



UNITED STATES-MEXICO BORDER

# Diagnostic of Healthcare Services

Volume I. Mexico



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# Prologue

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The federal governments of Mexico and the United States have assigned to the United States-Mexico Border Field Office of the Pan American Health Organization (PAHO) the task of working collaboratively to collect, analyze and disseminate information on health and environmental health as a priority in its program of technical cooperation. In this sense, PAHO's United States-Mexico Border Field Office utilizes the information generated by the two countries to analyze health trends and the ability of healthcare services to respond to these needs, a fundamental requirement to be able to set healthcare policy, establish collaborative binational agreements and make decisions, but above all to identify and address disparities and inequities.

The Pan American Sanitary Bureau's Strategic Plan for the period 2003-2007, approved at the 130th session of the Executive Committee in June, 2002, proposes several objectives to achieve universal access to healthcare systems that integrated, equitable and sustainable, particularly in peripheral areas. This strategic plan requires the collection of baseline data on distribution of services at various levels in order to measure the impact of actions taken by health agencies and the participation of the private sector in improving people's access to healthcare services.

This is the reason we have worked to prepare a two-volume publication. The first volume, which it is my pleasure to present here, gives data on available healthcare resources in the states, jurisdictions, and sister cities along the U.S.-Mexico border. The data provided facilitate comparative analysis of the distribution of resources, not only the border states themselves, but also among the states, sanitary districts and cities bordering the United States. Herein are described the human, financial and infrastructure resources available for healthcare services at the state, district and municipal levels. The second volume will present a similar panorama of information concerning the border states and counties of the United States.

The data included here are taken from official sources in both countries and have been organized so as to assist the reader or researcher in visualizing the status of services and resources. This publication is not meant to be the last word on the subject; rather, it should serve to motivate other researchers to use these data to conduct more in-depth analyses into the disparities and inequities in access to healthcare services when this information is cross-referenced with additional socioeconomic data.

We hope that this document will prove useful to border area researchers, to healthcare providers, and to decision makers who create public policy and programs and take action to improve the level of health in the border region ■

*Alfonso Ruiz*

# Introduction

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In the border region of Northern Mexico there are six states which distinguish themselves from others in the nation by virtue of their strong interdependence with four states of the United States of America, comprising a binational community nearly two thousand miles in length.

An ever-increasing exchange of persons, goods and services in this region has caused the governments of both nations to join their efforts in developing joint public health policies, among them assuring access to quality healthcare services.

The U.S.-Mexico Border Field Office of the Pan American Health Organization has produced this document, responding to the need, cited by public health officials as well as researchers and academicians in the border region, to collect and organize data that will make it possible to analyze and understand the border's realities and its needs.

This work compiles and tabulates data about the population and the health resources of the border states of Northern Mexico, divided by sanitary district and municipality (including the so-called sister cities) along the U.S. border.

The majority of data come from the 12th General Census of Population and Housing, 2000, prepared by Mexico's National Institute of Statistics, Geography and Information Science (INEGI) and the Office of Information and Performance Evaluation of the Mexican Department of Health. The sources utilized are those which allow for systematic comparison within the geographic area studied. In some cases the information is supplemented with material taken from sources at the state level. All sources consulted are official. However, the reader must bear in mind that, in comparing data gleaned from various sources, some divergence may occur, given that different instruments—and in some cases different nomenclature or definitions—were used in arriving at these figures.



Given the large amount of information, we shall only dwell on those aspects which in our view are most relevant. The graphs and tables appended to each chapter will allow the reader to perform a more detailed analysis if desired.

This document begins with a general description of the border region and continues by presenting demographic data, health care coverage, human and material resources, and the annual healthcare budget expended on the border as a unit, at the state, district and municipal levels. Next, data are shown for each of the states and their respective border sanitary districts and municipalities. In all cases the data have been organized in such a way as to assist the reader in drawing comparisons both horizontally (among states, sanitary districts and cities) and vertically (state with corresponding sanitary districts and cities) ■

# Definition of Geographic Area Studied

The border between the United States and Mexico can be variously defined, ranging from a simple dividing line between the two countries to the inclusion of all ten contiguous states along this line (six states in Mexico and four in the U.S.). The Treaty of La Paz defines the border region as a strip of land extending along and 100 kilometers to either side of the international boundary.

From the standpoint of public health, and for the purpose of creating points of reference for comparison, the border region is sometimes defined as the populations of the cities in both nations which border each other. However, for the sake of constructing epidemiological indicators, at times the municipalities (on the Mexican side) and counties (on the U.S. side), the sanitary districts, and the states are considered as epidemiological units.

From the administrative standpoint, the states are divided into sanitary districts (Jurisdicciones Sanitarias). There are a total of 40 such districts in the six border states of Mexico, of which only 13 share a border with the United States. These 13 districts are:

State of Baja California, Districts 01 Mexicali and 02 Tijuana

State of Sonora, Districts 02 Caborca and 03 Santa Ana

State of Chihuahua, Districts 01 Chihuahua, 02 Juárez, and 05 Casas Grandes

State of Coahuila, Districts 01 Piedras Negras and 02 Cd. Acuña

State of Nuevo León, District 05 Sabinas Hidalgo

State of Tamaulipas, Districts 03 Matamoros, 04 Reynosa, and 05 Nuevo Laredo

There are Mexican and U.S. communities grouped together on opposite sides of the border, sometimes referred as "sister cities." In previous studies and publications, the Pan American Health Organization has included in the classification the municipalities of Tijuana, Mexicali, San Luis Río Colorado, Nogales, Agua Prieta, Ascensión, Juárez, Acuña, Piedras Negras, Anáhuac, Nuevo Laredo, Reynosa, and Matamoros. In this document, Ojinaga, Chihuahua is included in the group, given its sizable population.

In this analysis we first review demography and health services considering the six border states on the Mexican side as a unit (Baja California, Sonora, Chihuahua, Coahuila, Nuevo León, and Tamaulipas). In like manner, the available information pertinent to the border sanitary districts and cities along the border are reviewed. Finally, information on each state, along with its respective sanitary districts, is provided ■



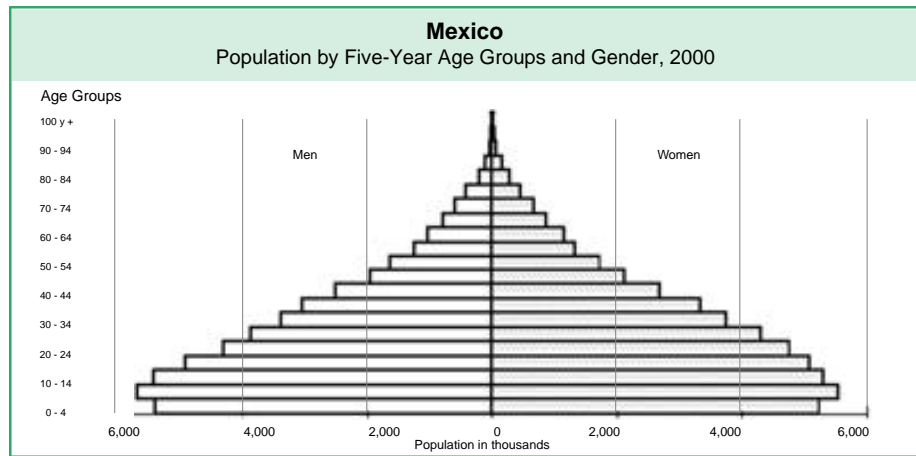
# The Border States, Sanitary Districts and Municipalities of Northern Mexico: A Comparative Analysis

## Demography

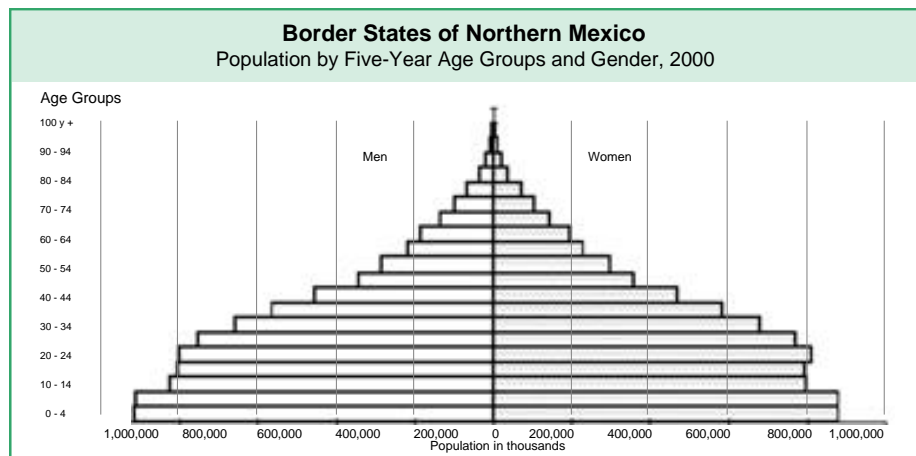
The population of Mexico, as reported in the 12th General Census of Population and Housing, 2000, was 97,483,412. In

terms of age categories, 33.42% are in the pre-productive years (ages 0-14), 61.7% are of productive age (15-64), and 4.88% are in the post-productive group (65 and older).

This compares with a reported population of 16,418,306 for the six states of Northern Mexico (16.8% of the nation's total), divided into groups according to productive capacity as 31.25%, 64.2%, and 4.55%,



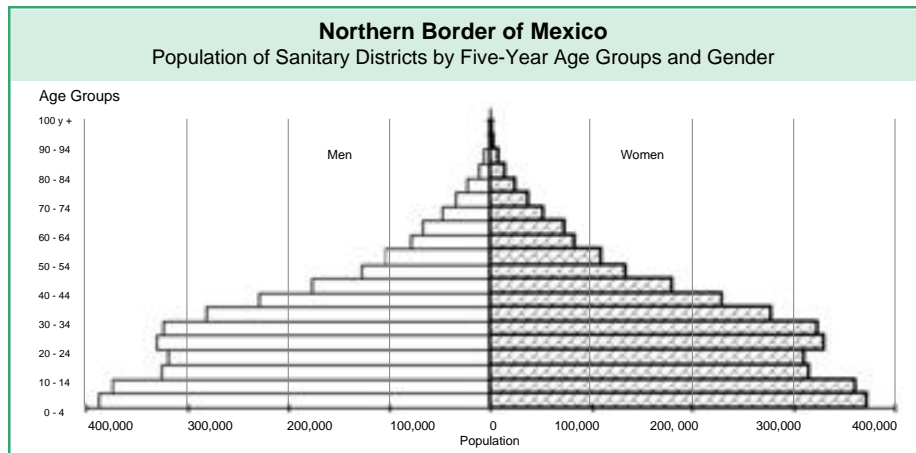
Source: 12th General Census of Population and Housing 2000



Source: 12th General Census of Population and Housing 2000

for pre-productive age, productive age and post-productive age, respectively. Nuevo León is the border state with the greatest population (3,812,758 inhabitants), followed by the state of Chihuahua (3,037,366). The least populous border state is Sonora (2,192,455 inhabitants). In Baja California, 79.8% of the population is concentrated in the border cities, whereas in Nuevo León, only 0.48% live in the border town of Anáhuac.

The 13 border sanitary districts together had 6,790,955 inhabitants, equivalent to 6.96% of the nation's total and 41.3% of the population of the northern border states. The population of the border sanitary districts breaks

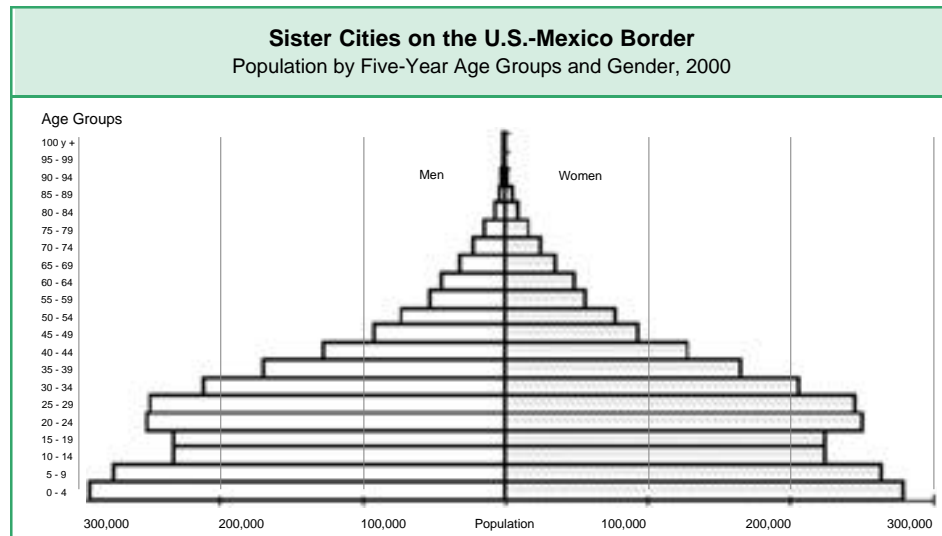


Source: 12th General Census of Population and Housing 2000

down into 31.46%, 64.56%, and 3.98%, respectively, for the preproductive, productive, and postproductive brackets. The sanitary district with the largest population was Baja California district 02, whose main city, Tijuana, had 1,288,615 inhabitants, followed by Chihuahua district 02, whose major city, Ciudad Juárez had 1,249,655 and Baja California 01, where the city of Mexicali had 828,022 inhabitants. In fact, 51.12% of the population of the border sanitary districts is concentrated in these three districts. Nuevo León district 05, headquartered in Sabinas Hidalgo, has the smallest population among the border districts (73,388).

The population of the 14 border municipalities taken together was 5,011,882, which represents 73.8% of the total in all border districts and 30.52% of the total in all border states. Of the population of the border sanitary districts, those in the pre-productive age group comprised 32.86%, 61.06% were in the productive group, and 4.0% were post-productive. For 2.07% of the population no age was specified. The largest border city was Juárez, Chihuahua, with 1,218,817 inhabitants, followed by Tijuana, Baja California with 1,210,820. Indeed, these two cities, along with the city of Mexicali, constitute 63.7% of

the total population of border cities. The smallest border towns were Anáhuac, Nuevo León (18,254), Ascensión, Chihuahua (21,939), and Ojinaga, Chihuahua (24,307).



Source: 12th General Census of Population and Housing 2000

In the nation as a whole, the male-to-female ratio was 0.9539, while the average for the six border states was 0.9928. This ratio for the border sanitary districts was 1.0025 and, in the border cities, 1.0144.

## Healthcare Coverage

In the Mexican Healthcare System there are two major types of health service providers: the public sector and the private sector.

In general, three important factors play a role in determining the kind of access people have to healthcare services:

- a) Purchasing power, which permits them to obtain private care.
- b) Poverty, which induces persons with low income and no formal employment to seek care in government institutions created for that purpose. The Department of Health, the IMSS/Solidaridad and state government health services are the public institutions which provide these services.
- c) The principle of socially perceived priority, which favors those with formal employment, government employees and members of the armed forces. The entities that provide these services are:

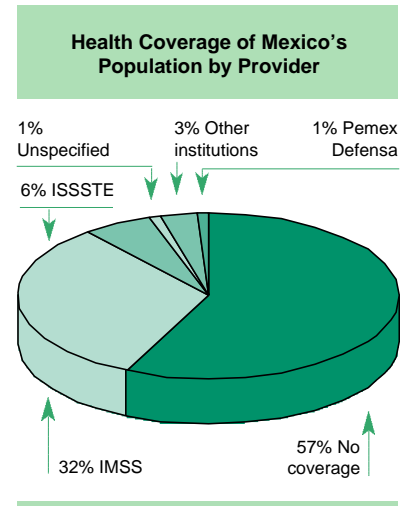
the Mexican social security Institute (IMSS), the Institute of Social Services for State Workers (ISSSTE), the Institute of social security for Employees of Petróleos Mexicanos (PEMEX), the Institute of social security of the Department of National Defense (SEDENA), the Institute of social security of the Department of the Navy, and other state government social security institutions and public and private health institutions. It is important to note that the INEGI uses seven strata to measure the level of wellbeing of the Mexican population, based on 36 socioeconomic variables. Only the Federal District ranks in the highest group (seven). Nine states rank at level six, and among these are included the six border states.

The results of the INEGI's 12th General Census 2000 show that 42% of the population of Mexico are covered by health care services from "social security" agencies. The IMSS covers 32%, the ISSSTE 6%, and 4% are covered by other institutions. 57% of Mexicans lack coverage but have access to social assistance. The rest did not specify their coverage.

In the border states of Northern Mexico, 59% are covered by some social security institution and 41% are not. The state with the greatest coverage from these institutions was Coahuila, and the state with the least coverage was Baja California, with 69.7% and 51.17% respectively.

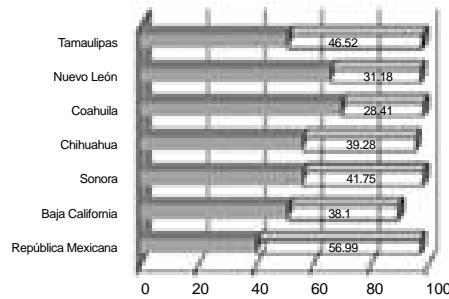
In the sanitary districts bordering the United States, 59% of residents are covered by the services of social security. By institution, 52% of the population are covered by the IMSS, 4% by the ISSSTE, 2% by state institutions, and 1% is covered by PEMEX, the Department of National Defense (ISS-SEDENA), or the Department of the Navy (ISS-SMN) agencies. 35% lack coverage and 6% did not indicate whether they had it. The border districts with the highest percentage of coverage by social security were districts 01 and 02 of the state of Coahuila, headquartered in Acuña and Piedras Negras, with 72.0% and 71.3% respectively. Districts 01 and 02 of the state of Chihuahua, headquartered in Ciudad Chihuahua and Ciudad Juárez, followed with 67.6% and 60.5% respectively. The border sanitary districts with the lowest percentages of coverage by social security agencies were district 05 of Chihuahua, headquartered in Casas Grandes (43.7%) and district 02 of Sonora, headquartered in Caborca (46.0%).

In the border cities, 53.3% of the population has social security coverage (46.8% by the IMSS, 5% by the ISSSTE, and 1.5% by other institutions). 41.3% lacks coverage by these institutions, and the remaining 5.4% did not indicate their affiliation. The border cities with the highest coverage were Ciudad Acuña and Piedras Negras, Coahuila, with 74% and 72% respectively, followed by Nogales, Sonora, with 66%. The border cities with the lowest rate of coverage were Ascensión and Ojinaga, Chihuahua, with 30% and 40% respectively, followed by Anáhuac, Nuevo León and San Luis Río Colorado, Sonora, both with 41% coverage.

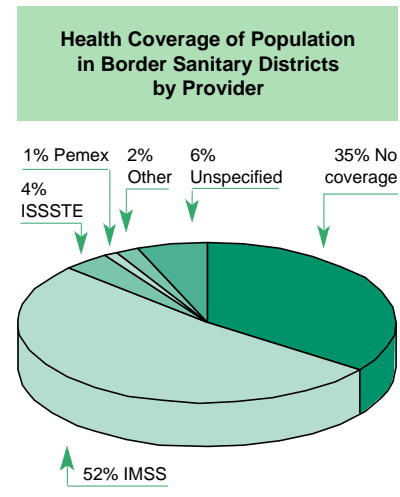


Source: 12th General Census of Population and Housing 2000

### Health Coverage of Mexico and Northern Mexico Border States Population



Source: 12th General Census of Population and Housing, Expanded Health Services Questionnaire. INEGI. 2000. Source: Table #1



Source: 12th General Census of Population and Housing 2000



## Use of Healthcare Services

According to INEGI statistics, the percentage distribution by use of services in Mexico was as follows: IMSS 30.77%, ISSSTE 5.24%, PEMEX/Defense/Navy 1.07%, SSA 23.23%, IMSS/Solidaridad 3.69%, other public institutions 1.8%, private services 34.2%, non-users 2.67%, and unspecified 0.98%.

Among the population of the border states, 48.55% used the IMSS, 27.9% obtained private care, 12.98% used the Department of Health, 5.73% the ISSSTE, and 3.08% utilized the services of state governments. There were 2.42% who did not use the services of any institution.

"Sister Cities" Persons Covered by Health Services								
City	Total population	No coverage	Covered by health services					Unspecified
			Total	IMSS	ISSSTE	PEMEX/Def.	Other	
Mexicali	764602	257906	439534	372044	48854	1750	19984	67162
Tijuana	1210820	491721	579451	528217	42792	1402	8480	139648
S.L. Río Colorado	145006	74416	66406	56475	6714	466	3014	21184
Nogales	159787	47667	106223	96706	8090	360	1428	5895
Agua Prieta	61944	31156	29402	26355	2656	138	385	1386
Ascensión	21939	14022	6667	5932	488	164	88	1250
Juárez	1218817	376412	741625	704323	27567	10083	1431	100780
Ojinaga	24307	14094	9609	6734	1857	763	318	604
Acuña	110487	25599	81996	76840	4867	292	263	2892
Piedras Negras	128130	31539	91951	82676	8769	82	1100	4640
Anahuac	18524	9942	7534	5692	1691	14	171	1048
Nuevo Laredo	310915	134091	166714	149811	15900	962	557	10110
Reynosa	420463	160115	241120	201327	18352	21567	938	10219
Matamoros	418181	168334	238566	212100	25601	1310	220	11241

Source: 12th General Census of Population and Housing 2000. Basic tables. INEGI.

## Human Resources for Healthcare

To satisfy the demand for healthcare services the Mexican system has 2.32 physicians per thousand inhabitants, of which 72.07% are in the public sector and 27.93% in the private sector. The number of nurses is 2.25 per thousand inhabitants: 88.61% in the public sector and 13.39% in the private sector.

Taking the border states as a whole, the number of physicians per thousand inhabitants is 2.0, of which 59.7% are in the public sector and 40.3% in the private sector. The percentage of nurses per 1,000

population is 2.6, with 83.5% of these in public institutions and the remaining 16.5% in private service. The border state with the largest number of physicians per thousand inhabitants is Nuevo León, with 2.34, while the state ranking lowest in this category is Chihuahua, with 1.55 physicians per thousand population. Nuevo León is also the state with the largest percentage of nurses (3.04 per thousand inhabitants), and Baja California is the border state with the fewest (2.17 per thousand).

Taking the 14 border cities together, the numbers of physicians and nurses per thousand inhabitants are 0.49 and 0.68, respectively. Among the border cities, Ojinaga, Chihuahua has the largest ratio of physicians (1.19 per thousand), while Anáhuac, Nuevo León and Ascensión, Chihuahua have the smallest ratio (0.21 and 0.32, respectively).

**Selected Characteristics of Private Health Care Facilities in Northern Mexico Border States**

State	Nation	Baja California	Sonora	Chihuahua	Coahuila	N. León	Tamaulipas	Border States Total
Item								
All facilities	2 218	101	38	42	32	50	64	327
General hospitals	2 021	93	36	40	28	39	64	300
Specialty hospitals	197	8	2	2	4	11		27
Medical personnel	19 751	508	1 283	134	220	822	715	1891
Paramedics	27 037	767	657	1 255	612	2 292	768	2804
Doctors' offices	7 435	200	266	138	104	301	180	1189
Operating rooms	3 119	135	73	66	57	109	93	533
Beds*	27 325	921	595	855	487	1197	642	4697
Outpatient visits (thousands)	8235	206	80	133	131	1111	109	1770
Surgeries (thousands)	555.865	16.96	14.133	23.123	10.519	56.424	14.761	135.92

Source: INEGI. Office of Statistics. Mexico, 2000.

## Physical Resources for Healthcare

In Mexico, the number of hospital beds is 1.22 per thousand inhabitants. Of these, 73.8% are in the public sector and 26.2% are private. The rate of physicians' offices per thousand population is 0.75, of which 82.7% and 17.3% are in the public and private sectors, respectively.

In the border states there are 1.25 beds per thousand habitants. Of these, 74.6% are in the public sector and 25.4% are private. The number of doctors' offices per thousand population is 0.67, of which

77.5% are public and 22.5% private sector. Numbers of beds and doctors' offices in the border states is quite similar.

Taking the thirteen border cities together, the number of beds is 0.67 per thousand inhabitants, and that of physicians' offices is 0.34 per thousand population. The border city with the largest ration of beds to population is Acuña, Coahuila (2.29), whereas the cities of Anáhuac, Nuevo León, and Ascensión, Chihuahua have no beds. However, these two towns are the ones that have the greatest ratio of doctors' offices (0.87 and 0.86 per thousand, respectively). The border cities with the lowest ratio of doctors' offices are Tijuana, Baja California, and Juárez, Chihuahua (0.24 and 0.25 per thousand, respectively).

## Financial Resources

It is very difficult to ascertain the exact figures for financial resources applied to healthcare by the private sector. The information is diffuse and is obviously underreported. According to data obtained from the National Health Program 2001-2006, in 1988 resources dedicated to healthcare in Mexico reached 23 billion dollars, which represented 5.6% of the gross national product (3.1% for private resources and 2.5% for public sector resources).

**Human and Material Resources in the "Sister Cities"**

State	units by level			Beds		Operating rooms	physicians				nurses		
	first	second	third	reportable beds	non-reportable beds		Total	General	Specialty	other activity	Total	in contact	other activity
Tijuana	38	5	0	548	186	291	531	176	286	69	652	621	31
Mexicali	66	5	0	578	265	327	611	206	309	94	862	748	114
San Luis Río Colorado	4	3	0	74	37	41	68	19	39	10	74	69	5
Nogales	7	2	0	105	69	51	81	33	38	10	63	53	10
Agua Prieta	5	2	0	35	29	39	40	18	14	8	44	43	1
Ascensión	7	0	0	0	19	8	7	7	0	0	1	1	0
Cd. Juárez	40	4	1	632	292	307	279	97	151	31	404	393	11
Ojinaga	6	0	0	18	18	20	20	16	1	3	14	14	0
Cd. Acuña	7	2	1	253	58	83	52	17	28	7	66	65	1
Piedras Negras	11	3	0	139	87	68	101	42	47	12	105	96	9
Anáhuac	12	0	0	0	20	16	18	16	0	2	9	7	2
Nuevo Laredo	16	4	0	255	238	123	232	89	101	42	303	279	24
Reynosa	27	4	1	399	176	181	350	109	206	35	494	464	30
Matamoros	44	4	0	332	206	165	273	106	141	26	315	312	3

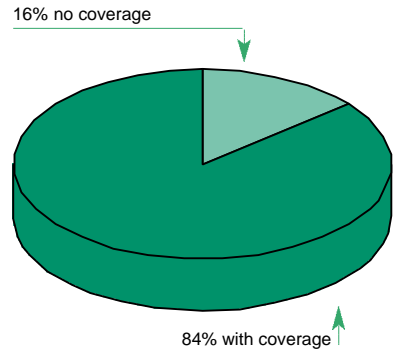
Source: 12th General Census of Population and Housing 2000. Basic tables. INEGI.

With respect to public health expenditures, taking the border states as a unit, in 1999 the total spent was equivalent to 1,331 pesos per person. 84% of the total border state healthcare budget was spent at social security institutions, which represented an expenditure of 1,118 pesos per affiliated person. The remaining 16% was spent on the general population or those with no coverage (213 pesos per person). Of the total expended on covered persons, 90% went to the IMSS. Coahuila was the border state with the greatest expense per capita (1,477 pesos), while Chihuahua had the lowest (1,185 pesos). Tamaulipas was the border state that allotted the largest proportion of resources to the general population (23%), while Nuevo León allotted the least (10%) in this category.

Moreover, the state and federal contributions of "Ramo 33" amounted to 180.40 pesos per person among the population of the border states.

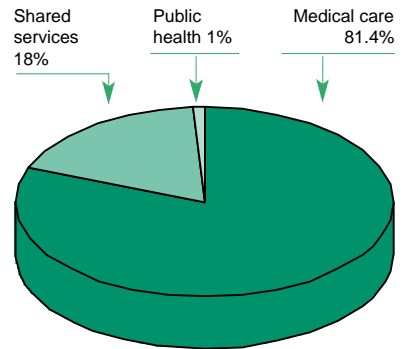
With regard to the budget expended per program category, 81.4% went for medical care, 18% to shared services and 1% to public health ■

**Northern Mexico Border States. Budget According to Coverage Status**



Source: 12th Annual Census of Population and Housing. Expanded Health Services Questionnaire. INEGI, 2000.

**Budget by Program Category. 1999**



Source: Department of Health, Health Map. 1999.

Appendix

Appendix I

Coverage Status among Persons in Thirteen Sanitary Districts along the Northern Mexican Border.

City	Total population	No coverage	Covered by health services					Unspecified
			Total	IMSS	ISSSTE	PEMEX/Def.	Other	
<b>B. California</b>								
District 01 Mexicali	828022	288363	461738	391137	50631	2607	20496	77921
Total district 02 Tijuana	1288615	520883	619643	882950	46559	1457	9514	148091
<b>Sonora</b>								
District 02 Caborca	269383	137755	123799	104811	10260	962	5016	24831
District 03 Santa Ana	333759	133114	190020	160203	16548	783	12867	10627
<b>Chihuahua</b>								
District 01 Chihuahua	698203	188057	493231	400279	43523	3643	49406	16895
Total District 02 Juárez	1249655	391980	756145	717920	28094	1459	10476	101530
<b>Total District 05 N.C. Grandes</b>								
	120479	64556	52689	46203	4254	469	1918	3234
<b>Coahuila</b>								
<b>District 01</b>								
Piedras Negras	181742	46607	129586	118468	10479	87	1396	5549
District 02 Cd. Acuña	158749	39348	114261	104433	9314	83	1149	5140
<b>Nuevo León</b>								
District 05 Sabinas H.	73388	35524	34201	26439	4513	25	1488	3663
<b>Tamaulipas</b>								
District 03 Matamoros	476754	202360	261919	231269	29822	1334	316	12435
District 04 Reynosa	557725	235227	300633	251170	27835	21802	1051	12856
District 05 Nvo. Laredo	347773	157301	179399	159418	18963	1021	574	11073
<b>TOTAL</b>	<b>6584247</b>	<b>2441075</b>	<b>3717264</b>	<b>3594700</b>	<b>300795</b>	<b>35732</b>	<b>115667</b>	<b>433845</b>

Source: 12th General Census of Population and Housing 2000

Appendix II

Health Diagnosis on the Northern Mexico Border, Physical Resources, Human Resources, and Services Delivered

State	Nation	Baja California	Sonora	Chihuahua	Coahuila	N. León	Tamaulipas	Border States Total
Medical facilities	18 335	225	400	570	391	559	497	2642
Hospitals	987	19	42	36	41	28	37	1190
Outpatient facilities	17 314	206	358	534	350	531	460	3832
reportable beds	77 348	1 549	2 385	2 319	2 445	3 791	2 701	3832
Doctors' offices	49 913	909	1 307	1 432	1 312	2 172	1 486	909
Testing labs	1 790	28	59	61	56	74	59	337
Operating Rooms	2 723	59	89	76	93	117	96	530
Physicians	135 159	3182	3623	3731	3922	5885	4181	24524
In contact	114 845	2645	3031	3104	3184	4693	36560	53217
General	35 782	784	895	1224	1059	1534	1202	6698
Specialists	43 155	1156	1290	1162	1421	2000	1576	8605
Other (*)	35 908	705	846	718	704	1159	878	5010
Other duties	20 314	537	592	627	738	1192	525	4211
Paramedics	222 229	5210	6106	6686	7406	11232	6985	43625
Nurses	184 264	4199	5148	5336	6087	9275	5818	35863
Other	37 965	1011	958	1350	1319	1957	1167	7762
Outpatient visits (thousands)	231746	4853	6179	7034	7531	11883	8165	45645
General (thousands)	161160	3087	4078	5048	4879	7471	5296	29859
Specialized (thousands)	35199	842	1043	935	1157	2003	1679	7659
Emergency rooms (thousands)	23248	665	787	760	1123	1906	890	6131
Dental (thousands)	12139	259	272	291	372	502	301	1997

Source: INEGI <http://estados.inegi.gob.mx/sociodem/español/salud/sal-01.html>

## Appendix III

## Use of Healthcare Services in Northern Mexico Border States

Federal Entities	Total population	Users								
		with coverage						no coverage		
		Total population	Total %	IMSS	ISSSTE	other	Total population	Total %	SSA	IMSS-Solidarity
Nuevo León	3,812,758	2,256,771	59.19	55.21	3.31	0.67	1,555,987	40.81	12.89	0.15
Chihuahua	3,037,366	1,630,154	53.67	49.32	4.09	0.26	1,407,212	46.33	8.52	3.19
Tamaulipas	2,735,624	1,349,210	49.32	39.00	6.85	3.47	1,386,414	50.68	14.44	2.65
Baja California	2,476,010	1,200,865	48.50	43.47	4.73	0.30	1,275,145	51.50	8.76	0.44
Coahuila	2,287,816	1,485,708	64.94	58.54	6.21	0.19	802,108	35.06	10.41	2.73
Sonora	2,192,455	1,126,264	51.37	44.55	6.26	0.56	1,066,191	48.63	19.76	0.15
Total Estados Fronterizos	16,542,029	9,048,972	54.94	48.85	5.73	0.35	7,493,057	45.06	12.98	1.11

1 The percentage of total population using healthcare services is calculated based on total population. The percentage for each institution was obtained with respect to the total population using healthcare services.

2 Includes social security institutions of state governments.

3 Includes persons cared for by private physicians.

Source: 12th Annual Census of Population and Housing. Expanded Health Services Questionnaire. INEGI, 2000.

## Appendix IV

 Budgets of Institutions in Northern States of Mexico,  
(in thousands of pesos)

Entity	TOTAL	General population			Persons with coverage			
		Total	SSA	IMSS-Solid	Total	IMSS	ISSSTE	PEMEX
Baja California	3 034 885.3	437 404.5	403 760.5	33 644.0	2 597 480.8	2 406 516.4	177 052.6	13 911.8
Sonora	2 879 516.4	543 106.3	543 106.3		2 336 410.1	2 136 371.1	176 345.8	23 693.2
Chihuahua	3 619 037.0	665 683.4	521 938.3	143 745.1	2 953 353.6	2 722 086.5	197 740.3	33 526.0
Coahuila	3 395 018.5	455 713.2	363 000.1	92 713.1	2 939 305.3	2 737 514.5	190 374.7	11 416.0
Nuevo León	5 582 481.0	569 355.6	569 355.6		5 013 125.4	4 725 313.2	143 477.6	144 334.6
Tamaulipas	3 347 131.3	753 833.3	668 248.0	85 585.3	2 593 298.0	1 875 483.3	266 538.0	451 276

Source: Department of Health, Health Map. 1999.

## Appendix V

 Budgets by Programmatic Category in Northern States of Mexico  
(in thousands of pesos)

Entity	Baja California	Sonora	Chihuahua	Coahuila	Nuevo León	Tamps
Programmatic category						
Total budget	3 034 885.3	2 879 516.4	3 619 037.0	3 395 018.5	5 582 481.0	3 347 131.3
Category 12. Health	2 631 124.8	2 336 410.1	3 137 233.2	3 032 018.4	5 013 125.4	2 678 883.3
0800 Shared services	450 954.4	484 227.8	549 731.7	557 855.6	899 274.2	390 225.7
0801 Public health services	126.8	0	45 706.5	2 995.3	0	6 036.4
0802 healthcare	2 179 261.0	1 852 182.3	2 536 190.2	2 466 148.3	4 113 851.2	2 276 958.0
0803 Produc. health supplies	0	0	0	0	0	0
903 Insurance	0	0	0	0	0	0
Category 33 Contrib. by states and cities	403 760.5	498 086.2	481 803.8	363 000.1	569 355.6	668 248.0

Source: Department of Health, Health Map. 1999.

Appendix VI

Medical Resources and Services in Northern States of Mexico 1999

Category	National	B. California	Sonora	Chihuahua	Coahuila	N. León	Tamaulipas
<b>Human resources per 100,000 inhabitants</b>							
Physicians	117	113.5	136.8	103	135.4	123.2	135.5
Nurses	187.8	180.2	232.4	177.1	258.9	243.5	215.6
<b>Physical resources per 100,000 inhabitants</b>							
Reportable beds	78.8	66.5	107.7	77	104	99.5	100.1
Doctors' offices	50.9	39	59	47.5	55.8	57	55.1
<b>Services per thousand inhabitants</b>							
General consultations	1642.3	1325	1840.7	1675.3	2074.8	1961.1	1962.1
Surgeries	28	31.1	35.8	29.3	38.8	42.5	35.6
Daily productivity of resources							
Consultations per physician (b)	8	7.3	8.1	9	9.4	10	8.9
Surgeries per operating room ©	4	3.4	2.4	3.2	2.7	3.8	2.7
<b>Hospitalization</b>							
Nurse/Bed Ratio	2.4	2.7	2.2	2.3	2.5	2.4	2.2
Hospital occupancy rate	68.1	74.6	71.3	71.3	73.7	82.3	67.6
Hospital mortality rate	2.7	3.2	2.3	3.2	2.6	3.2	3.1
Average stay in days	4.3	4	3.9	4	4	4.9	3.8
births per thousand patients discharged*	335.6	410.1	312.7	338.4	313.6	298.1	316.5

NOTE: Does not include private sector.

(a) Refers to legal or potential population; calculation of indicators based on total population.

(b) Assuming 252 working days per year.

(c) Assuming 365 working days per year.

SOURCE: Bulletin of Statistical Information No. 19, 1999, Vol. 1, Resources and Services, Mexico, 2000.

Appendix VII

Private Sector Resources and Services in Northern States of Mexico

Category	National	B. California	Sonora	Chihuahua	Coahuila	N. León	Tamaulipas
<b>Human resources per 100,000 inhabitants</b>							
Physicians	64.8	115.6	79	52	87	111	61
Nurses	30.1	37	33.7	48.5	43.6	61	33.7
<b>Physical resources per 100,000 inhabitants</b>							
Reportable beds	32	43	30.1	32.5	26.2	30.4	31.6
Doctors' offices	13	24	15.6	14.3	16.1	8.9	12.2
<b>Services per thousand inhabitants</b>							
Medical consultations per thousand inhabitants	931.5	35.2	93.1	98.1	206.7	214.3	101.2
Surgeries	4.9	0.78	6.7	7.7	8.7	11.4	6.7
Daily productivity of resources							
General consultations	37	24.1	41.4	44.7	115.6	44.4	49.8

SOURCE: SSA/DGE/Survey of Private Medical Facilities Offering Hospitalization, 1999. Document obtained from "Public Health in Mexico"/Vol. 43, No. 2, March-April 2001

Appendix VIII

Public and Private Health Resources in Northern States of Mexico.

Category	National	B. California	Sonora	Chih.	Coahuila	N. León	Tamaulipas
Physicians per 100,000 inhabitants	232.6	229.1	215.8	155	222.4	234.2	196.5
Nurses per 100,000 inhabitants	224.8	217.2	266.1	225.6	302.5	304.5	249.3
Reportable beds per 100,000 inhabitants	121.8	109.5	137.8	109.5	130.2	129.9	131.7
Clinics per 100,000 inhabitants	74.9	63	74.6	61.8	71.9	65.9	67.3
Medical consultations per thousand inhabitants	1677.5	1360.2	1933.8	1773.4	4149.6	2175.4	2063.3
Surgeries	28.78	31.88	36	37	47.5	53.9	42.3

Source: SSA/DGE/Survey of Private Medical Facilities Offering Hospitalization, 1999. Document obtained from "Public Health in Mexico"/Vol. 43, No. 2, March-April 2001

**Pertinent Data on Available Infrastructure  
in Private Sector Medical Facilities in Northern States  
of Mexico, 1999.**

Entity	Nacional	B. California	Sonora	Chihuahua	Coahuila	N. León	Tamaulipas
Short-term stay facilities	148	7	2	0	1	0	4
By number of beds	2 802	107	51	59	43	38	77
From 1 to 4	803	27	9	14	6	29	11
From 5 to 9	1 132	35	37	19	12	14	10
From 10 to 14	420	24	11	7	10	4	11
From 15 to 24	238	15	8	5	9	3	9
From 25 to 49	137	6	7	10	5	7	3
50 and more	72	0	1	4	1	7	3
Doctors' offices	12 455	598	345	438	371	342	335
Reportable beds	31 241	1 068	668	992	602	1 166	870
Non-reportable beds	13 057	498	356	465	335	522	375
Incubators	4 124	156	93	123	89	93	127
Operating Rooms	3 565	139	79	85	81	92	102
Delivery rooms	2 392	78	48	59	44	42	66
Clinical laboratories	682	21	18	25	29	19	27
Pathology labs	134	0	6	8	12	10	1
Blood banks	174	3	7	8	7	10	5
Medical personnel	62 951	2 875	1 751	1 587	2 006	4 251	1 684
In contact	62 102	2 839	1 751	1 568	1 980	4 179	1 658
General	9 260	454	214	228	216	109	280
Obstetrician/gynecologists	6 826	253	237	180	235	573	160
Pediatricians	5 623	262	191	175	236	646	161
Surgeons	6 099	230	151	148	176	381	162
Internists	3 604	194	85	82	153	218	122
Other	27 857	1 385	767	713	883	2 065	712
Dentists	1 344	61	44	23	75	83	49
In Social Service	420	0	13	4	3	15	7
Residents	1 069	0	13	15	3	89	5
other duties	849	36	36	19	26	72	26
total nurses	29365	920	748	1 480	1 003	2 342	927
General	13 399	518	279	645	538	1 208	531
specialized	2 294	99	50	59	200	374	89
Auxiliary	10 830	273	314	665	197	484	205
other	2 842	30	105	111	68	276	102
Aux. Dx and treatment services	4 791	138	176	217	248	313	167
Administrative personnel	12 744	382	282	546	450	1 273	282
Other personnel	15 050	420	316	820	644	925	472
Services provided	9 080 405	87 690	206 344	299 417	474 937	821 723	278 655
General consultations	3 596 720	59 931	91 715	136 463	265 588	170 159	137 199
Specialized consultations	4 137 900	19 785	75 026	106 951	104 837	424 226	115 246
Dental consultations	304 286	2 694	4 924	3 540	24 071	52 695	4 863
Emergencies	1 041 499	5 280	34 679	52 463	80 441	174 643	21 347
Hospital discharges	1 225 707	24 594	26 467	77 742	37 372	85 348	38 953
surgeries	484 180	1 953	14 959	23 701	20 096	43 930	18 409
deaths	13 404	135	283	878	455	869	468

*Section prepared by the Office of Information and Assessment of the SSA/DGEI/Survey of Private Medical Facilities Offering Hospitalization, 1999. "Public Health in Mexico"/Vol. 43, No. 2, March-April 2001*



## Diagnostic of Healthcare Services in the State of

# Baja California

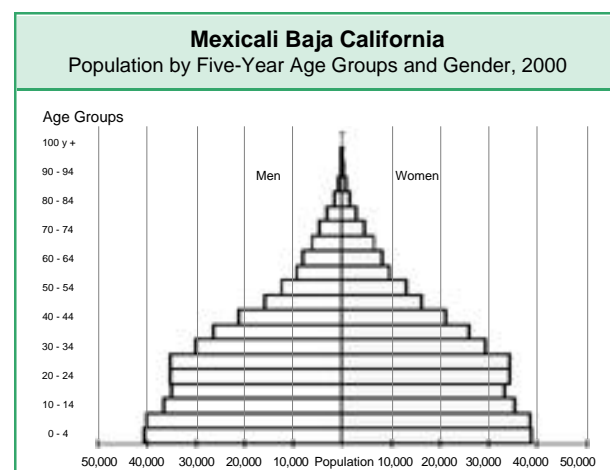
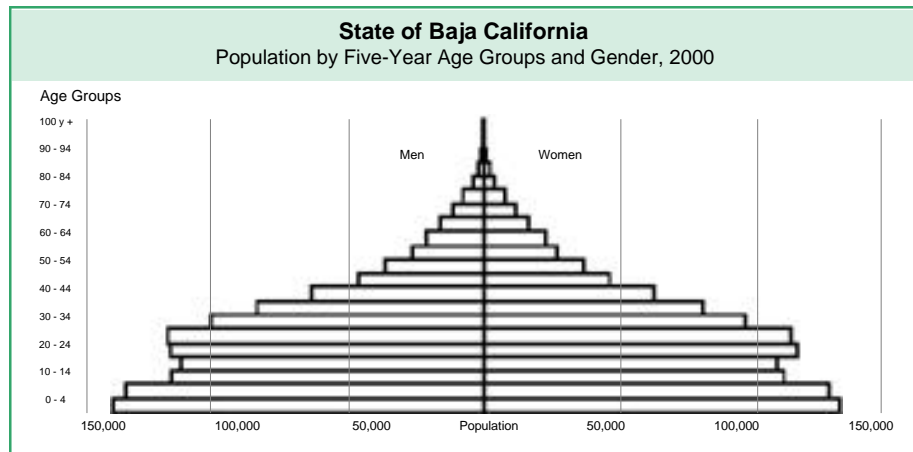
## Demography

The population of the state of Baja California in December 1999 was 2,487,367, equivalent to 2% of the country's total population and 13% of the population of Mexico's six border states. 30.39%

of this population is comprised of people who are in pre-productive age, 66.15% are in the productive age and the other 3.46% are in the post-productive age. The male-to-female ratio was 1.01.

Baja California is divided into three sanitary districts, two of which are adjacent to the state of California. Together, the border districts of Baja California have a population of 2,116,637, which represent 85% of the state's population.

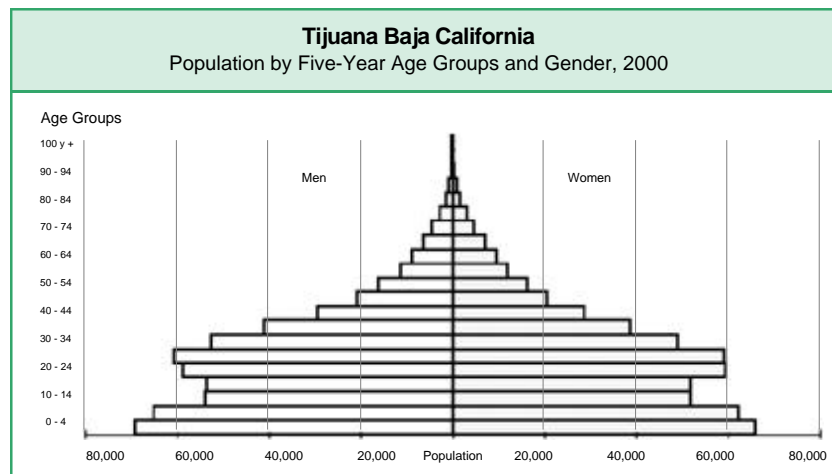
Sanitary district 01 (Mexicali) has a population of 828,022. 30.08% of this population is comprised of people in the pre-productive age, 58.94% are in the productive age and the other 4.22% are in the post-productive age, and 6.74% did not specify age.



Sanitary district 02 (Tijuana) has a population of 1,288,615. 34.43% of this population is comprised of people who are in pre-productive age, 57.48% are in the productive age and the other 2.89% are in the post-productive age. 9.18% did not specify their age.

Mexicali shares a border with Imperial County, California and has a population of 764,602. 30.6% of this population is comprised of people who are in pre-productive age, 65.6% are in the productive age and the other 4.34% are in the post-productive age. The male-to-female ratio was 1.0104.

Tijuana shares a border with San Diego County, California and has a population of 1,210,820. 30.36% of this population is comprised of people who are in pre-productive age, 66.78% are in the productive age and the other 2.86% are in the post-productive age. The male-to-female ratio was 1.02.



Source: 12th General Census of Population and Housing 2000

## Healthcare Coverage

57% of the population of Baja California is covered by social security. 50% of the population is covered by IMSS (the Mexican Institute of social security), 5% is covered by ISSSTE (the Institute of Insurance and Social Services for State Employees), and 2% is covered by PEMEX/SDN (Department of Defense), the Department of the Navy other state institutions. 43% of the population has no social security coverage.

Social security coverage in Sanitary Districts 01 and 02 of Baja California together is 51% by IMSS, 5% by ISSSTE, and 3% by other institutions. 42% of the population has no social security coverage. The rest did not specify coverage.

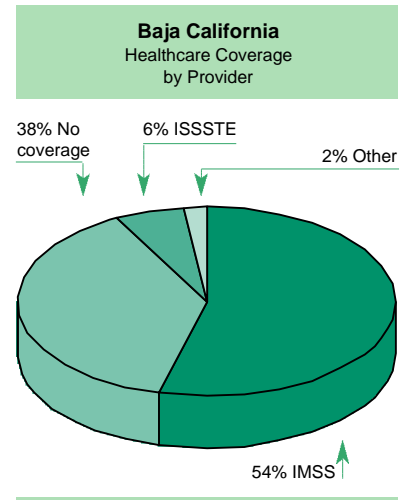
In Sanitary district 01 (Mexicali), 55.76% has social security coverage. 47.23% is covered by IMSS and 6.11% by ISSSTE and 2.79% is covered by another institution. 34.82% of the population is not covered by social security and 9.41% did not specify their coverage.

In sanitary district 02 (Tijuana), 48.08% has social security coverage. 43.74% is covered by IMSS and 3.61% by ISSSTE and 0.85% is covered by another institution. 40.42% of the population is not covered by social security and 11.49% did not specify their coverage.

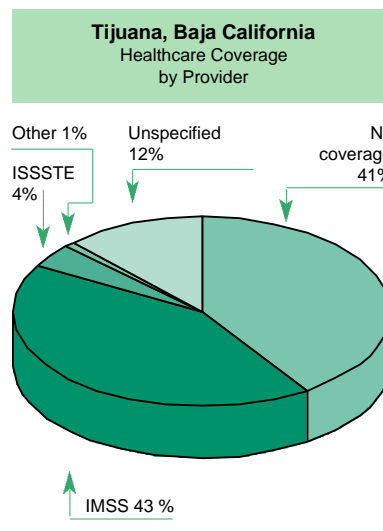
In Mexicali, 57% of the population is covered by social security. 48% is affiliated with IMSS, 6% with ISSSTE, 3% with another institution like ISSSTE/Cal or SEDENA (Department of National Defense). 34% of inhabitants are not covered by social se-

curity, and the rest of the population did not specify the nature of their coverage.

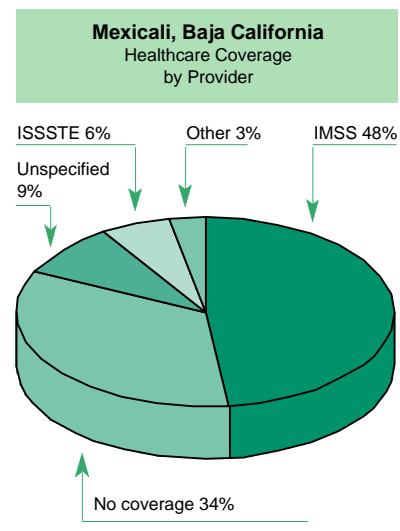
In Tijuana, 52% of the population is covered by social security. 47.8% is covered by IMSS, 3.5% with ISSSTE, 0.8% by another institution. 41% of inhabitants are not covered by social se-



Source: INEGI, EUM, 12th General Census of Population and Housing. Taken from Census Sample, Expanded Questionnaire. Mexico 2000.



Source: General Census of Population and Housing INEGI Basic Tables.

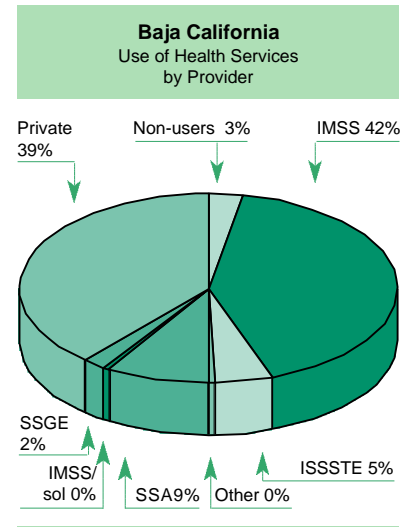


Source: INEGI, EUM, 12th General Census of Population and Housing. Taken from Census Sample, Expanded Questionnaire. Mexico 2000.

curity and the rest of the population did not specify the nature of their coverage.

## Use of Healthcare Services

42% of the state's population utilizes the services of the IMSS, 39% seek private medical care, 9% receives benefits from the SSA (social security Administration) and 5% from ISSSTE. 3% do not receive any healthcare benefits, and the rest use other state medical institutions and IMSS/Sol.



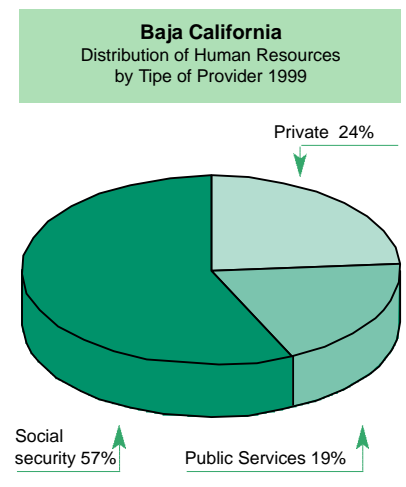
Source: Baja California Statistical Yearbook. INEGI. Government of the State of Baja California. 2001 edition.

## Human Resources for Healthcare

The human resources in the Department of Health in Baja California employs 16,104 employees, of which 12,171 (76%) are public sector employees and 3,933 (14%) are private sector. Job distribution, taking into consideration the access to medical services, shows that 57% of employees work for social security, 24% in the private sector, and 19% in Public hospitals.

There are 2.29 physicians for every 1,000 inhabitants in the state. 53% are in the public sector (39.5% in social security and 13.5% in Public Hospitals) and 47% are in private practice.

In Baja California, there are 5,119 nurses, equivalent to 2.17 per 1,000 inhabitants. 82% work in the public sector (57% are social security and 25% are in Public hospitals) and 18% are in the private sector.



Source: Baja California Statistical Yearbook. INEGI. Government of the State of Baja California. 2001 edition.

Mexicali has 611 physicians (206 general practice, 309 specialists and 94 physicians in other categories) equaling 0.8 physicians per 1,000 inhabitants. There are 862 nurses, making the ratio 1.13 nurses per 1,000 inhabitants.

Tijuana has 531 physicians (176 general practice, 286 specialists and 69 physicians classified in other categories) equaling 0.44 physicians per 1,000 inhabitants. There are 652 nurses, making the ratio 0.54 nurses per 1,000 inhabitants.

Human and Material Resources in the "Sister Cities"

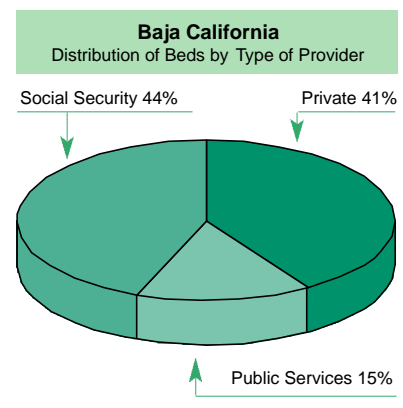
State	units by level			Beds		Operating rooms	physicians				nurses		
	first	second	third	reportable beds	Non-reportable beds		Total	General	Especialty	other activity	Total	in contact	other activity
Tijuana	38	5	0	548	186	291	531	176	286	69	652	621	31
Mexicali	66	5	0	578	265	327	611	206	309	94	862	748	114
San Luis Rio Colorado	4	3	0	74	37	41	68	19	39	10	74	69	5
Nogales	7	2	0	105	69	51	81	33	38	10	63	53	10
Agua Prieta	5	2	0	35	29	39	40	18	14	8	44	43	1
Ascensión	7	0	0	0	19	8	7	7	0	0	1	1	0
Cd. Juárez	40	4	1	632	292	307	279	97	151	31	404	393	11
Ojinaga	6	0	0	18	18	20	20	16	1	3	14	14	0
Cd. Acuña	7	2	1	253	58	83	52	17	28	7	66	65	1
Piedras Negras	11	3	0	139	87	68	101	42	47	12	105	96	9
Anáhuac	12	0	0	0	20	16	18	16	0	2	9	7	2
Nuevo Laredo	16	4	0	255	238	123	232	89	101	42	303	279	24
Reynosa	27	4	1	399	176	181	350	109	206	35	494	464	30
Matamoros	44	4	0	332	206	165	273	106	141	26	315	312	3

Source: 12th General Census of Population and Housing 2000. Basic tables. INEGI.

## Physical Resources for Healthcare

There are 1.095 hospital beds in Baja California per 1,000 residents. 59% are in the public sector and 41% are in the private sector. As far as the distribution of beds, 44% are social security, 41% are private hospital beds, and 15% are Public Hospitals.

At the state level, there are 1.507 doctor's offices. 598 of them are private practice. Of the 909 public sector physicians, 63% belong to social security Institutions and 37% are open to the general public.



Source: SSA, DGEI, Survey of Private Medical Facilities Offering Hospitalization. 1999.

Mexicali has 578 hospital beds (0.75 per 1,000 inhabitants), 327 doctor's offices (0.43 per 1,000 inhabitants) and 71 medical care stations.

Tijuana has 548 hospital beds (0.45 per 1,000 inhabitants), 291 doctor's offices (0.24 per 1,000 inhabitants) and 43 medical care stations.

**Baja California**  
Material Health Resources

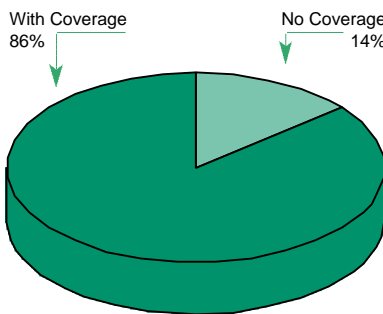
Category	RESOURCES			GENERAL POPULATION				PERSONS WITH COVERAGE					Total
	Public	Private (*)	Total	SSA	IMSS/Sol	Red Cross	Total	IMSS	ISSSTE	PEMEX	SDN/SM	ISSSTECali	
Medical facilities	225	114	339	113	12	6	131	37	15	3	18	21	94
Hospitals	19	21	40	3	1	0	4	7	3	0	2	3	15
Outpatient facilities	206	93	299	110	11	6	127	30	12	3	16	18	79
Mobile units	21	21	42	17			17					4	4
Reportable beds	1549	1068	2617	365	10	21	396	772	141	0	106	134	1153
Non-reportable beds	674	498	1172	168	22	7	197	294	60	0	34	89	447
Incubators	104	156	260	36	2	0	38	47	4	0	3	12	66
Doctors' offices	909	598	1507	307	20	8	335	330	90	6	38	110	574
Testing labs	28	21	49	5	1	0	6	13	3	0	2	4	22
Pathology labs	9		9	3	0	0	3	4	1	0	1	0	6
X-ray machines	70	24	94	5	1	0	6	6	0	1	2	3	22
Operating rooms	59	139	198	13	1	0	14	26	7	0	3	9	45
Delivery rooms	71	78	149	37	1	0	38	18	3	0	2	10	33
blood banks	113	3	116	3	3	0	6	2	3	0	2	3	10

SOURCE: SSA/DGE/Survey of Private Medical Facilities Offering Hospitalization, 1999. Document obtained from "Public Health in Mexico"/Vol. 43, No. 2, March-April 2001

**Financial Resources**

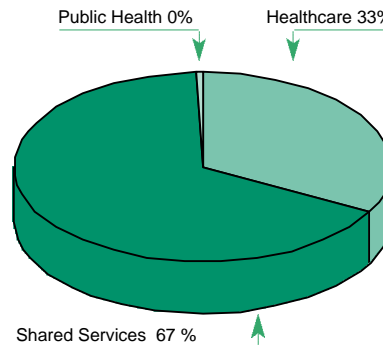
In 1999, 3,034,885,300 pesos were spent in healthcare institutions in the state of Baja California, equaling 1,220 pesos per inhabitant. 86% went to residents covered by

**Baja California**  
Percent of Budget Expended on Healthcare, by Coverage Status



SOURCE: The Status of Health. www.ssa.gob.mx/dgied/edo02

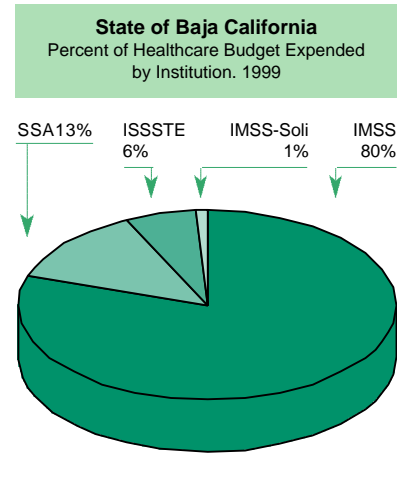
**Baja California**  
Budget by Program Category



SOURCE: The Status of Health. www.ssa.gob.mx/dgied/edo02

social security (IMSS received 80% of these resources) and 14% of the total went towards inhabitants not covered by social security, which translates to an annual investment of 1,049 pesos per person covered by social security and 171 pesos per person not covered by social security institutions.

Considering the expense per category, 67% of the budget was used on Shared Services, 33% on medical attention and only approximately 1% (126, 800 pesos) on public health services.



Source: Healthcare Map Baja California, 1999. SSA.

In addition, the contributions of "Ramo 33" to the state and the city reached the sum of 163.07 pesos per state inhabitant ■

## Appendixes

### Appendix I

#### Mexicali, Baja California

Population by Five-Year Age Groups and Gender, Sister Cities U.S.-Mexico Border, 2000

Age Groups	TOTAL	%	Men	%	Women	%	Male-Female Ratio
0 - 4	79,232	10.36	40,359	5.28	38,873	5.08	103.82
5 - 9	78,718	10.30	39,926	5.22	38,792	5.07	102.92
10 - 14	71,858	9.40	36,547	4.78	35,311	4.62	103.50
15 - 19	68,567	8.97	35,038	4.58	33,529	4.39	104.50
20 - 24	69,495	9.09	35,104	4.59	34,391	4.50	102.07
25 - 29	69,576	9.10	35,175	4.60	34,401	4.50	102.25
30 - 34	59,250	7.75	29,877	3.91	29,373	3.84	101.72
35 - 39	52,653	6.89	26,465	3.46	26,188	3.43	101.06
40 - 44	42,519	5.56	21,139	2.76	21,380	2.80	98.87
45 - 49	32,185	4.21	15,864	2.07	16,321	2.13	97.20
50 - 54	25,599	3.35	12,364	1.62	13,235	1.73	93.42
55 - 59	19,134	2.50	9,292	1.22	9,842	1.29	94.41
60 - 64	16,310	2.13	7,948	1.04	8,362	1.09	95.05
65 - 69	12,410	1.62	5,958	0.78	6,452	0.84	92.34
70 - 74	8,943	1.17	4,417	0.58	4,526	0.59	97.59
75 - 79	5,994	0.78	2,956	0.39	3,038	0.40	97.30
80 - 84	3,146	0.41	1,462	0.19	1,684	0.22	86.82
85 - 89	1,664	0.22	651	0.09	1,013	0.13	64.26
90 - 94	657	0.09	275	0.04	382	0.05	71.99
95 - 99	298	0.04	126	0.02	172	0.02	73.26
100 and Over	95	0.01	45	0.01	50	0.01	90.00
Unspecified	46,299	6.06	23,282	3.04	23,017	3.01	101.15
TOTAL	764,602.00	100	384,270	50	380,332.00	50	101.04

Source: 12th General Census of Population and Housing 2000

## Appendix II

**Tijuana, Baja California**  
 Population by Five-Year Age Groups and Gender, Sister Cities  
 U.S.-Mexico Border, 2000

Age Groups	TOTAL	%	Men	%	Women	%	Male-Female Ratio
0 - 4	135,181	11.16	69,035	5.70	66,146	5.46	104.37
5 - 9	127,156	10.50	64,844	5.36	62,312	5.15	104.06
10 - 14	105,398	8.70	53,602	4.43	51,796	4.28	103.49
15 - 19	105,211	8.69	53,263	4.40	51,948	4.29	102.53
20 - 24	118,060	9.75	58,526	4.83	59,534	4.92	98.31
25 - 29	119,818	9.90	60,532	5.00	59,286	4.90	102.10
30 - 34	101,595	8.39	52,467	4.33	49,128	4.06	106.80
35 - 39	79,695	6.58	40,930	3.38	38,765	3.20	105.58
40 - 44	58,254	4.81	29,476	2.43	28,778	2.38	102.43
45 - 49	41,290	3.41	20,554	1.70	20,736	1.71	99.12
50 - 54	32,649	2.70	16,199	1.34	16,450	1.36	98.47
55 - 59	22,992	1.90	11,099	0.92	11,893	0.98	93.32
60 - 64	18,420	1.52	8,762	0.72	9,658	0.80	90.72
65 - 69	13,270	1.10	6,226	0.51	7,044	0.58	88.39
70 - 74	9,281	0.77	4,375	0.36	4,906	0.41	89.18
75 - 79	6,076	0.50	2,891	0.24	3,185	0.26	90.77
80 - 84	3,080	0.25	1,351	0.11	1,729	0.14	78.14
85 - 89	1,727	0.14	673	0.06	1,054	0.09	63.85
90 - 94	673	0.06	265	0.02	408	0.03	64.95
95 - 99	361	0.03	139	0.01	222	0.02	62.61
100 and Over	127	0.01	52	0.00	75	0.01	69.33
Unspecified	110,506	9.13	55,490	4.58	55,016	4.54	100.86
<b>TOTAL</b>	<b>1,210,820.00</b>	<b>100.00</b>	<b>610,751</b>	<b>50</b>	<b>600,069</b>	<b>49.56</b>	<b>102</b>

Source: 12th General Census of Population and Housing 2000

## Appendix III

**Status of Healthcare Coverage by Institution**

City	Total Population	Percent of use of health services (a)						In another institution		Non-Users
		Total	IMSS	ISSSTE Defensa	PEMEX	SSA	IMSS/Sol	Public (b)	Private ©	
Baja California	2476010	95	43.5	4.7	0.3	8.8	0.4	2.4	39.9	3
No coverage	1050219	92.3	1.9	0.1	NS	20.3	0.7	1	76	5.9
Covered	1354502	97.6	75.8	8.3	0.5	0.5	0.3	3.4	11.3	0.8
In the IMSS	1179119	97.5	87	5	NS	0.5	0.3	0.2	11.6	0.9
In the ISSSTE	125875	98.2	2.8	86.3	0.1	0.4	NS	0.4	10	0.5
In PEMEX, Defensa or Marina*	7507	98	1.7	0.3	88.8	2.6		2.6	4.1	0.2
In another institution	48960	98.8	1.3	1	0.1	0.1		88.5	9	0.1
Unspecified	71289		84.3	3	0.1	NS	0.1	5.2	86.9	1.6

*MI Sample size insufficient*

*NS Not significant*

(a) Number of users of health services as a percentage of total population. The percentage for each institution was calculated based on the total users of their services.

(b) Includes state government social security institutions.

(c) Includes persons receiving care from private physicians.

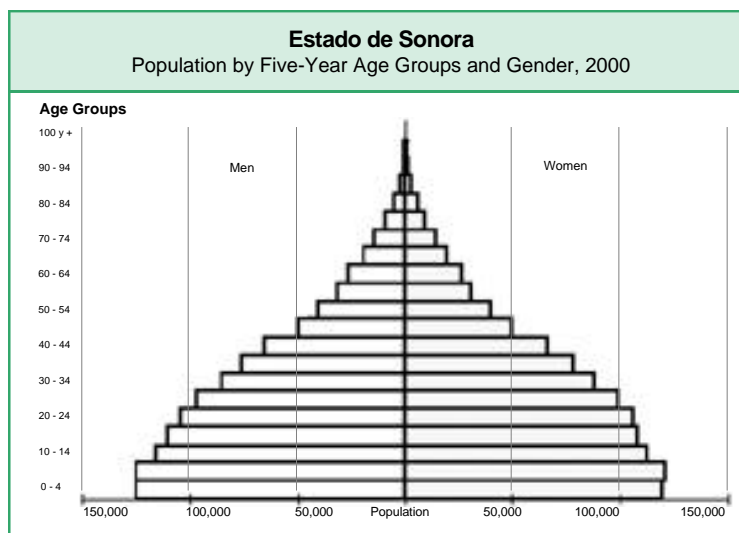
SOURCE: INEGI. EUM. General Census of Population and Housing, 2000. Tables of the Census Sample, Expanded Questionnaire, 2000.



# Diagnostic of Healthcare Resources in the State of **Sonora**

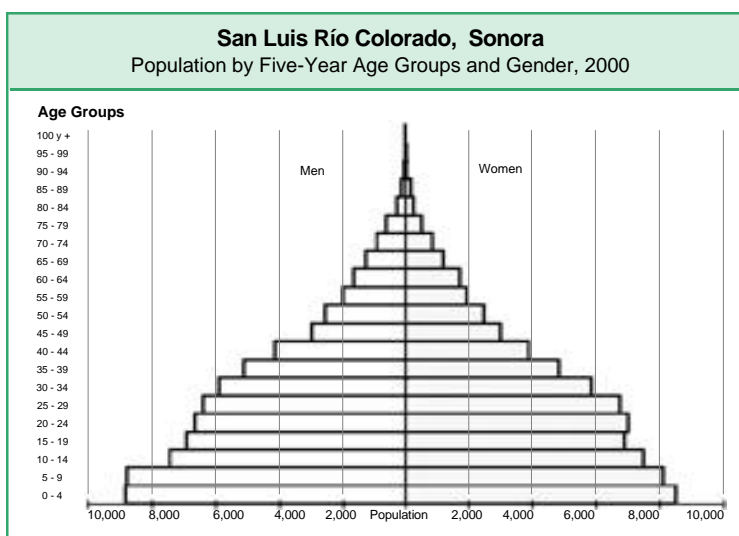
## Demography

As of December 31, 1999, the population of the state of Sonora was 2,206,929, equivalent to 2.26% of the total population of Mexico and 13.34% of the population of its six northern border states. 32.44% of the population of the state was in the pre-productive age, 62.77% in the productive age, and 4.79% in the post-productive age. The male-to-female ratio was 1.38.



Source: 12th General Census of Population and Housing 2000

There are five sanitary districts in Sonora, two of which share a border with the U.S.: Sanitary district 02, which is headquartered in Caborca, has 9 cities (including San Luis Río Colorado) and District 03 headquartered in Santa Ana which has 17 cities (including Nogales and Agua Prieta). Altogether, Sonora's sanitary districts have 603,144 inhabitants, representing 27.2% of the state's population.



Source: 12th General Census of Population and Housing 2000

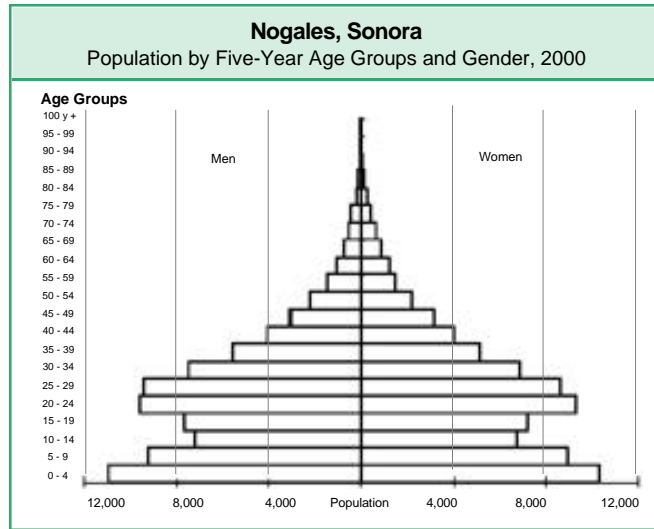
33.76% of the sanitary districts' population is in the pre-productive age, 62.19% is in the productive age, and 4.05% is in the post-productive age. The male-to-female ratio is 1.026

Sanitary district 02 (Caborca) has a population of 269,385. 33.69% of the population is in the pre-productive age, 61.2% is in the productive age, and 4.26% is in the post-productive age. The male-to-female ratio is 1.02.

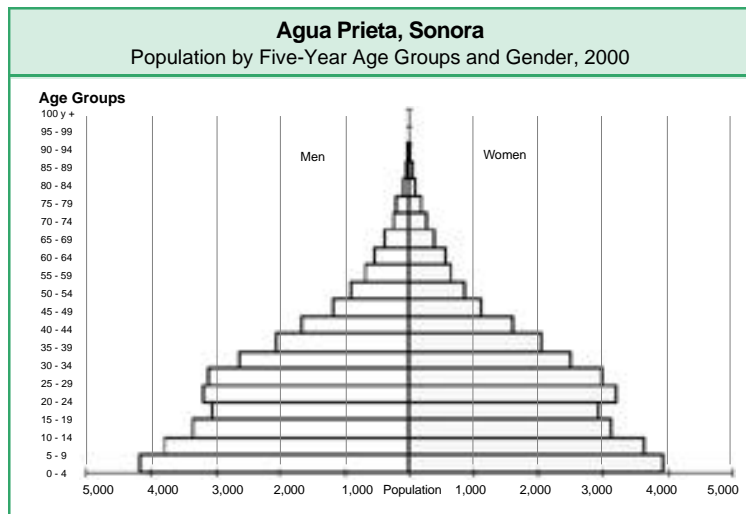
Sanitary district 03 (Santa Ana) has a population of 393,759. 33.81% of the sanitary district's population is in the pre-productive age, 61.59% is in the productive age, and 3.85% is in the post-productive age. The male-to-female ratio is 1.02.

The Municipality of San Luis Río Colorado, which shares a border with Yuma, Arizona, has a population of 145,000. 33.9% of the population is in the pre-productive age, 60.93% is in the productive age, and 4.38% is in the post-productive age. 0.79% did not specify their age. The male-to-female ratio is 1.01.

The Municipality of Nogales, which shares a border with Santa Cruz County, Arizona, has a population of 159,787. 33.12% of the population is in the pre-productive age, 63.49% is in the productive age, and 2.75% is in the post-productive age. 0.64% did not specify their age. The male-to-female ratio is 1.04.



Source: 12th General Census of Population and Housing 2000



Source: 12th General Census of Population and Housing 2000

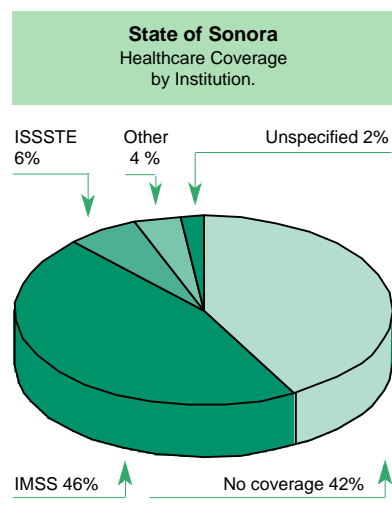
The Municipality of Agua Prieta, which shares a border with Cochise County, Arizona, has a population of 61,944. 35.49% of the population is in the pre-productive age, 60.53% is in the productive age, and 3.24% is in the post-productive age. 0.74% did not specify their age. The male-to-female ratio is 1.03.

## Healthcare Coverage

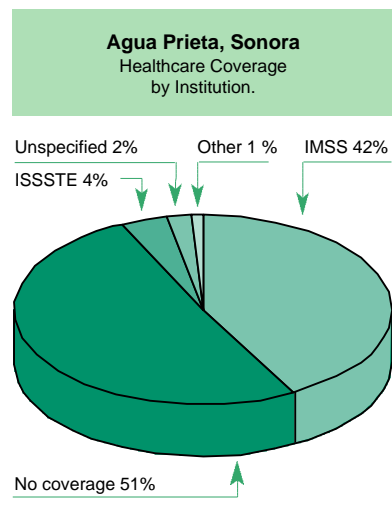
56% of the population of the state of Sonora has access to healthcare services through social security. 46% of the population is affiliated with IMSS, 6% with ISSSTE, 4% with another social security institute (PEMEX, Defense and Navy etc.) 42% does not have social security coverage and 2% did not specify their type of coverage.

The healthcare coverage provided by social security in both border sanitary districts (02 Caborca and 03 Santa Ana) is 50%. 43% of the population is covered by IMSS, 4% by ISSSTE, 3% by another social security institute. 44% does not have social security coverage and 6% did not specify their status.

In Sanitary district 02 (Caborca) 49.95% of the population is covered by social security. 38.9% of the population is covered by IMSS, 3.8% by ISSSTE, 2.21% by another social security institute. 51.1% do not have social security coverage and the rest did not declare their affiliation.



Source: 12th General Census of Population and Housing 2000. Basic tables. INEGI.



Source: 12th General Census of Population and Housing 2000. Basic tables. INEGI.

In Sanitary district 03 (Santa Ana) 56.93% of the population is covered by social security. 47.99% of the population is covered by IMSS, 4.95% by ISSSTE, 4.08% by another social security institute. 39.88% does not have social security coverage and 3.18% did not specify their coverage.

In the Municipality of San Luis Río Colorado 38.9% of the population is covered by IMSS, 4.6% by ISSSTE, 2.4% by another social security institute. 51.3% does not have social security coverage and the rest did not specify their coverage.

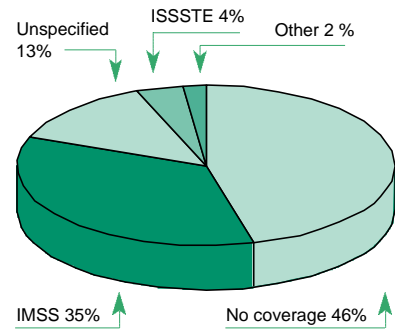
In the Municipality of Nogales 60.5% of the population is covered by IMSS, 5% by ISSSTE, 1.1% by another social security institute. 29.8% does not have social security coverage and the rest did not specify their coverage.

In the Municipality of Agua Prieta 42.5% of the population is covered by IMSS, 4.3% by ISSSTE, 0.8% by another social security institute. 50.3% does not have social security coverage and the rest did not specify their coverage.

## Use of Healthcare Services

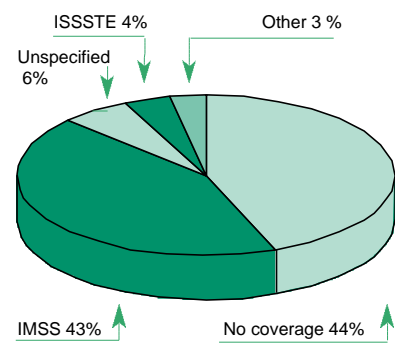
44% of the inhabitants of Sonora receive care from IMSS, 24% go to private institutions, 19% make use of SSA, 6% go to ISSSTE, and 6% go to other social security institutions. 2% of the population does not use any type of healthcare service.

**San Luis Río Colorado, Sonora**  
Healthcare Coverage by Institution.



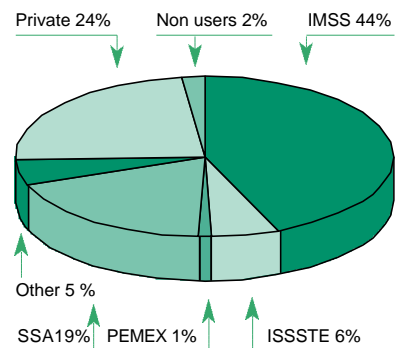
Source: 12th General Census of Population and Housing 2000. Basic tables. INEGI.

**Sanitary Districts 02 and 03 in the State of Sonora**  
Healthcare Coverage by Institution.



Source: 12th General Census of Population and Housing 2000. Basic tables. INEGI.

**State of Sonora**  
Utilization of Health Services



Source: 12th General Census of Population and Housing, 2000 Taken from Census Sample, Expanded Questionnaire. INEGI, 2000.

## Human Resources for Healthcare

According to the SSA's Statistical Information Bulletin No. 19, vol. 1, 1999, the Sonora State Healthcare system employs a total of 18,074 employees in public and private institutions. 24% of them work in the private sector, 17% in Public hospitals, and 59% work in social security. There are 2.66 nurses per 1,000 inhabitants, of which 12.4% are in the private sector.

**Human and Material Resources in the "Sister Cities"**

State	units by level			Beds		Operating rooms	physicians				nurses		
	first	second	third	reportable beds	Non-reportable beds		Total	General	Especialty	other activity	Total	in contact	other activity
Tijuana	38	5	0	548	186	291	531	176	286	69	652	621	31
Mexicali	66	5	0	578	265	327	611	206	309	94	862	748	114
San Luis Río Colorado	4	3	0	74	37	41	68	19	39	10	74	69	5
Nogales	7	2	0	105	69	51	81	33	38	10	63	53	10
Agua Prieta	5	2	0	35	29	39	40	18	14	8	44	43	1
Ascensión	7	0	0	0	19	8	7	7	0	0	1	1	0
Cd. Juárez	40	4	1	632	292	307	279	97	151	31	404	393	11
Ojinaga	6	0	0	18	18	20	20	16	1	3	14	14	0
Cd. Acuña	7	2	1	253	58	83	52	17	28	7	66	65	1
Piedras Negras	11	3	0	139	87	68	101	42	47	12	105	96	9
Anáhuac	12	0	0	0	20	16	18	16	0	2	9	7	2
Nuevo Laredo	16	4	0	255	238	123	232	89	101	42	303	279	24
Reynosa	27	4	1	399	176	181	350	109	206	35	494	464	30
Matamoros	44	4	0	332	206	165	273	106	141	26	315	312	3

Source: 12th General Census of Population and Housing 2000. Basic tables. INEGI.

In Sanitary district 02 (Caborca), there are 0.62 physicians per 1,000 inhabitants and 0.71 nurses per 1,000 inhabitants.

In Sanitary district 03 (Santa Ana), there are 0.63 physicians per 1,000 inhabitants and 0.6 nurses per 1,000 inhabitants.

According to the 12th General Population and Housing Census of 2000, the city of San Luis Río Colorado has 0.47 physicians per 1,000 inhabitants and 0.48 nurses per 1,000 inhabitants. The city of Nogales has 0.5 physicians per 1,000 inhabitants and 0.33 nurses per 1,000 inhabitants. The city of Agua Prieta has 0.65 physicians per 1,000 inhabitants and 0.69 nurses per 1,000 inhabitants.

**State of Sonora.**  
Main Material and Human Resources by type of Facility in Public Institutions  
of the National Health System. 1999.

Resources	State Total	General population			Persons with coverage						
		SSA	Red Cross	Total	IMSS	ISSSTE	PEMEX	SDN	SM	IMSS/Son	Total
<b>Units</b>	400	228	24	252	75	39	3	13	7	11	148
Reportable beds	2,385	1,022	23	1,045	902	186	0	72	29	151	1,340
Doctors' offices	1,307	561	24	585	463	143	6	26	17	67	722
Physicians	3,623	1,189	42	1,231	1,582	534	9	32	27	208	2,392
Nurses	5,148	2,001	28	2,029	2,359	431	3	30	51	245	3,119
<b>Outpatient facilities</b>											
Units	358	210	24	234	61	34	3	12	5	9	124
Reportable beds	96	8	23	31	23	0	0	42	0	0	65
Doctors' offices	653	317	24	341	223	54	6	12	5	12	312
Physicians	612	363	42	405	n.d.	164	9	15	4	15	207
Nurses	538	445	28	473	n.d.	58	3	0	3	1	65
<b>General Hospitals</b>											
Units	35	15	0	15	12	5	0	1	2	0	20
Reportable beds	1,368	589	0	589	534	286	0	30	29	0	779
Doctors' offices	470	183	0	183	172	89	0	14	12	0	287
Physicians	1,014	604	0	604	n.d.	370	0	17	23	0	410
Nurses	1,547	1,096	0	1,096	n.d.	373	0	30	8	0	451
<b>Specialty Hospitals</b>											
Units	7	3	0	3	2	0	0	0	0	2	4
Reportable beds	921	425	0	425	2	0	0	0	0	2	4
Doctors' offices	184	61	0	61	68	0	0	0	0	2	123
Physicians	415	222	0	222	n.d.	0	0	0	0	193	193
Nurses	704	460	0	460	n.d.	0	0	0	0	244	244

*Source: Bulletin of Statistical Information, Number 19, Volume 1, 1999.*

## Physical Resources for Healthcare

Sonora has 1.07 hospital beds per 1,000 inhabitants, 21.8% of the beds are in the private sector. The hospital beds for the Health Department are distributed as follows: 43% in SSA, 38% in IMSS, 8% in ISSSTE, 6% in ISSSTE/Son, and 5% between the SDN and the Navy.

There are 0.74 doctor's offices per 1,000 inhabitants in Sonora. 21.9% of them are in the private sector. The public sector has 1,307 doctor's offices; 587 (44.9%) of which are open to the general public (those without medical coverage), while 55.1% provide care to patients with coverage by social security.

Sanitary district 02 (Caborca) has 0.59 hospital beds per 1,000 inhabitants, and 0.43 doctor's offices per 1,000 inhabitants.

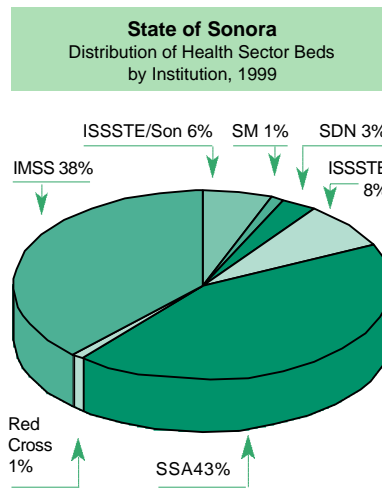
Sanitary district 03 (Santa Ana) has 0.64 hospital beds per 1,000 inhabitants, and 0.59 doctor's offices per 1,000 inhabitants.

The cities of San Luis Río Colorado, Nogales, and Agua Prieta have 0.51, 0.66, and 0.57 hospital beds per 1,000 inhabitants respectively. The number of doctor's offices per 1,000 inhabitants is 0.28, 0.32, and 0.63 in the same order.

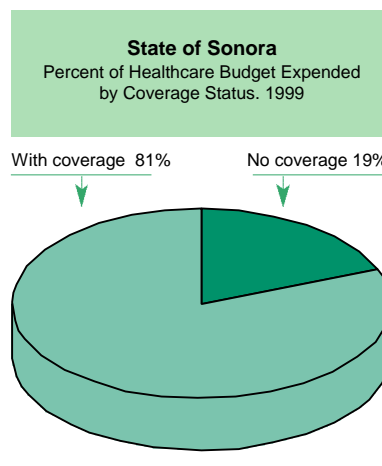
## Financial Resources

In 1999, the public spent 2,879,516,400 pesos (1,304.76 pesos per inhabitant) on healthcare. 81% went to the population with social security coverage and 19% went to the general public. The percentage spent on other institutions was as follows: 83% IMSS, 9% SSA, 7% ISSSTE, and 1% PEMEX.

By category, 79% of the total healthcare expense went to medical attention, 21% went to shared services, and the budget for public health services was less than 1%.

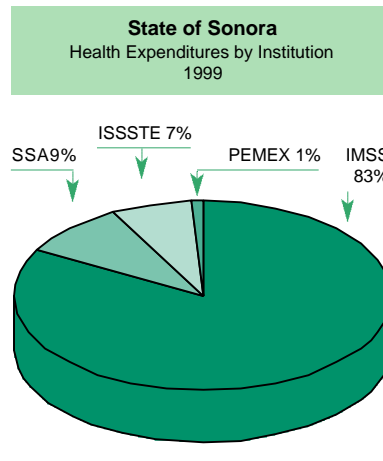


Source: Bulletin of Statistical Information, Number 19, Volume 1, 1999.

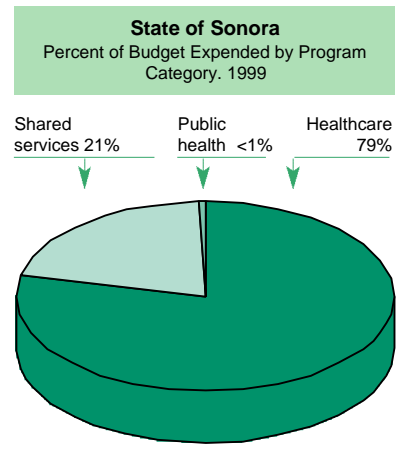


Source: The Status of Health, Sonora. INEGI, 1999.

The contribution of "Ramo 33" (Federal, State and City Funds) was 553,106,300 pesos (250.63 pesos per inhabitant) ■



Source: *The Status of Health, Sonora, INEGI, 1999.*



Source: *The Status of Health, Sonora, INEGI, 1999.*



## Appendixes

## Appendix I

**State of Sonora**  
Population by Five-Year Age Groups and Gender

Age Groups	TOTAL	%	Men	%	Women	%	Male-Female Ratio
	2,216,969	100.00	1,110,590	50.09	1,106,379	49.91	100.38
0 - 4	244,619	11.03	124,895	5.63	119,724	5.40	104.32
5 - 9	246,494	11.12	125,302	5.65	121,192	5.47	103.39
10 - 14	228,055	10.29	115,733	5.22	112,322	5.07	103.04
15 - 19	218,530	9.86	110,432	4.98	108,098	4.88	102.16
20 - 24	210,638	9.50	104,754	4.73	105,884	4.78	98.93
25 - 29	195,388	8.81	96,583	4.36	98,805	4.46	97.75
30 - 34	172,782	7.79	84,967	3.83	87,815	3.96	96.76
35 - 39	154,516	6.97	76,116	3.43	78,400	3.54	97.09
40 - 44	131,251	5.92	65,236	2.94	66,015	2.98	98.82
45 - 49	99,234	4.48	49,469	2.23	49,765	2.24	99.41
50 - 54	80,037	3.61	40,221	1.81	39,816	1.80	101.02
55 - 59	61,747	2.79	30,932	1.40	30,815	1.39	100.38
60 - 64	52,615	2.37	26,211	1.18	26,404	1.19	99.27
65 - 69	38,990	1.76	19,465	0.88	19,525	0.88	99.69
70 - 74	28,081	1.27	13,992	0.63	14,089	0.64	99.31
75 - 79	19,133	0.86	9,546	0.43	9,587	0.43	99.57
80 - 84	10,430	0.47	4,768	0.22	5,662	0.26	84.21
85 - 89	5,569	0.25	2,411	0.11	3,158	0.14	76.35
90 - 94	1,964	0.09	809	0.04	1,155	0.05	70.04
95 - 99	872	0.04	377	0.02	495	0.02	76.16
100 and Over	291	0.01	128	0.01	163	0.01	78.53
Unspecified	15,733	0.71	8,243	0.37	7,490	0.34	110.05
<b>TOTALES</b>	<b>2,216,969</b>	<b>100.00</b>	<b>1,110,590</b>	<b>50.09</b>	<b>1,106,379</b>	<b>49.91</b>	<b>100.38</b>

Source: 12th General Census of Population and Housing 2000

## Appendix II

**Sonora State Border Sanitary Districts**  
 Population by Five-Year Age Groups and Gender, 2000

State of Sonora		District 03 Santa Ana		District 02 Caborca	
Age Groups	Sonora	MEN	WOMEN	MEN	WOMEN
	333,759	169,223	164,536	136,197	133,188
0	8,274	4,247	4,027	3,176	2,992
	0	0	0		
0 - 4	42,032	21,519	20,513	15,892	15,306
5 - 9	38,231	19,350	18,881	15,825	14,999
10 - 14	32,593	16,722	15,871	14,409	14,320
15 - 19	31,581	16,127	15,454	13,462	13,243
20 - 24	34,313	17,247	17,066	12,747	12,838
25 - 29	33,242	17,032	16,210	11,903	12,112
30 - 34	27,852	14,193	13,659	10,584	10,637
35 - 39	22,438	11,502	10,936	9,321	9,105
40 - 44	17,808	8,994	8,814	7,711	7,322
45 - 49	13,605	6,835	6,770	5,647	5,721
50 - 54	10,457	5,225	5,232	4,732	4,524
55 - 59	7,784	3,877	3,907	3,720	3,457
60 - 64	6,500	3,182	3,318	3,113	2,994
65 - 69	4,669	2,258	2,411	2,311	2,103
70 - 74	3,415	1,622	1,793	1,642	1,431
75 - 79	2,452	1,219	1,233	1,092	932
80 - 84	1,282	555	727	498	557
85 - 89	655	302	353	263	326
90 - 94	246	103	143	84	116
95 - 99	113	49	64	47	59
100 and Over	37	16	21	16	23
Unspecified	2,454	1,294	1,160	1,178	1,063
Total	333,759	169,223	164,536	136,197	133,188

Source: 12th General Census of Population and Housing 2000

## Appendix III

**San Luis Río Colorado, Sonora**  
Population by Five-Year Age Groups and Gender, 2000

Age Groups	TOTAL	%	Men	%	Women	%	Male-Female Ratio
0 - 4	17,322	11.95	8,806	6.07	8,516	5.87	103.41
5 - 9	16,890	11.65	8,771	6.05	8,119	5.60	108.03
10 - 14	14,936	10.30	7,435	5.13	7,501	5.17	99.12
15 - 19	13,780	9.50	6,907	4.76	6,873	4.74	100.49
20 - 24	13,644	9.41	6,644	4.58	7,000	4.83	94.91
25 - 29	13,154	9.07	6,380	4.40	6,774	4.67	94.18
30 - 34	11,739	8.10	5,866	4.05	5,873	4.05	99.88
35 - 39	9,920	6.84	5,072	3.50	4,848	3.34	104.62
40 - 44	8,011	5.52	4,120	2.84	3,891	2.68	105.89
45 - 49	5,967	4.12	2,964	2.04	3,003	2.07	98.70
50 - 54	4,958	3.42	2,501	1.72	2,457	1.69	101.79
55 - 59	3,903	2.69	1,973	1.36	1,930	1.33	102.23
60 - 64	3,300	2.28	1,613	1.11	1,687	1.16	95.61
65 - 69	2,465	1.70	1,257	0.87	1,208	0.83	104.06
70 - 74	1,719	1.19	891	0.61	828	0.57	107.61
75 - 79	1,115	0.77	596	0.41	519	0.36	114.84
80 - 84	521	0.36	247	0.17	274	0.19	90.15
85 - 89	309	0.21	134	0.09	175	0.12	76.57
90 - 94	113	0.08	48	0.03	65	0.04	73.85
95 - 99	75	0.05	33	0.02	42	0.03	78.57
100 and Over	23	0.02	6	0.00	17	0.01	35.29
Unspecified	1,142	0.79	600	0.41	542	0.37	110.70
<b>TOTAL</b>	<b>145,006</b>	<b>100</b>	<b>72,864.00</b>	<b>50</b>	<b>72,142.00</b>	<b>50</b>	<b>101.00</b>

Source: 12th General Census of Population and Housing 2000

## Appendix IV

**Nogales, Sonora**  
Population by Five-Year Age Groups and Gender, 2000

Age Groups	TOTAL	%	Men	%	Women	%	Male-Female Ratio
0 - 4	21,290	13.32	10,946	6.85	10,344	6.47	105.82
5 - 9	18,200	11.39	9,224	5.77	8,976	5.62	102.76
10 - 14	13,951	8.73	7,162	4.48	6,789	4.25	105.49
15 - 19	14,894	9.32	7,650	4.79	7,244	4.53	105.60
20 - 24	18,892	11.82	9,588	6.00	9,304	5.82	103.05
25 - 29	18,079	11.31	9,427	5.90	8,652	5.41	108.96
30 - 34	14,355	8.98	7,486	4.68	6,869	4.30	108.98
35 - 39	10,722	6.71	5,582	3.49	5,140	3.22	108.60
40 - 44	8,097	5.07	4,080	2.55	4,017	2.51	101.57
45 - 49	6,276	3.93	3,091	1.93	3,185	1.99	97.05
50 - 54	4,414	2.76	2,200	1.38	2,214	1.39	99.37
55 - 59	2,912	1.82	1,427	0.89	1,485	0.93	96.09
60 - 64	2,305	1.44	1,048	0.66	1,257	0.79	83.37
65 - 69	1,645	1.03	737	0.46	908	0.57	81.17
70 - 74	1,149	0.72	512	0.32	637	0.40	80.38
75 - 79	787	0.49	390	0.24	397	0.25	98.24
80 - 84	427	0.27	181	0.11	246	0.15	73.58
85 - 89	217	0.14	98	0.06	119	0.07	82.35
90 - 94	95	0.06	37	0.02	58	0.04	63.79
95 - 99	41	0.03	14	0.01	27	0.02	51.85
100 and Over	22	0.01	11	0.01	11	0.01	100.00
Unspecified	1,017	0.64	530	0.33	487	0.30	108.83
<b>TOTAL</b>	<b>159,787</b>	<b>100</b>	<b>81,421</b>	<b>50.96</b>	<b>78,366</b>	<b>49.04</b>	<b>104</b>

Source: 12th General Census of Population and Housing 2000

## Appendix V

**Agua Prieta, Sonora**  
 Population by Five-Year Age Groups and Gender

Age Groups	TOTAL	%	Men	%	Women	%	Male-Female Ratio
0 - 4	8,077	13.04	4,152	6.70	3,925	6.34	105.78
5 - 9	7,423	11.98	3,789	6.12	3,634	5.87	104.27
10 - 14	6,486	10.47	3,350	5.41	3,136	5.06	106.82
15 - 19	5,993	9.67	3,052	4.93	2,941	4.75	103.77
20 - 24	6,384	10.31	3,178	5.13	3,206	5.18	99.13
25 - 29	6,106	9.86	3,102	5.01	3,004	4.85	103.26
30 - 34	5,120	8.27	2,614	4.22	2,506	4.05	104.31
35 - 39	4,118	6.65	2,057	3.32	2,061	3.33	99.81
40 - 44	3,275	5.29	1,661	2.68	1,614	2.61	102.91
45 - 49	2,305	3.72	1,184	1.91	1,121	1.81	105.62
50 - 54	1,778	2.87	908	1.47	870	1.40	104.37
55 - 59	1,329	2.15	672	1.08	657	1.06	102.28
60 - 64	1,086	1.75	529	0.85	557	0.90	94.97
65 - 69	775	1.25	374	0.60	401	0.65	93.27
70 - 74	522	0.84	234	0.38	288	0.46	81.25
75 - 79	384	0.62	189	0.31	195	0.31	96.92
80 - 84	176	0.28	77	0.12	99	0.16	77.78
85 - 89	100	0.16	41	0.07	59	0.10	69.49
90 - 94	28	0.05	11	0.02	17	0.03	64.71
95 - 99	16	0.03	9	0.01	7	0.01	128.57
100 and Over	4	0.01	3	0.00	1	0.00	300.00
Unspecified	459	0.74	251	0.41	208	0.34	120.67
<b>TOTAL</b>	<b>61,944.00</b>	<b>100</b>	<b>31,437</b>	<b>51</b>	<b>30507.00</b>	<b>49</b>	<b>103.05</b>

Source: 12th General Census of Population and Housing 2000

## Appendix VI

**State of Sonora**  
Coverage Status by District and Municipality. 1999.

Entity Total	Population	No coverage	Persons with health care coverage				Unspecified	
			Other	IMSS	ISSSTE	PEMEX/Def.		Total
State of Sonora	2216969	952481	87395	1011563	144635	10647	1250610	40878
<b>District 02 Caborca</b>	<b>269383</b>	<b>137755</b>	<b>5016</b>	<b>104811</b>	<b>10260</b>	<b>962</b>	<b>123799</b>	<b>24831</b>
Altar	7253	4659	90	1759	330	2	2179	415
Atil	718	424	84	125	79	0	288	6
Caborca	69516	34122	1229	29004	296	25	33668	1726
Oquitoa	402	321	38	23	16	0	77	4
Puerto Peñasco	31157	12907	291	14837	1724	339	17117	1133
S.L. Rio Colorado	145006	74416	3014	56475	6714	466	66406	21184
Sáric	2257	2024	19	123	45	0	187	46
Tubutama	1796	1503	16	134	86	0	235	60
Gr. P. E. Calles	11278	7379	235	2331	970	130	3642	257
<b>District 03 Santa Ana</b>	<b>333759</b>	<b>133114</b>	<b>12867</b>	<b>160203</b>	<b>16548</b>	<b>783</b>	<b>190020</b>	<b>10627</b>
Agua Prieta	61944	31156	385	26355	2656	138	29402	1386
Agua Prieta	61944	31156	385	26355	2656	138	29402	1386
Arizpe	3396	2125	136	892	192	0	1220	51
Bacerac	1366	1143	77	50	77	0	203	20
Bacoachi	1496	1144	80	187	47	1	315	37
Bavispe	1377	1190	50	38	83	0	171	16
Benjamin Hill	5732	2060	142	3256	243	6	3630	42
Cananea	32061	10771	9215	8584	2047	60	19530	1760
Cucurpe	937	733	39	100	28	1	166	38
Fronteras	7801	2665	29	4823	163	3	5013	123
Huachinera	1147	945	61	44	73	0	178	24
Imuris	9988	5984	54	2995	64	5	3700	304
Magdalena	24447	12327	662	9336	1422	140	11536	588
Naco	5370	3255	41	1735	225	1	2000	115
Nogales	159787	47667	1428	96706	8090	360	106223	5895
Santa Ana	13526	7333	292	4676	1072	67	6065	128
Santa Cruz	1628	1273	70	228	39	0	336	19
Trincheras	1756	1343	106	198	27	1	332	81
<b>District 03 + 02</b>	<b>603142</b>	<b>270869</b>	<b>17883</b>	<b>265014</b>	<b>26808</b>	<b>1745</b>	<b>313819</b>	<b>35458</b>

Source: 12th General Census of Population and Housing 2000. Basic tables. INEGI.

## Appendix VII

**State of Sonora**  
Utilization of Services by Institution

City	Population Total	Percent of use of health services (a)						In another institution	Non Users	Total
		IMSS	ISSSTE	PEMEX Defensa	SSA	IMSS/Sol	Public (b) Private (c)			
Sonora	2192455	44.6	6.3	0.6	19.8	0.2	4.7	24	2.2	97
No coverage	886988	1.6	0.1	Ns	48.4	0.3	2.8	46.8	4.8	94.4
With coverage	1267764	74.3	10.5	0.9	1.1	0.1	5.9	7.2	0.5	99
IMSS	1031792	91.2	0.5	Ns	1.1	0.1	0.3	6.9	0.6	98.9
ISSSTE	142581	2.3	91.4	0.1	0.8	ns	0.8	4.7	0.3	99.3
PEMEX Military Services	12540	2.5	0.3	91.7	0.5			5		99.6
In another institution	89860	0.7	0.8	Ns	2.1		80.4	16	0.3	99.1
Unspecified	37703	4.1	0.4	0.2	3.9	0.1	9.6	81.8	0.7	89.3

MI Sample size insufficient

NS Not significant

(a) Number of users of health services as a percentage of total population.

The percentage for each institution was calculated based on the total users of their services.

(b) Includes state government social security institutions.

(c) Includes persons receiving care from private physicians.

SOURCE: INEGI. EUM. General Census of Population and Housing, 2000. Tables of the Census Sample, Expanded Questionnaire. 2000.

**Appendix VIII**
**State of Sonora**  
 Services Provided by Sanitary District

Category	District 02 Caborca	District 03 Santa Ana	State Total
Total consultations	570484	1133157	6179369
General consultations	370247	874754	4077558
Specialized	63080	83652	1042539
Emergencies	111302	110700	787005
Dental	25855	64051	272267
hospital discharges	12600	16741	138110
Surgeries	6588	7547	79314
Births	5289	6669	43186
Newborns	5279	6657	43237
Active Users of Family			
Planning	7565	6678	200306

Source: City Health Figures. Data Bases, 1999. INEGI.

**Appendix IX**
**State of Sonora**  
 Material and Human Resources by District  
 and Municipality. 1999.

Category	District 02 Caborca	District 03 Santa Ana	State Total
Medical facilities	32	57	400
1st level	24	51	358
Second level	8	6	35
Third level	0	0	7
Reportable beds	158	215	2385
Non-reportable beds	136	208	1757
Doctors' offices	117	198	1307
Total physicians	167	209	3623
General	94	106	1210
Specialists	58	74	1465
Other activity	15	29	948
Total nurses	191	201	5148
In contact	177	185	4999
Other activity	14	16	149

SOURCE: Statistical Information Bulletin No. 29,  
Vol. 1, 1999

**Appendix X**
**State of Sonora**  
 Budget Expended by Program Category and Institution (thousands of pesos)

Code	programmatic category	Total	General population		Persons with coverage			PEMEX
			Total	SSA	Total	IMSS	ISSSTE	
	total budget	2879516.4	543106	233106.3	2336410.1	2136371.1	176346	23693.2
Ramo 12	health	2336410.1	0	0	2336410.1	2136371.1	176346	23693.2
800	shared services	484227.8	0	0	484227.8	469807.2	14420.6	
7000701	Administering human and financial resources	484227.8	0	0	484227.8	469807.2	14420.6	
802	Healthcare	1852182.3	0	0	1852182.3	1666563.9	161925	23673.2
7000420	providing health care	1741601.1	0	0	1741601.1	1583274	158327	158327
7000433	Conducting scientific and technological research	891.6	0	0	891.6	332.8	558.8	
7000437	Developing basic infrastructure	9456.8	0	0	9456.8	9456.8	0	0
7000438	Maintaining basic infrastructure	15044.9	0	0	15044.9	13201.6	1843.3	
7000701	Administering human and financial resources	23693.2	0	0	23693.2	0	9	23693.2
7000703	Training public servants	61494.7	0	0	61494.7	60298.7	1196	
802	Public Health Services	0						
budget line 33	Federal contributions to states and cities	543106.3	543106	543106.3				
227000419	Providing health services (decentralization)	498086.2	498086	498086.2	0	0	0	
227000437	Developing basic infrastructure	12770.5	12770.5	12770.5	0	0	0	
227000707	Paying federal government contributions	32249.6	32249.6	32249.6	0	0	0	

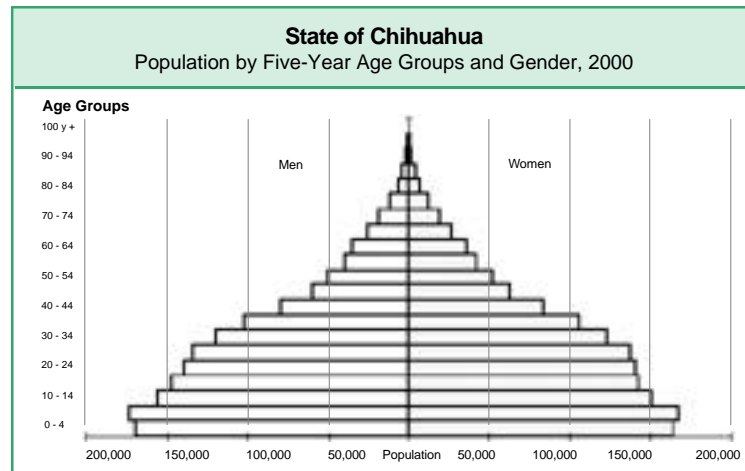
Source: 12th General Census of Population and Housing 2000.

Diagnostic of Healthcare Resources  
in the state of Chihuahua

# Chihuahua

## Demography

As of December 1999, the population of the state of Chihuahua was 3,052,907, equal to 3% of the national population and 16% of the population of its six northern border states. 36.42% of the population is in the pre-productive age, 63.58% is in the productive age, and 4.21% is in the post-productive age. The male-to-female ratio was 0.99.



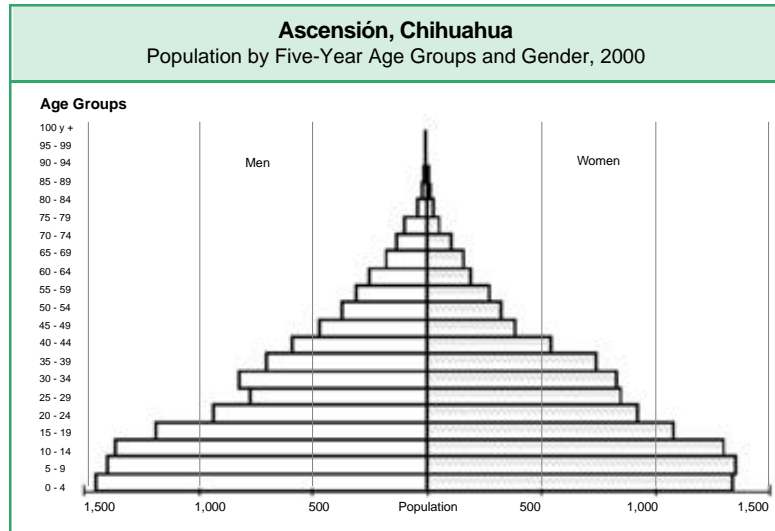
The state of Chihuahua has 8 sanitary districts, three of which share a border with the U.S. Sanitary district 01-Chihuahua which borders Presidio, Texas through the city of Ojinaga; Sanitary district 02-Juárez which shares a border with El Paso, Texas through the city of Juárez; Sanitary district 05-Casas Grandes which borders the state of New Mexico through the city of Ascensión. All together, these three sanitary districts have 2,293,694 inhabitants (75.1% of the state's population) and the three border cities contain 41.4% of the population of the state.

Sanitary district 01 headquartered in the city of Chihuahua has 16 cities (including Ojinaga) and has a population of 923,560. 30.78% of the population of this district belongs to the pre-productive age, 62.84% to the productive age, and 5.37% belong to the post-productive age. Age was not determined for the rest. The male-to-female ratio is 0.95.

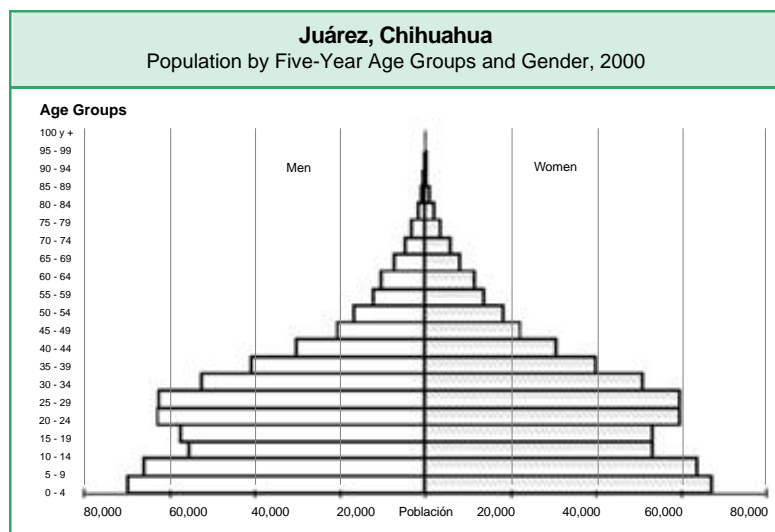
Sanitary district 02, headquartered in the Municipality of Juárez, has 4 cities (including Juárez) and has a population of 1,249,655. 30.89% of the population of this district belongs to the pre-productive age, 59.47% to the productive age, and 3.29% belong to the post-productive age. Age was not specified for the rest. The male-to-female ratio is 1.01.

Sanitary district 05 headquartered in the Municipality of Nuevo Casas Grandes has 6 cities (including Ascensión) and has a population of 120,479. 35.48% of the population of this district belongs to the pre-productive age, 58.65% to the productive age, and 4.9% belong to the post-productive age. Age was not specified for the rest. The male-to-female ratio is 1.00.

The Municipality of Ascensión shares a border with Luna, New Mexico and has a population of 21,939 (18.2% of the district's population) 37.38% of the population of this district belongs to the pre-productive age, 57.14% to the productive age, and 3.85% belong to the post-productive age. Age was not determined for the rest. The male-to-female ratio is 1.05.



Source: 112th General Census of Population and Housing, 2000.Expanded Questionnaire. INEGI.

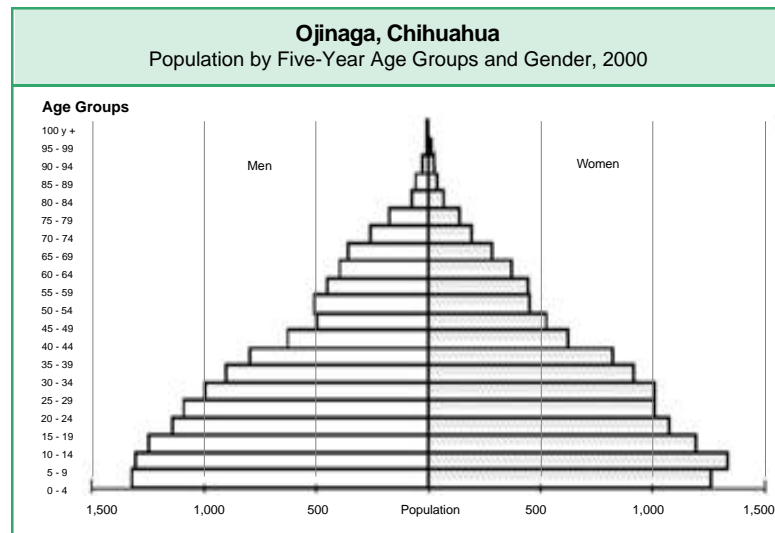


Source: 12th General Census of Population and Housing 2000.



The Municipality of Juárez shares a border with El Paso, Texas and has a population of 1,218,817 (97.5% of the district's population) 30.8% of the population of this district belongs to the pre-productive age, 59.48% to the productive age, and 3.25% belong to the post-productive age. Age was not determined for the rest. The male-to-female ratio is 1.01.

The Municipality of Ojinaga shares a border with Luna, Presidio County, Texas and has a population of 24,307 (2.6% of the district's population) 31.46% of the population of Ojinaga belongs to the pre-productive age, 60.71% to the productive age, and 6.48% belong to the post-productive age. Age was not determined for the rest. The male-to-female ratio is 1.02.



Source: 112th General Census of Population and Housing, 2000. INEGI.

## Social Security Coverage

61% of the population of the state of Chihuahua is covered by social security. Of this percentage, 52% of the population is affiliated with IMSS, 4% with ISSSTE, 3% with another social security institute like State Civil Pensions, PEMEX, and SDN. 37% does not have social security coverage and 2% did not specify their type of coverage.

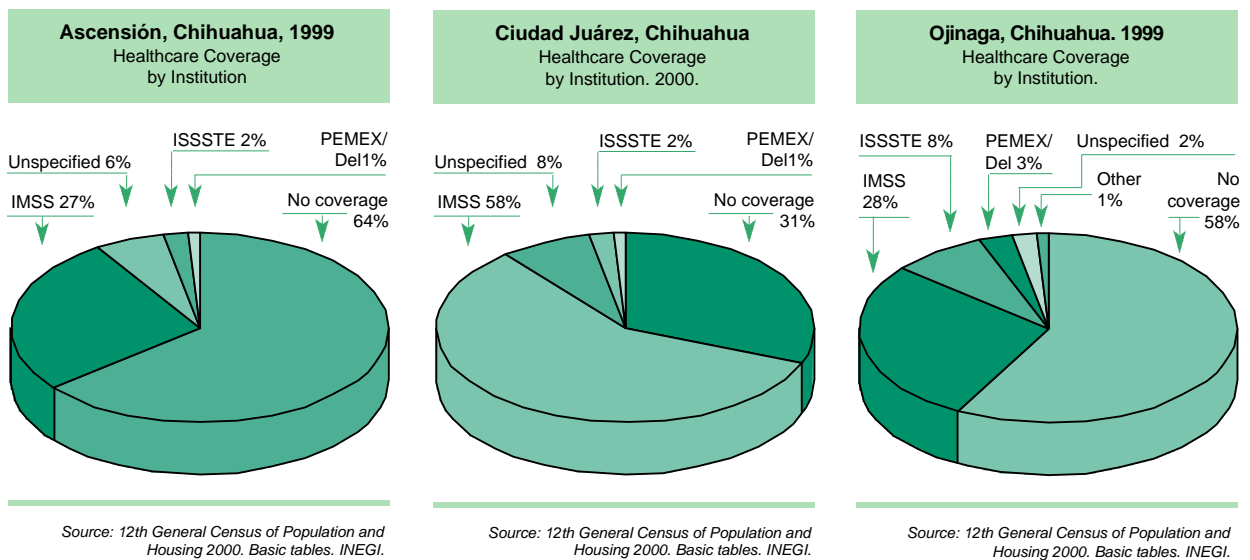
Social security coverage for the border districts 01, 02, and 05 all together is 54% by IMSS, 4% by ISSSTE, and 6% by other institutions. 31% of the population of these border districts in Chihuahua does not have coverage and 5% did not specify the nature of their coverage.

In Sanitary district 01 (Chihuahua) 55.4% of the population is covered by IMSS, 6.2% by ISSSTE, and 6.5% by another type of institution. 29.9% does not have social coverage and the rest did not specify their coverage.

In Sanitary district 02 (Juárez) 57.4% of the population is covered by IMSS, 2.2% by ISSSTE, and 1% by another type of institution. 31.4% does not have social coverage and the rest did not specify their coverage.

In Sanitary district 05 (Casas Grandes) 38.3% of the population is covered by IMSS, 3.5% by ISSSTE, and 2% by another type of institution. 53.6% does not have social security coverage and the rest did not specify their coverage.

In the Municipality of Ascension 27% of the population is covered by IMSS, 2.2% by ISSSTE, and 1.1% by another type of institution. 63.9% does not have social security coverage and the rest did not specify their coverage.

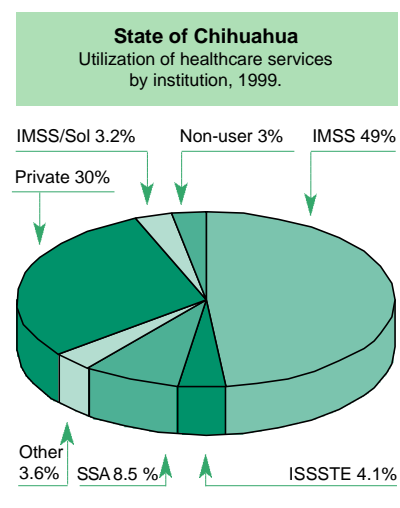


In the Municipality of Juárez 57.8% of the population is covered by IMSS, 2.3% by ISSSTE, and 0.9% by another type of institution. 30.9% does not have social security coverage and the rest did not specify their coverage.

As far as the border Municipality of each of these districts, in Ojinaga, 27.7% of the population is covered by IMSS, 7.6% by ISSSTE, and 4.4% by another institution. 58% is not covered by social security and the rest did not specify their coverage.

## Use of Healthcare Services

In 1999, healthcare consumption by inhabitants Chihuahua was as follows: 49% went to IMSS, 30% to the private sector, 8.5% to SSA, 4.1% to ISSSTE, 3.6% to other institutions (Civil Pensions, SDN, PEMEX) and 3.2% to IMSS/Solidaridad. 3% of inhabitants did not use any service.



Source: INEGI, EUM, 12th General Census of Population and Housing. Taken from Census Sample, Expanded Questionnaire. Mexico 2000.

## Human Resources for Healthcare

The State Healthcare system of Chihuahua employs a total of 19,928 employees. 4,650 (30.4%) of them work in private healthcare (Statistical Information Bulletin no. 19 INEGI 1999). As far as physicians, there are 1.55 filled positions per 1,000 inhabitants, of which 38.06% are in the private sector. In nursing, 2.256 nurses exist for each 1,000 inhabitants. Of these, 21.5% belong to the private sector.

In Ojinaga, there are 29 physicians; 21 of them work for social security and the other 8 are with public assistance institutions. There are 1.19 physicians per 1,000 inhabitants and 0.57 nurses per 1,000 inhabitants.

In Juárez, there are 1,078 physicians; 879 of them work for social security and the other 199 are with public assistance institutions. There are 0.88 physicians per 1,000 inhabitants and 0.33 nurses per 1,000 inhabitants.

In Ascension, there are 7 physicians; only one of them works for social security and the rest are with public assistance institutions. There are 0.31 physicians per 1,000 inhabitants and 0.04 nurses per 1,000 inhabitants.

## Physical Resources for Healthcare

The number of hospital beds in the state of Chihuahua is 1.095 per 1,000 inhabitants. 29.87 are in the private sector and the other 70.27 in the public sector.

The state of Chihuahua has 0.61 doctor's offices per 1,000 inhabitants, and 0.43 doctor's offices per 1,000 inhabitants. 23% of them are private sector and 73% are public sector.

The number of hospital beds in Ojinaga is 0.74 per 1,000 inhabitants. There are 0.82 doctor's offices per 1,000 inhabitants.

The number of hospital beds in Juárez is 0.52 per 1,000 inhabitants. There are 0.25 doctor's offices per 1,000 inhabitants.

Ascension does not have a hospital, but it has 0.87 doctor's offices per 1,000 inhabitants.

## Financial Resources

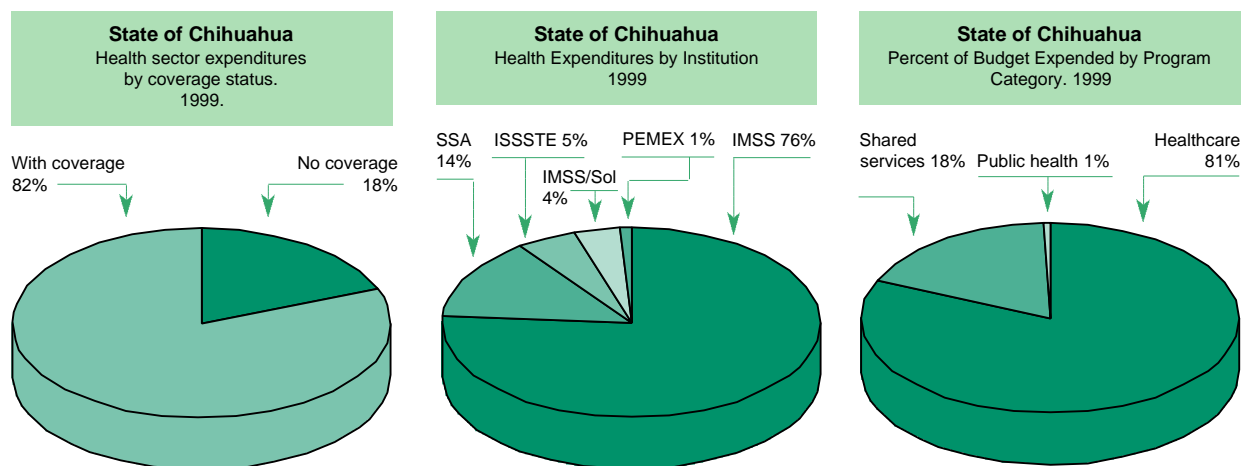
In 1999, Chihuahua's healthcare budget was 3,619,037,000 pesos, equal to 1,185.44 per inhabitant of the state.

82% of the budget was spent on a population without coverage and 18% on the general public; which translates to an annual inversion of 1,593.54 pesos per person covered by social security, and 547.12 pesos per person without social security coverage.

The distribution of spending among institutions was 76% for IMSS, 14% for SSA, 5% for ISSSTE, 4% for IMSS/Sol, and 1% for PEMEX.

The category distribution was 81% on medical attention, 18% on shared services, and 1% on public health services.

In addition, the contribution of "Ramo 33" for the State and City was 481,803,000 pesos, equal to an annual inversion of 157.82 pesos per person ■



Source: *Mapa de Salud Chihuahua, 1999, SSA*

Appendixes

**Estado de Chihuahua**  
Population by Five-Year Age Groups and Gender

Age Groups	TOTAL	%	Men	%	Women	%	Male-Female Ratio
	3,052,907	100.00	1,519,972	49.79	1,532,935	50.21	99.15
0 - 4	334,521	10.96	169,900	5.57	164,621	5.39	103.21
5 - 9	341,921	11.20	173,436	5.68	168,485	5.52	102.94
10 - 14	306,679	10.05	155,835	5.10	150,844	4.94	103.31
15 - 19	290,939	9.53	147,754	4.84	143,185	4.69	103.19
20 - 24	280,013	9.17	139,615	4.57	140,398	4.60	99.44
25 - 29	272,404	8.92	134,363	4.40	138,041	4.52	97.34
30 - 34	242,428	7.94	119,203	3.90	123,225	4.04	96.74
35 - 39	207,365	6.79	101,506	3.32	105,859	3.47	95.89
40 - 44	162,697	5.33	79,276	2.60	83,421	2.73	95.03
45 - 49	121,932	3.99	58,943	1.93	62,989	2.06	93.58
50 - 54	103,012	3.37	50,052	1.64	52,960	1.73	94.51
55 - 59	81,615	2.67	39,566	1.30	42,049	1.38	94.09
60 - 64	71,437	2.34	34,821	1.14	36,616	1.20	95.10
65 - 69	51,719	1.69	25,177	0.82	26,542	0.87	94.86
70 - 74	37,728	1.24	18,255	0.60	19,473	0.64	93.75
75 - 79	24,488	0.80	11,965	0.39	12,523	0.41	95.54
80 - 84	12,813	0.42	5,889	0.19	6,924	0.23	85.05
85 - 89	7,526	0.25	3,344	0.11	4,182	0.14	79.96
90 - 94	2,770	0.09	1,166	0.04	1,604	0.05	72.69
95 - 99	1,242	0.04	531	0.02	711	0.02	74.68
100 and Over	329	0.01	148	0.00	181	0.01	81.77
Unspecified	97,329	3.19	49,227	1.61	48,102	1.58	102.34
TOTALES	3,052,907	100.00	1,519,972	49.79	1,532,935	50.21	99.15

Source: 12th General Census of Population and Housing 2000

**Ascensión, Chihuahua**  
Population by Five-Year Age Groups and Gender

Age Groups	TOTAL	%	Men	%	Women	%	Male-Female Ratio
0 - 4	2,786	12.70	1,444	6.58	1,342	6.12	107.60
5 - 9	2,746	12.52	1,394	6.35	1,352	6.16	103.11
10 - 14	2,667	12.16	1,364	6.22	1,303	5.94	104.68
15 - 19	2,265	10.32	1,179	5.37	1,086	4.95	108.56
20 - 24	1,854	8.45	932	4.25	922	4.20	101.08
25 - 29	1,620	7.38	770	3.51	850	3.87	90.59
30 - 34	1,649	7.52	821	3.74	828	3.77	99.15
35 - 39	1,444	6.58	699	3.19	745	3.40	93.83
40 - 44	1,135	5.17	586	2.67	549	2.50	106.74
45 - 49	850	3.87	464	2.11	386	1.76	120.21
50 - 54	691	3.15	366	1.67	325	1.48	112.62
55 - 59	587	2.68	309	1.41	278	1.27	111.15
60 - 64	445	2.03	249	1.13	196	0.89	127.04
65 - 69	339	1.55	175	0.80	164	0.75	106.71
70 - 74	234	1.07	127	0.58	107	0.49	118.69
75 - 79	151	0.69	93	0.42	58	0.26	160.34
80 - 84	67	0.31	35	0.16	32	0.15	109.38
85 - 89	32	0.15	15	0.07	17	0.08	88.24
90 - 94	15	0.07	7	0.03	8	0.04	87.50
95 - 99	3	0.01	2	0.01	1	0.00	200.00
100 and Over	1	0.00	1	0.00	0	0.00	1.00
Unspecified	358	1.63	181	0.83	177	0.81	102.26
TOTAL	21,939	100	11,213	51.11	10,726	49	105

Source: 112th General Census of Population and Housing, 2000.Expanded Questionnaire. INEGI.

## Appendix III

## Cd. Juárez, Chihuahua

## Population by Five-Year Age Groups and Gender

Age Groups	TOTAL	%	Men	%	Women	%	Male-Female Ratio
0 - 4	137,342	11.27	69,909	5.74	67,433	5.53	103.67
5 - 9	129,398	10.62	65,712	5.39	63,686	5.23	103.18
10 - 14	108,578	8.91	55,139	4.52	53,439	4.38	103.18
15 - 19	110,486	9.07	57,173	4.69	53,313	4.37	107.24
20 - 24	122,520	10.05	62,823	5.15	59,697	4.90	105.24
25 - 29	122,102	10.02	62,284	5.11	59,818	4.91	104.12
30 - 34	103,125	8.46	52,322	4.29	50,803	4.17	102.99
35 - 39	80,625	6.62	40,723	3.34	39,902	3.27	102.06
40 - 44	60,810	4.99	29,934	2.46	30,876	2.53	96.95
45 - 49	42,982	3.53	20,691	1.70	22,291	1.83	92.82
50 - 54	34,942	2.87	16,515	1.36	18,427	1.51	89.62
55 - 59	25,798	2.12	12,107	0.99	13,691	1.12	88.43
60 - 64	21,635	1.78	10,116	0.83	11,519	0.95	87.82
65 - 69	15,314	1.26	6,999	0.57	8,315	0.68	84.17
70 - 74	10,744	0.88	4,695	0.39	6,049	0.50	77.62
75 - 79	6,810	0.56	3,116	0.26	3,694	0.30	84.35
80 - 84	3,430	0.28	1,443	0.12	1,987	0.16	72.62
85 - 89	2,055	0.17	838	0.07	1,217	0.10	68.86
90 - 94	759	0.06	283	0.02	476	0.04	59.45
95 - 99	392	0.03	158	0.01	234	0.02	67.52
100 and Over	104	0.01	46	0.00	58	0.00	79.31
Unspecified	78,866	6.47	39,773	3.26	39,093	3.21	101.74
TOTAL	1,218,817	100.00	612,799	50	606,018	50	101.12

Source: 12th General Census of Population and Housing 2000

## Appendix IV

## Ojinaga, Chihuahua

## Population by Five-Year Age Groups and Gender

Age Groups	TOTAL	%	Men	%	Women	%	Male-Female Ratio
0 - 4	2,580	10.61	1,321	5.43	1,259	5.18	104.92
5 - 9	2,635	10.84	1,300	5.35	1,335	5.49	97.38
10 - 14	2,432	10.01	1,242	5.11	1,190	4.90	104.37
15 - 19	2,209	9.09	1,136	4.67	1,073	4.41	105.87
20 - 24	2,100	8.64	1,086	4.47	1,014	4.17	107.10
25 - 29	2,004	8.24	992	4.08	1,012	4.16	98.02
30 - 34	1,812	7.45	897	3.69	915	3.76	98.03
35 - 39	1,616	6.65	795	3.27	821	3.38	96.83
40 - 44	1,248	5.13	622	2.56	626	2.58	99.36
45 - 49	1,019	4.19	492	2.02	527	2.17	93.36
50 - 54	962	3.96	507	2.09	455	1.87	111.43
55 - 59	894	3.68	448	1.84	446	1.83	100.45
60 - 64	765	3.15	394	1.62	371	1.53	106.20
65 - 69	635	2.61	353	1.45	282	1.16	125.18
70 - 74	449	1.85	252	1.04	197	0.81	127.92
75 - 79	315	1.30	171	0.70	144	0.59	118.75
80 - 84	144	0.59	72	0.30	72	0.30	100.00
85 - 89	94	0.39	51	0.21	43	0.18	118.60
90 - 94	47	0.19	21	0.09	26	0.11	80.77
95 - 99	17	0.07	4	0.02	13	0.05	30.77
100 and Over	3	0.01	1	0.00	2	0.01	50.00
Unspecified	327	1.35	172	0.71	155	0.64	110.97
TOTAL	24,307	100.00	12,329	50.72	11,978	49.28	102.93

Source: 12th General Census of Population and Housing 2000

## Appendix V

**State of Chihuahua**  
 Coverage Status by District and Municipality.

Entity	Population Total	No coverage	Persons with health care coverage					Unspecified
			Total	IMSS	ISSSTE	Other	PEMEX/Def.	
<b>State of Chih.</b>	<b>3,052,907</b>	<b>1,199,283</b>	<b>1,716,041</b>	<b>1,503,407</b>	<b>126,883</b>	<b>81,457</b>	<b>12,006</b>	<b>137,683</b>
<b>District</b>								
Aldama	19,378	7,885	11080	9877	550	645	19	413
Aguiles Serdán	5327	2,062	3,174	2,833	137	221	1	71
Coyame	1708	1,317	338	290	14	34	0	53
Chihuahua	671,790	176,793	4,786,139	387,279	42,822	48,487	3,623	16,358
Delicias	116,426	32,037	82,219	69,893	8,971	2,530	1,303	2,170
Dr. B. Domínguez	3,853	3,030	700	522	121	58	0	123
Santa Isabel	4,759	3,392	1,270	1,025	109	131	5	97
Gran Morelos	3,875	289	1,517	1,382	84	52	1	69
Julimes	5,165	2,678	2,376	2,179	113	86	0	111
Manuel Benavides	1,746	1,475	217	117	39	61	0	54
Meoqui	40,018	16,760	22,566	20,138	1,492	979	26	692
Nonoava	2,946	2,538	339	187	96	41	15	69
Ojinaga	24,307	14,094	9,609	6,734	1,857	763	318	604
Rosales	14,969	5,720	9,103	8,296	502	245	70	146
San. Fco de Borja	2,331	1,702	568	432	59	79	79	61
Satevó	4,962	3,979	926	747	126	50	50	57
<b>Total District 01</b>	<b>923,560</b>	<b>275,751</b>	<b>4,932,141</b>	<b>511,931</b>	<b>57,092</b>	<b>54,462</b>	<b>5,510</b>	<b>21,148</b>
Ahumada	11,901	5,093	6,430	6,015	202	221	10	378
Guadalupe	10,032	5,591	4,200	3,949	131	106	15	241
Juárez	1,218,817	376,412	741,625	704,323	27,567	10,083	1,431	100,780
Práxedes Guerrero	8,905	4,884	3,890	3,633	194	66	3	131
<b>Total District 02</b>	<b>1,249,655</b>	<b>391,980</b>	<b>756,145</b>	<b>717,920</b>	<b>28,094</b>	<b>10,476</b>	<b>1,459</b>	<b>101,530</b>
Ascensión	21,939	14,022	6,667	5,932	488	164	88	1,250
Buenaventura	20,056	10,803	8,758	7,475	1,000	299	3	495
Casas Grandes	10,004	5,990	3,861	3,526	242	90	7	153
Galeana	3,876	3,183	669	553	26	85	7	24
Janos	10,214	7,939	2,146	1,742	247	155	2	129
N. C. Grandes	54,390	22,619	30,588	26,975	2,251	1,125	362	1,183
<b>Total District 05</b>	<b>120,479</b>	<b>64,556</b>	<b>52,689</b>	<b>46,203</b>	<b>4,254</b>	<b>1,918</b>	<b>469</b>	<b>3,234</b>

Source: 12th General Census of Population and Housing 2000. Basic tables. INEGI.

## Appendix VI

**State of Chihuahua**  
 Healthcare Coverage Status by Institution. 2000

Category	Population Total	Total %	Percent of use of health services (a)					In another institution		Non users
			En el IMSS %	ISSSTE %	PEMEX Defensa	SSA	IMSS/Sol	Public (b)	Private ©	
Chihuahua	3037366	95.4	49.3	4.1	0.3	8.5	3.2	3.6	31	3
No coverage	1189567	91.9	4	0.1	ns	22	7.8	1.2	65	6.8
With coverage	1774504	98.1	79.4	6.8	0.4	0.4	0.3	4.4	8.4	0.5
IMSS	1553654	98.2	90.4	0.4	ns	0.3	0.3	0.2	8.3	0.5
SSSTE	133057	99.1	3.4	86.8	0.1	0.9	0.5	1.2	7	0.4
PEMEX Military Services	7580	98.7	1.6	0.2	93.9	0.7	0.2	0.2	3.2	0.7
In another institution	89184	95.9	0.8	0.6	ns	0.5	0.2	86.2	11.7	0.4
Unspecified	73295	88	5.2	0.3	ns	1.5	3.2	21.7	68.1	0.8

MI Sample size insufficient

(a) Number of users of health services as a percentage of total population.

The percentage for each institution was calculated based on the total users of their services.

(b) Includes state government social security institutions.

(c) Includes persons receiving care from private physicians.

SOURCE: INEGI. EUM. General Census of Population and Housing, 2000. Tables of the Census Sample, Expanded Questionnaire. 2000.



## Appendix VII

## State of Chihuahua

Material and Human Resources of the Healthcare Sector  
by District. 1999

Category	State of Chihuahua	District 01 Chihuahua	District 02 Juárez	District 05 Nvo. Casas Grandes
Medical facilities	534	104	50	28
1st level	32	10	4	1
Second level	4	2	1	0
Third level	2319	1134	632	23
Reportable beds	1710	561	321	78
Doctors' offices	1432	516	320	47
Total physicians	3731	741	288	58
Med. Generales	1579	269	106	39
Specialists	1253	380	151	17
Other activity	899	92	31	2
Total nurses	5336	1134	410	23
In contact	5271	1096	399	23
Other activity	65	38	11	0

Source: City Health Figures. Data Bases, 1999. INEGI.

## Appendix VIII

## State of Chihuahua

Healthcare sector services provided in border districts.  
1999.

Category	State of Chihuahua	District 01 Chihuahua	District 02 Juárez	District 05 Nvo. Casas Grandes
Total consultations	7033937	2840720	1145744	225695
General consultations	5048075	1880185	1179672	175926
Specialized consultations	935304	502597	273006	16604
Emergencies	759729	347091	208202	24530
Dental	290829	110847	84864	8635
Hospital discharges	144565	64345	37819	4492
Surgeries	88366	39897	26485	2444
Births	48920	17533	17489	1710
Family Planning				
Active Users	303251	10272	4049	1892

Source: City Health Figures. Data Bases, 1999. INEGI.

## Appendix IX

## State of Chihuahua

Utilization of services

Año 1999 Category	Population Total	Percent of use of health services (a)							In another institution		Non-users
		Total %	IMSS %	ISSSTE %	PEMEX Defensa	SSA	IMSS/Sol	Public (b)	Private ©		
Chihuahua	3037366	95.4	49.3	4.1	0.3	8.5	3.2	3.6	31	3	
No coverage	1189567	91.9	4	0.1	ns	22	7.8	1.2	65	6.8	
With coverage	1774504	98.1	79.4	6.8	0.4	0.4	0.3	4.4	8.4	0.5	
IMSS	1553654	98.2	90.4	0.4	ns	0.3	0.3	0.2	8.3	0.5	
ISSSTE	133057	99.1	3.4	86.8	0.1	0.9	0.5	1.2	7	0.4	
PEMEX Military Services	7580	98.7	1.6	0.2	93.9	0.7	0.2	0.2	3.2	0.7	
In another institution	89184	95.9	0.8	0.6	ns	0.5	0.2	86.2	11.7	0.4	
Unspecified	73295	88	5.2	0.3	ns	1.5	3.2	21.7	68.1	0.8	

MI Sample size insufficient

NS Not significant

(a) Number of users of health services as a percentage of total population.

The percentage for each institution was calculated based on the total users of their services.

(b) Includes state government social security institutions.

(c) Includes persons receiving care from private physicians.

SOURCE: INEGI. EUM. General Census of Population and Housing, 2000. Tables of the Census Sample, Expanded Questionnaire. 2000.

## State of Chihuahua

Budget Expended by Program Category and Institution (thousands of pesos)

Code	programmatic category	Total	General population			Persons with coverage			
			Total	SSA	IMSS/Sol	Total	IMSS	ISSSTE	PEMEX
	total budget	3619037	665683.4	521938.3	143745.1	2953353.6	2722086.5	197740.3	33526
Ramo 12	health	3137233.2	183879.6	40134.5	143745.1	2953353.6	2722086.5	197740.3	33526
	health	3131628.4	178274.8	40134.5	138140.3	2953353.6	2722086.5	197740.3	33526
800	shared services	549731.7	0	0	0	549731.7	514855.1	34876.6	0
7000701	Administering human and financial resources	549731	0	0	0	549731.7	514855.1	34876.6	0
801	Public Health Services	45706.5	45706.5	40134.5	5572	0	0	0	0
27005419	Providing health services PROGRESA	5572	5572	0	5572	0	0	0	0
27006419	Providing health services (PAC)	40134.5	40134.5	40134.5	0	0	0	0	0
802	Healthcare	2536190.2	121619.7	0	121619.7	2215529.7	2057688.9	157840.8	0
7000420	providing health care	2337149.4	121619.7	0	121619.7	2215529.7	2057688.9	157840.8	0
7000433	Conducting scientific and technological research	924.6	0	0	0	117596.6	116114.5	1482.1	0
7000437	Developing basic infrastructure	117596.6	0	0	0	117596.6	116114.5	1482.1	0
7000438	Maintaining basic infrastructure	19781	8556.7	0	8556.7	11224.5	9536.4	1688.1	0
7000701	Administering human and financial resources	33526.8	0	0	0	33526.8	0	0	33526.8
7000703	Training public servants	27211.6	2391.9	0	2391.9	24819.7	23580.2	1239.5	0
	Supply and Social Assistance	5604.8	5604.8	0	5604.8	0	0	0	0
Budget line 33	Federal contributions to states and cities	481803.8	481803.8	481803.8	0	0	0	0	0
80227000419	Providing health services (decentralization)	438846.2	438846.2	438846.2	0	0	0	0	0
80227000437	Developing basic infrastructure	12270.5	12270.5	12270.5	0	0	0	0	0
90327000707	Paying federal government contributions	30687	30687	30687	0	0	0	0	0

Source: Health in Chihuahua Map, 1999 SSA

## Appendix XI

**Border Cities of the State of Chihuahua  
Population by Healthcare Coverage Status, Health Resources  
and Productivity**

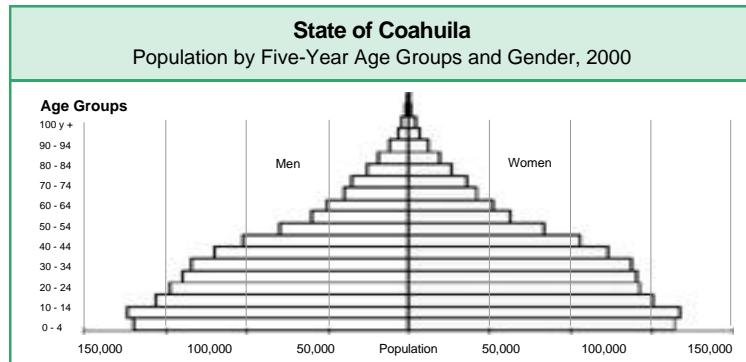
Category	State	Janos	Ascension	Juarez	Ojinaga	Guadalupe	Praxedis
Total population	3052907	10214	21939	1218817	24307	10032	8905
Persons with coverage	1716041	2146	6667	741625	9 609	4200	3890
Number of users	3 451 509	8 900	22 651	1 290 795			5 315
<b>Social security</b>							
IMSS	1503 407	1742	5932	704323	6 734	3949	3633
ISSSTE	126883	247	488	27567	1 857	131	194
SDN/PEMEX	12006	2	88	1431	318	10	3
State civil pensions	81457	155	164	10083	763	106	66
<b>Social Assistance</b>							
IMSS-Solidaridad	241 104	1 540	0	0	14 94	5 435	
SSCH	1 153 336	7 153	16 270	464 201			5 55
ICHISAL	404 884	0	0	88 301			
<b>Human Resources</b>							
Physicians	4 255	4	14	10 78	29	6	3
Social security					21		
IMSS	1 985	0	8	694	7	4	1
ISSSTE	399	1	2	112	6		
SDN	44	0	1	4	2	1	
State civil pensions	542	0	1	69	6		
Social Assistance					8		
IMSS Solidaridad	202	1	0	0	1	1	
SSCH	698	3	2	92	7		2
ICHISAL	385	0	0	107	0		
Paramedics	8 555						
Other	7 752						
<b>Physical resources</b>							
medical facilities	500	3	8	47	8	3	4
outpatient visits	458	3	8	42	6	1	1
Hospitalization	36		0	4	2		
Specialties	6		0	1			
Social security	125			17	5		
Outpatient visits	102		5	14	4		
Hospitalization	57			3	1		
Specialties	7						
Of Social Assistance	375			30	3		
Outpatient visits	356	3	3	28	2	2	3
Hospitalization	14			1	1		
Specialties	5			1			
Home care	272	1					
<b>Productivity</b>							
Outpatient visits	8 077 749	10 528	25 102	2 109 989	81875	26 395	4 080
Social security							
IMSS	4 496 969		15 711	1 724 802		22 083	
ISSSTE	579 077		1 048	99 673			
SDN	56 701		196	3 888			332
State civil pensions	911 405	1 031	1553	112 089		1 81	
Social Assistance							
IMSS Solidaridad	538 005	4 936					
SSCH	1 194 732	4 561	6 594	107 494			
ICHISAL	300 860			16 788			

Source: Chihuahua Statistical Yearbook. 2000 edition. INEGI. 2000

# Diagnostic of Healthcare Resources in the State of Coahuila

## Demography

As of December 1999, the population of the state of Coahuila was 2,298,070, representing 2% of the state's population and 12% of the population of Mexico's six northern border states.



Source: 12th General Census of Population and Housing 2000

32.42% of the population is in the pre-productive age, 62.92% is in the productive age, and 4.66% is in the post-productive age. The male-to-female ratio was 0.9847.

There are 8 sanitary districts in Coahuila, two of which share a border with the U.S.: District 01 headquartered in Piedras Negras, and District 02 headquartered in Ciudad Acuña. Together the two districts have 321,880 inhabitants represent 13% of the state's population. 34% of the population of both of the districts is in the pre-productive age, 61.86% are in the productive age, and 4.04% are in the post-productive age. The male-to-female ratio was 1.02.

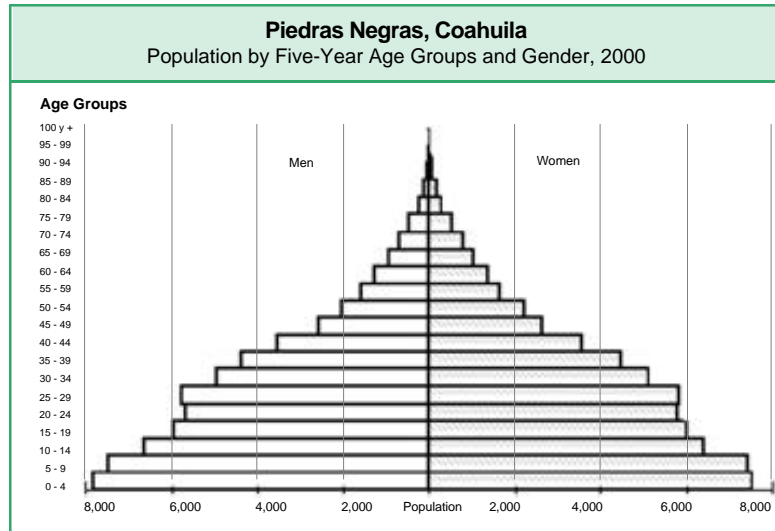
Sanitary district 01 (Piedras Negras) has six cities including Piedras Negras and has 181,742 inhabitants. 34.23% of the population of both of the districts is in the pre-productive age, 59.27% are in the productive age, and 6.48% are in the post-productive age. 2.1% of the population did not specify age and the male-to-female ratio was 0.99.

Sanitary district 02 (Ciudad Acuña) has 4 cities including Acuña and has 140,138 inhabitants. 33.91% of the population of both of the districts is in the pre-productive age, 60.6% are in the producti-

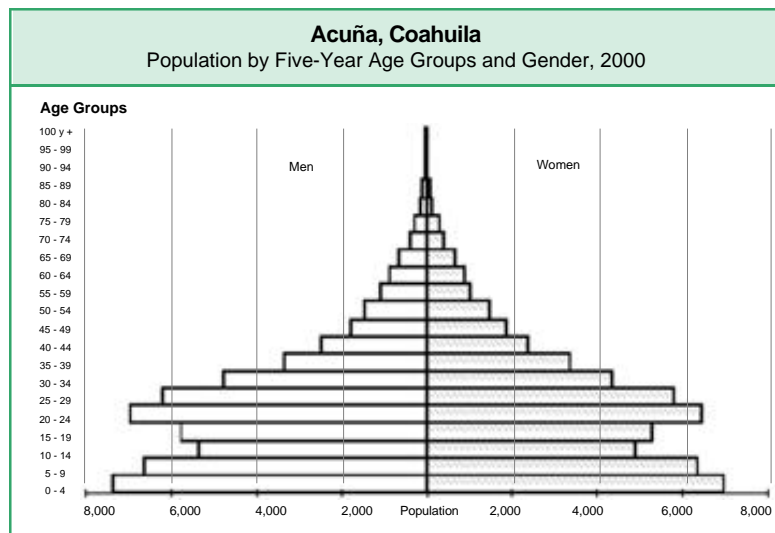
ve age, and 3.59% are in the post-productive age. 1.88% of the population did not specify age and the male-to-female ratio was 1.04.

Piedras Negras shares a border with Eagle Pass, Maverick County, Texas and has a population of 128,130 inhabitants of which 33.74% are in the pre-productive age, 59.6% are in the productive age and 2.86% are in the post-productive age. 2.05% did not specify age and the male-to-female ratio was 1.05.

Acuña shares a border with Del Rio, in the county of Valverde, Texas and has 110,487 inhabitants of which 33.74% are in the pre-productive age, 59.6% are in the productive age, and 4.23% are in the post-productive age. 2.44% of the population did not specify age and the male-to-female ratio was 0.99.



Source: 12th General Census of Population and Housing 2000



Source: 12th General Census of Population and Housing 2000

## Healthcare coverage

71% of the population of Coahuila is covered by social security. 62% of the population is affiliated with IMSS, 7% with ISSSTE and 1% with other social security institutions. 28% of the population is not covered by social security and 2% did not specify their status.

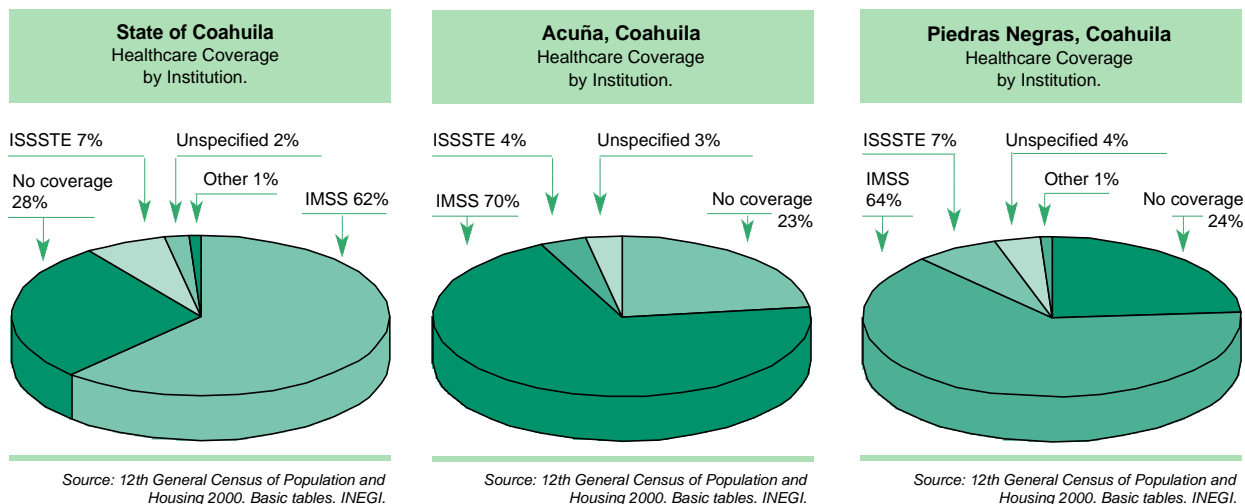
71.6% of the population in the two border sanitary districts (Acuña and Piedras Negras) is covered by social security; 65.5% is affiliated with IMSS, 5.8% by ISSSTE, and 0.8% by other institutions. 25.2% of the population of both districts does not have social security coverage and 3.1% did not specify their status.

In Sanitary district 01 (Piedras Negras), 65.2% of the population is affiliated with IMSS, 5.8% with ISSSTE, and 0.3% with other institutions. 25.64% of the population does not have social security coverage and the rest did not specify their type of coverage.

In Sanitary district 02 (Ciudad Acuña), 65.8% of the population is covered by IMSS, 5.9% by ISSSTE, and 0.8% by other kind of institution. 24.8% of the population does not have social security coverage and the rest did not specify their type of coverage.

In the Municipality of Piedras Negras, 64.5% of the population is affiliated with IMSS, 6.8% with ISSSTE, and 0.9% with other social security institutions. 24.6% of the population does not have social security protection and the rest did not specify their type of coverage.

In the Municipality of Acuña, 69.5% of the population is affiliated with IMSS, 4.4% with ISSSTE, and 0.5% with another social security institution. 23.2% of the population does not have social security coverage and the rest did not specify their status.



## Use of Healthcare Services

The use of healthcare services in the state of Coahuila was as follows: 58% used IMSS; 19% sought private care; 10% used the SSA; and 6% used ISSSTE, 3% used IMSS/Sol. 2% of the population did not use any service.

## Healthcare Human Services

The human resources department of healthcare in the state of Coahuila employs 22,915 employees, 16.56% of which are in the private sector. Job distribution in the public sector is as follows: 67% in the IMSS, 16% in Coahuila State Health Services, 7% in the ISSSTE, and 5% in SNTE, 3% in IMSS/Solidaridad and 2% in the University of Coahuila.

There are 2.29 medical positions filled by physicians per 1,000 inhabitants; 39.1% are in the private sector. In the public sector, positions are distributed as follows: 48% in the IMSS, 20% in the ISSSTE; 18% in the SNTE; 7% in the University of Coahuila.

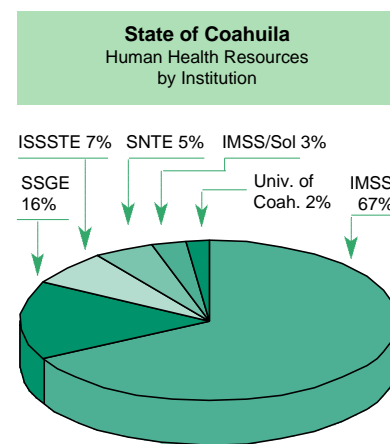
The number of nurses per 1,000 inhabitants is 3.025. 14.41% are in the private sector. In the public sector, 76% are in IMSS, 10% in ISSSTE, 6% in SNTE, 4% in IMSS/Solidaridad and 4% in the University of Coahuila.

**State of Coahuila**  
Health Resources as of December 1999

Category	Total Health Sector	Social security			Social Assistance			Private
		IMSS	ISSSTE	SNTE	IMSS/Sol	SSGC	Univ.Coah	
Total	19 658	13022	1459	1025	494	3172	486	3257
Medical personnel	4 329	2 332	407	366	131	951	142	2006
Direct contact with patient	4 064	2 151	390	366	121	896	140	1980
General Physicians	1 378	812	132	124	67	233	10	216
Specialist Physicians	1 895	959	237	192	4	431	72	1683
Residents	252	202				16	34	3
In Social Service	333	89			44	178	22	3
dentists	206	89	21	50	6	38	2	75
In other duties	265	181	17		10	55	2	26
Paramedic personnel	7 951	5 417	531	290	197	1 345	171	1251
Nurses	6 019	3669	465	290	187	1 237	171	1003
Auxiliary	1 886	1 385	109	73	179	81	59	197
General	2 526	1 447	211	178		610	80	538
Specialized	949	685	91	39		108	26	200
Other	658	152	54		8	438	6	68
Other personnel	1 932	1 748	66		10	108		644
Aux. Dx services personnel	937	626	57	56	9	157	22	248
Administrative personnel	3 172	1 890	280	289	50	600	63	450
Other personnel	3 269	2 757	174	24	107	119	88	644
Reportable beds	2 282	1 365	197	124	85	411	100	602
Non-reportable beds	1 217	533	148	23	32	430	51	335
Incubators	173	97	13	16	6	32	9	89
Doctors' offices	1 530	694	154	74	113	471	24	371
Ambulantes	145	73	29	12	3	27	1	
Emergency care areas	58	33	5	6	3	10	1	
Intensive care areas	14	5	2	5		1	1	
Laboratories	61	25	6	6	3	20	1	41
X-ray machines	60	25	11	5	3	14	2	26
Operating Rooms	97	45	10	12	3	23	4	81
Delivery rooms	92	20	5	6	3	55	3	44
Blood banks	13	8	2	1		1	1	7
Pharmacies	101	46	9	9	3	33	1	

Source: Statistical Yearbook Coahuila, 2000 edition.

According to the 12th General Census of Population and Housing 2000, basic tabulations, the cities of Piedras Negras and Acuña have 0.47 and 0.79 physicians per 1,000 inhabitants and 0.6 and 0.82 nurses per 1,000 inhabitants, respectively. However, according to the information obtained by the Annual Statistics of Coahuila, 2000, in 1999, the city of Piedras Negras had 340 physicians working in the public sector, considering the estimated population of that same year this is an equivalent of 2.9 physicians per 1,000 inhabitants. According to this information source, the same year in the city of Acuña, 169 physicians work in the public sector, equal to 2.07 physicians per 1,000 inhabitants.



Source: Statistical Yearbook Coahuila, 2000 edition.  
INEGI

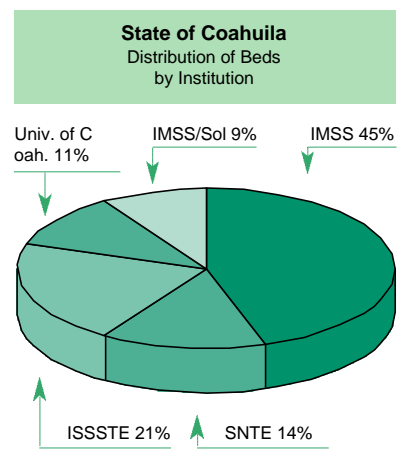


## Physical Resources for Healthcare

According to indicators, the number of hospital beds in the state of Coahuila is 1.3 per 1,000 inhabitants. Of them, 20% are in the private sector. In the public sector, hospital beds are distributed in the following manner: IMSS 45%, SNTE 14%, ISSSTE 21%, University of Coahuila 11% and IMSS/Solidaridad 9%.

In Coahuila, there are 0.72 doctor's offices per 1,000 inhabitants. 29% are in the private sector. Of those in the public sector, 37% correspond to Coahuila State Health Services; 12% in ISSSTE; 5% in IMSS, 9% in IMSS/Sol and 2% in the University of Coahuila.

In the city of Piedras Negras there are 1.1 hospital beds per 1,000 inhabitants and 0.53 physicians per 1,000 inhabitants, while the city of Acuña has 2.29% hospital beds per 1,000 inhabitants and 0.75 doctor's offices per 1,000 inhabitants.



Source: Statistical Yearbook Coahuila, 2000 edition.  
INEGI

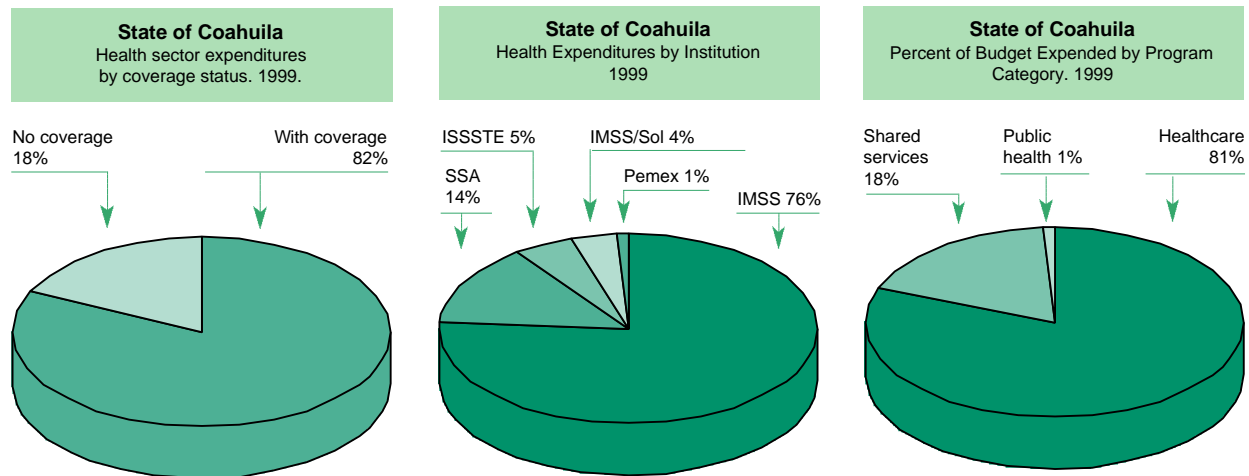
## Financial Resources

The Coahuila State Healthcare budget in 1999 was 3,395,018,500 pesos, which corresponds to 1,477.35 pesos per inhabitant. 82% was spent on a population without social security coverage and 18% went to the general public.

The budget was distributed to institutions in the following manner: 76% in IMSS, 14% in SSA, and 5% in ISSSTE, 4% in IMSS/Solidaridad and 1% in PEMEX.

As far as the budget expenses in different categories, 81% went to medical care, 18% to shared services, and 1% went to public health services.

That same year, the contribution of the "Ramo 33" Federation totaled 363.1 million pesos, 157.96 pesos per 1,000 inhabitants ■



Source: Coahuila Health Map, 1999 SSA

## Appendixes

## Appendix I

State of Coahuila  
Population by Five-Year Age Groups and Gender

Age Groups	TOTAL	%	Men	%	Women	%	Male-Female Ratio
	2,298,070	100.00	1,140,195	49.62	1,157,875	50.38	98.47
0 - 4	253,171	11.02	129,130	5.62	124,041	5.40	104.10
5 - 9	257,228	11.19	130,718	5.69	126,510	5.51	103.33
10 - 14	234,659	10.21	119,135	5.18	115,524	5.03	103.13
15 - 19	225,416	9.81	113,776	4.95	111,640	4.86	101.91
20 - 24	223,857	9.74	110,790	4.82	113,067	4.92	97.99
25 - 29	204,662	8.91	99,588	4.33	105,074	4.57	94.78
30 - 34	179,690	7.82	86,903	3.78	92,787	4.04	93.66
35 - 39	157,386	6.85	76,375	3.32	81,011	3.53	94.28
40 - 44	128,951	5.61	63,095	2.75	65,856	2.87	95.81
45 - 49	98,997	4.31	48,525	2.11	50,472	2.20	96.14
50 - 54	82,932	3.61	40,702	1.77	42,230	1.84	96.38
55 - 59	63,057	2.74	30,959	1.35	32,098	1.40	96.45
60 - 64	53,853	2.34	26,017	1.13	27,836	1.21	93.47
65 - 69	39,173	1.70	18,870	0.82	20,303	0.88	92.94
70 - 74	28,943	1.26	13,890	0.60	15,053	0.66	92.27
75 - 79	19,396	0.84	9,322	0.41	10,074	0.44	92.54
80 - 84	10,102	0.44	4,679	0.20	5,423	0.24	86.28
85 - 89	6,051	0.26	2,555	0.11	3,496	0.15	73.08
90 - 94	2,420	0.11	991	0.04	1,429	0.06	69.35
95 - 99	1,027	0.04	428	0.02	599	0.03	71.45
100 and Over	253	0.01	87	0.00	166	0.01	52.41
Unspecified	26,846	1.17	13,660	0.59	13,186	0.57	103.59
TOTALES	2,298,070	100.00	1,140,195	49.62	1,157,875	50.38	98.47

Source: 12th General Census of Population and Housing 2000

## Appendix II

**Acuña Coahuila**  
Population by Five-Year Age Groups and Gender

Age Groups	TOTAL	%	Men	%	Women	%	Male-Female Ratio
0 - 4	14,307	12.95	7,340	6.64	6,967	6.31	105.35
5 - 9	12,991	11.76	6,624	6.00	6,367	5.76	104.04
10 - 14	10,226	9.26	5,328	4.82	4,898	4.43	108.78
15 - 19	11,065	10.01	5,779	5.23	5,286	4.78	109.33
20 - 24	13,417	12.14	6,952	6.29	6,465	5.85	107.53
25 - 29	11,999	10.86	6,175	5.59	5,824	5.27	106.03
30 - 34	9,119	8.25	4,748	4.30	4,371	3.96	108.63
35 - 39	6,703	6.07	3,349	3.03	3,354	3.04	99.85
40 - 44	4,851	4.39	2,471	2.24	2,380	2.15	103.82
45 - 49	3,640	3.29	1,755	1.59	1,885	1.71	93.10
50 - 54	2,892	2.62	1,423	1.29	1,469	1.33	96.87
55 - 59	2,112	1.91	1,067	0.97	1,045	0.95	102.11
60 - 64	1,730	1.57	841	0.76	889	0.80	94.60
65 - 69	1,290	1.17	633	0.57	657	0.59	96.35
70 - 74	784	0.71	382	0.35	402	0.36	95.02
75 - 79	567	0.51	274	0.25	293	0.27	93.52
80 - 84	272	0.25	128	0.12	144	0.13	88.89
85 - 89	165	0.15	78	0.07	87	0.08	89.66
90 - 94	48	0.04	16	0.01	32	0.03	50.00
95 - 99	35	0.03	14	0.01	21	0.02	66.67
100 and Over	5	0.00	4	0.00	1	0.00	400.00
Unspecified	2,269	2.05	1,186	1.07	1,083	0.98	109.51
TOTAL	110,487	100.00	56,567	51.20	53,920	49	105

Source: 12th General Census of Population and Housing 2000

## Appendix III

**Piedras Negras Coahuila**  
Population by Five-Year Age Groups and Gender

Age Groups	TOTAL	%	Men	%	Women	%	Male-Female Ratio
4	15,336	11.97	7,806	6.09	7,530	5.88	103.67
5 - 9	14,875	11.61	7,466	5.83	7,409	5.78	100.77
10 - 14	13,015	10.16	6,614	5.16	6,401	5.00	103.33
15 - 19	11,969	9.34	5,933	4.63	6,036	4.71	98.29
20 - 24	11,441	8.93	5,657	4.42	5,784	4.51	97.80
25 - 29	11,599	9.05	5,752	4.49	5,847	4.56	98.38
30 - 34	10,062	7.85	4,951	3.86	5,111	3.99	96.87
35 - 39	8,849	6.91	4,364	3.41	4,485	3.50	97.30
40 - 44	7,094	5.54	3,540	2.76	3,554	2.77	99.61
45 - 49	5,212	4.07	2,573	2.01	2,639	2.06	97.50
50 - 54	4,235	3.31	2,018	1.57	2,217	1.73	91.02
55 - 59	3,243	2.53	1,587	1.24	1,656	1.29	95.83
60 - 64	2,642	2.06	1,272	0.99	1,370	1.07	92.85
65 - 69	1,962	1.53	932	0.73	1,030	0.80	90.49
70 - 74	1,478	1.15	686	0.54	792	0.62	86.62
75 - 79	997	0.78	474	0.37	523	0.41	90.63
80 - 84	499	0.39	210	0.16	289	0.23	72.66
85 - 89	285	0.22	117	0.09	168	0.13	69.64
90 - 94	135	0.11	47	0.04	88	0.07	53.41
95 - 99	52	0.04	13	0.01	39	0.03	33.33
100 and Over	19	0.01	2	0.00	17	0.01	11.76
Unspecified	3,131	2.44	1,573	1.23	1,558	1.22	100.96
TOTAL	128130	100	63,587	50	64,543	50.37	99

Source: 12th General Census of Population and Housing 2000

## Appendix IV

## State of Coahuila

Coverage of Services and Human Resources in Border Municipalities. 1999

Entity	Total Population	No coverage	Covered by health services					Unspecified
			Total	IMSS	ISSSTE	PEMEX/Def.	Other	
Estado de Coahuila	2298070	652972	1601684	1419616	156992	6731	28894	43414
Allende	20943	6381	14241	13001	1143	4	214	321
Guerrero	2050	878	1084	1034	22	0	33	88
Hidalgo	1441	1051	331	291	25	0	15	59
Nava	23019	4499	18229	17847	399	0	23	291
Piedras Negras	128130	31539	91951	82676	8769	82	1100	4640
Villa Unión	6159	2259	3750	3619	121	1	11	150
Total District 01	181742	46607	129586	118468	10479	87	1396	5549
Acuña	110487	25599	81996	76840	4867	292	263	2892
Jimenez	9724	4099	5497	5164	320	3	14	128
Morelos	7263	2105	4969	4616	353	0	6	189
Zaragoza	12664	4465	7996	7070	892	0	47	203
Total district02	158749	39348	114261	104433	9314	83	1149	5140
District 01 + 02	340491	85955	243847	222901	19793	170	2545	10689

Source: 12th General Census of Population and Housing 2000. Basic tables. INEGI.

## Appendix V

## State of Coahuila

Coverage of Services and Human Resources in Border Municipalities. 1999

Category	State	Cd. Acuña	Jimenez	Piedras Negras	Nava	Guerrero	Hidalgo
Total population (1999)	2 227 305	81 602	9 328	116 148	20 502	2 184	1 271
Persons with coverage	1 790 842	102 816	18	112 577	17 437	17	19
Affiliated with IMSS	1 582 296	95 068		99260	16 841		
Affiliated with ISSSTE	192 001	7 428		12 468	541		
Affiliated with SENTE (*)	16 545	320	18	849	55	17	19
Number of users	1 534 661	92 451	32	101 530	14 324	50	32
IMSS	1 330 616	12 368		88 932	13 741		
ISSSTE	163 200	1 092		10 598	460		
SENTE	40 845	700	101	2 000	123	50	32
Human resources							
Public sector medical personnel	4 329	169	2	341	17	1	
Social security							
IMSS	2 332	94		158	16		
ISSSTE	407	11		43	1		
SNTE	366	4		31			
Social Assistance							
IMSS/Solidaridad	131		2			1	
State health department	951	60		108			
Universidad Autónoma de Coahuila	142						
Doctors' consultations	7 005 788	357 853		510 878	73 549		
IMSS	4 959 022	255 704		341 557	72 180		
ISSSTE	847 411	31 322		64 030	1 369		
SNTE							
IMSS/Solidaridad							
State health department	1 165 788	70 827		105 291			
Universidad Autónoma de Coahuila	33 567						
General consultations	4 540 531			315 729	38 837		
Specialized consultations	1 051 502			66 851			
Emergencies	1 068 700			97 810	31 655		
Dental	345 055			30 488	3 057		

Source: Statistical Yearbook of Coahuila, 2000 Edition

## Appendix VI

**State of Coahuila**  
Budget Expended by Program Category and Institution (thousands of pesos)

Code	programmatic category	Total	General population			Persons with coverage			
			Total	SSA	IMSS/Sol	Total	IMSS	ISSSTE	PEMEX
	Total budget	3395018.5	455713.2	363000.1	92713.1	2939305.3	2737514.5	190374.7	11416.1
Ramo 12	Health	3032018.4	92713.1	0	92713.1	2939305.3	2737514.5	190374.7	11416.1
	Health	3026999.2	87693.9	0	87693.9	2939305.3	2737514.5	190374.7	11416.1
800	Shared services	557855.6	0	0	0	557855.6	529099.1	28756.5	0
7000701	Administering human and financial resources	557855.6	0	0	0	557855.6	529099.1	28756.5	0
801	Public Health Services	2995.3	2995.3	0	2995.3	0	0	0	0
27005419	Providing health services PROGRESA	2995.3	2995.3	0	2995.3	0	0	0	0
27006419	Providing health services (PAC)	0	0	0	0	0	0	0	0
802	Healthcare	2466148.3	84698.6	0	84698.6	2381449.7	2208415.4	161618.2	11416.1
7000420	providing health care	2354411.2	73771.1	0	73771.1	2280640.1	2122886.2	157753.9	0
7000433	Conducting scientific and technological research	900.5	0	0	0	900.5	286.2	614.3	0
7000437	Developing basic infrastructure	31872.6	0	0	0	31872.6	31591.8	1438.2	0
7000438	Maintaining basic infrastructure	23027.4	9746.4	0	9746.4	13281	11842.8	1438.2	0
7000701	Administering human and financial resources	11416.1	0	0	0	11416.1	0	0	11416.1
7000703	Training public servants	44520.5	1181.1	0	1181.1	43339.4	41808.4	1531	0
	Supply and Social Assistance	5019.2	5019.2	0	5019.2	0	0	0	0
Ramo 33	Federal contributions to states and cities	363000.1	363000.1	363000.1	0	0	0	0	0
80227000419	Providing health services (decentralization)	328753.7	328753.7	328753.7	0	0	0	0	0
80227000437	Developing basic infrastructure	6228.4	6228.4	6228.4	0	0	0	0	0
90327000707	Paying federal government contributions	28018.1	28018.1	28018.1	0	0	0	0	0

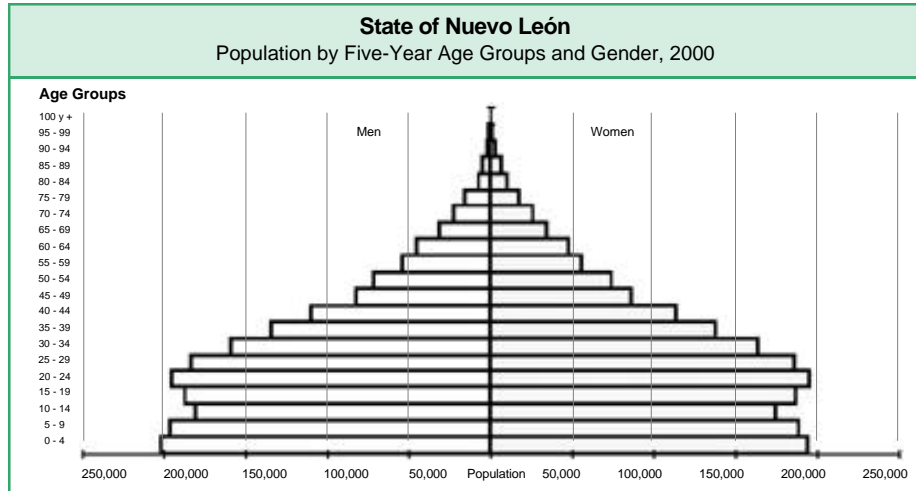
Source: Health in Chihuahua Map. 1999 SSA

Diagnostic of Healthcare Resources in the State of Nuevo León

# Nuevo León

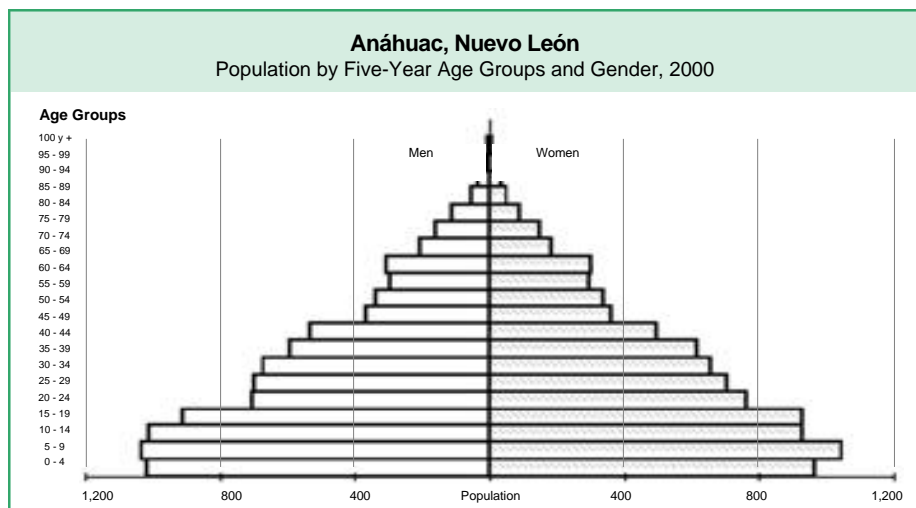
## Demography

As of December 1999, the population of the state of Nuevo León was 3,834,141. 29.66% of the population of the state is in the pre-productive age, 64.38% is in the productive age, and 4.77% is in the post-productive age. 1.19% did not specify their age. The male-to-female ratio was 0.9905.



Source: 112th General Census of Population and Housing, 2000.

There are 8 sanitary districts in Nuevo Leon. Only District 05 headquartered in Hidalgo is a border state, with the city of Anáhuac which shares a border with the state of Texas. This district has a population of 73,388. 29.9% of the sanitary districts' population is in the pre-productive age, 59.43% is in the productive age, and 7.49% is in the post-productive age. The male-to-female ratio is 1.0.



Source: 112th General Census of Population and Housing, 2000.

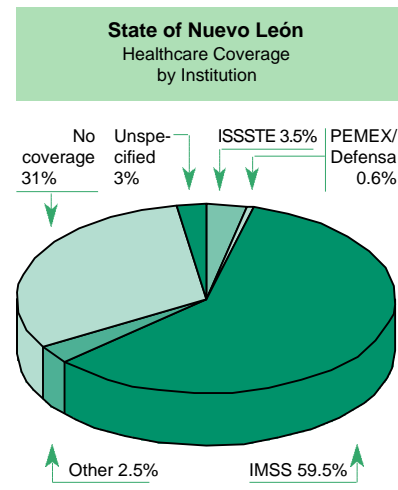
The city of Anáhuac has a population of 18,524. 32.37% of the population is in the pre-productive age, 58.71% is in the productive age, and 6.02% is in the post-productive age. The male-to-female ratio is 1.01.

## Healthcare Coverage

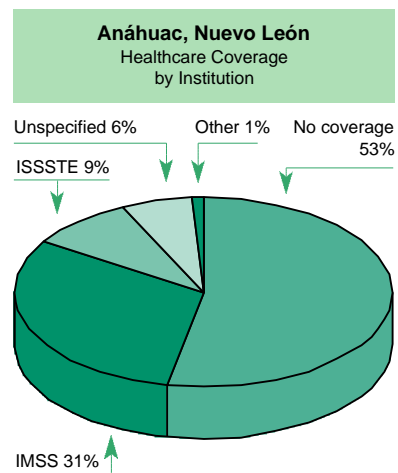
66% of the population of the state of Nuevo León has access to healthcare services through social security. 59.5% of the population is affiliated with IMSS, 3.5% with ISSSTE, 0.6% with PEMEX, Defense and Navy, and 2.5% with another institution. 31% does not have social security coverage and 3% did not specify their type of coverage.

45% of the population of the Sanitary district 05 (Sabinas Hidalgo) is covered by social security. Of this, 37% of the population is affiliated with IMSS, 6% with ISSSTE, and 2% with another institution. 50% does not have social security coverage and 5% did not specify their type of coverage.

In the city of Anáhuac, 31% of the population is affiliated with IMSS, 9% with ISSSTE, and 1% with another institution. 53% does not have social security coverage and 6% did not specify their type of coverage.



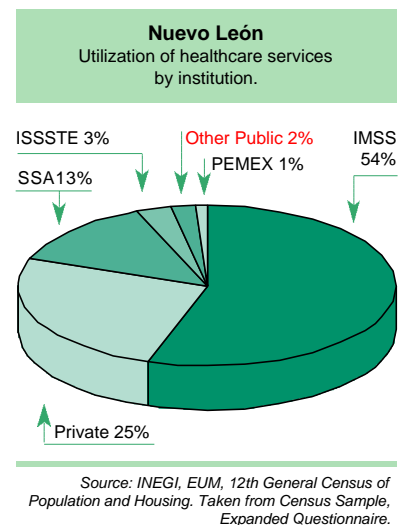
Source: 12th General Census of Population and Housing 2000. Basic tables. INEGI.



Source: 12th General Census of Population and Housing 2000. Basic tables. INEGI.

## Use of Healthcare Services

In 1999, the use of healthcare services in the state of Nuevo León was as follows: 54% of the inhabitants receive care from IMSS, 25% goes to private institutions, 13% makes use of SSA, 3% goes to ISSSTE, and 2% go to other social security institutions and 1% to PEMEX and SEDENA medical services.



## Human Resources for Healthcare

The Nuevo León State Healthcare system employs a total of 34,148 employees in public and private institutions. 9,104 (36.35%) of them work in the private sector, 25,044 in the public sector. 57% of jobs in this sector are in the IMSS, 19% in the SSA, 11% in University Facilities, 8% in ISSSTE, 2% in ISSSTE/León; and the rest in PEMEX, SEDENA, Red Cross, etc.

There are 2.342 physicians per 1,000 inhabitants. 47.4% are in the private sector. The job distribution in the public sector is as follows: IMSS 51%, SSA 23%, University Infirmaries 13%, ISSSTE 8%, ISSSTE/León 3% and PEMEX 1%. The rest are Red Cross, SEDENA, etc.

The number of nurses employed in the state per 1,000 inhabitants is 3.045. 20% are in the private sector. The distribution of public sector nurses was as follows: IMSS 53%, SSA 28%, University Facilities 9%, ISSSTE 7%, ISSSTE/León 1%. The rest are in Red Cross and SEDENA.

In Sanitary district 05 (Sabinas Hidalgo) has 100 physicians, equal to 1.36 per 1,000 inhabitants and 95 nurses (1.29 per 1,000 inhabitants.)

The city of Anáhuac has 4 physicians (0.21 per 1,000 inhabitants) and 3 nurses (0.16 per 1,000 inhabitants.)



**State of Nuevo León**

Material and Human Resources by Type of Facility in Public institutions of the National Health System. 1999

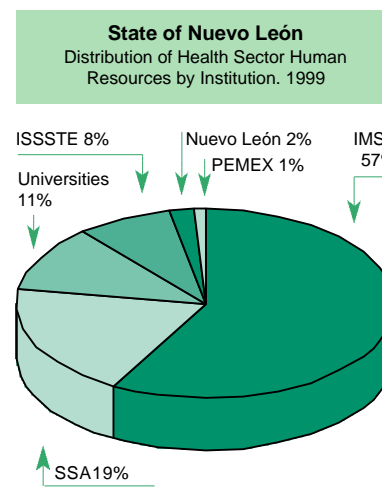
Category	Total		General population (Health Sector)				Persons with coverage					
	Health Sector	Private Sector	Total	SSA	Universitarios	Cruz Roja	Total	IMSS	ISSSTE	PEMEX	SDN	ISSSTE/León
Recursos Humanos	25044	9104	7688	4743	2783	162	17356	14261	2031	362	138	564
Medical personnel	5885	4251	2192	1376	784	32	3693	2924	473	77	20	199
Direct contact with patient	4693	4179	1963	1280	651	32	2730	1980	463	75	19	193
General Physicians	1534	109	419	383	9	27	1115	898	112	26	4	75
Specialist Physicians	2000	3883	644	291	349	4	1356	936	249	43	11	117
Residents	460	89	403	115	288	0	57	0	56	0	0	1
In Social Service	404	15	331	330	0	1	73	53	20	0	0	0
dentists	295	83	166	161	5	0	129	93	26	6	4	0
In other duties	1192	72	229	96	133	0	963	944	10	2	1	6
Paramedic personnel	11232	2655	2942	1907	905	130	8290	7080	776	123	104	2207
Nurses	9275	2342	2779	2834	905	40	6496	5447	711	90	43	205
Auxiliary	3158	484	632	446	146	40	2526	2106	281	37	16	86
General	3427	1208	1012	794	218	0	2415	2045	185	50	21	114
Specialized	1603	374	201	53	148	0	1402	1147	243	1	6	5
Other	11087	276	934	541	393	0	153	149	2	2	0	0
Other personnel	1957		163	73	0	90	1794	1633	65	33	61	2
Aux. Dx services personnel	1667	313	463	293	170	0	1204	1018	140	17	24	25
Administrative personnel	3027	1273	1148	709	439	0	1879	1434	355	17	14	15
Other personnel	3233	925	943	458	485	0	2290	1805	287	128	0	70
reportable beds	3791	1166	1110	625	485	0	2681	2268	198	24	92	99
non-reportable beds	1918	522	769	637	110	22	1149	1016	68	22	5	38
Incubators	175	93	46	36	10	0	129	109	10	4	0	6
Doctors' offices	2172	342	1069	845	216	8	1103	913	92	44	16	38
Laboratories	74	19	39	35	0	4	35	30	2	1	1	1
X-ray machines	172	73	37	25	11	1	135	112	13	2	2	6
Operating Rooms	117	92	38	22	16	0	79	63	7	1	2	6
Delivery rooms	72	42	48	43	4	1	24	19	2	1	1	1
Blood banks	6	10	2	1	1	0	4	1	2	0	0	1
Pharmacies												

Source: Bulletin of Statistical Information

## Physical Resources for Healthcare

Nuevo León has 1.3 hospital beds per 1,000 inhabitants. 23.4% of the beds are in the private sector. The hospital beds for the Health Department are distributed as follows: 60% in IMSS, 16% in the SSA, 13% in University Hospitals, 5% in ISSSTE, 3% in ISSSTE/León, and the rest in SEDENA, PEMEX, etc.

There are 0.66 doctor's offices per 1,000 inhabitants in Nuevo León 13.6% of them are in the private sector. 86.4% are in the public sector distributed as follows: 42% in the IMSS, 39% in the

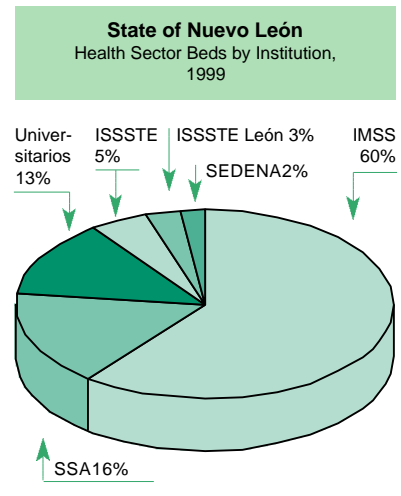


Source: Bulletin of Statistical Information No. 19 Vol. 1, 1999

SSA, 10% in University Facilities, 4% in ISSSTE, 2% in ISSSTE-/Leon, 2% in PEMEX, and 1% in SEDENA.

Sanitary district 05 has 28 hospital beds (0.38 per 1,000 inhabitants) and 85 doctor's offices (0.16 per 1,000 inhabitants.)

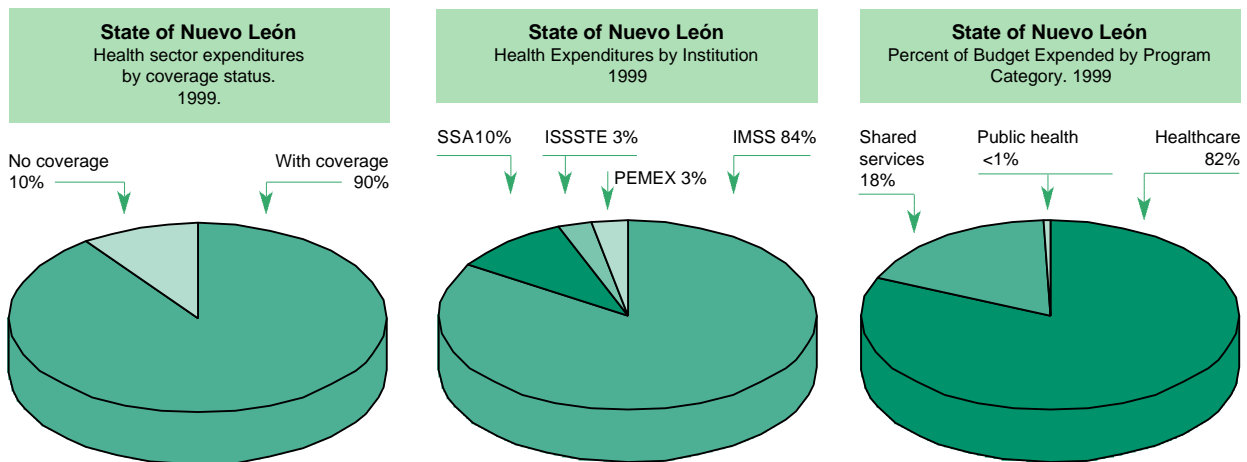
The city of Anáhuac does not have a hospital and has three doctor's offices (0.16 per 1,000 inhabitants.)



Source: Bulletin of Statistical Information No. 19 Vol. 1, 1999

## Financial Resources

In 1999, the public spent 5,582,481,000 pesos, equal to 1,456 pesos per inhabitant on healthcare. 90% went to the population with social security coverage. The remaining 10% went to those without coverage. The amount of the budget spent on social security was as follows: 84% IMSS, 10% SSA, 3% ISSSTE, and 3% PEMEX. By category, 82% of the total healthcare expense went to medical attention, 18% went to shared services. The budget for public health services was less than 1% ■



Source: The Status of Health. Nuevo León. INEGI, 1999.

**State of Nuevo León**  
Population by Five-Year Age Groups and Gender

Age Groups	TOTAL	%	Men	%	Women	%	Male-Female Ratio
0 - 4	396,563	10.34	201,948	5.27	194,615	5.08	103.77
5 - 9	385,771	10.06	196,456	5.12	189,315	4.94	103.77
10 - 14	355,194	9.26	180,250	4.70	174,944	4.56	103.03
15 - 19	373,807	9.75	187,079	4.88	186,728	4.87	100.19
20 - 24	391,235	10.20	195,585	5.10	195,650	5.10	99.97
25 - 29	369,135	9.63	183,270	4.78	185,865	4.85	98.60
30 - 34	322,572	8.41	158,942	4.15	163,630	4.27	97.13
35 - 39	272,200	7.10	134,659	3.51	137,541	3.59	97.90
40 - 44	224,330	5.85	110,097	2.87	114,233	2.98	96.38
45 - 49	168,680	4.40	82,616	2.15	86,064	2.24	95.99
50 - 54	144,499	3.77	70,886	1.85	73,613	1.92	96.30
55 - 59	109,729	2.86	53,878	1.41	55,851	1.46	96.47
60 - 64	92,626	2.42	44,938	1.17	47,688	1.24	94.23
65 - 69	65,875	1.72	31,411	0.82	34,464	0.90	91.14
70 - 74	48,611	1.27	22,607	0.59	26,004	0.68	86.94
75 - 79	33,324	0.87	15,550	0.41	17,774	0.46	87.49
80 - 84	17,528	0.46	7,667	0.20	9,861	0.26	77.75
85 - 89	10,634	0.28	4,424	0.12	6,210	0.16	71.24
90 - 94	4,154	0.11	1,677	0.04	2,477	0.06	67.70
95 - 99	1,741	0.05	664	0.02	1,077	0.03	61.65
100 and Over	380	0.01	164	0.00	216	0.01	75.93
Unspecified	45,553	1.19	23,171	0.60	22,382	0.58	103.53
<b>TOTALES</b>	<b>3,834,141</b>	<b>100.00</b>	<b>1,907,939</b>	<b>49.76</b>	<b>1,926,202</b>	<b>50.24</b>	<b>99.05</b>

Source: 12th General Census of Population and Housing 2000

**State of Nuevo León**  
Sanitary District 05 by 5-year Age Groups and Gender

Age Groups	TOTAL	%	Men	%	Women	%	Male-Female Ratio
	73,388	100.00	36,780	50.12	36,608	49.88	100.47
0 - 4	7,161	9.76	3,645	4.97	3,516	4.79	103.67
5 - 9	7,632	10.40	3,832	5.22	3,800	5.18	100.84
10 - 14	7,149	9.74	3,653	4.98	3,496	4.76	104.49
15 - 19	6,884	9.38	3,466	4.72	3,418	4.66	101.40
20 - 24	5,822	7.93	2,922	3.98	2,900	3.95	100.76
25 - 29	5,627	7.67	2,766	3.77	2,861	3.90	96.68
30 - 34	5,308	7.23	2,633	3.59	2,675	3.65	98.43
35 - 39	4,781	6.51	2,380	3.24	2,401	3.27	99.13
40 - 44	4,071	5.55	2,033	2.77	2,038	2.78	99.75
45 - 49	2,974	4.05	1,477	2.01	1,497	2.04	98.66
50 - 54	2,944	4.01	1,422	1.94	1,522	2.07	93.43
55 - 59	2,622	3.57	1,322	1.80	1,300	1.77	101.69
60 - 64	2,586	3.52	1,281	1.75	1,305	1.78	98.16
65 - 69	1,816	2.47	921	1.25	895	1.22	102.91
70 - 74	1,479	2.02	746	1.02	733	1.00	101.77
75 - 79	986	1.34	512	0.70	474	0.65	108.02
80 - 84	636	0.87	327	0.45	309	0.42	105.83
85 - 89	366	0.50	179	0.24	187	0.25	95.72
90 - 94	153	0.21	73	0.10	80	0.11	91.25
95 - 99	50	0.07	22	0.03	28	0.04	78.57
100 and Over	8	0.01	7	0.01	1	0.00	700.00
Unspecified	2,333	3.18	1,161	1.58	1,172	1.60	99.06
<b>TOTALES</b>	<b>73,388</b>	<b>100.00</b>	<b>36,780</b>	<b>50.12</b>	<b>36,608</b>	<b>49.88</b>	<b>100.47</b>

Source: 12th General Census of Population and Housing 2000

## Appendix III

**Anáhuac Nuevo León**  
 Population by Five-Year Age Groups and Gender

Age Groups	TOTAL	%	Men	%	Women	%	Male-Female Ratio
0 - 4	1,981	10.69	1,016	5.48	965	5.21	105.28
5 - 9	2,077	11.21	1,031	5.57	1,046	5.65	98.57
10 - 14	1,940	10.47	1,010	5.45	930	5.02	108.60
15 - 19	1,838	9.92	910	4.91	928	5.01	98.06
20 - 24	1,466	7.91	707	3.82	759	4.10	93.15
25 - 29	1,402	7.57	699	3.77	703	3.80	99.43
30 - 34	1,330	7.18	674	3.64	656	3.54	102.74
35 - 39	1,206	6.51	592	3.20	614	3.31	96.42
40 - 44	1,027	5.54	535	2.89	492	2.66	108.74
45 - 49	724	3.91	364	1.97	360	1.94	101.11
50 - 54	680	3.67	340	1.84	340	1.84	100.00
55 - 59	591	3.19	296	1.60	295	1.59	100.34
60 - 64	607	3.28	306	1.65	301	1.62	101.66
65 - 69	392	2.12	207	1.12	185	1.00	111.89
70 - 74	310	1.67	161	0.87	149	0.80	108.05
75 - 79	197	1.06	109	0.59	88	0.48	123.86
80 - 84	110	0.59	58	0.31	52	0.28	111.54
85 - 89	67	0.36	32	0.17	35	0.19	91.43
90 - 94	30	0.16	13	0.07	17	0.09	76.47
95 - 99	9	0.05	4	0.02	5	0.03	80.00
100 and Over	2	0.01	1	0.01	1	0.01	100.00
Unspecified	538	2.90	263	1.42	275	1.48	95.64
<b>TOTAL</b>	<b>18,524</b>	<b>100.00</b>	<b>9,328</b>	<b>50.36</b>	<b>9,196</b>	<b>49.64</b>	<b>101.44</b>

Source: 12th General Census of Population and Housing 2000

## Appendix IV

**Estado de Nuevo León**  
 Health Coverage Status by Border District and Municipalities. 1999.

Entity	Total population	No coverage	Covered by health services					Unspecified
			Total	IMSS	ISSSTE	Other	PEMEX/Def.	
<b>Estado de Nuevo León</b>	<b>3834141</b>	<b>1195606</b>	<b>2528052</b>	<b>2283483</b>	<b>134830</b>	<b>23133</b>	<b>97452</b>	<b>110483</b>
District 05 Sabinas H.	73388	35524	34201	26439	4513	25	1488	3663
Agualeguas	4390	2406	1706	1526	140	0	42	278
Anahuac	18524	9942	7534	5692	1691	14	171	1048
Bustamante	3499	1770	1555	1259	168	0	128	174
General Treviño	1699	1117	487	426	34	2	26	95
Lampazos de Naranjo	5305	2759	2293	209	124	2	78	253
Parás	1226	591	442	401	22	0	21	193
Sabinas Hidalgo	32329	13717	17327	14576	2059	7	787	1285
Vallecillo	2169	1201	828	788	39	0	1	140
Villaldama	4247	2021	2029	1562	236	0	234	197

Source: 12th General Census of Population and Housing 2000. Basic tables. INEGI.

Appendix V

**Nuevo León**  
Healthcare Coverage Status by Institution

Category	Total Population	Percent of use of health services (a)						In another institution	
		Total %	En el IMSS %	ISSSTE %	PEMEX Defensa	SSA	IMSS/Sol	Public (b)	Private (c)
State of Nuevo León	3812758	97.4	55.2	3.3	0.7	12.9	0.2	2.4	25.4
No coverage	1186446	94.5	1.5	0.1	NS	41.1	0.3	2.7	54.4
With coverage	2544102	99	80.6	4.8	1	0.6	0.1	1.8	11.1
IMSS	2308242	99	88.7	0.3	NS	0.7	0.1	0.3	10
ISSSTE	135832	99.3	3.8	87.3	0.1	0.3	ns	1.6	7
PEMEX Military Services	25549	99.2	0.7	0.4	95.9	0.4	MI	0.3	2.3
In another institution	85473	98.5	1	0.8	NS	0.3	NS	45.9	51.9
Unspecified	82210	89.3	3.2	0.3	NS	3.1	0.1	17.9	75.4

MI Sample size insufficient

NS Not significant

(a) Number of users of health services as a percentage of total population.

The percentage for each institution was calculated based on the total users of their services.

(b) Includes state government social security institutions.

(c) Includes persons receiving care from private physicians.

SOURCE: INEGI. EUM. General Census of Population and Housing, 2000. Tables of the Census Sample, Expanded Questionnaire, 2000.

Appendix VI

**State of Nuevo León**  
Material and Human Resources by Border District and Municipalities, 1999

Category	State Total	District Sanitaria 05 Sabinas	Agua-leguas	Anáhuac	Bustamante	General Treviño	Lampazos de Naranjo	Parás Hidalgo	Sabinas	Vallecillo	Villal-dama
Medical facilities	559	55									
1st level	531	53	9	12	1	2	8	2	7	6	6
Second level	18	2	0	0	0	0	0	0	2	0	0
Third level	10	0	0	0	0	0	0	0	0	0	0
Reportable beds	3791	28	0	0	0	0	0	0	28	0	0
Non-reportable beds	1918	103	10	2	2	3	11	2	28	23	23
Doctors' offices	2172	85	11	3	3	4	9	3	26	8	8
Total physicians	5885	100	9	4	4	3	8	3	45	6	6
Med. Generales	2025	75	8	4	4	3	8	3	23	6	6
Specialists	2115	19	0	0	0	0	0	0	19	0	0
Other activity	1745	6	1	0	0	0	0	0	3	0	0
Total nurses	9275	95	2	3	3	1	4	0	73	3	3
In contact	9145	87	2	2	2	1	3	0	69	3	3
Other activity	130	8	0	1	1	0	1	0	4	0	0

Source: City Health Figures. Data Bases, 1999. INEGI.

## Appendix VII

**State of Nuevo León**  
 Budget Expended by Program Category and Institution (thousands of pesos)

Code	Programmatic category	Total	General population		Persons with coverage			PEMEX
			Total	SSA	Total	IMSS	ISSSTE	
	Total budget	5582481	569355.6	569355.6	5013125.4	4725313.2	143477.6	144334.6
Budget Line 12	Health	5013125.4	0	0	5013125.4	4725313.2	143477.6	144334.6
	Health	5013125.4	0	0	5013125.4	4725313.2	143477.6	144334.6
800	Shared services	899274.2	0	0	899274.2	872487.3	26786.9	0
7000701	Administering human and financial resources	899274.2	0	0	899274.2	872487.3	26786.9	0
801	Public Health Services	0	0	0	0	0	0	0
27005419	Providing health services PROGRESA	0	0	0	0	0	0	0
27006419	Providing health services (PAC)	0	0	0	0	0	0	0
802	Healthcare	4113851.2	0	0	4113851.2	3852825.9	116690.7	144334.6
7000420	Providing health care	3751287.5	0	0	3751287.5	3637878	113409.5	0
7000433	Conducting scientific and technological research	166638	0	0	166638	16112	526	0
7000437	Developing basic infrastructure	2205.2	0	0	2205.2	859.7	1345.5	0
7000438	Maintaining basic infrastructure	95156.2	0	0	95156.2	94544.5	611.7	0
7000701	Administering human and financial resources	144334.6	0	0	144334.6	0	0	144334.6
7000703	Training public servants	104229.7	0	0	104229.7	103431.7	798	0
	Supply and Social Assistance	0	0	0	0	0	0	0
Budget Line 33	Federal contributions to states and cities	569355.6	569355.6	569355.6	0	0	0	0
80227000419	Providing health services (decentralization)	514586.3	514586.3	514586.3	0	0	0	0
80227000437	Developing basic infrastructure	12270.5	12270.5	12270.5	0	0	0	0
90327000707	Paying federal government contributions	39316.7	39316.7	39316.7	0	0	0	0

Source: Health in Chihuahua Map. 1999 SSA

## Demography

According to the 12th General Population and Housing Census of 2000, as of December 1999, the population of Tamaulipas was 2,753,222, representing 3% of the nation's population and 17% of the population its six northern border states. 31.28% of the state's population was in the pre-productive age, 62.63% was in the productive age, and 5.01% was in the post-productive age. 1.08% of the population did not specify age and the male-to-female ratio was 0.98.

The state of Tamaulipas has 8 sanitary districts; three of them share a border with the state of Texas. Sanitary district 03 headquartered in Matamoros, 04 headquartered in Reynosa, and 05 headquartered in Nuevo Laredo. The three districts mentioned have a total population of 1,382,212 (50.2% of the state's population.)

Sanitary district 03 (Matamoros) has two cities (including Matamoros) and has a population of 476,714, of them 32.78% are in the pre-productive age, 61.77% were in the productive age, and 4.15% were in the post-productive age. 1.28% did not specify age, and the male-to-female ratio was 0.97.

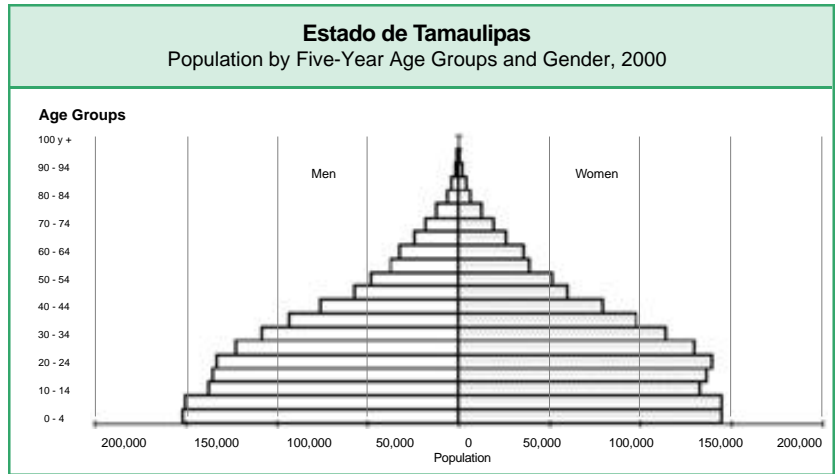
Sanitary district 04 (Reynosa) has 4 cities (including Reynosa) and has a population of 557,725, of them 31.71% are in the pre-productive age, 62.81% were in the productive age, and 5.46% were in the post-productive age. 1.29% did not specify age, and the male-to-female ratio was 0.97.

Sanitary district 05 (Nuevo Laredo) has 4 cities (including Nuevo Laredo) and has a population of 347,773. Of them 32.52% are in the pre-productive age, 61.94% were in the productive age, and 5.46% were in the post-productive age. 1.28% did not specify age, and the male-to-female ratio was 1.0

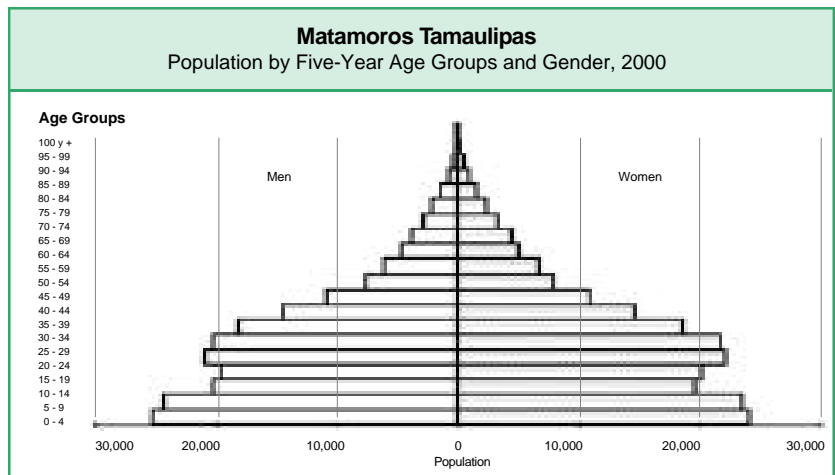
The Municipality of Matamoros shares a border with Brownsville, Texas, Cameron County, Texas and has a population of 418,141, of them 32.82% are in the pre-productive age, 61.87% were in the productive age, and 3.97% were in the post-productive age. 1.34% did not specify age, and the male-to-female ratio was 0.97.

The Municipality of Reynosa shares a border with McAllen, Texas, Hidalgo County, Texas and has a population of 420,463, of them 31.42% are in the pre-productive age, 61.87% were in the productive age, and 3.7% were in the post-productive age. 1.3% did not specify age, and the male-to-female ratio was 0.98.

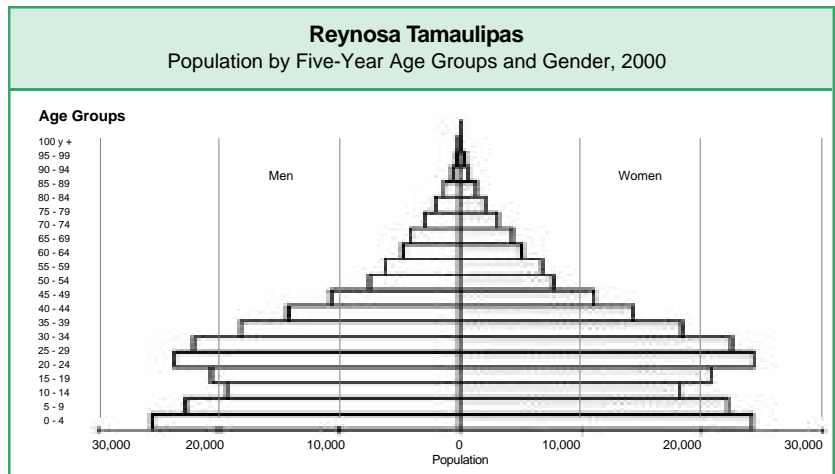
The Municipality of Nuevo Laredo shares a border with Laredo, Texas, Webb



Source: 112th General Census of Population and Housing, 2000.



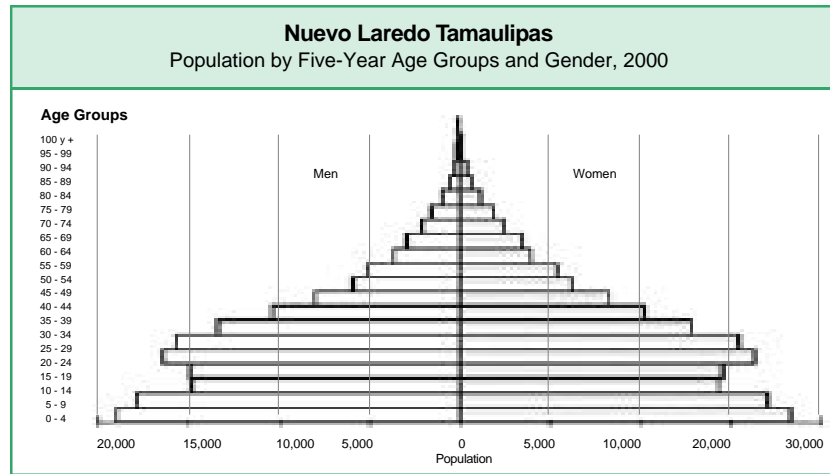
Source: 112th General Census of Population and Housing, 2000.



Source: 112th General Census of Population and Housing, 2000.



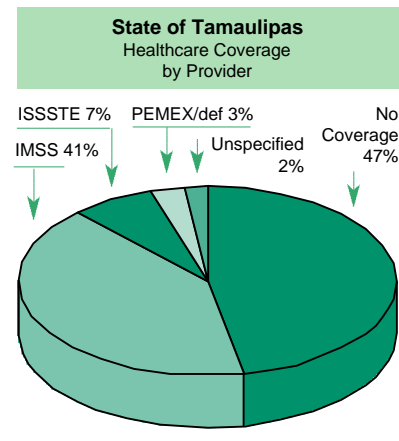
County, Texas and has a population of 310,915, of them 32.62% are in the pre-productive age, 62.06% were in the productive age, and 4.06% were in the post-productive age. 1.3% did not specify age, and the male-to-female ratio was 0.99.



Source: 112th General Census of Population and Housing, 2000.

## Healthcare Coverage

51% of the population of the state of Tamaulipas is covered by social security. 41% of this is covered by IMSS, 7% by ISSSTE, and 3% by other institutions. 47% of the state's population does not have social security coverage and 2% did not specify their status.



Source: 112th General Census of Population and Housing, 2000.Expanded Questionnaire. INEGI.

55% of the population of Sanitary district 03 (Matamoros) is covered by social security; 48.5% by IMSS, 6.3% by ISSSTE, and 0.3% by other institutions. 42.4% of the population is not covered by social security and the rest did not specify their type of coverage.

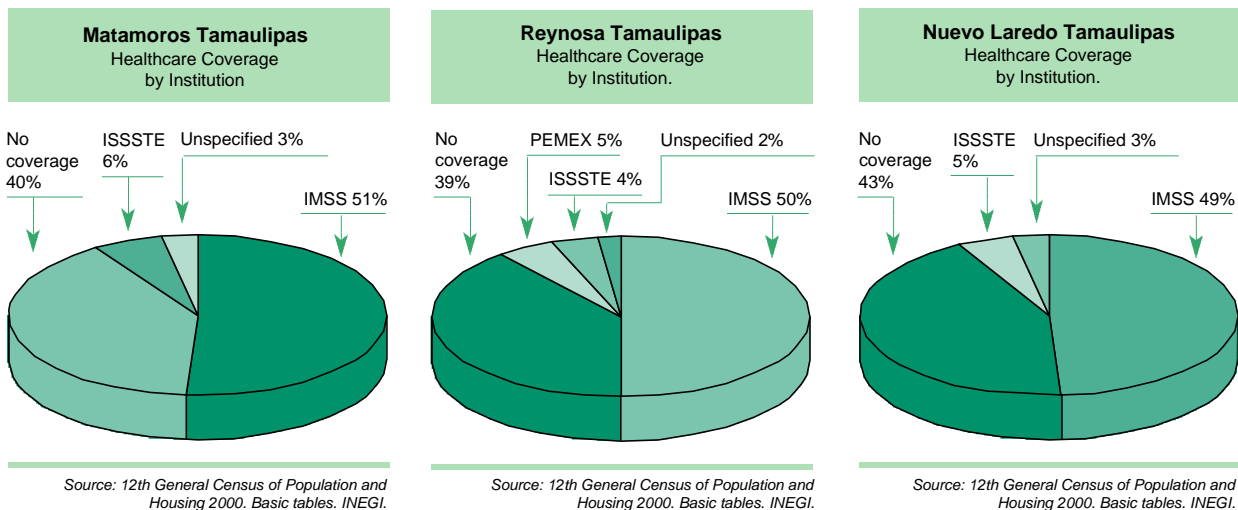
In Sanitary District 04 (Reynosa), 45% of the population is covered by social security; 5% by ISSSTE and 4.1% by other institutions. 42.2% of the population is not covered by social security, and the rest did not specify their status.

45.8% of the population of Sanitary district 05 (Nuevo Laredo) is covered by social security; 45.8% by IMSS, 5.5% by ISSSTE, and 0.5% by other institutions. 45.2% of the population is not covered by social security and the rest did not specify their status.

51% of the population of the Municipality of Matamoros is covered by IMSS; 6% by ISSSTE. 40% of the population is not covered by social security and 3% did not specify their status.

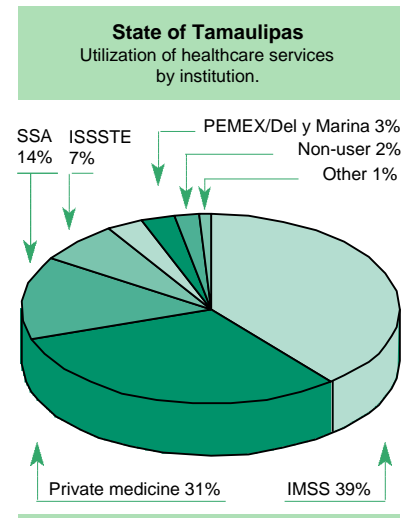
In the city of Reynosa 50% of the population is covered by IMSS, 4% by ISSSTE, 5% by other social security institutions. 39% of the population is not covered by social security and the rest did not specify their status.

In the Municipality of Nuevo Laredo, 49% of the population is affiliated with IMSS and 5% with ISSSTE. 43% of the population is not covered by social security and 3% did not specify their status.



## Use of Healthcare Services

The use of healthcare services in the state was 39% for IMSS, 31% for private medicine, 14% for the Health Department, 7% for ISSSTE, 3% for PEMEX SEDENA and the Navy, 3% for So-lidaridad and 1% for other insurance institutions including state ins-titutions. 2% did not report being users of any healthcare service.



Source: General Census of Population and Housing.  
Taken from Census Sample, Expanded Questionnaire.  
INEGI 2000.

## Healthcare Human Resources

There are 20,506 healthcare employees working in Tamaulipas. 17.2% are in the private sector. Public sector jobs are distributed as follows: IMSS 36%, Health Department 35%, ISSSTE 15%, PEMEX 8% and IMSS/Solidaridad 3%. The rest of the jobs are in the Red Cross, SEDENA, and SME.

There are 1,965 physicians per 1,000 inhabitants in Tamaulipas. 31% of them are in the private sector. The distribution of public sector physicians is as follows: 35% in IMSS, 34% in SSA, 16% in ISSSTE, 7% in PEMEX, 4% in IMSS/Solidaridad and the rest are in other state institutions.

There are 2,493 nurses per 1,000 inhabitants. 13.5% belong to the private sector. The distribution of public sector nurses in the Tamaulipas Health Department is: SSA 39%, IMSS 36%, ISSSTE 13%, and IMSS/Solidaridad 3%. The rest are in other state healthcare institutions.

In Sanitary district 03 (Matamoros), there are 0.67 physicians per 1,000 inhabitants and 0.78 nurses per 1,000 inhabitants, while in the Sanitary district 04 (Reynosa) there are 0.76 physicians per 1,000 inhabitants, and 0.99 nurses per 1,000 inhabitants. In Sanitary district 05 (Nuevo Laredo) the number of physicians is 0.75 per 1,000 inhabitants and the number of nurses is 0.92 per 1,000 inhabitants.

As for the cities of Matamoros, Reynosa, and Nuevo Laredo, the number of physicians per 1,000 inhabitants was 0.65, 0.83., and 0.75 respectively; while the number of nurses per 1,000 inhabitants was 0.75, 1.17, and 0.97 in the same order.

State of Tamaulipas													
Human Resources for Health, 1999													
Category	Total Health Sector	Total Private Sector	General population (Health Sector)					Persons with coverage					SME
			Total	SSA	IMSS/Solidarity	Universities	Red Cross	Total	IMSS	ISSSTE	PEMEX	SDN	
Human resources	16974	3532	6619	5991	473	37	118	10355	6066	2542	1385	212	150
Medical personnel	4181	1684	1656	1427	163	23	43	2525	1482	680	294	30	39
Direct contact with patient	3656	1658	1536	1315	156	23	42	2120	1116	651	285	29	39
General Physicians	1202	280	413	376	10	2	25	789	458	212	92	8	19
Specialist Physicians	1576	1317	563	515	24	15	9	1013	463	346	178	14	12
Residents	125	5	125	121	4	0	0	0	0	0	0	0	0
In Social Service	540	7	330	209	114	1	6	210	142	68	0	0	0
dentists	213	49	105	94	4	5	2	108	53	25	15	7	8
In other duties	525	26	120	112	7	0	1	405	366	29	9	1	0
Paramedic personnel	6985	1094	2629	2368	192	4	65	4356	2814	830	484	152	76
Nurses	5818	927	2499	2247	183	4	65	3319	2100	762	351	40	66
Auxiliary	1923	205	891	718	162	0	11	1032	664	186	134	24	24
General	2606	531	1056	1022	2	4	28	1550	1030	314	152	13	41
Specialized	839	89	213	212	1	0	0	626	352	217	54	3	0
Other	450	102	339	295	18	0	26	111	54	45	11	0	1
Other paramedic personnel	1167		130	121	9	0	0	1037	714	68	133	112	10
Aux. Dx services personnel	1005	167	380	368	8	4	0	625	374	121	86	30	14
Administrative personnel	2634	282	1443	1371	59	3	10	1191	607	484	82	0	18
Other personnel	2169	205	511	457	51	3	0	1658	789	427	439	0	3

*Situation of Health Bulletin on Statistical Information, No. 19, Vol. 1, 1999*

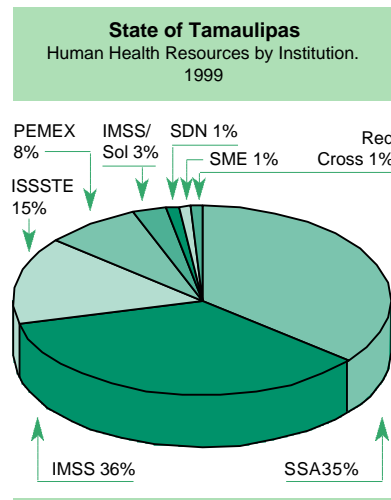
## Physical Resources for Healthcare

There are 1.317 hospital beds per 1,000 inhabitants in Tamaulipas. 24% of them are in the private sector. In the State Health Department, they are distributed as follows: 51% in the IMSS, 23% in ISSSTE, 11% in PEMEX, 5% in the Red Cross, 4% in SEDENA, 3% in IMSS/Solidaridad and 3% in State Health Services.

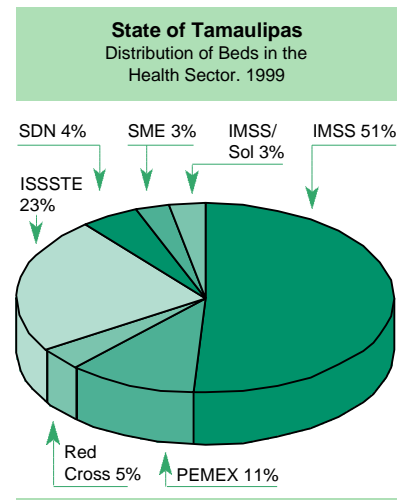
In Tamaulipas, there are 0.673 doctor's offices per 1,000 inhabitants. Of them, 18.1% were private sector. In the Health Department, they are distributed in the following manner: SSA 37%, 29% in IMSS, 12% in ISSSTE, 10% in PEMEX and 8% in IMSS/Solidaridad. The rest belong to the SDA and the Red Cross.

In Sanitary district 03 (Matamoros), there are 0.76 hospital beds per 1,000 inhabitants and 0.41 doctor's offices per 1,000 inhabitants. In Sanitary district 04 (Reynosa), the number of hospital beds is 0.76 per 1,000 inhabitants and the number of doctor's offices is 0.42 per 1,000 inhabitants. In Sanitary district 05 (Nuevo Laredo) the number of beds and doctor's offices was the same as the previous district (0.76 and 0.42 per 1,000 inhabitants, respectively).

For the cities of Matamoros, Reynosa, and Nuevo Laredo, the number of hospital beds per 1,000 inhabitants was 0.79, 0.95, and 0.82, respectively. The number of doctor's offices was 0.39, 0.43, and 0.40 in the same order.



Source: Situation of Health Bulletin on Statistical Information, No. 19, Vol. 1, 1999

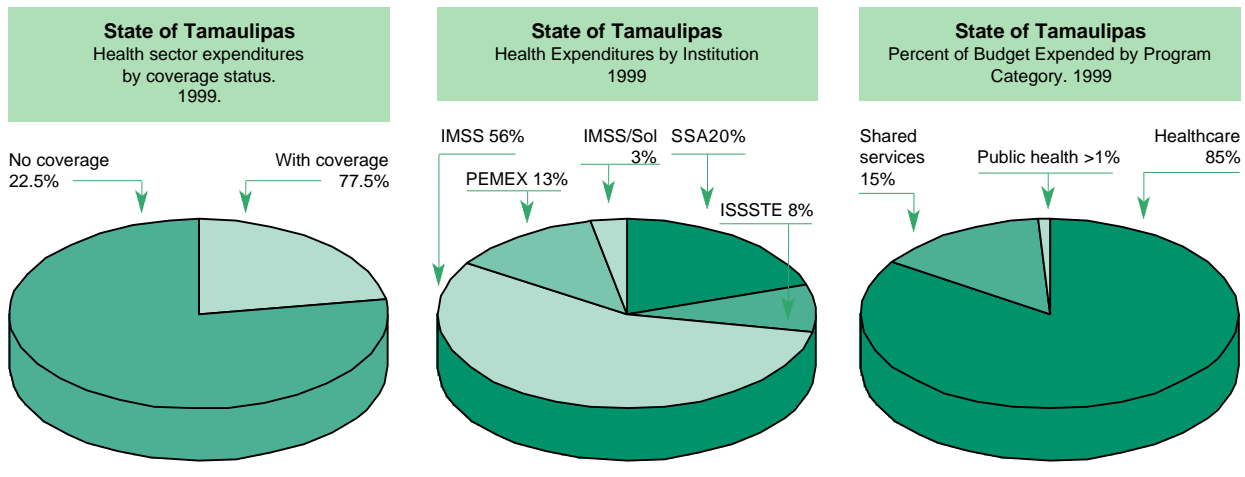


Source: Situation of Health Bulletin on Statistical Information, No. 19, Vol. 1, 1999

## Financial Resources

In 1999, the budget spent in Tamaulipas State Health Department was 3,347,131,300 pesos; equal to 1,215.71 pesos per inhabitant. 23% went to people without social security coverage, while 73% was spent on those with coverage.

Considering the healthcare institution budget, the spending was as follows: IMSS 56%, SSA 20%, PEMEX 13%, ISSSTE 8% and IMSS/Solidaridad 3%. By category 85% was spent on Medical Attention, 15% on shared services and 0% on public health ■



Source: *The Status of Health. Sonora. INEGI, 1999.*

Appendixes

Appendix I

**State of Tamaulipas**  
Population by Five-Year Age Groups and Gender

Age Groups	TOTAL	%	Men	%	Women	%	Male-Female Ratio
	2,753,222	100.00	1,359,874	49.39	1,393,348	50.61	97.60
0 - 4	296,314	10.76	151,229	5.49	145,085	5.27	104.23
5 - 9	294,747	10.71	149,746	5.44	145,001	5.27	103.27
10 - 14	270,114	9.81	137,462	4.99	132,652	4.82	103.63
15 - 19	271,411	9.86	134,951	4.90	136,460	4.96	98.89
20 - 24	272,292	9.89	132,737	4.82	139,555	5.07	95.11
25 - 29	252,514	9.17	122,317	4.44	130,197	4.73	93.95
30 - 34	222,680	8.09	108,057	3.92	114,623	4.16	94.27
35 - 39	190,906	6.93	93,099	3.38	97,807	3.55	95.19
40 - 44	154,690	5.62	75,506	2.74	79,184	2.88	95.36
45 - 49	116,567	4.23	56,909	2.07	59,658	2.17	95.39
50 - 54	98,820	3.59	47,668	1.73	51,152	1.86	93.19
55 - 59	76,894	2.79	37,471	1.36	39,423	1.43	95.05
60 - 64	67,945	2.47	32,371	1.18	35,574	1.29	91.00
65 - 69	50,474	1.83	24,123	0.88	26,351	0.96	91.54
70 - 74	36,696	1.33	17,593	0.64	19,103	0.69	92.10
75 - 79	24,953	0.91	12,103	0.44	12,850	0.47	94.19
80 - 84	12,307	0.45	5,559	0.20	6,748	0.25	82.38
85 - 89	7,883	0.29	3,441	0.12	4,442	0.16	77.47
90 - 94	3,307	0.12	1,409	0.05	1,898	0.07	74.24
95 - 99	1,680	0.06	727	0.03	953	0.03	76.29
100 and Over	429	0.02	179	0.01	250	0.01	71.60
Unspecified	29,599	1.08	15,217	0.55	14,382	0.52	105.81
<b>TOTALES</b>	<b>2,753,222</b>	<b>100.00</b>	<b>1,359,874</b>	<b>49.39</b>	<b>1,393,348</b>	<b>50.61</b>	<b>97.60</b>

Source: 12th General Census of Population and Housing 2000

Appendix II

**Nuevo Laredo Tamaulipas**  
Population by Five-Year Age Groups and Gender

Age Groups	TOTAL	%	Men	%	Women	%	Male-Female Ratio
0 - 4	37,396	12.03	19,039	6.12	18,357	5.90	103.72
5 - 9	34,871	11.22	17,787	5.72	17,084	5.49	104.11
10 - 14	29,147	9.37	14,765	4.75	14,382	4.63	102.66
15 - 19	29,462	9.48	14,880	4.79	14,582	4.69	102.04
20 - 24	32,679	10.51	16,311	5.25	16,368	5.26	99.65
25 - 29	31,072	9.99	15,617	5.02	15,455	4.97	101.05
30 - 34	26,171	8.42	13,388	4.31	12,783	4.11	104.73
35 - 39	20,641	6.64	10,368	3.33	10,273	3.30	100.92
40 - 44	16,323	5.25	8,001	2.57	8,322	2.68	96.14
45 - 49	12,183	3.92	5,907	1.90	6,276	2.02	94.12
50 - 54	10,456	3.36	5,024	1.62	5,432	1.75	92.49
55 - 59	7,609	2.45	3,607	1.16	4,002	1.29	90.13
60 - 64	6,369	2.05	2,864	0.92	3,505	1.13	81.71
65 - 69	4,636	1.49	2,090	0.67	2,546	0.82	82.09
70 - 74	3,374	1.09	1,481	0.48	1,893	0.61	78.24
75 - 79	2,256	0.73	989	0.32	1,267	0.41	78.06
80 - 84	1,201	0.39	503	0.16	698	0.22	72.06
85 - 89	670	0.22	246	0.08	424	0.14	58.02
90 - 94	261	0.08	105	0.03	156	0.05	67.31
95 - 99	171	0.05	63	0.02	108	0.03	58.33
100 and Over	44	0.01	21	0.01	23	0.01	91.30
Unspecified	3,923	1.26	2,010	0.65	1,913	0.62	105.07
<b>TOTAL</b>	<b>310,915</b>	<b>100</b>	<b>155,066</b>		<b>155,849</b>	<b>50.13</b>	<b>99</b>

Source: 12th General Census of Population and Housing 2000

## Appendix III

**Reynosa Tamaulipas**

Population by Five-Year Age Groups and Gender, 2000

Age Groups	TOTAL	%	Men	%	Women	%	Male-Female Ratio
0 - 4	49,634	11.80	25,370	6.03	24,264	5.77	104.56
5 - 9	44,908	10.68	22,659	5.39	22,249	5.29	101.84
10 - 14	37,609	8.94	19,252	4.58	18,357	4.37	104.88
15 - 19	41,547	9.88	20,622	4.90	20,925	4.98	98.55
20 - 24	47,898	11.39	23,503	5.59	24,395	5.80	96.34
25 - 29	44,607	10.61	21,975	5.23	22,632	5.38	97.10
30 - 34	36,574	8.70	18,128	4.31	18,446	4.39	98.28
35 - 39	28,561	6.79	14,214	3.38	14,347	3.41	99.07
40 - 44	21,740	5.17	10,653	2.53	11,087	2.64	96.09
45 - 49	15,240	3.62	7,485	1.78	7,755	1.84	96.52
50 - 54	12,928	3.07	6,123	1.46	6,805	1.62	89.98
55 - 59	9,790	2.33	4,672	1.11	5,118	1.22	91.29
60 - 64	8,439	2.01	3,997	0.95	4,442	1.06	89.98
65 - 69	5,921	1.41	2,814	0.67	3,107	0.74	90.57
70 - 74	4,128	0.98	1,948	0.46	2,180	0.52	89.36
75 - 79	2,763	0.66	1,349	0.32	1,414	0.34	95.40
80 - 84	1,376	0.33	623	0.15	753	0.18	82.74
85 - 89	807	0.19	352	0.08	455	0.11	77.36
90 - 94	322	0.08	127	0.03	195	0.05	65.13
95 - 99	160	0.04	68	0.02	92	0.02	73.91
100 and Over	54	0.01	22	0.01	32	0.01	68.75
Unspecified	5,457	1.30	2,813	0.67	2,644	0.63	106.39
<b>TOTAL</b>	<b>420,463</b>	<b>100</b>	<b>208,769.00</b>	<b>50</b>	<b>211,694.00</b>	<b>50</b>	<b>98.62</b>

Source: 12th General Census of Population and Housing 2000. INEGI

## Appendix IV

**Matamoros Tamaulipas**

Population by Five-Year Age Groups and Gender

Age Groups	TOTAL	%	Men	%	Women	%	Male-Female Ratio
0 - 4	49,446	11.83	25,257	6.04	24,189	5.78	104.42
5 - 9	47,879	11.45	24,341	5.82	23,538	5.63	103.41
10 - 14	39,899	9.54	20,183	4.83	19,716	4.72	102.37
15 - 19	39,772	9.51	19,597	4.69	20,175	4.82	97.14
20 - 24	43,068	10.30	20,859	4.99	22,209	5.31	93.92
25 - 29	41,986	10.04	20,211	4.83	21,775	5.21	92.82
30 - 34	36,787	8.80	18,102	4.33	18,685	4.47	96.88
35 - 39	29,103	6.96	14,431	3.45	14,672	3.51	98.36
40 - 44	21,871	5.23	10,849	2.59	11,022	2.64	98.43
45 - 49	15,414	3.69	7,507	1.80	7,907	1.89	94.94
50 - 54	12,775	3.06	6,071	1.45	6,704	1.60	90.56
55 - 59	9,593	2.29	4,606	1.10	4,987	1.19	92.36
60 - 64	8,408	2.01	3,849	0.92	4,559	1.09	84.43
65 - 69	6,084	1.46	2,767	0.66	3,317	0.79	83.42
70 - 74	4,412	1.06	2,067	0.49	2,345	0.56	88.14
75 - 79	2,993	0.72	1,417	0.34	1,576	0.38	89.91
80 - 84	1,587	0.38	678	0.16	909	0.22	74.59
85 - 89	901	0.22	369	0.09	532	0.13	69.36
90 - 94	343	0.08	133	0.03	210	0.05	63.33
95 - 99	180	0.04	76	0.02	104	0.02	73.08
100 and Over	43	0.01	22	0.01	21	0.01	104.76
Unspecified	5,597	1.34	2,867	0.69	2,730	0.65	105.02
<b>TOTAL</b>	<b>418,141</b>	<b>100.00</b>	<b>206,259</b>	<b>49.33</b>	<b>211,882</b>	<b>50.67</b>	<b>97.35</b>

Source: 12th General Census of Population and Housing 2000. INEGI



## Appendix V

**State of Tamaulipas**  
Coverage Status by District and Municipality.

Entity	Total population	No coverage	Persons with health care coverage					Unspecified
			Total	IMSS	ISSSTE	PEMEX/Def.	Other	
State of Tamaulipas	2753222	1280777	1409261	1126543	196125	89859	3595	63184
Matamoros	418181	168334	238566	212100	25601	1310	220	11241
Valle Hermoso	58573	34026	23353	19169	4221	24	96	1194
District 03	476754	202360	261919	231269	29822	1334	316	12435
Camargo	16787	9090	7173	6193	950	34	6	524
Gustavo Díaz Ordaz	16246	8947	7002	5430	1539	48	28	297
Reynosa	420463	160115	241120	201327	18352	21567	938	10219
Río Bravo	104229	57075	45338	38220	6994	153	79	1816
Jurisdicción 04	557725	235227	300633	251170	27835	21802	1051	12856
Guerrero	4366	3006	1242	950	288	7	1	118
Mier	6788	4542	2057	1380	667	19	0	189
Miguel Alemán	25704	15662	9386	7277	2108	33	16	656
Nuevo Laredo	310915	134091	166714	149811	15900	962	557	10110
District 05	347773	157301	179399	159418	18963	1021	574	11073

Source: 12th General Census of Population and Housing 2000. Basic tables. INEGI.

## Appendix VI

**State of Tamaulipas**  
Material and Human Resources of the Healthcare Sector by District and Municipality. 1999

Entity	Units by level			Beds		Doctors' offices	Physicians				Nurses		
	First	Second	Third	reportable beds	Non-reportable beds		Total	General	Especialty	other activity	Total	In contact	Other activity
TAMAULIPAS	460	33	4	2701	1676	1486	4181	1619	1705	857	5818	5660	158
District 03 Matamoros	56	5	0	353	221	196	318	133	155	30	371	366	5
Matamoros	44	4	0	332	206	165	273	106	141	26	315	312	3
Valle Hermoso	12	1	0	21	15	31	45	27	14	4	56	54	2
District 04 Reynosa	52	5	1	423	230	237	422	166	214	42	555	525	30
Camargo	6	0	0	0	11	11	8	8	0	0	10	10	0
Gustavo Díaz Ordaz	4	0	0	0	13	8	9	7	1	1	6	6	0
Reynosa	27	4	1	399	176	181	350	109	206	35	494	464	30
Río Bravo	15	1	0	24	30	37	55	42	7	6	45	45	0
District 05 Nuevo Laredo	30	4	0	266	167	147	260	112	104	44	320	296	24
Guerrero	3	0	0	0	4	4	4	4	0	0	1	1	0
Mier	5	0	0	0	5	7	4	4	0	0	2	2	0
Miguel Alemán	6	0	0	11	20	13	20	15	3	2	14	14	0
Nuevo Laredo	16	4	0	255	138	123	232	89	101	42	303	279	24
District 03 + 04 + 05	138	14	1	1042	618	580	1000	411	473	1246	1160	2287	59

Source: City Health Figures. Data Bases, 1999. INEGI.

## Appendix VII

**Tamaulipas**  
 Physical Health Resources, 1999

Category	Total Health Sector	Total Private Sector	General population (Health Sector)					Persons with coverage					SME
			Total	SSA	IMSS/Solidaridad	Universitarios	Cruz Roja	Total	IMSS	ISSSTE	PEMEX	SDN	
Reportable beds	2701	870	1243	1122	41	7	73	1458	819	363	170	65	41
Non-reportable beds	1676	375	938	690	208	0	40	738	508	126	67	16	21
Incubators	150	127	87	80	4	2	1	63	41	10	9	0	3
Doctors' offices	1486	335	687	540	121	5	21	799	425	179	150	19	26
Testing labs	59	53	29	24	2	1	2	30	17	7	2	1	3
Pathology labs	16	1	7	7	0	0	0	9	5	2	1	0	1
X-ray machines	67	24	20	16	2	0	1	47	28	12	4	1	2
Operating rooms	96	102	40	35	2	1	1	56	27	13	9	4	3
Outpatient Surgery Centers		22											
Delivery rooms	125	66	93	87	2	1	3	32	17	8	3	1	3
Blood banks	16	5	8	8	0	0	0	8	1	5	2	0	0

Source: The Status of Health. Bulletin of Statistical Information, Number 19, Volume 1, 1999.

## Appendix VIII

**Tamaulipas**  
 Budget Expended by Program Category and Institution (thousands of pesos)

Code	Programmatic Category	Total	General population			Persons with coverage			PEMEX
			Total	SSA	IMSS/Sol	Total	IMSS	ISSSTE	
	Total budget!	3347131.3	753833.3	668248	85585.3	2593298	1875483.3	266538	451276.7
Budget line 12	Health	2678883.3	85585.3	0	85585.3	2593298	1875483.3	266538	451276.7
8	Health	2673220.1	79922.1	0	79922.1	2593298	1875483.3	266538	451276.7
800	Shared services	390225.7	0	0	0	390225.7	381070.8	9154.9	0
7000701	Administering human and financial resources	390225.7	0	0	0	390225.7	381070.8	9154.9	0
801	Public Health Services	6036.4	6036.4	0	6036.4	0	0	0	0
27005419	Providing health services PROGRESA	6036.4	6036.4	0	6036.4	0	0	0	0
27006419	Providing health services (PAC)	0	0	0	0	0	0	0	0
802	Healthcare	2276958	73885.7	0	73885.7	2203072.3	1494412.5	257383.1	451276.7
7000420	Providing health care	1767058	67679	0	67679	1699379	1450008.8	249370.2	0
7000433	Conducting scientific and technological research	1241.9	0	0	0	1241.9	227.9	1014	0
7000437	Developing basic infrastructure	5344.2	0	0	0	5344.2	3266	2078.2	0
7000438	Maintaining basic infrastructure	27116.8	4790.5	0	4790.5	22326.3	19992.9	2333.4	0
7000701	Administering human and financial resources	451276.7	0	0	1416.2	23504.2	20916.9	2587.3	0
7000703	Training public servants	24920.4	1416.2	0	1416.2	23504.2	20916.9	2587.3	0
	Supply and Social Assistance	5663.2	5663.2	0	5663.2	0	0	0	0
Budget line 33	Federal contributions to states and cities	668248	668248	668248	0	0	0	0	0
80227000419	Providing health services (decentralization)	609192.5	609192.5	609192.5	0	0	0	0	0
80227000437	Developing basic infrastructure	11490.5	11490.5	11490.5	0	0	0	0	0
90327000707	Paying federal government contributions	47565	47565	47565	0	0	0	0	0

Healthcare Map Tamaulipas, 1999. SSA.

