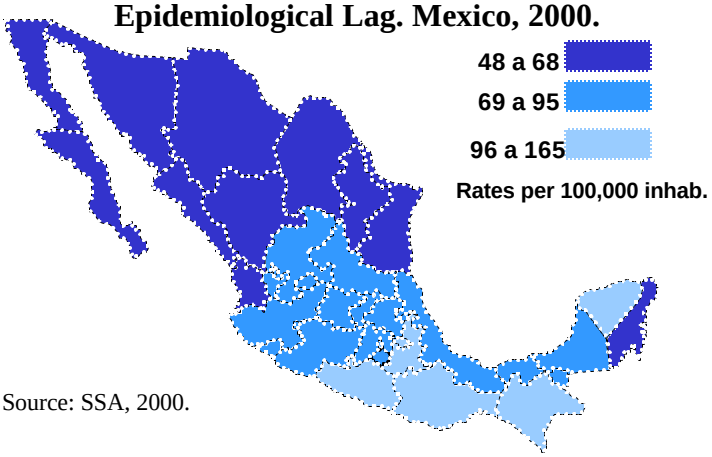
Life expectancy at birth rose from 73.3 years in 1994 to 75.3 in 2000, with higher figures for women (77.6) than men (73.1). The states with the lowest life expectancy at birth were Oaxaca, Guerrero, and Chiapas, while Baja California Sur, Nuevo León, and the Federal District had the highest[7]. Healthy life expectancy (HALE) is 61.1 years for men and 66.9 years for women. Analysis of the HALE indicates that, overall, noncommunicable diseases and injuries account for a significant proportion of health impairments, the leading causes of which are diabetes mellitus (5.8%), homicides and violence (4.8%), and ischemic heart disease (4.5%), although the health impairments produced by perinatal disorders (7.7%), respiratory infections (3.0%), cirrhosis (2.9%) and malnutrition (1.9%) continue to be relevant[8].

Total mortality in 2000 was 439.5 per 100,000 population: 495.0 in men and 384.8 in women. Total mortality from communicable diseases, including nutritional and reproductive disorders, stood at 72.5 per 100,000 population, with the figure higher for men (79.9) than women (65.2). Total mortality from noncommunicable diseases rose to 314.6 per 100,000 population, also higher in men (329.9) than in women (299.5). Finally, total mortality from injuries increased to 55.6 per 100,000 population, significantly higher in men than in women, with rates of 90.0 and 21.7, respectively. The most frequent causes of death were heart disease, with nearly 69,000 deaths (15.7%), followed by malignant tumors, with around 55,000 deaths (12.6%), and diabetes mellitus, with almost 47,000 (10.7%). Infant deaths were just over 38,600 in 2000 (a rate of 13.8 per 1000 live births), while deaths in preschool children totaled 7,000 (a rate of 80.5 per 100,000 inhabitants aged 1-4 years). More than 7,000 deaths occurred in schoolchildren (32.2 per 100,000 inhabitants aged 5-14 years). There were some 166,000 deaths in the reproductive-age group (268.2 per 100,000 inhabitants between 15-64 years of age), while deaths in the post-reproductive-age group numbered a little over 217,000 (4,550.1 per 100,000 inhabitants aged 65 and over)[9].

Mortality differs from state to state. The adjusted infant mortality rate in Guerrero is 30 per 1,000 live births, while in the Federal District it is 20. The highest rates attributable to intestinal infectious diseases correspond to Chiapas (14.4 per 100,000 inhabitants) and Oaxaca (11.6), and the lowest, to Tamaulipas (2.0) and Nuevo León (1.7). The northern states have the highest mortality from ischemic heart disease (Sonora, 71.5 per 100,000 inhabitants; and Chihuahua, 67.8), while the southern states had the lowest (Tlaxcala, 22.5; and Quintana Roo, 22.1)[10]. Some 18% of children under 5 presented a less-than-ideal height-for-age, and growth retardation is almost three times more common in the countryside than in urban areas, and four times higher in poor areas in the south of the country than in nonpoor areas in the north. The epidemiological lag, expressed in mortality from preventable diseases such as malnutrition, common infections, and some conditions associated with pregnancy and childbirth, are concentrated in the southern states (see figure). The

worst health impairment figures are found in the country's 63 indigenous groups, where life expectancy is 69 years versus 75.3 for the national population. Infant mortality is 58% higher, and an indigenous woman's risk of dying during pregnancy, childbirth, or the puerperium is almost three times as high as that of a nonindigenous woman.[11]

Mortality from Illnesses characteristic of Epidemiological Lag. Mexico, 2000.



Source: SSA, 2000.

The number of malaria cases in 2000 dropped by 45% (a rate of 14.7 per 100,000 inhab.) over 1999 (a rate of 120.0). The incidence of classical dengue declined to 2.4 per 100,000 inhab. There were 50 cases of dengue hemorrhagic fever, with no deaths, while reports of cholera fell to only five cases with no deaths. The number of cases of acute diarrheal disease and respiratory illness treated was 9,452 and 36,876 per every 100,000 consultations. As of 2000, the number of HIV/AIDS cases was 47,617. However, due to delays in reporting and to underreporting, estimates put the actual figure at 64,000 AIDS patients and 117,000 HIV+ individuals, with an estimated mortality of 4.2 per 100,000 inhab. The incidence of cardiovascular disease was 294.2 per 100,000 inhab. in 2000. Hypertension was the most reported illness (402.4 per 100,000 inhab.), followed by ischemic heart disease (60.6), diabetes mellitus (292.3), malignant tumors (92.3), and the sequelae of accidents (36.4). These diseases and conditions, together with cirrhosis, account for 52% of deaths in the country and are considered emerging, since they have displaced those that ranked as the leading causes of death just two decades ago[12].

The National Survey on Addictions (ENA) reported figures of 27.7% for smokers, 14.8% for ex-smokers, and 57.4% for nonsmokers. Some 1.5 million men and 200,000 women aged 12-65 met the DSM-IV criterion for alcohol dependency, while 9.6% of men and 1.0% of women consumed alcohol to excess. Some 5.2% of respondents, or 2.5 million people, reported having used illegal drugs at some time in their life[13].

1.4. 1.1 Social Context Mexico's human development index in 1999 was 0.790, putting the country in 51st place, with an intermediate level of human development[14]. Recent years have witnessed the growth of the

population living in poverty, which by the year 2000 had risen to 40 million, almost 18 million in extreme poverty.[15]

Approximately 53.4% of the population works in the trade and services sectors, 15.4% in the primary sector, and 27.8% in the industrial sector. An estimated 87.3% of the [urban] population aged 6 to 14 knows how to read and write (87.8% of girls and 86.8% of boys), with the figure rising to 90.5% in individuals over the age of 15. In rural areas, in contrast, a little more than 20% of the population does not know how to read or write. The figure for the average years of schooling is 7.6 grades completed (7.8 for men and 7.3 for women). The states with the highest level of schooling are the Federal District (9.7) and Nuevo León (8.9), and those with the lowest, Chiapas (5.6), Oaxaca (5.8), and Guerrero (6.3). Coincidentally, these latte states have the highest indigenous populations in the country. Approximately 72.8% of men and 69.1% of women have completed primary school. Illiterate men aged 15 and over represent 7.4% of the population and illiterate women, 11.3%. A higher proportion of men enroll in secondary schools. [16]

With respect to affiliation with a social security institution, 40 out of 100 people state that they are enrolled, with the lowest figures in Chiapas and Guerrero (17.6% and 20.3%, respectively) and the highest in Coahuila (69.7%) and Nuevo León (65.9%)[17].

2. HEALTH SERVICES SYSTEM

2.1 General Structure. The health services system is classifies beneficiaries into three major groups, depending on where the worker is employed and his or her ability to pay. Within these categories, access to care is divided among several institutions, as described below:

1. By law, workers in the formal economy must be affiliated with some social security institution. In 2000 this population numbered roughly 50 million. The Mexican Social Security Institute (IMSS) covered the majority of these individuals (nearly 80%), followed by the Social Security and Services Institute for State Workers (ISSSTE), Petróleos Mexicanos (PEMEX), the Armed Forces (SEDENA), the Navy, and various insurance plans for state workers.[18]

Social Security Health Services

Characteristics	IMSS	ISSSTE	PEMEX	SEDENA	State
Type of institution	Tripartite agency (government, commercial, and worker)	Public institution with legal status and its own assets	Public institution with legal status and its own assets	Secretariat of State	Public institutions in several states
Sources of financing	Federal, employees, and employers	Federal and employees	Its own	Federal	Federal/State and employees

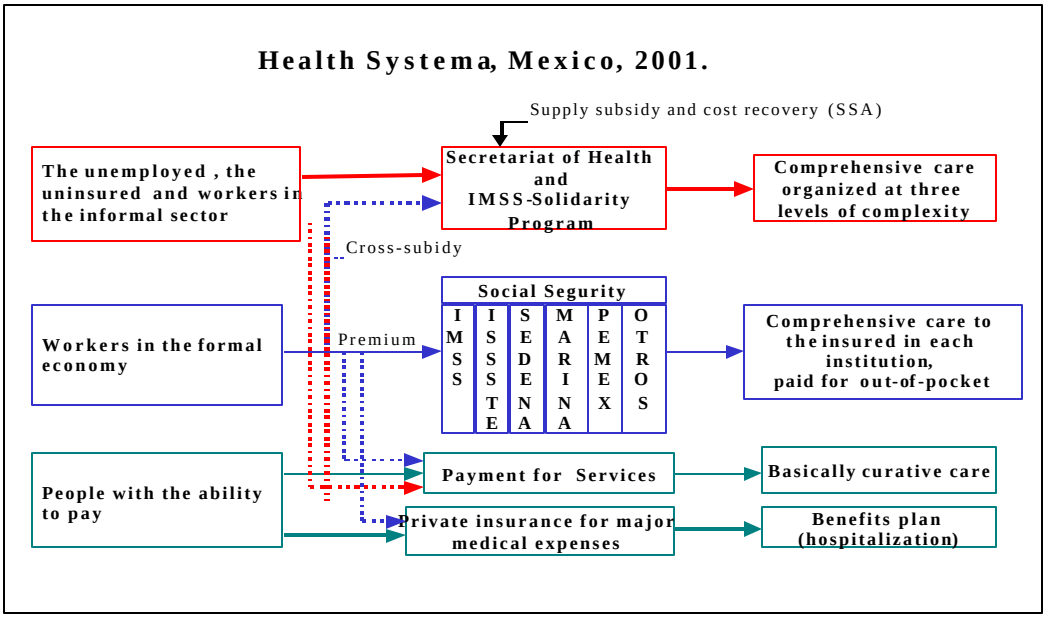
2. The system for the uninsured population (around 48 million people) includes the Ministry of Health's (SSA) services, which operate in urban and rural areas throughout the country, and the IMSS-Solidarity Program, which covers the population in certain rural areas (around 11 million people in 14 states).[19] The SSA is financed basically with funds from the Federal and state budgets and receives income from the fees charged to people who have the resources to pay, while the IMSS-Solidarity Program receives allocations from the federal budget, with administrative support from IMSS.

Health Services for the Uninsured Population

Characteristics	SSA	IMSS-Solidarity
Type of Institution	State Secretariat	IMSS Program
Decentralization	Very advanced	Administrative deconcentration
Sources of financing	Federal, state, and fees for services	Federal, supported by the IMSS administration

3. There is little oversight of private-sector operations, the quality of care varies, as do the fees charged, and the services are rather fragmented. In 1999 there were 2,950 private medical units with inpatient services, for a total of 31,241 beds, 48% of which were in facilities with less than 15 beds[20]. NGOs play an insignificant role in health service delivery, although their network or organizations is becoming increasingly relevant in the fields of sexuality and reproductive health, HIV/AIDS, domestic violence, and the treatment of addictions and disabilities.

The figure below shows the different population groups, health service providers, and the benefits that the population receives. It should be noted, however, that in addition to the links described in the previous points, there are other connections among the different groups, represented by dotted lines. For example: social security subscribers are seen in the SSA because they prefer the care they receive there or because they live far from the office of the family physician designated by the insurance, resulting in a cross-subsidy from the SSA; or they have private insurance for major medical expenses, often provided as an additional work benefit. Furthermore, it is well-known that social security beneficiaries and the general public at all economic levels ultimately seek private medical care, paying for the services out-of-pocket. Another recent development in the health system is the family health insurance provided by IMSS, (described on pg.13).



2.2 System Resources

2.2 Human Resources In the past 10 years the number of health professionals and other health workers employed in public institutions has grown, with an increase in the ratio of physicians and nurses per inhabitant, although the ratio for nurses has increased very little in the past 5 years (see Table).

HUMAN RESOURCES HIRED (PUBLIC SECTOR), 1990-2000

TYPE OF RESOURCE	1990	1993	1995	1997	1999	2000
Total physicians	89 330	107 495	118 254	129 031	135 159	140 629
Total nurses	130 519	154 852	166 496	172 294	184 264	190 335
Personnel in diagnostic and treatment services*	21809	25 244	27 386	33 602	34 857	36 388
Personnel with graduate degrees in the health sciences	3,807	4,036	3,024	4,451	N/D	N/D
Physicians per 10,000 inhab.	11.0	9.3	10.7	11.2	11.8	12.1
Nurses per 10,000 inhab..	16.0	16.8	18.4	18.3	18.8	19.0

Source: SSA DGIED, Boletín de Información Estadística, 1994-2000. Salud Pública de México 42(*6);2000.*

*Refers to professionals, technicians, and auxiliary personnel working in diagnostic and treatment services.

The SSA hires the greatest number of physicians and the IMSSI the greatest number of nurses; the other institutions do not hire even half as many. Nearly 63,000 physicians were employed in the private sector in 1999. Of these, 27,501 were practicing in private medical units and the rest were working under special agreements[21]. Human resources are distributed unevenly; the states of Mexico and Chiapas had 0.8 and 0.9 physicians in public institutions per every 1,000 inhab. in the year 2000, while the D.F. and Baja California Sur had 3.2 and 2.5, respectively. The ratio of physicians per 1,000 inhab. in highly marginalized

municipalities and indigenous municipalities of Oaxaca is only 0.7 and 0.13, respectively, while in municipalities with very low levels of marginalization it is almost 2.5[22].

DISTRIBUTION OF HUMAN RESOURCES IN HEALTH INSTITUTIONS, 2000

Institution	Physicians	Nurses	Auxiliary personnel in diagnostic and treatment services*	Administrative personnel
SSA and SESA	54 293	73 502	15 438	41 521
IMSS-Solidarity	5 541	6 847	294	2 210
IMSS	53 473	79 100	13 879	84 246
ISSSTE	17 886	20 052	3 230	10 790
PEMEX	2 386	2,678	527	674
SEDENA	1 753	2 128	1 951	-
NAVY	829	1 025	196	421
Private sector (1999)&	62 951	29 365	4 791	12 744

Source: SSA Boletín de información estadística: recursos y servicios. 2000.
& Relevant aspects of the infrastructure of medical units in the private sector. Salud Pública de México;43(2*)*
SESA = State Secretariats of Health.

A 1999 study found that roughly 27% of physicians and 43% of professional nurses were underemployed, inactive, or employed in other activities. Women were found to be in the most difficult situation, with unemployment rates three to four times higher than those of men[23].

There are 1,033 health sciences programs in Mexico. The greatest number are specialization and degree programs (545 and 297, respectively), with the following breakdown by field of knowledge: medicine (509) and dentistry (167). Students at the country's 78 medical schools numbered 79,524 in 1999, with 77% attending public institutions and 23% private. The sixth and final year of the degree program is the compulsory social service requirement, mandated by law for all students. Between 1997 and 1999 total enrollment grew by 13%, slightly more for public institutions than private ones[24].

All public health institutions have continuing education plans for their professional, technical, and service staff, based on their identified training needs and available resources. The amount of training provided on the basic package of health services is impressive. Undertaken by the SSA and the state secretariats of health from 1996 to 2000, these efforts succeeded in preparing 876,470 health promoters. Also impressive for its state-of-the-art techniques is the Teleeducación distance learning program of ISSSTE, which had offered 93 monographic and 3 certificate courses as of 2001[25, 26].

Drugs and Other Health Products. The pharmaceutical industry that produces drugs for the domestic and international market is comprised of more than 150 companies, the majority of which belong to the national chamber of the pharmaceutical industry (CANIFARMA) and/or the association of pharmaceutical research companies (AMIIF). Mexico ranks 15th in global production and in 1998 had sales totaling US$5 billion.

Nearly 80% of the drugs were for the private market; 72% were produced by foreign companies and 28% by domestic companies; only 15% were generic drugs. The five drugs with the highest sales in 2001 were: Pentrexil, Neo-Melubrina, Dolac, Xenical, and Tempra[27].

Mexico is a signatory of the law governing the protection of intellectual property and thus respects drug patents. The SSA is in charge of the national registry and finished its automation in 2000 with technical cooperation from PAHO/WHO. There is no expiration period for drug registries, and since 1998 separate registries have been kept for brand-name products and generics. From 1995 to 2000 authorization was given for the registry of 3,154 allopathic drugs, including 1,172 interchangeable generics, representing 207 brand-names[28]. In 2000 the SSA established a Basic Table of Essential Drugs for the first level of care. The table contains 70 drugs and 12 vaccines, which in practice will be expanded by the Popular Health Insurance. There is a Catalogue of drugs for the second and third level of care, a Catalogue of Treatment Supplies and Prosthetics for the health sector, and a Catalogue of Biologicals and Reagents, regulated by the General Health Council. Institutions issue public tenders to procure the drugs, and the SSA authorizes the states to purchase them, if they consider it more advisable. Drugs are dispensed free of charge in social security facilities, and in the SSA they can be free or usually obtained at moderate prices. A number of studies, however, note frequent shortages in facilities. The national health accounts system does not compile data on public and private drug expenditure. Private pharmacies are required to have a pharmacist in charge, but hospital pharmacies are not[29].

There is a network of blood banks headed by the National Blood Transfusion Center (CNTS). The network is comprised of 31 State Centers, which provide direct services and technical assistance to another 588 blood banks, 3,313 transfusion services, and 150 blood-donation posts. Blood donations exceeded the 1.2 million mark in 2000. Most of them were for replenishment, while volunteer donations accounted for 8.6% that year. Remunerated blood donation is not practiced in the country[30].

Equipment and Technology. The resources essential for outpatient and inpatient care have systematically increased in all public institutions in recent years. In 2000 the public center had 19,107 medical units, 60.5% of which belonged to the SSA, which also had the greatest percentage of hospital beds (40.8%), clinical laboratories (49.9%), delivery rooms (87.5%), and operating rooms (54.9%). The IMSS, in contrast, had the greatest proportion of diagnostic imaging equipment, with 42.4% (see Table).

PRINCIPAL MATERIAL RESOURCES OF THE NATIONAL HEALTH SYSTEM, 2000

Institution	Medical unit	Medical offices	Beds	Clinical laboratory	Diagnostic imaging equipment	Blood Banks	Delivery Rooms	Operating Rooms
SSA and SESA	11 551	23 395	31 487	**927**	1 135	112	6 074	1 112
IMSS-Solidarity	3 609	**4 193**	1 994	69	69	0	69	69
Other	79	648	1 477	15	58	10	36	68
Subtotal Unins. pop.	**15 239**	**28 236**	**34 958**	**1 011**	**1 262**	**122**	**6 179**	**1 259**
IMSS	1 784	14 089	28 622	496	1 511	31	470	972
ISSSTE	1 244	5 313	6 745	**201**	436	58	159	286
PEMEX	215	1 538	980	22	60	8	28	52
SEDENA	296	1 053	3 885	39	92	6	44	84
NAVY	142	408	732	25	64	4	29	39
Other	187	855	1 222	24	61	11	36	68
Subtotal Ins. Pop.	**3 868**	**22 041**	**42 186**	**807**	**2 224**	**118**	**766**	**1 501**
Private sector (1999) [&]	2 550	12 455	31 241	682	N/D	211	2 392	2 568
Per c/1,000 inhab.	77.5	51.5	75.9	1.8	2.0	0.2	7.0	2.8

Source: SSA DGIED. Boletín de información estadística: recursos y servicios, 2000.
[&] Relevant aspects of the infrastructure of medical units in the private sector. Sal Pub Méx 43(2); 2001.

There are significant differences among the states. While the D.F., Baja California, and Sonora had 1.9, 1.5, and 1.1 beds per 1,000 inhab., respectively, Chiapas, Puebla, Veracruz, and Oaxaca had 0.2, 0.19, 0.11, and 0.07, exhibiting a skewed distribution[31]. No aggregate data is available on the location of medical equipment that is defective or out-of-order. The public sector has grown in terms of equipment and technology in recent years, judging by the purchases reported. However, the reports of the institution note the persistence of technology lags, particularly in hospitals. Diagnostic and treatment equipment in the private sector has been upgraded with state-of-the-art technology.

2.2 FUNCTIONS OF THE HEALTH SERVICES SYSTEM

Steering Role. The SSA is the steering agency of the system and establishes the Official Mexican Standards (NOM), which contain the specific procedures and contents of the national health regulations. The legal framework of the sector consists of two general laws, periodically updated at the government's initiative: the General Health Law and the General Social Security Law, which become operational through the Official Mexican Standards (NOM), Regulations, Operating Rules, and Agreements of public institutions, published in the Official Gazette of the Republic. The Federal Government develops and reviews the NOM, convenes interinstitutional groups (e.g., on health statistics, care for population groups, etc.) and aggregates the health statistics. There is no real national information system, but a series of structurally and functionally disconnected subsystems (one in every public institution) that generate information on population and coverage, resources, service delivery, and health impairments[32]. The sanitary regulation of products, goods,

and services takes place within the framework of shared responsibilities between the federal and state secretariats of health (SESA).

Mexico has two important regulatory and sectoral coordination entities: the General Health Council, an organ of the Presidency of the Republic, in charge of intersectoral coordination in health; and the National Health Council, a federal organ for the territorial coordination of health policies, made up of the Secretary of Health and the 32 state secretaries in that area.

The senior administrators of each institution are responsible for overseeing and controlling public expenditure, under the guidelines of and in close coordination with the Secretariat of the Treasury and Public Credit, which transfers the financial resources, and the Secretariat of the Comptroller and Administrative Development, which oversees spending. Each public service provider is responsible for the management, financing, insurance, and delivery of health services for its target population through its own network of care.

The greatest progress in decentralization has been made by the SSA. The SESA has the authority to create jobs, hire staff, and organize, manage, and control the health services. In 2000 the IMSS launched a program to deconcentrate administrative, financing, and medical functions, transferring them to the seven regional bureaus and 37 delegations (which, as of 2002, number 4 and 25, respectively). It plans to continue this transfer to the more operational levels through the creation of 139 Deconcentrated Medical Areas (AMGD). ISSSTE, SEDENA, and PEMEX operate under more centralized budgetary management and decision-making structures.

Medical and nursing schools are accredited by the pertinent professional associations. This is an area that is rather undeveloped: in 2001 only 23 of the 78 medical schools and 5 of the more than 300 nursing schools were accredited. Certification of medical specialists is controlled by the different specialty boards, under the coordination of the National Academies of Medicine and of Surgery. There is a mechanism for certifying general practitioners, coordinated by the National Board of General Medicine. In 1999 hospital certification began under the aegis of the General Health Council, which as of 2000 had issued an opinion on 518 hospitals, 422 of which were certified. Its procedures and contents have been reviewed and modified, and certification will begin again in 2002 under the new criteria[33].

Financing and Expenditure. The information on public health expenditure is reliable and the responsibility of the Secretariats of the Treasury and Public Credit and of Health, which has a national health accounts system that also compiles data from the private sector. Between 1997 and 1999 total per capita expenditure declined by 1.3%, despite a 5.8% increase in per capita public expenditure, while total and per capita private health expenditure fell, though it remains higher than public expenditure. (see table)

National Health Expenditure, 1997-2000
(millions in constant pesos)

Indicator	1997	1998	1999	2000
Public health expenditure	126 638	138 854	139 042	135 141
Private health expenditure	161 421	165 806	155 105	**N/D**
Total health expenditure	**288 059**	**304 660**	**294 147**	**N/D**
Per capita public health expenditure	1 330	1 439	1 407	1 347
Per capita private health expenditure	1 696	1 719	1 581	**N/D**
Total per capita health expenditure	**3 027**	**3 159**	**2 988**	**N/D**

Source: SSA/DGIED National Health Accounts System (up to 1998, data collected by FUNSALUD).

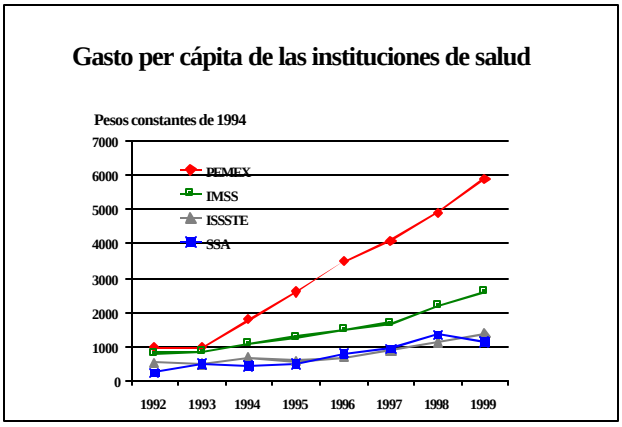
The distribution of public health expenditure is inequitable, with 19 states above the national average and 13 below. Guanajuato, Mexico, Michoacán, Puebla, and Veracruz have the lowest level of expenditure. State contributions to the health budget vary widely. In 2000 only five states contributed more than 20% of the total for each (Aguascalientes, D.F. , Morelos, Sonora, and Tabasco)[34].

In 1998, total health expenditure as a percentage of GDP had the highest value in recent years, 5.6%, declining to 5.5% in 1999; the composition of the expenditure was 2.6% public and 2.9% private. IMSS is the institution with the highest percentage of public expenditure, 1.46% of GDP in 2000, followed by the SSA (0.65%) and ISSSTE (0.23%)[35].

NATIONAL HEALTH EXPENDITURE
AS A PERCENTAGE OF GDP 1996-2000

Indicator	1996	1998	1999	2000
Public health expenditure	2.3	2.6	2.6	2.5
Private health expenditure	2.8	3.0	2.9	**N/D**
Total health expenditure	**5.1**	**5.6**	**5.5**	**N/D**
Expenditure by institution:				
SSA	0.42	0.58	0.63	0.65
IMSS-Solidarity	0.08	0.08	0.07	0.07
IMSS	1.37	1.50	1.55	1.46
ISSSTE	0.18	0.21	0.22	0.23
PEMEX	0.07	0.08	0.08	0.08

Source: SSA/DGIED 1 DGIED/SSA National Health Accounts System.
(up to 1998, data collected by FUNSALUD).



Between 1996 and 1999 all public institutions, with the exception of IMSS-Solidarity, increased their expenditure as a percentage of GDP, a trend that by the year 2000 only the SSA and ISSSTE maintained. There are differences in the per capita expenditure of each public institution, evidenced in the figure above, which indicates that it is twice as high in PEMEX as in IMSS and more than three times as high as in the

SSA and ISSSTE. Public expenditure is highly concentrated in curative care; the second- and third-level hospitals of the IMSS consume nearly 75% of the institute's budget, and in the ISSSTE the figure is 69%[36].

PERCENTAGE OF NATIONAL HEALTH EXPENDITURE BY SOURCES AND FUNDS

	1993	1994	1997	1998
Source:				
Households	50.3	49.1	61.2	57.5
Employers	29.1	28.3	17.8	18.4
Federal Government	19.4	19.7	20.7	23.8
State governments	1.2	2.9	0.3	0.3
Total	100	100	100	100
Funds:				
Social Security	42.4	42.6	32.2	32.8
Uninsured	12.8	12.9	11.5	13.3
Private	42.4	41.9	56.3	53.9
Private insurance	2.4	2.6	0	0
Total	100	100	100	100

Source: SSA/DGIED 1 DGIED/SSA National Health Accounts System. (data collected by FUNSALUD).

The highest percentage of national health expenditure by source (origin of the funds) corresponds to households, which climbed from 50% in 1993 to 57.5% in 1998. This was followed by the contributions of the Federal Government, which rose from 19.4% to 23.8%, while employer expenditures declined after the reform of the social security law in 1997, with figures of 29.1% in 1993 versus 18.4% in 1998. In terms of the concentration of the funds, the private sector has the highest percentage, with 53.9% in 1998. Moreover, social security funds have declined since 1997, when the pension and health funds were separated as a result of the amendment of the social security law. (see preceding table)

Insurance. An estimated 50% to 55% of the population is enrolled in social security. However, a precise figure cannot be obtained directly from registries of the institutions due to the overlapping of coverage among them. Other sources have therefore been used, such as the national household survey conducted every five years by INEGI or the population and housing censuses. In 1999 the SSA reported that 78.3% of social security beneficiaries are served by IMSS, a little over 17.2% by ISSSTE, and the rest by other institutions (PEMEX, SEDENA, the Navy, and state insurance)[37]. The insurance is comprehensive, based on a family-medicine model at the first level of care, from which patients are referred to the second and third level of care when necessary. The subcontracting of services and transfer of premiums are practiced on very small scale, since there is little regulation of the criteria and the actors involved have different positions. There is implicit rationing in the services, owing to the lack of drugs and the waiting period for diagnostic testing, consultations with specialists, and surgical procedures[38].

Since 1998 the IMSS has offered family health insurance for people outside the formal economy, who numbered 1.5 million in 2000. This insurance is financed with contributions from the subscriber and the

federal government through an advance payment of the annual premium. The benefits are almost the same as those of the regular plan provided by that institution, but the insurance does not accept people with preexisting conditions, and it limits certain surgical procedures and costly treatments during in the initial years.

Private insurers provide coverage to some 2.8 million people (less than 3% of the population) for major medical expenses, and in 2002 certain authorized insurance companies began offering comprehensive insurance after the law prohibiting it to the private sector was amended. This insurance is heavily regulated by the National Insurance and Guaranty Commission, an agency of the Secretariat of the Treasury and Public Credit, and the Secretariat of Health[39].

Service Delivery.

Population-based Health Services. The SSA is the agency responsible for public health services, and Social Security Institutions actively participate in disease prevention and control activities. National health days are held in February, May, and October. These events are devoted mainly to administering vaccinations and furnishing parasiticides and vitamin A supplements to the public. Health promotion campaigns are coordinated by the SSA, and they have an important ally in the Healthy Municipalities Movement, which had 1,565 municipalities as members in 2000. The SSA and the Secretariat of Public Education (SEP) have a school health and adolescent health program covering nearly 30,000 schools and are responsible for the implementation of the health-promoting schools initiative. Mass communication activities are conducted on a permanent basis to discourage smoking and a sedentary lifestyle and to promote healthy habits and self-care[40].

There are Official Mexican Standards for prevention, treatment, and control of the country's principal communicable diseases (tuberculosis, HIV/AIDS, malaria, dengue, cholera, rabies, etc.) and noncommunicable diseases (diabetes mellitus, hypertension, cervical and breast cancer, malnutrition, etc). These standards indicate the diagnostic criteria and the prevention, treatment, and control activities that should be undertaken, which are overseen by the different supervisory levels of the institutions. PAHO/WHO has served as the external evaluator for several programs, and the results have been good in terms of coverage, improvements in notification systems, interinstitutional coordination, and the reduction of morbidity and mortality. Vaccination coverage in children is high-- 96% for measles, 99% for BCG, and 93.6% for the complete series of basic vaccines in children under 1 year in 2000[41, 42].

Approximately 87.8% of the nation's population is covered by the drinking water infrastructure and 76.2% had sewerage service in 2000. About 95% of the drinking water provided was disinfected; there are 914 municipal wastewater purification systems, which treat 21.8% of the wastewater from urban areas, meeting 60.0% of the target set in the current standard. Air quality is monitored in 14 cities through stations that monitor the most critical contaminants. The Metropolitan Area of the Valley of Mexico and the cities of

Guadalajara, Monterrey, Toluca, Tijuana, Mexicali, and Ciudad Juárez have programs in place to improve air quality that include the compulsory use of cleaner technologies [43, 44]

Personal Health Services. All public institutions keep up-to-date records on their health care infrastructure and the geographical areas they serve. The care provided to people in the public services is organized by levels of care, and patients cannot select the provider or the physician that sees them. Between 1999 and 2000 the IMSS conducted a pilot study in which patients could select their family physician; however, this option has not been offered to the general public. An estimated 50% of the nation's population is covered by social security, another 40% by the institutions for the uninsured population (78.8% of which is protected by the SSA and 21.3% by IMSS-Solidarity), while the remaining 10% is treated in the private sector; these figures are extrapolated to all levels of care[45].

Activities in health promotion, disease prevention, and outpatient care for morbidity are carried out at the first level. The services are provided by general or family practitioners and nursing staff, with support from trained members of the community. Each institution has its own network of services and refers to the units by different names (family medicine in IMSS and ISSSTE, urban or rural health center in the SSA, etc.). In 2000, IMSS provided the highest volume of care, followed by the SSA, ISSSTE, IMSS-Solidarity, PEMEX, and SEDENA, except with regard to dental consultations, where the SSA provided the highest volume and SEDENA surpassed PEMEX .(see table below).

SERVICES PROVIDED, BY TYPE OF INSTITUTION, 2000 (in thousands)

Institution	General consultations	Emergency consultations	Dental consultations	Laboratory tests
Total Uninsured pop.	**72 423**	**5 654**	**5 159**	**46 681**
SSA	56 874	4 754	4 664	41 201
IMSS-Solidarity	15 238	677	443	3 746
Other	311	223	52	1 734
Total insured pop.	**90 389**	**18 278**	**6 901**	**127 538**
IMSS	71 395	15 654	4 355	95 869
ISSSTE	15 652	882	1 298	21 195
PEMEX	1 651	781	271	3 119
SEDENA	1 208	173	515	1 626
NAVY	403	100	148	912
Other	3 080	688	314	4 817
TOTAL	**165 812**	**23 932**	**12 060**	**174 219**

Source: SSA Boletín de información estadística: recursos y servicios, 2000.

The second level of care is offered essentially at hospitals with ambulatory care and inpatient services provided by specialists. Each public institution has its own network. At the third level, highly complex specialized care is provided, and clinical and basic research are conducted by specialists, with the support of nurse-specialists and other professionals. These facilities receive patients referred from lower-level facilities and emergency services, and the care is provided in national referral, regional, and certain state referral hospitals. The SSA has 11 specialized institutes (Cardiology, Pediatrics, Perinatology, Nutrition, Psychiatry, Oncology, Respiratory Diseases, Orthopedics, Rehabilitation, Human Communication, and Public Health). The insured population receives a greater proportion of hospital services than the uninsured population, and the IMSS is the public institution that provides the highest volume of services, followed by the SSA, ISSSTE, IMSS-Solidarity, PEMEX, and SEDENA. (see following table)

SERVICES PROVIDED, BY TYPE OF INSTITUTION, 2000 (in thousands)

Institution	Consultations with a specialist	Hospital Discharges	Surgical procedures	% hospital occupancy	Average days/stay
Total unins. pop.	**9 524**	**1 877**	**1 016**	**60.9**	**3.8**
SSA	8 759	1 573	874	59.9	3.9
IMSS-Solidarity	410	243	116	94.1	3.3
Other	355	61	26	36.2	3.5
Total insured pop.	**26 632**	**2 529**	**1 789**	**74.6**	**4.5**
IMSS	15 992	1 929	1 404	84.8	4.7
ISSSTE	5 775	341	252	72.2	4.3
PEMEX	2 086	63	32	69.1	4.2
SEDENA	839	85	31	18.0	3.0
NAVY	434	22	10	30.6	3.7
Other	1 506	89	60	59.9	2.6
TOTAL	**36 156**	**4 406**	**2 805**	**68.4**	**4.2**

Source: SSA Boletín de información estadística: recursos y servicios, 2000.

Quality in care is an area that the public sector is beginning to address, and since 1997 certain lines of action have been promoted. For example: In the SSA, establishing a baseline diagnosis of the facilities, and once that is accomplished, instituting programs for quality improvement, in addition to setting up clinical, mortality, referral, and counter-referral committees in hospitals and at the subnational level; and in the IMSS, setting up a program to deliver home health care to chronic patients.[46] In 2001 there was a renewed effort--one that is broader, more comprehensive, and more participatory--to improve the quality of public and private health services through the National Campaign for Quality Health Services. This campaign involves establishing and keeping records on indicators of quality in health units, together with the creation of a national monitoring network; training for workers and administrators in areas that affect service quality, and the preparation and dissemination of materials on patients' rights and nurses' and physician's codes of ethics, as well as the granting of federal technical and financial support for local projects to improve the quality of care[47, 48].

3. MONITORING AND EVALUATION OF SECTORAL REFORM

3.1 Monitoring the Process.

Monitoring the Dynamic.

The Health Sector Reform Program 1995-2000 announced the principal changes in the sector for that period, laying out six work guidelines that were implemented to one degree or another by the SSA and IMSS, as outlined further on, in the section on the evaluation of health sector reform. The new Federal Government amended the health system development plan, unveiling the National Health Program (PNS) 2001-2006, a new framework whose contents, as stated in the first part of the document, are the result of a broad citizen consultation conducted between January and July 2001. As part of this process, more than 22,000 comments and opinions were received through suggestion boxes strategically placed in public areas, the Internet, and state and federal forums held for that purpose (143 and 18, respectively)[49].

The PNS 2001-2006 sets the strategic course for the national health system, and its content is consistent with the social and human development objectives of the National Development Plan 2001-2006. The SSA is in charge of implementing the program, whose centerpiece is the democratization of health. The PNS offers a vision of the system in the year 2025, anticipating that every Mexican will be able to have health insurance, regardless of the ability to pay; this will guarantee access to services through an integrated model of care under a system that will offer adequate treatment and help to improve the living conditions and quality of life of all citizens.

The PNS 2001-2006 identifies three major challenges in the current Mexican health system: equity, quality, and financial protection, and to deal with these issues it includes the following objectives:

1. Improve the health conditions of Mexicans
2. Reduce inequalities in health
3. Guarantee adequate treatment in public and private health services
4. Ensure justice in health financing
5. Strengthen the National Health System, especially its public institutions

These objectives are to be met through five substantive strategies directly related to the basic objectives of the system and five instrumental strategies that influence these objectives by strengthening the health system. The strategies are as follows: 1) Link health with economic and social development; 2) Reduce health lags that affect poor people; 3) Deal with emerging problems by setting explicit priorities; 4) Launch a crusade for quality in the health services; 5) Offer financial protection in health to the entire population; 6) Build cooperative federalism in health; 7) Strengthen the steering role of the Ministry of Health; 8) Make progress toward an integrated model of care; 9) Broaden citizen participation and provide the freedom to choose one's health care provider at the first level of care; and 10) Increase investment in human resources, research, and the health infrastructure.

These strategies, all told, consist of 66 lines of action, and the PNS 2001-2006 outlines 43 programs to carry them out, whose contents will be disclosed in 2002. Two types of indicators will be used to evaluate the PNS: (a) the quality of the services and the degree of financial protection available to citizens to measure the system's impact on health conditions; (b) indicators of intermediate goals, processes, and resources to measure the performance of programs and services. The comprehensive evaluation scheme has three components: performance evaluation, evaluation of programs and services, and a national system of indicators. The entities that establish the operating criteria are the General Health Council and the National Health Council, while the SSA is responsible for consolidating the information and analyzing the results.

Monitoring the Contents.

Legal Framework

The most significant changes linked to the HSR 1995-2000 needed to be grounded in the General Health Law. Thus, changes were introduced in 1997 that made the deregulation in health more effective, established a new classification for drugs, and made it possible to develop the use of generic drugs in the private market, among more relevant. In addition, the General IMSS Law was amended in 1997, reducing employer premiums and increasing government contribution to the health and pension systems. Moreover, the voluntary family health insurance plan was created, and there was clarification of the option of premium transfers for groups served by other providers. The presidential decrees creating the National Medical Arbitration Commission were added to that framework in 1996, over and above the agreements on decentralization of the health services and sectoral coordination in 1997, the creation of national bioethics commissions and research on the human genome in 2000 ,and the Federal Commission for Protection against Health Risks in 2001. The Operating Rules for Specialized Health Insurance Institutions (ISES), as prepaid medical administration entities, went into effect, and in 2002 the Operating Rules and management and evaluation indicators were published for several national programs, such as the Popular Health Insurance, Healthy Communities, Disabled People, etc. Between 1995 and 2002 some 150 NOM on health have been published and several important laws enacted, such as the anti-smoking law, which bans smoking in public places and places restrictions on sales and advertising; the National Institutes of Health Law, which grants full autonomy to these institutes; and the domestic violence law[50,51,52].

Citizens' Right to Health and Insurance. The right to health is established in Article 4 of the Constitution of the Republic. Its protection is guaranteed through the various health care subsystems, which in reality create stratification in each population group's access to services (see pp. 5-6). Current health policies do not seek to integrate the different subsystems of medical care, or to standardize services and benefits.

From 1996 to 2000 the main reform strategy was to expand coverage to the uninsured population by offering a basic package of health services; according to the SSA, by the end of that period only 0.5 million people had no access to the health system, out of the 10 million identified at the beginning[53]. Since 2001 the accent

has been on comprehensive care and insurance, as seen in the Popular Health Insurance option, introduced in 2002. This insurance is voluntary and financed with a federal subsidy from fiscal resources and the resources of beneficiaries through a progressive premium based on each family's income. The package offers 78 medical benefits and 191 drugs and associated vaccines, all of which are provided in first- and second-level facilities of the SSA itself. An estimated 59,000 families in five states are expected to enroll in the first year, with future expansion projected. The stated goals are also to increase social security enrollment by half a percentage point each year, move forward with in the regulation of private prepaid plans, and promote private insurance through tax deductions[54,55].

Steering Role and the Separation of Functions. The PNS 2001-2006 reaffirmed the SSA's steering role in the health system and, in conjunction with the operating rules of the national programs and other policy instruments, establishes clear parameters for federal and state responsibility in health and health care delivery. Between 1997 and 1999 the Decentralized Public Agencies (OPD) were created in every state. These administrative agencies have their own legal status and assets. They are responsible for directing, administering, and supervising the health services, administering the resources allocated and the fees recovered, conducting research, investigating and analyzing health in their respective territories, responsible to the SSA for separating health care delivery (which remains the responsibility of each state) from the regulatory, financing, and insurance (which remain the shared responsibility of the states and the Federal Government, with the latter retaining responsibility for oversight).

The General Health Council role as coordinator has been enhanced with the creation of the Executive Board, made up of the heads of the public health institutions. Intra- and intersectoral coordination has been strengthened through the Councils (against Addictions, for Accident Prevention, and for the Prevention and Control of HIV/AIDS), Commissions (Bioethics, Human Genome, Occupational Health and Safety, Human Resources Development, and Health Research), Committees (Oral Health, Care for the Aging, and Epidemiological Surveillance) and the Interinstitutional Reproductive Health Group[56].

Social Participation and Control. The best expression of social participation in health is the Healthy Communities Program, promoted under the PNS 2001-2006. This program takes the best activities in community organization for health and, through the SSA, gives them additional support, emphasizing health promotion and allocating financial resources to health projects carried out in the municipality. The SSA is continuing its technical assistance for the work of the Healthy Municipalities network, and there is renewed support for the Local Health Committees in first-level care units. At the same time, it is promoting the creation of Municipal Health Committees, made up of civil society organizations entities and local government. Two work modalities are in place, known as municipal participation in health promotion and community organization for health. Each is in different stages, marking the degree of organization and development in the initiatives that they are implementing[57].

Financing and Expenditure. After the changes introduced with the PNS 2001-2006, the most significant change anticipated in the coming years is the gradual increase in spending on insurance and, as a counterpoint, the reduction in out-of-pocket private expenditure that will occur as the Popular Health Insurance is implemented and the comprehensive health insurance offered by the ISES in the private market gains acceptance. Furthermore, the government has indicated its intention to increase public health expenditure as revenues from the new taxes increase and the country's tax base expands; this will enable the national health authority to make changes and achieve greater equity in the distribution of the expenditure among the states, to ensure that the budget favors the population groups with the greatest exposure, and to increase the sums allocated to health promotion and disease prevention[58].

Supply of Services. The creation of the Popular Health Insurance represents a de facto modification in the model of care provided by the SSA, clarifying the benefits that users have a right to while replacing the fees charged to patients for services rendered with a prepayment. The dynamic of gradually expanding this insurance to the states and health care units in the country, together with its voluntary nature, means that for several years SSA facilities will provide care to uninsured and insured patients alike.

Under the PNS 2001-2006, the federal government is promoting several programs aimed at bridging gaps, which should improve equity in access to the services and benefits of the health system. Such is the case with the Even Start in Life Program, which provides interinstitutional coordination and investment to guarantee universal coverage and egalitarian conditions of care during pregnancy, childbirth, and the puerperium, as well as care for children up to 2 years of age; the National Program for the Health and Nutrition of Indigenous Peoples, aimed at improving the health status and access to services of these groups, with interventions based on their epidemiological situation, culture, and living and working conditions.

The potential changes in the private sector will stem from the comprehensive health insurance option offered in 2002. The impact of this new modality in terms of the number of beneficiaries has not been determined, but it should make private medical practice more corporate in nature through the networks of services established by the ISES.

Management Model. There is no certainty about what changes will occur in the short term. However, some lines of action announced by the SSA are designed to modifying the management of the services. The Universal Hospital Program includes the adoption of an administrative self-financing and self-management scheme, the installation of a Board of Governors or Administrative Council, the right of patients to select their physician, the outsourcing of services through contracts and agreements, and generally speaking, promotion of the purchase and sale of benefits. The aim is to increase efficiency internally and in the health system as a whole. The purpose of the e-health Telemedicine Program, also announced in 2002, is to make broader and more intensive use of information and telecommunication technologies to improve efficiency and service coverage, offer online health information services, and foster information exchange and distance

education[59]. Another work area is greater use of automation in management and information systems to increase control over productivity and costs, broaden access to the information, and in general, improve health services management.

Social Security institutions, particularly the IMSS, are expected to continue their efforts to deconcentrate administrative and technical management toward the regions, state delegations, and medical areas, in addition to eventually adopting more flexible systems for outsourcing services and business criteria for operating medical units and hospitals at the third level of care.

Human Resources. The HSR Program 1995-2000 did not contain concrete plans for the training and education of human resources for health. In contrast, the PNS 2001-2006 ranks the strategy of boosting investment in human resources, research, and infrastructure in health as number 10, establishing three lines of action:

- Improve the quality of education for health professionals by performing a situational diagnosis and taking steps in response to its findings and by promoting the accreditation of medical, nursing, and dental schools
- Improve the training of human health resources by offering management training programs for administrators, technical training for physicians and other professionals, and continuing education, and linking hiring and promotion practices to accreditation through academic events
- Design and promote a civil service career in the health sector, which the country currently lacks.

Technology Assessment. Although not an explicit priority in sectoral development and investment programs, there is manifest interest among institutional health service providers, professional associations, the National Academy of Medicine, and the research institutes, which have organized training courses and have placed this topic on the agendas of congresses and scientific events. In 2002, the IMSS' Bureau of Medical Benefits created the Management and Technology Assessment Unit, placing particular emphasis on this area in its work agenda.

3.2 *Evaluation of the Results of HSR.*

Implementation of the changes and transformations outlined in the PNS 2001-2006 has barely begun. Thus, any judgment or assertion about their impact on the health system would be premature. The analyses in this section of the profile will therefore refer essentially to the results linked with or attributable to the Health Sector Reform Program 1995-2000 and to the measurable outcomes produced by that process, as well as unmet objectives.

Equity. The greatest achievements here are related to the expansion of formal health care coverage, which occurred in two basic areas:

(1) The insured population rose from 47.5 to 55.1 million as a result of the family health insurance provided by the IMSS for people outside the formal economy, but with the ability to pay and an interest in obtaining insurance, and the enrollment of selected population groups that formerly did not enjoy that right, such as fishermen who belong to cooperatives, agricultural day workers, and other specific groups.

(2) According to the SSA, the uninsured population without regular access to health services plummeted from 10 million to 0.5 million between 1995 and 2000, basically due to the program to expand coverage, consisting of 13 key low-cost, high-impact interventions applied in rural areas in selected states[60].

Other increases in coverage occurred: among women who use family planning methods, which went from 332 per 1,000 women of childbearing age in 1995 to 350 in 1999; among children under 1 year with a complete vaccination series, which soared from 49% in 1995 to 89% in 1999; and in hospital births, which rose from 76% in 1995 to 86% in 1999, although differences among the states persist, ranging from 100% in some of them to 46% in Guerrero. Hospital discharges also increased. Outpatient consultations per 1,000 population have also risen at a fairly steady annual rate over the past decade, which means that they cannot be attributed to the changes introduced by the HSR 1995-2000.

There was no reduction in the disparities in the benefits received by the user population of the different health service providers. This was a period in which health expenditure did not grow; indeed, the highest annual values for health expenditure per capita and as a percentage of GDP in recent years correspond to 1994 (US$ 264 and 6.6%, respectively), markedly decreasing in 1995 as a result of the economic crisis that year and increasing annually thereafter until 1999[61].

Effectiveness and Quality. The effectiveness of the HSR 1995-2000, measured by the trend in traditional mortality and morbidity indicators, shows progress in some cases and stagnation in others. Infant mortality declined, in terms of national values (in 1999 the observed figure was 14.5 and the adjusted figure, 22.8) and the difference between the states at either extreme, a trend that began years ago. As for maternal mortality, the national rate held steady in the last decade (5.4 per 10,000 live births in 1990 and 5.1 in 1999). Higher maternal mortality is concentrated essentially in the country's central and southern regions. The IMSS has managed to improve the figures, cutting the rate from 4.8 to 3.6 between 1990 and 1999. Mortality from cervical cancer exhibited a moderate decline (25.0 per 100,000 women aged 25 years or older in 1990, down to 19.3 in 2000). However, the number of deaths from this cause in 1999 was 8.7% higher than in 1990. Better results should be obtained in the coming years, following the updating of the national standard in 1998 and the increase in program investment and supervision[62]. The prenatal care indicators do not reflect a high degree of effectiveness, since the percentage of pregnant women seen in the first trimester nationwide was only 33.6% and the average number of prenatal check-ups per pregnant woman was 4.1 in 1999. There has been a marked reduction in morbidity and mortality from cholera, malaria, dengue, and vaccine-preventable diseases in recent years.

Quality improvement was addressed through several strategies. The first is the work of the National Medical Arbitration Commission (CONAMED), an body with the technical autonomy to mediate complaints about irregularities in service delivery or the failure to provide the necessary care; the Commission investigated 1,794 complaints, provided 1,341 consultations, and issued 443 expert opinions. A second strategy is the performance incentive program, which benefited 56,365 nurses, 10,177 physicians, and 1,326 dentists in the SSA between 1997 and 2000. Certification is another strategy. There are 244 certified hospitals and another 706 enrolled in the program (5.9% of the hospitals evaluated were not granted certification); also important is the certification of specialists and general practitioners by the associations, which began in 2000[63].

An unmet objective of the HSR is the patient's right to choose a family physician in social security facilities. This initiative was tested in one medical unit of the IMSS but never extended to the rest of the system. The information on technical and perceived quality in service delivery suggests difficulties and problems in the health system: the percentage of caesarian births rose from 23.1% in 1991 to 32% in 2000, with private services exhibiting the highest values, at nearly 55%; the National Survey of Satisfaction with the Health Services 2000 reveals that 76% of Mexicans are convinced that fundamental changes are needed, while 19% believe that the services function rather well and require only small changes. These values indicate an improvement over the 1994 survey (83% and 13%, respectively) but also that dissatisfaction persists [64].

Efficiency. The SSA made significant changes to boost efficiency in resource allocation. In 1999 it completed the transfer of human, material, and financial resources from the federal government to the states, with state participation in the health budget increasing from 59.0% in 1996 to 73.7% in 2000. It also decentralized the hiring of personal and control of the health services, granting broad authority to the states. Moreover, in 1996 it introduced a formula for allocating resources based on health needs; this formula is used to distribute the available resources after covering regular wages and expenditures, very gradually promoting equity in financing[65]. In recent years, initiatives to boost efficiency have grown in a number of SESA; these include the outsourcing of complementary services to external providers and cost control.

A stated objective of the HSR 1995-2000 that was not met was to integrate the health services for uninsured population; the separation of SSA and IMSS-Solidarity services persists in states where the latter operates.

Sustainability. Public health institutions have been operating under the same general regimens for years, and overall, they are not considered totally unsustainable, although they operate with implicit rationing. In several states and health units, particularly in SSA hospitals, mechanisms were introduced to attract additional funds through hospital wards for pensioners, the sale of services according to a set rate or through outsourcing agreements with other public and private providers; the clear results were an increase in operating funds,

which has even exceeded the budget allocation in that category. The greatest changes in social security have occurred in the IMSS. They began in 1997, when the federal contribution was gradually raised from 4.5% to 28.5% of the institution's total income, and family health insurance began to be offered to people outside the eligibility framework.

Social Participation and Control. The most important strategies to promote the work of the local health committees, community groups that assist in the tasks of disease prevention and control (in 2000, these committees could be found in some 18,000 health centers throughout the country); and to develop the Healthy Municipalities movement, involving over 1,500 municipalities that generate initiatives for the improvement and development of health, organized by the local authority[66].

* The second edition of this profile was prepared in a collaborative effort involving more than 12 professionals and staff members from the Secretariat of Health of Mexico and the PAHO/WHO Representative Office in that country. The PAHO/WHO Representative Office was responsible for coordinating the process. The external review was conducted by public health experts from the National Autonomous University of Mexico (UNAM) and the Mexican Social Security Institute. The Program on Organization and Management of Health Systems and Services of the Division of Health Systems and Services Development of PAHO/WHO was in charge of the final review, editing, and translation.

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