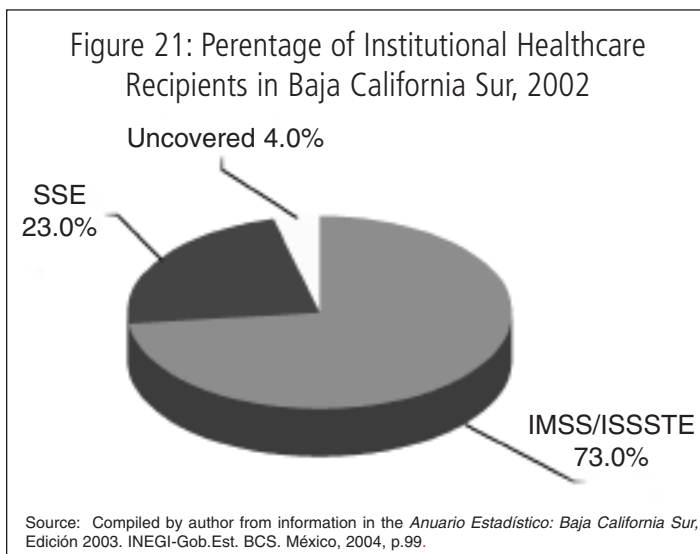


Health

Introduction

Although there have been significant improvements in the provision of basic health care in Baja California Sur, more needs to be done to meet residents' ongoing preventative, emergency, and acute healthcare needs. Luckily, most residents have access to basic healthcare; only 3.8% of the population, located mainly in rural areas, is without regular access to health services.¹ The state's health system is comprised of medical institutions supported by the federal and state governments, and private institutions. These offer health care at three levels: primary care (initial consultation and preventative medicine); secondary level of care (consultation and diagnosis with a specialist); and tertiary care (medical intervention).



According to the National Population Council, Baja California Sur has one of the lowest infant mortality rates in Mexico (13.95 in 2002) and life expectancy is 75.89 years. The universal vaccination program covers 99.5% of the population between one and five years of age. Prenatal and obstetric healthcare coverage is at a rate of 99%, which is much higher than the national average of 85%. Since 1998, Baja Sur has consistently ranked highly in national indicators of health infrastructure and available human resources; the state ranks first nationwide in number of consultations and available facilities, and second in hospital occupancy, behind the *Distrito Federal* (Federal District of Mexico City).²

As income and quality of life in the state rise, other health issues are emerging. A lack of education about nutrition and

exercise have led to problems associated with obesity, with types 1 and 2 diabetes becoming the third highest cause of death in the state. Lack of attention to the diabetes problem has also led to kidney problems throughout the state, including kidney stones and kidney failure. Teen pregnancy, alcoholism and drug addiction among youth, chronic degenerative diseases among senior citizens, and the lack of attention to the disabled community are recurring health challenges for Baja California Sur. While still low in absolute terms, Baja California Sur had Mexico's largest net percentage increase in homicides between 1998 and 2003 according to Mexico's Secretariat of Health.³

The incidence of cancer in Baja California Sur is also on the rise. In 2003, the Baja California Sur had the highest mortality rate related to lung cancer in Mexico among men; for the female population, the state was well above the national average.⁴ Baja California Sur's mortality rate among women with breast cancer was also well above the national average, with the state ranking second in documented cases behind Mexico City.⁵

Key Findings

1. Dengue

Dengue is considered an endemic illness, as the mosquito transmitters reproduce year-round, with the highest reproduction rate occurring during the annual hurricane season. In 2003, 470 cases of classic dengue, and 423 cases of hemorrhagic dengue were registered in July alone. The disease could easily become a major problem if appropriate control measures are not taken, considering the wide range of people affected, as well as the number of undiagnosed and un-hospitalized cases that occur.

Steps have been taken by sanitation authorities to initiate prevention and information campaigns, and larvicides have been distributed for use in the water supply. The ultimate goal is to considerably reduce the reproduction of the transmitter mosquitoes, and future steps include the spraying of insecticide in streets throughout the state.

2. Tuberculosis (TB)

Although not considered to be an area of critical concern, 1,820 new cases of TB were detected in 2002, mainly in La Paz, Mulegé, and Los Cabos, of which only two-thirds were treated and controlled.⁶ The morbidity rate for tuberculosis

Figure 22: Primary Causes of Mortality
in 2003- Baja California Sur

Illnesses	Rate per 100,000 inhabitants
1) Heart Disease	67.6
2) Malignant Tumors	62.1
3) Diabetes	38.2
4) Suicides	35.9
5) Pneumonia and Influenza	18.7
6) Vascular Brain Complications	18.3
7) Perinatal Complications	16.8
8) Liver Disease	15.5
9) Congenital Deformations	7.8
10) Accidents	6.9

Source: State Government of BCS, *V Informe de Gobierno 2003-2004*, Lic. Leonel Cota Montaño p. 33

is above the national average, but below that of Baja California.⁷ In 2003, health authorities initiated a control program, where 100% of the detected cases were subjected to treatment with strict supervision; 88% resulted in remission, putting the state among the top ten in Mexico in terms of TB illness control.

Dr. Eduardo Rodríguez Pulido (Former BCS Secretary of Health) commented that the principal challenge facing the control of tuberculosis is that patients abandon treatment as soon as they start to feel better. If treatment is not completed, the disease can develop a resistance to medications within the affected population.

3. Respiratory Problems

The category of respiratory problems includes such illnesses as pneumonia, which in 2002 was the fifth leading cause of mortality throughout the state,⁸ as well as chronic bronchitis, emphysema, and asthma, which were all among the top twenty leading causes of death. Asthma primarily affects children, and in 2003, it was identified as the eighth leading cause of death amongst the infant population.⁹

The high incidence of respiratory illness in the state is likely due to high levels of environmental pollution, especially from airborne sources such as dust laced with chemicals used in agricultural production, particulate matter from unpaved roads, and power plant emissions. The Comisión Federal de Electricidad (Federal Electricity Commission-CFE) has a legally-binding agreement with SEMARNAT to control emissions from its power plants (especially for PM-10 and PM-5 which are hazardous to human health)¹⁰, but there is insufficient enforcement, which has led to lax oversight of La

Paz and Puerto San Carlos facilities, as well as postponed infrastructure upgrades. A recently-approved investment of US\$18 million for pollution control equipment in Punta Prieta in La Paz should improve the air pollution nearby.¹¹

4. Diabetes

Diabetes is one of the most prevalent diseases in Baja California Sur; during 2002, 10,885 new cases were diagnosed in the state. Diabetes can compromise vital organs, such as the kidneys, provoking visual disability, inhibition of blood circulation, problems with blood coagulation, and the loss of extremities, in addition to high blood pressure.

In Baja California Sur and throughout Mexico, diabetes is the result of a basic diet that is rich in carbohydrates and sugars, combined with a general lack of physical activity. Diabetes is also linked to long-term arsenic ingestion, which has been located in groundwater wells in 34 communities around the state (also discussed in the environment section). The state health sector covers diabetes treatment, but an emphasis on prevention could be an effective way to curb the high incidence of new cases in the state. Considering its health impacts, prevention of diabetes, could be seen as prevention of a host of other health-related problems.

Programs have been implemented by the IMSS, as well as through nonprofits, including training courses on cooking and baking for diabetics, disease characteristics, arterial hypertension, first aid, and sexual health, so that family members will be able to offer in-home support and more integrated attention to patients.¹²

5. Malnutrition/Obesity

Malnutrition and obesity are also common problems related to diet and exercise in the region. A high percentage of children between the ages of five and eleven are overweight (18.8% of boys and 19.6% of girls),¹³ suggesting that in the future weight problems in adults will be even more severe, resulting in an increase in illness related to obesity. Currently, Baja California Sur is ranked second in the nation in obesity,¹⁴ likely due to factors that include high calorie diets associated with fast food, a rise in recent years of bottled soda consumption,¹⁵ and a reduction in community levels of physical activity.

Preventative measures are the best method for combating obesity, which could include: promoting physical activity and a reduced calorie diet, most notably for schoolchildren and adolescents who are in the process of defining their activity and dietary habits; distributing information to communities about obesity and associated chronic diseases; regulating

Figure 23: Packets and Food Rations Distributed to Children in DIF Programs
 "Attention to Children Under 4" and "School Breakfast" by Municipality

Municipality	Packets (Attention to Children Under 4)	Rations (Attention to Children Under 4)	Packets (School Breakfast)	Rations (School Breakfast)
Comondú	1,680	29,400	26,512	245,472
Mulegé	2,156	37,730	29,288	283,920
La Paz	12,600	231,000	59,466	852,500
Los Cabos	1,316	23,030	32,738	703,976
Loreto	672	12,320	13,384	252,288
BCS	18,424	333,480	161,388	2,638,156

Source: State Government of BCS, *V Informe de Gobierno 2003-2004*, Lic. Leonel Cota Montaña, tomo II, p. 36.

public sector promotion of high calorie foods; and enacting strategies to help identify risk factors and encourage early diagnosis of illnesses related to obesity.

Poverty is a major factor in malnutrition. Nationwide, 30% of children between the ages of one and five from poor households have moderate to severe malnutrition, while only 5% of children in the same age range from homes with higher incomes are malnourished.

In Baja California Sur, problems related to malnutrition and obesity are mainly concentrated in urban areas.¹⁶ The municipality with the highest malnutrition index for children is La Paz and the lowest index corresponds to Mulegé. In 2003, nutritional deficiencies occupied the seventh highest cause of mortality in the child population less than five years of age.

Tending to this public health concern, the Integral Family Development (DIF) agency in each municipality works to abate malnutrition and poor dietary habits through two primary programs: "Attention to Children Under Four" and "School Breakfast." Nonprofits focused on education have also adopted the school breakfast program in various urban areas to enhance learning potential in young students.

6. Substance Abuse

Alcohol and substance abuse are persistent problems in Baja California Sur when compared to the rest of the nation, although it is consistently below that of the state of Baja California, further to the north. The most commonly abused substances are marijuana, cocaine, alcohol, crystal methamphetamines, sedatives, and inhalants.

According to the former State Secretary of Health, Dr. Eduardo Rodríguez Pulido, addictions are related "directly to the principal causes of death: heart disease, accident, cerebral pathology, suicides, hepatitis, cirrhosis, homicides and kidney lesions."¹⁷ In addition, substance use and abuse is often an instigator of domestic violence against

women and children, with social instability as a frequent result.

The current state prevention and support programs do not have sufficient resources to address, inform, and influence the population, most notably the youth, about the inherent risks that accompany the use of these substances. There is also a need for additional rehabilitation centers to reach the high number of addicts in the state – there are just two juvenile facilities for the entire state. This gap in available facilities has resulted in rehabilitation "pseudo-centers", which often exacerbate addiction problems rather than treat them. For example, treatments at some centers result in dependencies on different drugs; at others, treatments could result in patient dropout or relapse.

Factors that promote the growth of addiction can be attributed to the ease with which drugs and alcohol can be acquired. Stronger enforcement is needed, especially now that the state is considered a major thoroughfare for trafficking illegal drugs to foreign markets. Other factors that promote addiction include the lack of recreational options catering to the interests of the youth, unemployment pressures, and domestic abuse and violence.

7. Mental Health

In Baja California Sur, there is a need for greater service coverage related to mental health, including prevention and treatment, outpatient consulting, family counseling, and group and individual therapy. The incidence of domestic violence in the region is alarmingly high (discussed more fully in the section on community development), as are cases of suicide and drug dependency where the only option for care is the psychiatric hospital in the municipality of La Paz, a long journey for much of the state.¹⁸

According to INEGI, the state registered the highest frequency of suicides in youth ages 18 to 25 on a per capita basis nationwide.¹⁹ Among men of all ages, Baja California Sur ranked sixth in the nation in suicides in 2003.²⁰ To

combat this, the state initiated a telephone “hotline” in 2004 to provide suicide, drug, and domestic violence counseling. Clearly, there is a need to create and expand institutions and civil organizations that serve those affected by psychological and physical ailments, as well as to address the causes of suicide and suicide attempts.

8. HIV/AIDS

While the incidence of HIV/AIDS in Baja California Sur is lower than Baja California to the north, the disease is a growing problem across the state. In 2003, the number of men dying of HIV/AIDS in Baja California Sur exceeded the national average. Among women dying from HIV/AIDS, Baja California Sur had the highest incidence rate in Mexico.²¹

The stigma of HIV/AIDS in the state has resulted in a backlash against lifestyles popularly associated with the illness, such as homosexuals. Unfortunate consequences have resulted including, denial of medical services and unjustified firings of people infected with the disease. This situation complicates the delivery and potential impact of awareness and prevention campaigns, though a concerted effort has not been made to educate the public about the disease. The “safe sex” campaign encouraging the use of condoms has not had the desired result, and transmission rates continue to rise annually.

The primary means of infection are 92.7% sexual transmission and 6.4% intravenous transmission. Interestingly, the most vulnerable groups are not necessarily homosexuals and drug addicts – statistics show almost 29% of sexually-transmitted cases are heterosexual.²² Additionally, pediatric AIDS remains a problem.

9. Worker Wellness

The Mexican legislature recently decreed a series of workplace standards relating to safety, hygiene, and the occupational environment. The implementation of these standards, as well as their consistency, varies from business to business.

In Baja California Sur, groups of workers continue to cope with significant health risks, most notably those in the agricultural and fishing sectors. Reasons for this situation include a lack of knowledge about regulations by both the employee and employer, and a lack of human resources to ensure workplace compliance to safety standards. Specifically, both short- and long-term consequences of exposure to chemicals in pesticides are often ignored, as well as the risks of scuba diving without adequate equipment.

10. Preventative Medicine

One of the most efficient ways of combating disease is through the practice of preventative medicine. Physical exercise is recognized as the key way to combat high levels of heart disease, obesity, and diabetes. Reduced consumption of alcohol and other harmful substances will also decrease disease levels.

Vaccination campaigns are another important way to prevent illness. Baja California Sur has treated 99.5% of children ages one through five with polio, measles, mumps, and TB injections, ranking the state fifth nationally. To avoid atypical outbreaks of adult whooping cough and other epidemiological outbreaks, a program has been implemented to administer vaccinations to people between the ages of 13 and 49 who have not been vaccinated during the last four years.



Nationwide, the health sector has implemented a systematic campaign to detect cervical, uterine, and breast cancer in women. Baja California Sur has experienced a decreased rate of cervical/uterine cancer in recent years; the national incidence ranking in 2002 of 28th decreased to eighth in 2003. This can be directly traced to the success of the detection program, though the mortality rates from these diseases continue to be high.²³

Traditional or alternative medicine is re-emerging as a form of preventative medicine. Although migrant day laborers in rural agricultural areas where medical attention is scarce

tend to seek treatment by means of traditional medicine, alternative medicine is not in reality an option for the prevention or cure of illness due to the scarcity of practitioners. This is likely due to naiveté about the benefits of alternative medicine by the general population, as well as to the high costs of consultation and treatment required.

Health institutions and a few nonprofits have initiated actions to promote a culture of prevention, including the IMSS cooking for diabetes program, and the *Teddá Belmacú* “Heart Week” campaign. The impact of these programs would undoubtedly be greater if a culture of prevention among the state’s population prevailed.

11. Resource Allocation

Financial investment in public health is relatively high in Baja California Sur, and recent increases have been channeled toward improving the sector’s infrastructure, assistance with insurance programs, and for women’s health. There has been a 40% increase in funds being used for medical infrastructure since 1999, allowing for much needed new space at the state’s hospitals in addition to the building of new centers. A much smaller amount of funding is allocated to the State Center Against Addictions (Centro Estatal Contra las Adicciones [CECA]).²⁴

The 2005 gubernatorial election brought new staff to the Secretary of Education and Health that have strengthened public-private partnerships, specifically with nonprofits. For example, services for the disabled had not been adequately addressed by the state; a new nonprofit-DIF-state agency arrangement will bring training, orthopedic equipment, surgeries, job training, and recreational and school infrastructure to this target audience.²⁵

12. Access to Healthcare

Approximately 96% of the state’s population has access to public health programs and facilities through the IMSS, ISSSTE, and other government health networks. Workers and the private sector are covered by the IMSS, while federal government employees are covered by the ISSSTE. State government employees are covered by state-sponsored ISSSTE programs, and the uninsured are covered through the SSE.

However, the public health sector in Mexico is in severe financial crisis, principally the IMSS and ISSSTE. As their constituents are the majority of the population, the situation is having a direct impact on the quality and quantity of services offered. Here, it is interesting to note that the quality of medical service and overall use does vary from state to state across Mexico. According to Mexico’s Secretary of Health, Baja California Sur had the lowest



number of consultations per facility in Mexico and was, as such, considered among the least productive in the country.²⁶

Beyond these shortcomings, a third of the state’s rural population is located at least thirty minutes from a location offering health service (compared to 15% of the urban population), and as mentioned above, 3.8% of the rural population do not have access to any medical attention. However, the government has the intent of providing sufficient health services through the implementation of popular insurance coverage, which is currently in a pilot phase, offering preventative, medical, and hospital attention to 4,700 families that meet an annual quota of US\$320. However, additional assistance is still needed to improve healthcare accessibility for this segment of the population.

Needs by Municipality

1. Comondú

The rural municipality of Comondú has the lowest rate of cancerous tumors in the state. One area of concern is the increase in deaths from complications associated with AIDS, as it did not appear amongst the principal causes up until 1998, and then appeared as the fifteenth highest mortality indicator in 2000. This may be caused by in-migration from mainland Mexico and Central America, but no confirming studies have been completed to date.

Comondú also has high levels of infant mortality (ranking

second in the state in deaths of children under five) mainly from preventable diseases and resulting from issues with sanitation, high levels of diabetes types 1 and 2, hypertension, prenatal complications, and car accidents (ranking first in the state with 24.7 for every 100,000 inhabitants).

Due to the small, dispersed population of the Comondú municipality, improving health services will require participation by voluntary health advocates, nonprofits, and community associations. This will be critical as rural leaders are concerned with the lack of access to healthcare in the form of doctors, medicine, equipment, and health centers. Drug and alcohol addiction programs are also a priority in Comondú. Finally, there is interest in nutrition awareness programs because, according to one community leader, “it is one thing to eat; it is another thing to know how to eat.”²⁷

2. La Paz

As 45% of the state’s overall population lives in the municipality of La Paz, and the city of La Paz is the locale of the state’s government seat, La Paz has the best health infrastructure and human resources in the state.²⁷ In the municipality, the SSA has twenty health centers, a general hospital, a psychiatric facility, and four mobile units; the IMSS has one primary care hospital and one secondary care hospital; and the ISSSTE has three primary care hospitals and one secondary care hospital. As mentioned above, however, financial constraints at ISSSTE and IMSS are compromising the quality and quantity of care. To assist government programs, community leaders seek coordination between the government, and nonprofits, which can disperse primary health care resources, provide educational materials on prevention, and help identify emerging health problems.

La Paz municipality has the highest occurrence rates for a number of diseases in the state, including heart-related illness,²⁹ cancerous tumors,³⁰ sicknesses related to the kidneys (such as kidney failure or kidney stones),³¹ and nutrition-related illnesses.³² There are also serious issues with traffic accidents, mental health, and sexual and reproductive health awareness. Prevention efforts are few and far between, and though they are beginning to have an effect, more can and should be done to address these issues.

In some areas, it is necessary to fumigate periodically during the rainy season, especially in February to avoid coetaneous and eye infections, as well as dengue and respiratory and intestinal illnesses in children. An insufficient drainage and garbage collection system, lack of potable water, and poor animal management also contribute to water-borne and respiratory illnesses. Women’s sexual and

reproductive health education may alleviate HIV/AIDS and sexually-transmitted disease transmittal.

Despite healthcare accessibility, there are still vulnerable populations in La Paz municipality. Rural areas suffer from lack of transportation, specifically ambulances, available in case of emergency. Additionally, small children with special needs, such as children of single mothers, are a highly vulnerable health sector. Currently, a private day care facility is being built to tend to children with special needs because there are no public facilities available.



3. Loreto

The lack of attention to mental health issues for the residents of Loreto is of primary concern, since the high levels of violence and depression have placed the municipality first in the state for mortality related to suicides and homicides. Other major health concerns in the region are respiratory illness (Loreto has the highest mortality rate due to TB in the state), gastrointestinal complications, teen pregnancies, the rising incidence of drug and alcohol addiction, and life-style related illnesses (such as cardiovascular illness and diabetes types 1 and 2 where Loreto has the highest mortality rate in the state³³), with children and young people being the hardest-hit groups. There is the need to improve the cleanliness of public areas, to encourage healthy dietary and exercise lifestyles, to implement drug rehabilitation and prevention programs, and to provide sexual health and contraceptive information to residents.

The prevalence of health centers in the region is insufficient, and patients that require secondary level care must be transported to cities outside of the municipality, which can be very costly for the institutions as well as for family members. The problem is even worse for rural communities, as the services that they do receive are administered by a mobile unit, which is supported by six volunteers who often do not have adequate training to handle emergency situations. There has also been a recent increase in the number of suicides within the disabled community due to a lack of adequate mobility and rehabilitation equipment.

The municipality lacks a culture of prevention, which can be seen through the sparse attendance and community participation at awareness events, and in the general apathy toward vaccination campaigns for children and animals. Nonprofit groups could work to fill this gap by helping to motivate members to resolve or avoid health problems. Approaches could include the purchase of rehabilitation equipment for the disabled, acquisition of medical equipment (x-ray, dental, mobile medical units, etc.), and overall programs aiming to help sensitize the community at large to the importance of preventative measures.



4. Los Cabos

As the primary tourist destination of the state, Los Cabos municipality has a number of serious health care concerns and needs that are specific to the area, including lack of enforcement related to substance abuse, with the highest levels of illegal drug consumption in the state. Death and disability from automobile accidents have also increased because of this problem.

For its size, Los Cabos has an acceptable level of medical infrastructure and human resources. Awareness campaigns have resulted in the municipality having the highest rate of early detection for diabetes, family planning, maintenance of child health and nutrition, and for management of hypertension. However, Los Cabos is in need of education

and prevention programs focused on AIDS and dengue. There is also a need for an informative campaign to help control the population of homeless dogs and cats, as well as the benefits of vaccination and sterilization of pets. A clinic and shelter for stray animals is needed.

The deficiencies in healthcare in rural areas are exacerbated by the lack of medical personnel, supplies, and equipment in the health centers, as well as in the building of new medical centers.

5. Mulegé

Because of the vastness of the territory of Mulegé, and the dispersion of communities throughout it, there is a limitation to the amount of knowledge that the population has about basic sanitation, diet, exercise, and preventative health measures. The region has an inadequate waste collection system, infected potable water sources, uses obsolete measures for the treatment of waste water, and even has open air feces exposure in rural locales.

There is a high frequency of respiratory illnesses, hypertension, diabetes, and cancer. Many of the recurring respiratory illnesses and gastrointestinal infections affecting children can become life-threatening if not given the appropriate attention, and Mulegé has the highest mortality rate for children under the age of five in the state.^{34,35}

A serious health care issue in Mulegé is mental illness, as the municipality has the highest rate of attempted suicides and second highest rate for suicide deaths in the state. Failure to address this problem can cause further resource drains on the state, as failed suicide attempts often result in disability. Another indicator of insufficient mental health care in the state is the high occurrence of domestic violence affecting women and children. Although a difficult situation to rectify, a study to identify the breadth of cases, as well as the causes that provoke them would help health sector personnel to address the problem in an appropriate manner.

To improve health care in rural areas, it is necessary to increase the capacity of medical attention to isolated communities, particularly toward vulnerable populations and the provision of quality health services. Strategies include improved distribution of basic medications, increased visits to rural areas by mobile health units, construction of health stations in clinics, intensive first-aid classes, and substantial vehicles to transfer patients to other areas when needed.

Some nonprofits have focused on providing optical and surgical assistance to localities, such as San Ignacio and Santa Rosalía. Expansion of these services to other geographic regions, as well as additional medical services would augment inadequate government care in those areas.