SENATE COMMITTEE ON BORDER AFFAIRS

76TH LEGISLATURE

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December 8, 2000

The Honorable Rick Perry
Lieutenant Governor of Texas
Texas Capitol, Second Floor East
Austin, Texas 78711

Dear Governor Perry:

The Senate Special Committee on Border Affairs hereby submits its report on Interim Charge 3 (assessing the health conditions in the Border Region, including childhood diseases and chronic health problems endemic to the Border such as diabetes and tuberculosis, as well as an evaluation of the utilization of immunization and prevention programs and of collaborative efforts on common health issues between Texas and the Mexican Border States. Included in this assessment is the development of health care strategies to improve Border health conditions and recommendations for their implementation).

Respectfully submitted,

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Border Health: A Binational Concern

The Texas Senate Committee on Border Affairs was charged by Lt. Governor Rick Perry to address the unique health concerns of the Texas-Mexico Border region. Doing so, the Committee traveled to communities along the Border region, including El Paso, Laredo, Eagle Pass, and the Lower Rio Grande Valley to acquire the necessary information to fully address the Border health charge.

One major finding of the Border Affairs Committee was that the health and environmental problems of the Texas-Mexico Border region are international problems that know no boundaries. The United States General Accounting Office (GAO) reported last year that "Many of the major Border issues are essentially not 'domestic,' but transnational issues that transcend political boundaries. For example, El Paso, Texas, and its sister city, Ciudad Juarez, have a serious air pollution problem. The mountains surrounding the cities create a single air basin, causing airborne pollution to stagnate over the area. Only by working together to mitigate the sources of the pollution will either city enjoy clean, healthy air." GAO went on to report that "the situation is essentially the same for many other important Border issues...[including] health concerns (such as the high levels of tuberculosis in the Border region). Addressing these complex transnational issues requires coordination and cooperation among numerous U.S. federal, state, and local agencies, and with their Mexican counterparts."[1]

Senate Committee on Border Affairs Border Health Interim Charge:

Assess the health conditions in the Border Region, including childhood diseases and chronic health problems endemic to the Border such as diabetes and tuberculosis. Included in this assessment shall be an evaluation of the utilization of immunization and prevention programs and of collaborative efforts on common health issues between Texas and the Mexican Border States. The Committee shall develop health care strategies to improve Border health conditions and recommendations for their implementation.

[1] General Accounting Office. U.S.-Mexico Border: Issues and Challenges Confronting the United States and Mexico. July 1999.

Historically, Texas has experienced several outbreaks of illnesses that originated in Mexico. Dallas experienced a measles epidemic that originated in Monterrey, Mexico. More recently, in South Texas, an outbreak of dengue fever was traced back to Mexican cities. In other instances, tuberculosis, salmonella, and malaria outbreaks across the U.S. were found to have started in the Texas/Mexico Border region.[2] In summary, the diseases that are plaguing the Border region do not abide by international boundaries.

Texas Border Demographics.

One of the major problems confronting the Border has been its inability to address its health concerns through locally available health services and medical coverage. Key socioeconomic factors in the region have prevented many Border residents from receiving adequate care. One such factor is the high level of poverty in the region. In fact, last year the GAO reported that "relatively high levels of poverty exist in the Border region. Many of the poorest counties in the United States are found there, especially in Texas."[3] Specifically, in terms of the Border (as defined in the infrastructure/transportation section of the Border Affairs report) research shows that in 1989 the 22-county Border region had an estimated 565,461 individuals living at or below the poverty level. In 1999, that number increased by 23 percent, to 694,258.[4]

The poverty rate along the Border is higher due in part to the number of colonias that are found in the region. GAO went on to report that "poverty is more acute in the Border areas called colonias. The term 'colonia' generally refers to an unincorporated, low-income community endemic to the U.S.-Mexico Border. These communities are characterized by substandard housing, inadequate roads and drainage, substandard or

[2] Information provided by Juan Martinez, Fort Duncan Medical Center. February 4, 2000.

[3] Ibid.

[4] Data Sources, Texas Health and Human Services Commission and the United States Bureau of the Census and Research Department.

no water and sewer facilities, and no garbage disposal services. Although colonias are found in all four U.S. Border states, they are most common in Texas and New Mexico. The EPA [Environmental Protection Agency] estimated in 1997 that the colonias' population includes over 390,000 people in Texas and over 42,000 in New Mexico."[5]

The problems associated with poverty along the Border are compounded by the region's high levels of unemployment. As discussed in the infrastructure section of the report, the Border region has had among the highest unemployment levels in the nation. In Texas, the average monthly rate of unemployment for Texas Border counties remains more than twice that of the state as a whole. In 1990, while the state average unemployment rate was 6.3 percent, the Border region's unemployment rate was 15.8 percent. In 1999, while the state unemployment rate dropped to 4.6 percent, the Border rate remained in the double digits.[6]

Why are the poverty and unemployment rates so important in the Border region? The answer lies in an individual's ability to pay for health insurance. Not surprisingly, while there were more than 650,000 individuals living in poverty along the Border region in 1999, some 662,040 individuals within the same counties did not have health insurance (Table 1).

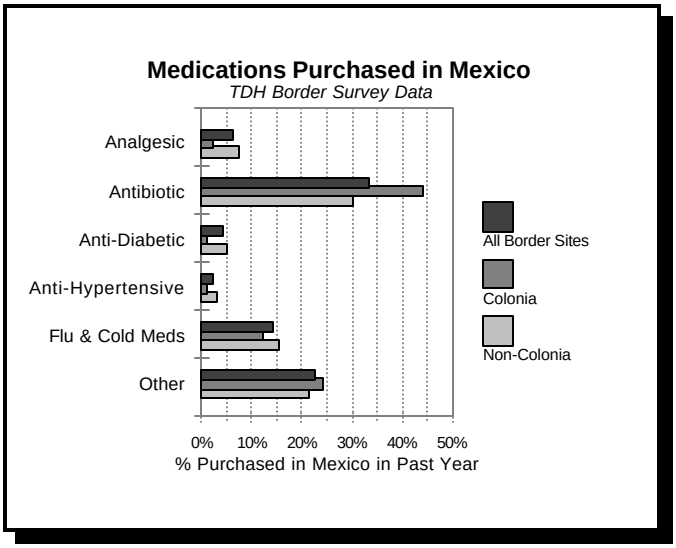
[5] General Accounting Office. U.S.-Mexico Border: Issues and Challenges Confronting the United States and Mexico. July 1999.

[6] Data Sources: Texas Health and Human Services Commission and the United States Bureau of the Census and Research Department.

Table 1: 1999 Uninsurance Estimates for Selected Populations Border Region and the State of Texas				
Population	**Number of Uninsured: Under Age 65**	**Percent Uninsured: Under the Age 65**	**Number of Uninsured: Under Age 19**	**Percent Uninsured: Under the 19**
22 Border Counties	662,040	35.2%	229,939	31.3%
Texas	4,807,679	26.7%	1,475,695	25.0%

Table Source: Texas Health and Human Services Commission: Research Department.

In order to deal with the lack of employment and inability to pay for health insurance and services, Border residents at times resort to treating themselves for their illnesses, going into Mexico for treatment/medication, or going untreated.



Source: TDH Border Survey Data

In particular, cross-Border purchasing of medications and utilization of care makes ensuring quality care difficult. For example, physicians frequently treat patients who reside on one side of the Border, yet are being treated in both the United States and Mexico. For this, they must be familiar with medical standards that differ from the U.S. and must be able to consult with physicians in Mexico. Failure to accurately monitor patients' progress and ensure that proper treatment regimens are completed are both serious public health issues. Further, there is the issue of how services are

paid for when patients are not residents of the country from which they receive care.[7]

The expansion and mobility of the Border population has serious public health ramifications, particularly in the six sister-city communities of El Paso/Juarez, Del Rio/Acuna, Eagle Pass/Piedras Negras, Laredo/Nuevo Laredo, McAllen/Reynosa, and Brownsville/Matamoros. Estimated annual border crossings exceed 400 million people border wide with daily average crossings of 1.6 million. The Mexican border municipalities are expected to double their population in the next nine years. These numbers have huge implications for exposure to and transmission of disease.[8]

While components of NAFTA address environmental infrastructure, there are no provisions that explicitly discuss public health infrastructure issues. "Federal and state authorities must consider ways to resolve NAFTA-driven health issues that ultimately have a significant impact deep into the interior of the U.S. and Mexico."[9] Current cooperation to this end includes efforts to "expedite the implementation of the Binational Infectious Disease Surveillance Project (BIDS) at the federal level, with pilot projects in place at McAllen/Reynosa and El Paso/Juarez."[10]

The United States-Mexico Border Health Commission, authorized by Congress in 1994, serves to foster international cooperation and improve local, state, and federal coordination in approaching border health issues. The Commission addresses environmental and public health concerns.[11]

Using the La Paz agreement signed by the U.S. and Mexico in 1983, the Commission defines the Border region as the area within 62 miles (100km) of the border. An

[7]Texas Department of Health, November 18, 1999

[8]Information provided by Juan Martinez, Fort Duncan Medical Center. February 4, 2000.

[9]Information provided by William R. Archer III, M.D., Commissioner, Texas Department of Health.

[10]ibid.

[11]William Rasco, Greater San Antonio Hospital Council. March 22, 2000.

Executive Director was appointed in September 2000, and the office of the Commission was placed in El Paso, due in part to its location at the halfway point along the United States-Mexico border. The first conference of the Commission will take place in November 2000, in the Lower Rio Grande Valley. One of the initial endeavors will be to facilitate improved telecommunications, including working with private communication industries on both sides of the border. Easing the transfer of information between the adjoining regions in Texas and Mexico will lay the foundation for long-term sustainable growth of border health initiatives.[12]

As evidenced by data and testimony throughout this report, there is virtually no aspect of Border health that may be isolated from association with Mexico. Texas Border issues cannot be properly addressed without collaboration and coordination with Mexican counterparts. As the various aspects of Border health are addressed in the following chapters, the importance of this unique binational relationship will remain clear.

Based on these findings, the Senate Committee on Border Affairs makes the following recommendations to the Legislature:

RECOMMENDATIONS

- Explore avenues to develop binational health insurance measures.

- Consider a Continuing Resolution to the U.S. Congress requesting the development of an agreement or treaty that specifically addresses health issues of mutual concern between the U.S. and Mexico, including the elimination of legal barriers. A framework analogous to the NAFTA environmental side agreements, the Border Environment Cooperation Commission and the North American Development Bank, should be utilized.

[12]William Archer, M.D., Commissioner, Texas Department of Health. September 28, 2000.

- Direct the U.S. Department of Health and Human Services to create a U.S.-Mexico Border Health task force.

- Explore mechanisms to enhance binational coordination via the U.S. Agency for International Development, non-governmental organizations, and private sector opportunities.

- Increase the capacity to respond to emerging binational public health initiatives by developing binational public health coordinators, establishing a network of Border regional epidemiologists, and establishing/expanding border laboratory capabilities. This should address the health issues associated with economic and population growth anticipated as national trade agreements are fully implemented.

- Continue to work with federal officials to ensure Mexico's full participation in the U.S.-Mexico Border Health Commission.

- Expand the surveillance and control of communicable diseases in the Border region by state and local health departments, with primary consideration for infectious diseases.

EPIDEMIOLOGY

Epidemiology is the study of disease incidence and trends; it is the primary tool "to identify and develop the strategies to control and reduce the incidence of disease in the community." In El Paso, Project Juntos and the Binational Information Council are two notification systems that have been used epidemiologically on both sides of the Border. Additional resources are needed, however, to develop the reporting system and analytical capabilities in local communities all along the Border in order to make epidemiological programs truly proactive.[13]

The Texas Department of Health conducted a study of 18 border counties which reported that the cervical cancer incidence rate was 18.8 for Hispanic females and 9.4 for Anglos per 100,000 population. In 1998-1999, the Dysplasia/Cancer Stop program in McAllen, led by the University of Texas Medical Branch at Galveston, had screened the largest number of women for any single agency in Texas (5,366). The Cancer Stop program provides free services to underserved and uninsured females throughout the Lower Rio Grande Valley. During one sample period, they reported that out of 2,770 adult women who came in for breast and cervical screening, 1,462 were found to have abnormal results which required referral to an outside facility.[14] The TDH study results suggest that intervention measures, such as PAP tests, may not be reaching Hispanic females along the Border.[15]

According to the *Texas Department of Health Epidemiology in Texas '98* annual report, not only were the cervical cancer rates of Hispanics almost twice that of Anglos, the liver cancer rate was almost three times higher in Hispanic males than Anglo males at 11.7 versus 4.1 per hundred thousand respectively. Since the Border

[13]Information provided by Jorge Magaña, M.D., El Paso County/City Health & Environmental District. November 18, 1999.

[14]Information provided by Ron Tupper, Texas A&M University Health Science Center. May 25, 2000.

[15] The 18 counties were: Brewster, Cameron, Culberson, Dimmit, El Paso, Hidalgo, Hudspeth, Jeff Davis, Kinney, Maverick, Presidio, Starr, Terrell, Val Verde, Webb, Willacy, Zapata, and Zavala.

region has a large population of Hispanics, these numbers are especially meaningful. In some communities, the local figures could be viewed as statistical variances, but this has still become an issue that merits further study.[16]

The Texas Cancer Registry, maintained by the Cancer Registry Division of the Texas Department of Health, almost lost funding from the CDC this year due to factors involving inadequate state support.[17] Research grants from the National Institute of Health are now awarded based on the quality of registry information. In order to ensure that analysis of cancer clusters and federal research grants are maintained, the Texas Cancer Registry must be supported.

The Health Resources and Services Administration (HRSA) has formed a partnership with the National Council of La Raza and the Farmworker Justice Fund in order to train farmworkers to serve as HIV/AIDS promotoras and provide AIDS prevention education, testing, referrals, and counseling. "Studies have shown that Hispanic women in the Border area tend to be less informed and have greater misconceptions about HIV transmission. They may also be less likely to seek out information on HIV prevention."[18] Currently, it is not permissible to use state and federal funding sources to work bi-nationally. The Border HIV/AIDS and STD case rates are believed to be under-reported, due to possible cultural reasons not to self-report, diagnoses made elsewhere, and lack of programs to track binational, cross-border reporting.[19]

[16]Information provided by Jorge Magaña, M.D., El Paso County/City Health & Environmental District. November 18, 1999.

[17]Information provided by William R. Archer, III., Commissioner of Health, Texas Department of Health. September 28, 2000.

[18]Health Resources and Services Administration (HRSA). "Assuring a Healthy Future Along the U.S.-Mexico Border- A HRSA Priority"

[19]Information provided by Jerry Robinson, City of Laredo/Webb County Health Department. January 12, 2000.

Based on these findings, the Senate Committee on Border Affairs makes the following recommendations to the Legislature:

RECOMMENDATIONS

- Establish binational HIV/AIDS/STD programs.

- Increase outreach funding for cancer screening and early intervention, such as PAP tests, for the Border region.

DIABETES

According to the American Diabetes Association, 54,000 diabetes patients throughout the country undergo amputations each year due to complications from the disease. They submit that as many as half of these could have been prevented with proper testing, education, and appropriate footwear. Furthermore, approximately 25,000 Americans lose their eyesight annually due to diabetic retinopathy.[20]

Currently, there are 1.6 million Texans living with diabetes. It is now the sixth leading cause of death listed on death certificates in the state. Even at this high rate, it is believed that diabetes is under-reported on death certificates both as a cause of death and as a condition.[21] The annual cost of the disease is over $9 billion in Texas. In 1998, 4 percent of the Texas population had diabetes and by 1999, the rate was 6.1 percent. Projections for 2028 estimate the percentage of the population with diabetes to increase to 14 percent, or approximately 4.5 million people, with the cost of the disease projected to reach $45 billion per year. This enormous cost does not even completely assume the shift in Texas' demographics to a Hispanic majority population;[22] this is significant as in 1999, a Centers for Disease Control study showed that Hispanics are diagnosed with diabetes at twice the rate of Anglos.[23]

Testimony up and down the Border stressed the importance of prevention as a primary tool in the fight against diabetes. The promotion of healthy lifestyles was a key recommendation of the majority of witnesses who testified. The necessity of making these dietary and lifestyle changes culturally sensitive was also emphasized. Customary high fat and high sugar foods eaten by Hispanics, such as *pan dulce*

[20]Information provided by Maria Alen, M.D., Texas Diabetes Association. May 25, 2000.

[21]ibid.

[22]Information provided by William R. Archer III, M.D., Commissioner of Health, Texas Department of Health. January 12, 2000.

[23]Information provided by Elizabeth Rhodes, Texas A&M International University, Center of Housing and Urban Development. January 12, 2000.

(sweet bread) and *barbacoa* (barbecue made from the head of a cow), must be taken into consideration when developing diet plans.[24]

According to the American Diabetes Association, the number of cases of diabetes is 60,000 to 75,000 people in the Rio Grande Valley alone. The Border Health Office developed a capture/re-capture model and determined that the previous studies had a 100 percent undercount of the number of people with diabetes. This was the first work that came entirely from within the office.[25] Additional testimony found that many cases in Hidalgo County, and South Texas in general, are not being detected and are not treated, and that many individuals are in poor compliance with treatment regimens. It is estimated that one in four Hispanic adults age 45 and older are affected by diabetes in Hidalgo County.[26]

The Center for Disease Control (CDC) has developed a study including Laredo and the Rio Grande Valley, to accurately determine the rates of diabetes in US and Mexican cities.[27] The El Paso del Norte Foundation is contributing funds for this project in the El Paso area as well. Many healthcare providers estimate that the actual population of diabetics is much higher than current statistics indicate.

The rise in diabetes rates is due to increased consumption of not only sugar, but packaged and refined foods overall. A Baylor University study of the Rio Grande Valley showed that the main diet of many of the residents consisted of 20 ounces of Coca-Cola, refried beans, meat, flour tortillas, rice, and sweets. In this diet, the sugar,

[24]Cuellar, Israel. "Psychological Factors in the Management of Diabetes in Hispanics: A Health Psychology Perspective" Texas Psychologist. Summer 2000. Information provided by the Texas Diabetes Council. September 28, 2000.

[25]Information provided by Paul Villas, M.D., University of Texas System Border Health Office. January 12, 2000.

[26]Cuellar, Israel. "Psychological Factors in the Management of Diabetes in Hispanics: A Health Psychology Perspective" Texas Psychologist. Summer 2000. Information provided by the Texas Diabetes Council. September 28, 2000.

[27]Information provided by Brian Smith, M.D., Texas Department of Health. April 27, 2000.

refined flours, and polished rice were said to be increased diabetic risk factors.[28]

In San Antonio in 1990, there was not a single case of Type II diabetes in children, but by 1998, 40 percent of all the diabetes cases in children were Type II. The rates of obesity correlate directly to the rise of Type II diabetes in children.[29] In order to prevent Type II diabetes, it is necessary to educate children and families about how their food choice and behavior can lead to early diabetes.

ACANTHOSIS NIGRICANS

A black/brown velvety marking on the neck, under the arms or on the elbows, known as acanthosis nigricans, signifies that a person has too much insulin in the blood. The acanthosis nigricans screening pilot project, developed out of House Bill 1860 in the 76th Session, has screened 75,000 children in grades 3 through 8 in a nine-county Border region.[30] The report on the findings of the project will be distributed to the Legislature in January of 2001. The program is fittingly called ANTES, which in Spanish means "before," underscoring the fact that prevention is possible. It is important to remember that even with acanthosis nigricans, developing diabetes is not inevitable. With proper exercise and a diet low in high-glycemic and refined foods, the insulin level may be lowered and diabetes may be prevented.

Four years ago, the University of Texas Border Health Office established the first Type II Diabetes Registry in the nation, which focuses on surveillance, intervention, research, education, and policy change. The U.T. System Texas-Mexico Border Diabetes Registry, in conjunction with school nurses from 32 Rio Grande Valley

[28]Information provided by Paul Villas, M.D., University of Texas System Border Health Office. January 12, 2000.

[29]Information provided by William R. Archer III, M.D., Commissioner of Health, Texas Department of Health. January 12, 2000.

[30]The acanthosis nigricans project counties are: El Paso, Hudspeth, Cameron, Hidalgo, Jim Hogg, Starr, Webb, Willacy, and Zapata counties.

school districts, has put in place a pilot project named the "Acanthosis Nigricans in Youth" Program. The Border Health Office worked with the local schools during their state-mandated scoliosis screenings to assess the prevalence of acanthosis nigricans. The scoliosis screening revealed that 3 percent of the sixth graders had scoliosis, and 60 percent had acanthosis nigricans. Since elevated insulin is a precursor to Type II diabetes, a child with acanthosis nigricans is most likely in a pre-diabetic state. Elevated insulin also contributes to glucose intolerance, high triglycerides, hypertension, and obesity.[31]

In the Rio Grande Valley, 15 to 25 percent of children in grades 4-6 have symptoms of being pre-diabetic. In El Paso, the rate is 12 percent. An informational binder was distributed to over a thousand school nurses in the state, and to many of the *promotoras* as well. It was communicated that the school nurses in the Border region often know more about acanthosis nigricans than many other groups of health care professionals. Doctors have reportedly recommended Selson Blue shampoo, vitamins, or improved hygiene to rid the child of the dark skin pigmentation which actually signifies high insulin levels.[32] This demonstrates the need to develop and promote diabetes curriculum and residency training in medical schools, especially in the Border region. This can also be done through the Regional Academic Health Center (RAHC).[33]

At one Rio Grande Valley elementary school, 241 Mexican-American sixth grade students were examined during the 1998-1999 school year. Of this group, 48 students were identified with acanthosis nigricans, at a prevalence rate of 20 percent. Nine percent of this subgroup of children were identified as having Type II diabetes, and

[31]Information provided by Paul Villas, M.D., University of Texas System Border Health Office. January 12, 2000.

[32]ibid.

[33]Information provided by Maria Alen, M.D. Texas Diabetes Council. September 28, 2000.

88 percent were considered overweight.[34]

CLINICAL CARE AND PREVENTIVE EDUCATION

There are three El Paso beta testing sites screening people for diabetes. However, while ongoing education is the key to managing diabetes, there is a lack of permanent diabetes management programs in El Paso. This problem is exacerbated by the lack of professionals available in the field of diabetes care. Dieticians and Spanish-speaking dieticians are especially rare. Many of the El Paso clinics do not have access to dieticians at all. There is also a shortage of registered nurses trained in diabetes treatment. In El Paso, for example, there is only one pediatric endocrinologist in town.[35]

- 15.7 million people in the U.S. have diabetes.
- In El Paso, 15% of the adult population has diabetes.
- The prevalence of diabetes in El Paso will double by the year 2020.
- Over $400 million is spent each year in El Paso for the treatment of diabetes.

Dr. Miguel Escobedo
Texas Department of Health

Many of the diabetes-related problems of the Hispanic community stem from nutritional practices. However, as the Border is overburdened by a large demand for patient care, a nurse nutritionist supplied to the community for the purpose of leading a nutrition program may be pulled in to help with patient care in their capacity as a nurse in order to help meet this demand.[36] Significantly, diabetes is controllable, and possibly even

[34]Information provided by Paul Villas, M.D., University of Texas System Border Health Office. January 12, 2000.

[35]Information provided by Verlaine Stewart-Ray, El Paso Diabetes Association/ Thomason Hospital. November 18, 1999.

[36]Information provided by George Kypuros, United Medical Centers. February 4, 2000.

preventable when individuals adhere to healthy eating plans and regular exercise programs. The disease has been shown to respond positively to improvements in diet and exercise. This information highlights the importance of prevention strategies, especially when expensive drugs and surgeries are taken into consideration. In Thomason General Hospital in El Paso, for example, 40 amputations were performed in one year, at a cost of approximately $400,000. When lost work productivity is included, the cost of the disease increases dramatically. The Texas Diabetes Council has developed guidelines for the minimal standards of care for diabetes in Texas. These standards are often not met, even though long-term costs and damages would be cut by compliance.[37]

Four major efforts are underway in El Paso County in order to raise awareness of the disease and promote prevention. They are:[38]

1) **Border Diabetes Initiative** - Funded by the El Paso del Norte Health Foundation. The Initiative will allow for planning of appropriate interventions and promote healthy lifestyles through public awareness.
2) **Binational Border Diabetes Prevention and Control Initiative** - Under the direction of the CDC. Consists of six Mexican and four U.S. states which will jointly assess the prevalence of diabetes along the Border, on *both* sides. They will also collect lifestyle data for future intervention projects.
3) **Texas Diabetes Prevention and Control Initiative** - Sponsored by the Texas Department of Health. Aims to utilize mass screenings, diagnostic testing, and extensive follow-up in order to identify people at risk for or undiagnosed with diabetes.
4) **Diabetes Awareness and Education in the Community (DAEC)** - This local

[37] Information provided by Verlaine Stewart-Ray, El Paso Diabetes Association/ Thomason Hospital. November 18, 1999.

[38] Information provided by the El Paso Diabetes Association. 1999 Report on Border Diabetes.

program is a "community assessment of attitudes, beliefs, and behaviors related to diabetes in El Paso." The information gathered will be used to formulate media awareness programs and customized diabetes programs.

The "Texas Diabetes Prevention and Control Initiative" is a public/private partnership between TDH and Bristol-Myers Squibb. Two Border entities who received grants were South Texas Hospital and the El Paso Diabetes Association. The three primary components of the program are screening, continuing medical education, and a diabetes awareness and prevention campaign.[39]

Diabetes destroys blood vessels, resulting in blindness, kidney failure, heart attacks, strokes, amputations and much more. Again, the rate of Type II diabetes in children has been growing due to an increase in childhood obesity. "Increased numbers of children with diabetes will burden the health care infrastructure in the future."[40] Another risk factor is a sedentary lifestyle. The Texas Association of School Administrators, the Texas Association of School Boards, principals' associations, and teacher organizations must be contacted to ensure that the schools are addressing these issues. The Coordinated Approach to Child Health (CATCH) is an excellent way of doing this; it deals with changing the foods that are served in school cafeterias and limiting the availability of some sweets. CATCH helps schools develop their own health, physical education, and nutrition programs. These preventive programs will help reduce the risk for cardiovascular disease and diabetes. The Texas Board of Education has adopted the use of the CATCH program in schools, but there are insufficient state funds dedicated to the expansion of the program across Texas.[41]

[39]Information provided by Kermit Heimann, Texas Diabetes Program/Council. November 18, 1999.

[40]Information provided by Miguel Escobedo, M.D., Texas Department of Health. November 18, 1999.

[41]Information provided by Maria Alen, M.D. Texas Diabetes Council. September 28, 2000.

> "Basic education on diabetes prevention, whether it be exercise, or whether it be dietary interventions, are probably the best cost allocation of the taxpayers' money that can be done."
>
> Kermit Heimann, Texas Diabetes Council

Quality secondary prevention is also important, because it can help keep major complications from arising. It is necessary to control blood sugar and blood pressure levels in order to avoid complications, but that requires a great deal of diligent care. This care must be coordinated between the patient, physician, dietician, and nurses. Grassroots education and outreach efforts, such as those which take place under the promotoras program, save money in the long run. Diabetes management programs are cost-effective; however, the return on these programs is long-term, and may not have immediately visible results, especially when compared to acute care programs. Through these programs, complications are being prevented which would normally occur in several years' time.[42]

Based on these findings, the Senate Committee on Border Affairs makes the following recommendations to the Legislature:

RECOMMENDATIONS

- Fund health educators exclusively for diabetic nutrition programs. Nutrition programs must also be culturally sensitive.

- Increase health promotion and disease prevention programs in order to educate and screen for preventable chronic diseases, such as diabetes. Support programs which promote healthy lifestyle changes, such as proper nutritional diets and increased

[42]Information provided by Kermit Heimann, Texas Diabetes Program/Council. November 18, 1999.

physical activity. Make diabetes education, prevention, and treatment accessible to everyone.

- Examine medical coverage across the state as it relates to diabetic testing supplies. Consider that Senate Bill 163 (1997) directed health benefit plans that provide coverage for diabetes treatment to also cover diabetes equipment, supplies and self-management training.

- Fully implement the CATCH program in all Texas schools. This includes teacher training and providing children with nutritional meals and daily physical education as part of the school curriculum.

- Implement a program to monitor the height and weight of school children in order to determine rates of obesity. This data would be used to improve community policies such as the utilization of physical education and the nutritional value of school lunch programs.

- Allow the sharing of resources bi-nationally in order to diminish the barriers encountered when working with Mexico.

TUBERCULOSIS

Tuberculosis (TB) is caused by an airborne bacteria called *Mycobacterium tuberculosis*. According to some estimates, a person with a "smear positive" case of tuberculosis can infect between 10 and 14 persons a year if left untreated and undiagnosed. Of these infected individuals, approximately 6 to 10 percent will develop clinical TB. Propagation of the disease is perpetuated through this cycle.[43]

Living in Laredo, a person is three times more likely to get TB than the rest of the state. For a child, the rate is six times higher. A child in Brownsville or Harlingen is five times more likely to get TB than a child living in Austin.
-Texas Department of Health

In 1998, there were 81 reported cases of tuberculosis in El Paso County. This was an increase of five cases from the year before.
-Jorge Magaña, M.D., El Paso Health/Environment District

Mexico accounted for 22% of 1997 TB cases

Since 1994, there has been an overall reduction in the number of TB cases in Texas from 2,500 to 1,800. But from 1994 to 1998, the number of cases in foreign-born people has continued to remain the same.[44] Eighty percent of the tuberculosis cases in El Paso, for example, are found in people who were born in Mexico.[45] Recent data from Tamaulipas, the Mexican state which borders Texas from Laredo to the Gulf of Mexico, reports a TB rate four times that of Texas. Also in Tamaulipas, 25 to 30 percent of the cases are resistant to the primary drug treatment, *isoniazid*. This drug is used for prophylaxis as well. These figures are especially significant when compared to the rate of less than five percent for cases statewide that are *isoniazid*

[43]Information provided by Jorge Magaña, M.D., El Paso County City/County Health & Environment District. November 18, 1999.

[44]Information provided by William R. Archer, III, Commissioner of Health, Texas Department of Health. July 10, 2000.

[45]Information provided by Miguel Escobedo, M.D., Texas Department of Health. November 18, 1999.

resistant.[46]

Treatment of an active case of tuberculosis requires an uninterrupted six-month period of oral medications. Multiple-drug resistant tuberculosis (MDRTB) occurs when a patient begins but does not complete the entire treatment. Treatment of MDRTB can cost from $100,000 to $200,000 per case, compared to the cost of treating one non-resistant case at between $2,000 to $10,000.[47] One tuberculosis patient in the Rio Grande Valley had an accrued hospital bill of $1,000,769. The cost of treatment would have been much lower if proper preventative treatment had been received. Only $10,000 of this amount was covered, and the rest was a loss for the hospital.[48] This is cost prohibitive for an already overburdened health care system and for patients who lack sufficient health insurance. Some barriers to tracking, treating, and following up with care, however, are frequent cross-Border travel and migration within the United States.[49]

Recently, there has been an increase of multiple-drug resistant strains of the disease. As of 1998, there were 325 active cases of MDRTB across the border from McAllen and Brownsville in the Mexican cities of Reynosa and Matamoros. The number of MDRTB cases increases by 80 each year. One witness warned that, "with MDRTB, we have truly entered into a post antibiotic era." As possibilities for alternative therapies for MDRTB diminish, it is critical that there be an increased focus on

[46]Information provided by William R. Archer, III, Commissioner of Health, Texas Department of Health. January 12, 2000.

[47]Information provided by Miguel Escobedo, M.D., Texas Department of Health. November 18, 1999.

[48]Information provided by Lorenzo Pelly, M.D., Valley Doctor's Clinic. May 25, 2000.

[49]Health Resources and Services Administration (HRSA). "Assuring a Healthy Future Along the U.S.-Mexico Border- A HRSA Priority"

prevention.[50] Because of higher rates of drug-resistant cases, the Centers for Disease Control (CDC) is proposing new criteria for prophylaxis. This new criteria, which is shortened, is substantially more expensive, and may lead to a $20 million increase in the cost of treatment of patients who have been exposed to TB.[51]

The U.S. Agency for International Development (U.S. AID) has committed $18 million to TB over the next six years to reduce the rate of drug resistance and increase the rates of cure for the disease in Mexico.[52] Mexico City is aware that drug-resistant strains are an increasing concern. However, there is still a backlog of approximately 300 drug resistant cases in Tamaulipas. The CDC, Washington, and U.S. AID have increased their attention to the issue of drug-resistant TB cases. It is predicted that in the next 10 years, there will be an increase in drug-resistant cases in the United States due to contact with these Mexican cases.[53] We must be alert to this. Even so, the sharing of information, such as lab specimens and equipment, faces barriers resulting from provisions in the Mexican Constitution which prohibit this practice. For this reason, it is essential to look towards a possible treaty to address the issues which NAFTA has not resolved, and which may require federal response.[54]

[50]Information provided by Paul Villas, M.D., University of Texas System Border Health Office. January 12, 2000.

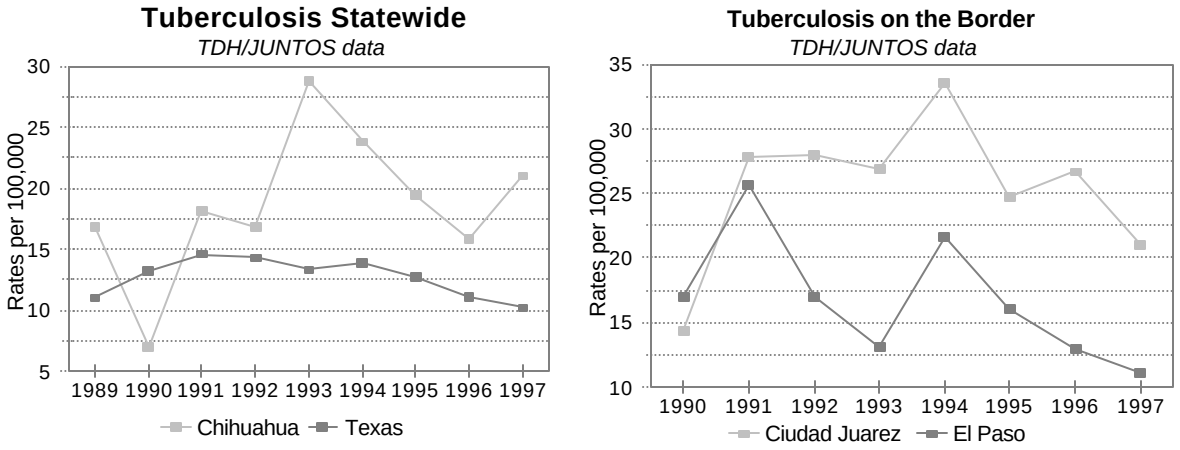
[51]Information provided by William R. Archer, III, Commissioner of Health, Texas Department of Health. January 12, 2000.

[52]ibid.

[53]Information provided by Brian Smith, M.D., Texas Department of Health. April 27, 2000.

[54]Information provided by William R. Archer, III, Commissioner of Health, Texas Department of Health. January 12, 2000.

BINATIONAL MEASURES



Notice that the overall rates of Tuberculosis in the state of Chihuahua have little to no correlation with those of Texas. However, border communities have a direct effect on one another such that an increase or decrease in the Tuberculosis rate in Ciudad Juarez is accompanied by a corresponding increase or decrease in El Paso.

Many improvements in TB control have been a result of public health prevention. Community prevention includes contact investigation and treatment around active cases. Binational control strategies are imperative. These include implementation of Directly Observed Therapy (DOT), improving laboratory infrastructure, binational surveillance, and health promotion and training. Some examples of successful binational programs are Project Juntos, Los Dos Laredos, Grupo Sin Fronteras, and Ten Against TB.[55] Ten Against TB is composed of the health officers of the 10 border states, their TB coordinators, and representatives of the federal government, such as the Health Resources Services Administration (HRSA), from both nations. Together with the Texas Department of Health, and several other organizations, they

[55]Information provided by Miguel Escobedo, M.D., Texas Department of Health. November 18, 1999.

have trained 200 American and Mexican outreach workers and health providers, in order to ensure that TB patients successfully complete their full treatment through Directly Observed Therapy.[56] In Project JUNTOS, an example of binational cooperation in developing a unified approach to the treatment of TB, the health departments on both sides of the border work together in an effort to prevent multi-drug resistant strains of the disease from developing and spreading.[57]

Tuberculosis cases in Mexico-Texas border counties, 1995-1999

	Federal Border Definition		State Border Definition	
	32 Border Counties	224 Non-Border Counties	43 Border Counties	213 Non-Border Counties
Total number of TB cases	1,652	8,281	2,458	7,475
Average annual number of TB cases	330	1,656	492	1,495
Average annual incidence rate (cases per 100,000 population)	16.1	9.6	12.4	9.7
Number of TB cases with resistance to any of the 4 drugs used in initial treatment	117	324	142	299
Percentage of TB cases with resistance to any of the 4 drugs used in initial treatment	7.1	3.9	5.8	4
Number of TB cases with resistance to the 2 most effective TB drugs (MDR-TB)	22	53	25	50
Total number of pediatric TB cases (14 years of age or younger)	148	563	192	519
Average annual number of pediatric TB cases	30	113	38	104
Average annual incidence rate for pediatric TB (cases per 100,000 population)	4.9	2.7	3.5	2.8

Source: Texas Department of Health

The Texas Department of Health Region 11 is in contact with Mexican health officials

[56]Health Resources and Services Administration (HRSA). "Assuring a Healthy Future Along the U.S.-Mexico Border- A HRSA Priority"

[57]Information provided by Gordon McGee, M.D., Texas Medical Association/El Paso County Medical Society. November 18, 1999.

in Tamaulipas, Nuevo Leon, and Coahuila, as well as the *jurisdicciones* along the sister cities in Tamaulipas. Binational councils are in place in the three large sister city pairs in Tamaulipas and Region 11. A Binational TB program tracks patients who travel back and forth, or who live or work on both sides of the border. This program is in place in Matamoros, Reynosa, and Laredo and provides Directly Observed Therapy, technical advice from state TB consultants, and cultures of sputum which provide information on drug resistance for epidemiology and treatment.[58]

The Texas and Mexico tuberculosis programs must receive close attention due to the prevalence of the disease on *both* sides of the border. One problem is that Texas has had static historical funding levels across the state, while the burden of the disease has shifted to the Border and Southeast Texas. TDH is working on a new funding formula which would direct resources to areas where higher disease rates exist.[59]

Based on these findings, the Senate Committee on Border Affairs makes the following recommendations to the Legislature:

RECOMMENDATIONS:

- Binational relationships have been a positive development. However, it must be made easier to coordinate, communicate, and transfer information and resources between the United States and Mexico.

- The Texas Department of Health should direct funds to address tuberculosis and other diseases endemic to the Border on the rate of disease incidence, not on a per capita basis. There is a need to focus resources on areas with higher disease rates.

[58]Information provided by Brian Smith, M.D., Texas Department of Health. April 27, 2000.

[59]Information provided by William R. Archer, III, Commissioner of Health, Texas Department of Health. January 12, 2000.

IMMUNIZATIONS

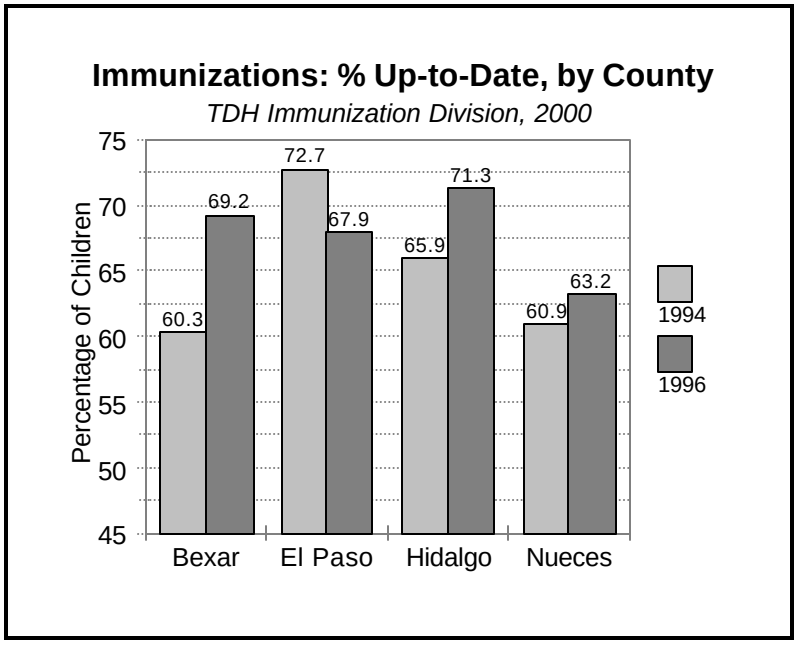
The Texas Vaccines for Children Program (TVFC) uses a combination of federal and state funds to provide vaccines free of charge to eligible children through public and private providers statewide. The single purpose of the program, which began October 1, 1994, is to increase the immunization level of children in Texas. The immunization rate for 2-year-old immunizations is currently at 75 percent statewide.[60] Testimony received in Eagle Pass and in other cities along the Border indicated that the immunization program is very successful.[61] The Texas Board of Health adopted agency rules, which became effective August 1, 2000, regarding the requirement of Hepatitis A vaccinations for students enrolled in public school in the 32-county Border region.

ELIGIBLE CHILDREN- Birth through 18 years	BENEFITS TO CHILDREN	BENEFITS TO HEALTH-CARE PROVIDERS

(source:TDH)

[60]Information provided by William R. Archer, III, Commissioner of Health, Texas Department of Health. September 28, 2000.

[61]Information provided by Nick Fohn, Texas Department of Health. February 4, 2000.



Senate Bill 266 established the highly effective "Shots Across Texas" campaign at the Texas Department of Health in 1993 in order to reduce the incidence of measles, mumps, and other vaccine-preventable diseases. Shots Across Texas enlists the cooperation of state and local agencies, private industry and other organizations, as well as doctors, nurses and volunteers. Building on the bill's success, in 1997 the 75th Legislature passed SB 172, which requires family health benefit plans to provide coverage for immunizations to children younger than age six.[62]

Loss of Women, Infants and Children (WIC) clinics and other immunization providers in the McAllen area has proven problematic in regard to maintaining high immunization rates. As health care has become more privatized, there has also been a corresponding loss of accurate computer recording of immunization rate data. Instances where insurance companies do not pay for immunizations, even though the service is included in their coverage, has led to the providers shifting the cost of immunizations to the Vaccines for Children Program, even for patients who are insured.[63] The Texas Department of Health is working with providers to improve participation in the program.

[62]Information provided by the Office of Senator Judith Zaffirini

[63]Information provided by Brian Smith, M.D., Texas Department of Health. April 27, 2000.

Causes for incomplete immunization coverage along the Border include, but are not limited to:[64]

- Cross-border migration
- Difficulty in accessing basic health services
- Differences between the type and schedule of immunizations administered by the United States and Mexico

Percent of 2 year olds in Laredo who are up-to-date with required immunizations as per the CASA bi-annual assessment report.

1992	39.60%
1994 Vaccines for Children Program	*N/A*
1997	69.95%
1998	61.32%
1999	73.26%

Jerry Robinson- Webb County Health Department

For the past three years, the El Paso Health District has been working to involve community-based organizations and private physicians in an effort to increase the immunization rates in children between 24 and 35 months of age. This age range is a developmental period in which many immunizations are needed. By measuring the number of immunizations received by the children in this age bracket, the time period can be used to assess the immunization rates of the community.[65]

In 1996, El Paso County immunization rates were less than 70 percent, according to the Centers for Disease Control and Prevention. In the years following this survey, 100 percent of the practicing pediatricians in the area had been enrolled in the Vaccine

[64]Health Resources and Services Administration (HRSA). "Assuring a Healthy Future Along the U.S.-Mexico Border- A HRSA Priority"

[65]Information provided by Jorge Magaña, M.D., El Paso County City/County Health & Environment District. November 18, 1999.

for Children Program. The Health District Immunization Outreach Teams have renewed their efforts to reach outlying areas of the county. They have also established "Clinical Assessment Software Application" (CASA) in order to assist the private-practice physicians in obtaining on-going grant funding from the El Paso del Norte Foundation.[66]

The El Paso del Norte Foundation has been working in conjunction with the local medical society to establish a second CASA team in order to better assist the Vaccine for Children partner physicians. The El Paso del Norte Foundation grant has enabled the El Paso County Medical Society, TDH, and the local health departments to focus on immunizations through the CASA program. This program has increased the number of physicians in compliance with immunization requirements for their patients. The "IMMTRAC" software installed by CASA helps both physicians and the state keep track of child immunizations.

The Vaccine for Children program works closely with an El Paso County, southeastern New Mexico, and a Jaurez area coalition called "Nuestros Niños." Billboards, newspaper advertising, and television spots promoting immunizations are financed by the Vaccine for Children Program. In 1998, El Paso County immunization rates had increased to 79 percent.[67]

The El Paso Shots Across Texas Immunization Coalition is made up of various persons and agencies interested in promoting immunizations for both children and adults. Texas Department of Health Regions 9 and 10, the El Paso County Health Department, ProAction, La Clinica Guadalupana, Region 19 Headstart, SmithKline Beecham Pharmaceuticals, Merck Pharmaceuticals, and the Socorro Independent School District are some of the organizations involved. Together, they sponsored

[66] ibid.

[67] ibid.

"Stop the Spots" in April 1999, "Go Back to School Immunized" in August 1999, and flu clinics in October 1999.[68]

In the Brownsville area, the medical mobile clinic sponsored by the UT-Houston Health Science Center provides diabetes and cholesterol screenings, immunizations, and other health services to *colonia* residents. It is estimated that this van of registered nurses and fourth year medical students has provided care, free of charge, for over 40,000 *colonia* residents since 1998. Last August, they visited over 20 schools in Hidalgo County and provided 2,400 immunizations to students.[69]

RECOMMENDATIONS

- The Texas Department of Health should develop a plan to increase the immunization rate statewide to 100 percent. This could include using military personnel and promotoras to give vaccinations and plan and/or participate in local health fairs.

- Examine the occurrence of private insurance companies shifting the cost of immunizations to the state for children who should be covered under their plans.

[68] ibid.

[69] Information provided by Gene Schroder, Ph.D., University of Texas Health Science Center-Houston. May 25, 2000.

DENTAL HEALTH

Timely access to oral health care services is especially deficient in the United States-Mexico Border region and in rural areas. The lack of funding for oral health care in Border communities is in need of attention, especially since the circulatory and wound problems associated with diabetes also affect the mouth, and the prevalence of diabetes is so high in the Border region *(refer to chapter on diabetes)*. In much of these dentally-underserved areas, there are insufficient numbers of dentists to do community outreach or visit the schools. Currently, the Texas Dental Practice Act stipulates that a dental hygienist must work in the physical presence of a dentist. Several individuals testified that this rule needs to be made more flexible in order to allow for prevention and oral hygiene education to be conducted by dental hygienists in areas where there are few dentists.[70]

Many Medicaid-enrolled children do not receive the free dental service benefits for which they are eligible through the Early and Periodic Screening, Diagnostic and Treatment Program (EPSDT). One evaluation found that only 26 percent of Medicaid eligible children received dental screenings in 1996, and the percentage of Texas children who received screenings is expected to be much lower in rural areas.[71]

TeleHealth/TeleDental technology can be very useful in combination with regular school-based health screenings of children in grades K-12 as a way to address the dental needs of the community. Successful trials have already been conducted in Lyford CISD (Willacy County) and Progreso ISD (Hidalgo County). These trials will have extended free dental screenings, which include establishing an annual oral health profile and providing timely therapeutic recommendations to 3,500 children by the end of 2000. If restorative treatment is needed, the child and guardian are advised to seek

[70]Information provided by Bill Schlesinger, Community Voices of El Paso. November 18, 1999.

[71]Information provided by Lars Folke, DDS, Ph.D., Baylor College of Dentistry. May 25, 2000.

a dentist of their choice. The clinics have medical and dental cameras, speakers and microphones, and are connected through Integrated Services Digital Network (ISDN) lines to physicians. One witness stated that the details in images taken with dental cameras are often easier to see than with the naked eye because they are magnified. The images can be stored for later reference or for use in real-time.[72]

When a Tele-Dental unit is placed at the school, it is especially beneficial because the children are already there, and the services can be brought to them. Parents frequently sign consent forms and allow their children to be treated on site. Diagnoses can be provided with the use of a telemedicine unit for children who otherwise might not receive dental care. In Lyford ISD, for example, high school seniors were being screened before they graduated. It is estimated that approximately 50 percent of these students had never seen a dentist before.[73]

Based on these findings, the Senate Committee on Border Affairs makes the following recommendations to the Legislature:

RECOMMENDATIONS

- Develop a waiver for dentally underserved areas to allow dental hygienists more freedom to provide education, prevention, and basic dental cleaning. This would include provisions for consultations and remote supervision of certified dental auxiliaries in the Texas Dental Practice Act.

- Develop programs to move from disease documentation to disease prevention, disease management, and health promotion. Successful programs could be replicated across the border and could also be applied to nursing homes.

[72] ibid.

[73] Information provided by Diana Prachyl, Texas Dental Hygienists Association. May 25, 2000.

- Increase the utilization of TeleHealth technology in combination with regular school-based health screening of children in grades K-12.

- Examine provisions for reimbursement of TeleDentistry services and also telecommunication support of for-profit local health care providers by Telecommunication Infrastructure Fund Board (TIFB) grants.

DENGUE FEVER

A great deal of testimony was received on the importance of mosquito control as a public health priority. The two groups most vulnerable to mosquito-born illnesses are the young and the elderly. There were 55 cases of dengue fever, a mosquito-born illness, in Texas this year, 30 of which were in Webb County. It is important to note that 17 of these cases actually *originated* in Texas. Historically, there have never been locally acquired cases of dengue fever in Texas except for in Cameron and Hidalgo Counties. Now, locally acquired cases exist in Cameron, Hidalgo, Starr, Webb, and Willacy counties. In Laredo, 30 percent of homes had mosquitos breeding in them. In Nuevo Laredo, 17 percent of the population had a current or recent exposure to dengue fever, compared to the 1 percent recent exposure rate in Laredo. These figures exemplify the need to encourage a binational approach, and address the issue on both sides of the border. In December 1999, a nine-year-old Nueces County girl died of hemorrhagic dengue fever. This was the first such death reported in Texas.[74]

Laredo and Nuevo Laredo experienced an outbreak of dengue fever in 1999. According to the Texas Department of Health, initial details of the outbreak arrived from across the border in a slow and piece-meal manner.[75] Mexican health officials had limited capacity to confirm dengue fever in the laboratory, and when TDH determined a high rate of dengue

> "Perhaps most importantly, binational sanitation control measures need to be addressed. Private sector solutions for discarded tire problems, such as mass recycling efforts, will help address the root

-Commissioner Archer, Health and Health Services on the Texas-Mexico Border. November 1999.

[74]Information provided by William R. Archer III, M.D., Commissioner of Health, Texas Department of Health. January 12, 2000.

[75]Letter from William R. Archer III, M.D., Commissioner of Health, Texas Department of Health, "Health and Health Services on the Texas-Mexico Border", to the Senate Border Affairs Committee. November 18, 1999.

from the Nuevo Laredo specimens, the agency ran into barriers from provisions in the Mexican Constitution. Mexican officials determined that the results taken from the Mexican citizens, despite their indication of a developing outbreak with binational implications, could not be shared with Texas state government due these provisions, which would make such action illegal.[76] Due to the fact that this is an issue of Mexican national sovereignty, the Texas Department of Health stated their support of addressing it through the NAFTA mechanism, using a framework similar to the environmental agreements incorporated into the 1993 accord.[77]

Aedes aegypti and *Aedes albopictus* are the vectors for dengue fever. The mosquito is day-active, which means that it bites and lays eggs during the day, and rests at night. Ultra low-volume treatment is of minimal effect. In one case, more eggs were found *after* the spraying of insecticides. The problem was that the area had been sprayed at night, when the mosquitos are not active.[78] Source reduction, or getting rid of containers that serve as breeding places, may be the primary component in mosquito control. Tires, besides being a sanitation and fire hazard, act as a perfect reservoir for incubation and growth of mosquitos. They hold water for a long period of time, and the eggs can remain viable long after the tires dry out.[79]

In Eagle Pass, for example, local trash is taken to San Antonio for disposal by a company that charges $1 per tire. When large numbers of tires are in need of disposal, this $1 charge per tire can become cost prohibitive. The result is a mountain of tires in Eagle Pass waiting to be properly disposed of. Tires often pile up across the

[76]Information provided by William R. Archer III, M.D., Commissioner of Health, Texas Department of Health. September 28, 2000.

[77]Letter from William R. Archer III, M.D., Commissioner of Health, Texas Department of Health, to the Senate Border Affairs Committee. April 14, 2000.

[78]Information provided by Jack Hayes, Brownsville Health Department. February 4, 2000.

[79]Information provided by Sylvia McMullen, Safe Tire Disposal of Texas. January 12, 2000.

Border as well. This summer in Nuevo Laredo, there were stacks of over a million tires.[80] These mosquito-breeding sites may correlate with the 17 percent exposure rate in Nuevo Laredo.

An overall plan is currently being developed by the Texas Department of Health to address the issue of disease control along the dengue corridor, from Laredo to Corpus Christi. It is important that this corridor not expand farther north. This requires an organized plan on *both* sides of the Border. Fortunately, TDH has had a number of contacts with Mexico regarding public health issues.[81]

THE INTERNATIONAL CONSORTIUM FOR THE ENVIRONMENT (ICE)

The International Consortium for the Environment (ICE) is a diverse alliance of universities whose mission it is to address international environmental issues and public health concerns. The initial focus of ICE, facilitated by Brooks Air Force Base, is the United States-Mexico Border region, addressing environmental and public health issues through interdisciplinary research, teaching, and public service.

In March 2000, ICE hosted a scientific conference entitled, "Border Health: Making a Difference," where United States and Mexico border mayors, scientists, and other elected officials came together to solve technical problems. Air, water, wastewater, and infectious diseases were identified as the key health and environmental issues. The conference also confirmed the need for a multi-institutional alliance. The 2001 conference will be held in El Paso.

The primary ICE technical project will concentrate on dengue fever along the Border.

[80]Information provided by Jack Hayes, Brownsville Health Department. February 4, 2000.

[81]Information provided by Brian Smith, M.D., Texas Department of Health. April 27, 2000.

ICE will coordinate their efforts with local and state agencies on both the United States' and Mexico's sides of the border, and will coordinate their efforts with the Texas Department of Health in order to avoid duplication of services. ICE will work with local officials and members of the community in order to provide prevention education through meetings and publications. They will also focus on diagnosis and treatment efforts.

A key component of their prevention effort is proper tire disposal. Three potential tire-recycling technologies have been selected for large-scale demonstration projects in order to evaluate the cost, effectiveness, potential for economic growth, and end-use products. The goal is to present unbiased information to local stakeholders through workshop presentations.[82]

TIRE RECYCLING PROGRAM

Twenty-four million tires are generated in Texas each year. Of these, 16 million are recycled, and 62 percent are used as tire-derived fuel. According to the TNRCC, air quality is improved when tires are used as a replacement for coal as fuel. Thirty percent goes to civil engineering uses. Crumb-rubber for pavement surfaces is a promising alternative use, but it is currently cost prohibitive. In the 76th legislative session, an appropriations rider was passed which called for the TNRCC to work together with TXDOT on the issue of waste tires. A

> "A scrap tire cannot be compared to other wastes when considering recycling or reuse. A tire is a complex composition of wire, fabric, and several rubber compounds."
>
> Safe Tire Disposal Corporation, Executive Summary

[82]Information provided by Gordon Plishker, Ph.D., International Consortium for the Environment. July 10, 2000.

report on their findings will be submitted to the 77th Legislature.[83]

In the Rio Grande Valley, the rate of tire disposal is approximately two to two-and- a-half tires per person due to the high volume of *used* tires. This leads to a higher flow of discarded tires due to the shortened lifespan of a used tire. Another contributing factor is that people drive in from Mexico, buy new tires, and leave the old ones behind. Isolation in relation to tire-recycling centers and increased tire usage translate into a bigger problem in the Rio Grande Valley.[84] This is important because it has been estimated that one tire can be the breeding ground for one million mosquitos in a season.[85] Insecticide treatment of large tire piles is not effective; the tires must be removed.[86]

The loss of funds for the tire recycling program has had a negative impact on many Border communities.[87] When the state's Waste Tire Recycling Fund began in 1992, there were approximately 900 illegal tire dump sites in Texas. Now, there are approximately 167 illegal sites. When the tire legislation sunsetted in 1997, the tire disposal fee collected to properly dispose of old tires upon the purchase of new ones was eliminated. As a result, there are no funds available to address the illegal sites. Disposal sites which are permitted and licensed by the TNRCC exist, but they may have problems as well.[88]

[83]Information provided by Jeff Saitas, Executive Director, Texas Natural Resource Conservation Commission. January 12, 2000.

[84]Information provided by Steve Rosenbaum, Rubber Recycling Resources. January 12, 2000.

[85]Information provided by Danny Abirra, Safe Tire Disposal of Texas. January 12, 2000.

[86]Information provided by Sylvia McMullen, Safe Tire Disposal of Texas. January 12, 2000.

[87]Information provided by Catherine Young, M.D., Fort Duncan Medical Center, Eagle Pass Fire Department Emergency Medical Service, Kinney County Emergency Medical Service. February 4, 2000.

[88]Information provided by Sylvia McMullen, Safe Tire Disposal of Texas. January 12, 2000.

It was brought before the Committee that part of the problem with the original legislation was the lack of provisions to ensure that the end product was taken care of, rather than simply shredding the tires and putting them into a landfill, which is in fact a *legal* disposal. End uses were not approved until 1995. According to testimony, "By that time, much of what had been done was to take whole tire piles and create tire shredded piles."[89]

END USES

Information provided by Safe Tire Co. indicated that volumes of collected tires have decreased by 40 to 50 percent from pre-1997 rates.[90] However, in 1999, of the 16 million tires that went to end-use, Safe Tire processed 12.8 million.[91] Several individuals testified, along with the TNRCC, that in certain cases of burning tires instead of coal, the levels of air pollutants are reduced. Cement kilns, in particular, were referenced. However, there are only a few cement kilns in Texas currently using tires as supplemental fuel. Two or three are using whole tires, and two are using shreds/chips. Overall, this indicates a small percentage of kilns using tires as supplemental fuel.

Civil engineering is a major consumer of tire material in Texas, and more potential uses are on the horizon. But the tire recycling industry suffered a major setback in 1997 with the expiration of the legislation. For a period of time, certain volumes of tires could be ensured to go to recycling and use. Large companies were looking to make the capital investment required to use this material, but today it can not be guaranteed

[89] ibid.

[90] Information provided by Scot Holden, Safe Tire Disposal of Texas. January 12, 2000.

[91] Information provided by Danny Abirra, Safe Tire Disposal of Texas. January 12, 2000.

that certain volumes will be available.[92]

A barrier to using recycled tires for road construction is the increased cost. TXDOT is looking at developing products derived from tires, such as guardrail posts and sign materials. The guardrail post being explored by TXDOT at this time uses approximately 80 lbs., or four tires per post. The key to resolving the tire recycling issue in Texas is to create an industry which will export a product made of recycled tires, and turn a material that is currently problematic into an asset for the state. Roads, posts, septic systems, etc. are some of the possible end-uses for discarded tires. Laredo is looking to generate power from tires, but many of them are stacked up across the Border. The city has been speaking with Mexico about the transfer of the approximately 1.5 million tires, and there are no legal barriers to doing so.[93]

In 1997, Safe Tire picked up 180,000 tires in Webb County. In 1998, after the program ended, only 80,000 were picked up, even though efforts were increased. In 1999, again only 80,000 were picked up. According to the company, many of the tires that were not picked up ultimately went to the landfill. At one point, Safe Tire was picking up tires from every county in the state. The company still has the capability to do that, but it is no longer economically viable.[94] It was testified that many tire salespeople are still collecting a $2 disposal fee, even though the legislation requesting that fee is no longer in place. Safe Tire charges from 80 cents to one dollar for recycling a tire. Even though Safe Tire is only charging half of the $2 fee that many people are still collecting, the company is not getting the same volume of tires that they were before.[95]

[92]Information provided by Scot Holden, Safe Tire Disposal of Texas. January 12, 2000.

[93]Information provided by Danny Abirra, Safe Tire Disposal of Texas. January 12, 2000.

[94]ibid.

[95]Information provided by Scot Holden, Safe Tire Disposal of Texas. January 12, 2000.

It was estimated that approximately $30 million was being collected on an annual basis and only $19.7 million was being allocated to the state tire-recycling fund. Safe Tire stated that they would often not get paid for 30, 60, or even 90 days for services rendered to the state, and that this delayed payment process drove many businesses out of the market.[96] According to testimony, $160.6 million was collected from 1992 to 1997 and $22,860,860 in remaining fees were left after the program sunsetted in 1997.[97]

When the program ended, there were approximately 30 tire recyclers in the state. Now there are fewer than five. With changes such as these, Texas is virtually inviting people to dump their old tires in a ditch. Based solely on the "free-market" system, this is the cheapest answer. The cost to the city, county, and state to clean up the tires left on the side of the road is probably what it would cost the state to run the entire recycling program.[98]

However, testimony was received which indicated that in Laredo, only 1 percent of the tires examined had the *aegypti* mosquito breeding in them, and that most large tire piles were more than a mile from susceptible neighborhoods. This implies that although tires are a problem, overall neighborhood cleanup should be the focus of mosquito-born illness prevention.[99]

Based on these findings, the Senate Committee on Border Affairs makes the following recommendations to the Legislature:

[96]Information provided by Danny Abirra, Safe Tire Disposal of Texas. January 12, 2000.

[97]Information provided by Sylvia McMullen, Safe Tire Disposal of Texas. January 12, 2000.

[98]Information provided by Danny Abirra, Safe Tire Disposal of Texas. January 12, 2000.

[99]Information provided by Brian Smith, M.D., Texas Department of Health. April 27, 2000.

RECOMMENDATIONS

- Create standardized vector control programs to ensure that insecticide sprayers are properly trained, know what type of insect they are spraying for, and how to administer the insecticide properly.

- Commission an epidemiological study to determine where cases of mosquito-born illness are originating, and what the patterns of illness are. Entomologists must be available on the Border in order to identify which mosquitos are causing which illnesses.

- Enact binational sanitation measures, including the proper disposal of and mass recycling of discarded tires.

- Support the International Consortium for the Environment.

ENVIRONMENTAL HEALTH FACTORS

AIR QUALITY

A large number of trucks sit along the United States- Mexico Border with engines idling, waiting to cross *(this issue is discussed in the chapter on transportation)*. Many trucks even park overnight with their engines idling in order to keep air conditioning or refrigeration units running. The diesel exhaust which is emitted from these engines is a complex mixture of gasses and fine particles, which contains hundreds of inorganic and organic compounds. The particles found in diesel exhaust are extremely small, and highly respirable. Human exposure to this exhaust has been associated with both noncancerous and cancerous adverse health conditions. However, the Environmental Protection Agency (EPA) has not yet established a single cancer unit risk factor for diesel exhaust.[100]

Acute exposure to diesel exhaust may irritate the respiratory system and a sufficient level of episodic exposure may lead to several inflammatory-related symptoms, such as nausea, eye discomfort, headache, and other asthma-like reactions. Diesel exhaust may also initiate or exacerbate allergenic hypersensitivity. At least 16 of the identified fine particle compounds have been classified as "possible or probable human carcinogens" and the particulate matter found in diesel exhaust may be more toxic than non-specific ambient particulate matter.[101]

[100]Information provided by William Archer III, MD., Commissioner of Health, Texas Department of Health. January 12, 2000.

[101]ibid.

> "State environmental and health agencies need to have the capacity to respond if the data indicate that the exhaust from the trucks poses a public health hazard."
>
> William Archer III, M.D., Commissioner, Texas Department of Health

Asthma is increasing, arguably as a result of this increase in micro-particles.[102] Individuals who are exposed to high levels of diesel emissions have a 33 to 47 percent increased risk of developing lung cancer. However, TDH has stated that they are "not able to quantitatively evaluate the potential public health impact of the idling 18 wheelers parked along the United States-Mexico border." The TNRCC has continued with plans to complete the air toxics network to comply with EPA health and welfare standards for particulate matter. The TNRCC currently has two air monitors in Laredo, one that samples every sixth day and one that monitors continuously. The agency also has begun using mobile monitoring equipment to take samples from a residential neighborhood in close proximity to large numbers of idling trucks.[103]

The El Paso Health District has participated in EPA efforts to monitor and address air quality in the local Rio Grande basin for nearly 30 years. Since El Paso has become a non-attainment area, related health effects are receiving greater attention, such as increased allergic reactions to airborne pollutants among children. In El Paso, poor air quality is also due to the industries on the Mexican side of the Border. Monitoring stations, including the stations in Ciudad Juarez, have indicated several major factors in the non-attainment status. They are: [104]

[102]Information provided by Brian Smith, MD., Texas Department of Health. April 27, 2000.

[103]Information provided by William Archer III, MD., Commissioner of Health, Texas Department of Health. January 12, 2000.

[104]Information provided by Jorge Magaña, M.D., El Paso County City/County Health & Environment District. November 18, 1999.

1) Commercial traffic congestion as trucks idle, waiting to cross the Border.
2) Unregulated sale of vehicles from the United States to Mexico which no longer meet U.S. emission standards.
3) Lack of adequate emission controls in certain industries.
4) Unregulated burning of substances such as trash and three-ply wood, which contain chemicals and particulate matter that are released into the air.

WATER QUALITY

It is important to address the diseases that develop as a result of inadequate water systems. Hepatitis A in Texas Border counties occurs at a rate of more than three times the national rate. The morbidity rate of Shigellosis is two to 10 times higher than the rest of the United States. The rate of amebiasis, a gastrointestinal disease which is transmitted through contaminated food and water and the fecal-oral route, is highest in Cameron and Hidalgo counties, where a high concentration of colonias are located.[105]

In the Laredo/Nuevo Laredo region, 38 toxic chemicals were detected in the Rio Grande. Twenty-eight of these exceeded health criteria or screening levels at some sites. Potential sources of contamination cited by a binational water study are horse racetrack facilities, electricity generation

> "Each day, 24 million gallons of raw sewage are dumped into the Rio Grande River from Nuevo Laredo, with some parts of the river containing fecal bacteria counts as high as 22,000 bacteria per milliliter; 200 per milliliter is considered unsafe for swimming."
>
> Gordon McGee, M.D., Texas Medical Association & El Paso County Medical Society

[105]Health Resources and Services Administration (HRSA). "Assuring a Healthy Future Along the U.S.-Mexico Border- A HRSA Priority"

plants, disturbed urban settings, urban runoff, treated wastewater discharge, untreated wastewater discharge, industry, vehicular traffic, irrigation return flows, and mining.[106]

> "Very serious contamination by toxic materials has occurred and is currently occurring in the Laredo/Nuevo Laredo stretch of the Rio Grande/Rio Bravo. The introduction of toxic materials into the Rio Grande is poisoning the source of municipal water supply of Laredo, Nuevo Laredo, and other communities down-river from the sister cities. High levels of toxic chemicals are building up in the bodies of aquatic organisms that inhabit the river and its tributaries. This may be occurring in humans as well. Many people, on both sides of the river, consume fish from the river as part of their diet."

Analysis from Second Phase of the Binational Study Regarding the Presence of Toxic Substances in the Rio Grande/Rio Bravo

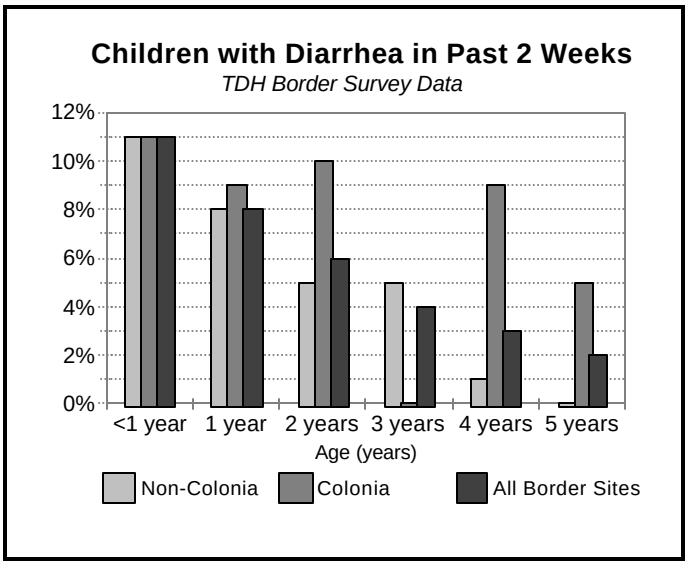
These high toxin levels are of great importance because the Rio Grande is the only available source of water for drinking, bathing, cooking, and washing for many communities. Given these rates, it is not surprising that the Border has higher rates of waterborne diseases and other infectious and communicable diseases than the rest of the U.S.

Microbiological water quality is a serious issue. Rates of Hepatitis A and diarrhea are much higher in the colonias in spite of improvements over the last 10 years. Furthermore, almost epidemic levels on the Mexican side of the Border are pressing against the United States and the Texas Border Region.[107]

[106]International Boundary and Water Commission. Second Phase of the Binational Study Regarding the Presence of Toxic Substances in the Rio Grande/Rio Bravo and its Tributaries Along the Boundary Portion Between the United States and Mexico. Volume II of II. September 1997.

[107]Information provided by Ronald .J. Dutton, Ph.D., Office of Border Health, Texas Department of Health. July 10, 2000.

In El Paso, much contamination of the Rio Grande occurs just a few miles away in Mexico because they do not have adequate sewage treatment facilities. There are two projects under construction with funds from North American Development (NAD) Bank, but they will not be on-line for a few years. In the meantime, contamination of the Rio Grande continues. El Paso is very active in its work with Mexico through binational health councils, and the city has distributed to various community leaders a resolution requesting cleanup of the Rio Grande River due, in part, to the dumping of raw sewage in the River at Ojinaga and Presidio. The Water and Boundary Commission as well as the US-Mexico Health Commission were supportive of the resolution. The two administrative bodies provided funding to help chlorinate wastewater before it is dumped into the River.[108]



Of concern is the large number of both US and international companies that "use, store, and dispose of hazardous materials on a regular basis in Ciudad Juarez." The El Paso Health District monitors the use of such materials, but they must rely on the compliance and cooperation of Mexican officials to notify the district of violations or potential exposures in neighboring areas. Monitoring storage sites is increasingly important due to the significant health consequences caused by such violations. The

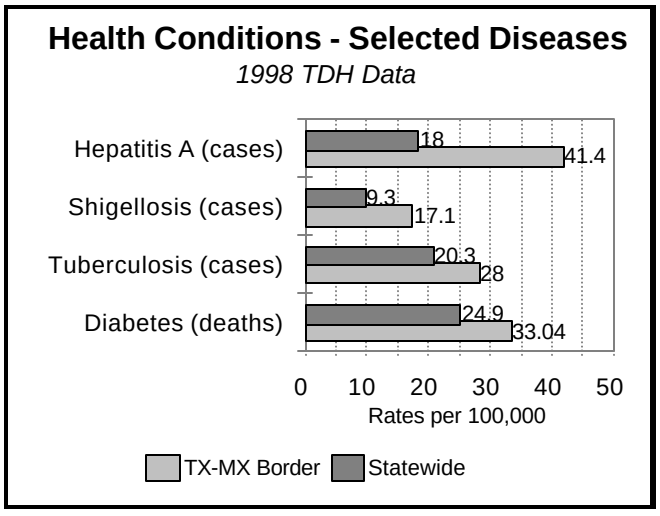
[108]Information provided by Jorge Magaña, M.D., El Paso County City/County Health & Environment District. November 18, 1999.

Health District issues permits for and inspects on-site septic systems in the *colonias*, however many of the residents remain at risk of contracting a variety of gastrointestinal diseases due to inadequate water supplies and poor sanitation.[109]

"Lack of an adequate water supply clearly contributes to the incidence of disease in the community."

Jorge Magaña, M.D., El Paso County Health & Environment District

The Texas Engineering Extension Service (TEEX) provides 70 percent of the water and wastewater certification training in the state. This training is mandated by both state certification laws and federal regulations. However, many border communities do not have sufficient funds to pay for this training, and will be faced with increased budget strains as Environmental Protection Agency guidelines mandate increased and more frequent training for all water and wastewater personnel. If Texas fails to meet these guidelines by February 2001, the EPA will withhold 20 percent of the state's Drinking Water State Revolving Fund.[110]



If the water and wastewater workforce are not informed and well-trained, both water quality and public health are at risk. Currently, water systems must be tested for 126 possibly threatening chemical and biological agents. The potential for waterborne disease and contamination from organisms such as

[109] ibid.

[110] Information provided by G. Kemble Bennett, Ph.D., Director and Associate Vice Chancellor for Engineering, Texas Engineering Extension Service, Texas A&M University System. July 10, 2000.

cryptosporidium and giardia exists on a daily basis. *Giardia lamblia* is a one-celled parasite which has recently been entering various water supplies; it primarily affects surface water, and is not readily killed by traditional processes and chlorination. Giardiasis is the gastrointestinal illness caused by the ingestion of Giardia-infected water supplies. Symptoms of the disease include diarrhea, abdominal cramps, gas, dehydration, weakness, and loss of appetite, and it can be treated with prescription medication. [111]

Cryptosporidium is resistant to chlorine and must be prevented with filtration systems that rely on accurate flow rates and routine maintenance. Many of the Border's public water systems have older water treatment systems and lack sufficiently trained operating personnel. The limited tax base and the high cost of serving small groups of people in remote and economically distressed areas makes wholly fee-based training difficult. Many of these small systems have difficulty complying with regulations. These counties with smaller systems also have the highest rates of waterborne disease, such as Hepatitis A and amebiasis, in the state.[112]

The EPA recently awarded $1 million to establish the Frank M. Tejeda Center for Excellence in Environmental Operations, whose main objective is to enhance the effectiveness of utility operations along the border. The Center will conduct water, wastewater, and environmental industry training and education along the U.S.-Mexico Border. TEEX will work with the Tejeda Center and various state and federal agencies in order to provide training for clean, safe, drinking water systems.[113]

[111]Information provided by Texas Agricultural Extension Service. Drinking Water and Health. Submitted April 27, 2000.

[112]Information provided by G. Kemble Bennett, Ph.D., Director and Associate Vice Chancellor for Engineering, Texas Engineering Extension Service, Texas A&M University System. July 10, 2000.

[113]ibid.

Based on these findings, the Senate Committee on Border Affairs makes the following recommendations to the Legislature:

RECOMMENDATIONS

- Provide state support to offset the rising training costs in Border systems, especially for those systems that:

1. are in economically distressed areas as defined by the Texas Water Development Board
2. are in a remote or isolated area, which precludes them from participating in existing training programs
3. are new Border systems
4. are existing systems that are replacing old equipment or broadening processing facilities
5. are identified by the TNRCC as deficient in technical skills, causing a potential public health risk

- Increase water, wastewater, and environmental industry services, training and education along the Border.

- Create a registry, similar to the neural-tube defect registry, to track animal anomalies. Many anomalies are present in the animal population along the Border. They are the initial indicators of many public health occurrences, such as lead toxicity, and may be used as surveillance for occurrences that may later appear in the human population.

- Commission further study in order to identify and verify links between air quality (including the significance of diesel exhaust), and health status of the population, including the growing number of adults and children with respiratory ailments.

- Commission a study of the link between water contamination and disease on the Rio Grande. Firm linkages need to be established relating to the dumping of, transportation of, or use of certain contaminants and/or chemicals in the river. A possible avenue to take in establishing those linkages is through the services of a university or public health system.

- Increase funding for environmental monitoring as NAFTA-related economic activity continues to increase.

- Place highly trained epidemiologists along the Border in El Paso, Laredo, and the Lower Rio Grande Valley.

- Certify solid waste programs by the Border Environmental Cooperation Commission (BECC) using loans from the North American Development (NAD) Bank.

- Direct Texas Natural Resource Conservation Commission personnel to take the following actions to improve water quality in the Rio Grande:[114]

1. Identify and prioritize environmental problems that affect the Rio Grande, and develop an action plan that identifies federal, state and local resources that can address priority issues;

[114] *Note: These 13 recommendations have also been submitted by Senator Judith Zaffirini to the Sunset Advisory Commission.*

2. Establish the position of Rio Grande Environmental Coordinator with a staff to promote local, state, federal and international cleanup efforts;

3. Issue an annual "State of the Rio Grande" report to the Texas Legislature with policy recommendations as a supplement to International Boundary and Water Commission reports;

4. Prioritize developing communication and cooperation between agency divisions, especially those responsible for monitoring, permitting and enforcement;

5. Hire regional staff with a "basin-wide" perspective and a demonstrated expertise in solving environmental problems and a commitment to environmental improvement;

6. Offer technical assistance to help all border cities, Mexican and American, develop zoning ordinances for the location of warehouses that handle toxic materials;

7. Offer technical assistance to help all border cities, Mexican and American, ensure that warehouse construction is appropriate to the kinds of materials being handled;

8. Identify and pursue additional funding sources to combat illegal dumping of garbage, tires and toxic materials in the Rio Grande watershed;

9. Offer technical assistance to Mexico regarding wastewater treatment, nonpoint source pollution and chemical spills;

10. Facilitate creation of "Friends of the Rio Grande" volunteer cleanup programs

and establish a recognition/awards system to build on the Texas Clean Rivers Program, which utilizes multiple groups, from schools to non-profit organizations, to capture river quality data;

11. Utilize the expertise of border colleges and universities to aid in pollution monitoring and analysis;

12. Provide technical assistance and access to technical education to support local enforcement efforts; and

13. Authorize local fire, environmental and health department inspectors to enforce state environmental laws in warehouses along the Texas-Mexico border.

BIRTH DEFECTS

The Texas Department of Health Birth Defects Monitoring Division and birth defects registry, which were established by the 73rd Legislature, collect information on over 200 birth defects. Neural tube defects account for three percent of total birth defects. Of these, 45 percent are spina bifida and 47 percent are anencephaly.[115] The birth defects registry has already made a significant impact on research and prevention efforts through the collection of data which revealed a cluster of anencephalic babies along the Rio Grande. Using this important data, researchers were able to identify certain factors, in particular a dietary deficiency of folic acid, that may contribute to higher occurrences of anencephaly.[116]

From 1993 to December 1999, of fourteen border counties, there were:

- 437 resident NTD cases
- Rate of 13.8 per 10,000 live births
- 1 for every 725 live births
- 91% of cases occur in Cameron, Hidalgo, El Paso, and Webb counties: Of these, 88 (20%) occurred in Cameron County and 144 (33%) occurred in Hidalgo County
- Webb County had the highest NTD rate at 17.4 per 10,000 live births

Texas Neural Tube Defect 1999 Fact Sheet

The Neural Tube Defect Project, which was a pilot project of the birth defects division, focused on these anencephalic infants, and developed intervention components which focused on providing folic-acid supplements and follow-up treatment to pregnant women. Of the women in the intervention program, 169 had healthy babies, and only one did not. The Neural Tube Defect Project ended on August 31, 1999. However, the Birth Defects Monitoring Division will inherit many of

[115]Information provided by Jorge Treviño, Texas Department of Health, Public Health Region 11. May 25, 2000.

[116]Information provided by Miguel Escobedo, M.D. Texas Department of Health. November 18, 1999.

the functions of the Neural Tube Defect project.[117]

PRENATAL CARE

Participation in the Women, Infants and Children (WIC) program has grown in Webb County. In 1990, the program had 6,333 participants per month. That figure has grown to a current 19,000 per month. This demonstrates the effectiveness of outreach, the quality of the program, and the increasing need for the program. Approximately 20 percent of prenatal care, that is 1,500 births per year, received in Laredo was paid for by Title V funds.[118] Title V is currently the only source of funding for prenatal care for undocumented women.[119] These funds are comprised of a combination of state and federal dollars. The FY2000 federal Maternal and Child Health Block Grant award was $37.5 million and is expected to remain the same for FY2001. The state appropriation for FY2001 is $49.3 million, which meets the federal requirement of $40.2 million in Maintenance of Effort funds for the state. Texas currently draws down all available Title V federal dollars, so any increase in funding for this program would have to come from the state.[120]

In 1999, Webb County provided $1,067,000 in billable prenatal care. This was an excess of 56 percent over the allowable maximum reimbursement, a combined total

[117]Information provided by Jorge Treviño, Texas Department of Health, Public Health Region 11. May 25, 2000.

[118]Information provided by Jerry Robinson, City of Laredo & Webb County Health Department. January 12, 2000.

[119]Information provided by William R. Archer, III., Commissioner of Health, Texas Department of Health. September 28, 2000.

[120]Information provided by Debra Wanser, R.N., State Title V Director, Texas Department of Health.

of $492,000 from TDH and local hospitals.[121] When considering the enormous potential costs incurred by Emergency Medicaid for complications that may arise due to lack of adequate prenatal care, it would be most cost-effective to increase prenatal care and Title V funds.[122]

Based on these findings, the Senate Committee on Border Affairs makes the following recommendations to the Legislature:

RECOMMENDATIONS

- Increase funding for prenatal care.
- Increase state funding for Title V programs.
- Support the continued promotion of preventive education and folic acid supplementation.

[121]Information provided by Jerry Robinson, City of Laredo & Webb County Health Department. January 12, 2000.

[122]Information provided by William R. Archer, III., Commissioner of Health, Texas Department of Health. September 28, 2000. 00.

PROMOTORAS & COMMUNITY OUTREACH

Reaching isolated colonia residents and introducing them to services and programs available in nearby communities is essential. Isolation can occur in urban as well as rural areas, and can be geographic, educational, or even social. Issues such as transportation, literacy, and reluctance to seek services because of the social stigma of doing so are all forms of isolation that must be addressed in the Border region.

The Promotora program is an important part of an effective solution to border health problems. A promotora is a resource worker who lives in the community they serve. A 1996 program study shows that conventional methods of disseminating information do not work in colonias. A tremendous distrust of printed material was found, possibly because many residents have limited literacy skills. Often, a young child would serve as the official translator for the family, thereby filtering all printed information through the eyes of a child."[123]

Engaging residents in colonias as promotoras is a very important and exciting step toward improving the health conditions and services along the Border. The Texas Department of Health, the Texas Health and Human Services Commission, the Texas Department of Mental Health & Mental Retardation, and many individuals as well, provided testimony which underscored the success of the program to date and the enormous potential for continued accomplishment in the future.

House Bill 1864 from the 76th Session requires the involvement of the Texas Department of Health in the establishment of training and certification programs, and

[123]Information provided by Elizabeth Rhodes, Texas A&M International University, Center of Housing and Urban Development. January 12, 2000.

in the development of a framework for the promotora program.[124] The temporary committee established by the bill will study issues related to the development of a standard curriculum for promotoras. The Department is also looking for ways to expand promotora services in colonias and other areas of the state.[125]

Social support, broadly defined as, "the support or resources that we get from the interaction with others that we trust and that we know," has been associated with lower mortality rates and a positive effect on physical and mental health. Promotoras are an effective way of offering this support. They live in the community and know the people to whom they are reaching out. With a sample of over 80 promotoras in the program, it has been shown that they are very effective in relaying information to the residents, helping them sign up for health insurance or Medicaid, encouraging healthy lifestyles, holding workshops on disease prevention, and offering health screenings.[126]

Promotoras are important in identifying the needs of low-income border residents, identifying their barriers to participation in health care programs, helping people understand the network of various health and social programs, and serving as a link to those programs by providing home visits. They encourage and assist colonia residents in accessing programs and health care services delivered by community resource centers and they establish colonia partnerships with local entities. They may also help locate childcare and transportation, which are often barriers to accessing health care, and refer residents to relevant organizations and follow up with them

[124]HB 1864 76R

[125]Information provided by William R. Archer, III., Commissioner, Texas Department of Health. September 28, 2000.

[126]Information provided by Elizabeth Rhodes, Texas A&M International University, Center of Housing and Urban Development. January 12, 2000.

regarding their participation and progress in those programs.[127]

The goals of the Colonias Program are:[128]
- Assess the needs of the community
- Establish community resource centers within the colonias
- Create networks of community outreach workers
- Help connect families with health, education, job training, human services, and youth and elderly programs available locally
- Forge partnerships with local agencies and service providers in order to recruit these services to the community resource centers
- Facilitate ongoing support of promotoras and VISTA members
- Sustain initiatives through new partnerships, program development, and fund-raising at the local, state, and federal levels.

Program Coordinators are a key part of the equation, because they hire, train, and supervise the promotoras, and must ensure that the promotoras are knowledgeable about the full range of services provided by various agencies, organizations, and community facilities.

The promotoras learn:[129]
- Communication skills
- Interpersonal skills
- Service coordination skills
- Capacity-building skills

[127] ibid.

[128] ibid.

[129] ibid.

- Teaching skills
- Organizational skills
- Knowledge of available programs

More promotoras will lead to a better quality of life for many border residents through increased education and improved access to knowledge for self improvement. Often, there is a great deal of misinformation in the colonias regarding the health and social services available to them. The promotoras are committed to being well-trained, and providing *accurate* information while facilitating efficient coordination of services.[130]

The promotora colonias initiative is funded through Texas A&M, and twenty community centers should be functioning by the end of the year. The promotoras are working with the residents to build trust, but to reach and continue to change the lives of even more individuals will require additional funding.[131]

Outreach programs along the border are a key to good public health. Two rural clinics have recently been opened in the Eagle Pass area and have provided easier access to services in the community. The results have been positive. Fort Duncan Medical Center in Maverick has in place public health strategies to build communities from the inside-out. For example, Clinica de la Amistad, a colonia clinic, closes its medical service areas at night and converts into a facility where community education and public meetings can be held.[132]

[130]ibid.

[131]Information provided by William Perry, Texas A&M University. May 25, 2000.

[132]Information provided by Juan Martinez, Fort Duncan Medical Center. February 4, 2000.

Independent nursing centers, which are tied to nursing schools, provide first-level, primary health care to underserved children as part of their nursing education. They use nurse practitioners as faculty resources. The program is a cost-effective, efficient, educationally based way of providing increased service.[133]

An example of an important community-identified need brought to increased attention by outreach workers was the lack of local recreational facilities and the subsequent creation of a public health hazard, as is evidenced by a study conducted by the Canseco School of Nursing of Texas A&M. The lack of safe, clean neighborhood playgrounds led to children playing in contaminated rivers and ponds, and in the streets. Researchers also found that many border communities were faced with similar issues like poor water quality, need of neighborhood cleanup, mosquitos, pollution, flooding, and drug trafficking. [134]

Based on these findings, the Senate Committee on Border Affairs makes the following recommendations to the Legislature:

RECOMMENDATIONS

- Increase the empowerment and funding of the promotora program. Promotora programs should be expanded along the Border; in colonias and in low-income urban areas.

- Increase support for community/ university partnerships.

[133]Information provided by Susan Baker, Texas A&M International University, Canseco School of Nursing. January 12, 2000.

[134]ibid.

MENTAL HEALTH SERVICES

> "As with chronic health problems such as diabetes and tuberculosis that are specifically named in your charge, the delivery of mental health and mental retardation services in Border regions presents its own challenges."
>
> Commissioner Karen Hale, Texas Department of Mental Health & Mental Retardation

Mental health services are a crucial component of the Border health care system. The Surgeon General's Report on Mental Health states that the indirect costs of mental illness in the United States totaled nearly $79 billion in 1990 (the most recent year for which estimates are available), which includes $4 billion in productivity costs for incarcerated individuals. For schizophrenia alone, the indirect cost that same year was almost $15 billion. These costs do not include pain, suffering, and other factors not incorporated into earnings figures.[135]

In Texas, the need for mental health services is of similar magnitude. According to an estimate presented in the Texas Department of Mental Health and Mental Retardation (MHMR) Task Force on Equity of Resource Allocation report, the number of Texans with mental retardation in the priority population will increase from 99,000 in 2000 to 105,000 by 2005. Currently, MHMR is serving less than a third of the estimated priority population for mental health and mental retardation services. Increased utilization of emergency health care services, increased homelessness, and increased involvement with the criminal justice system are all likely results of continued

[135]U.S. Department of Health and Human Services. Mental Health: A Report of the Surgeon General-Executive Summary. Rockville, MD: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, National Institute of Health, National Institute of Mental Health, 1999.

underfunding for MHMR services.[136]

The December 1999 waiting list for individuals known to be seeking some form of mental health or mental retardation service or support in Texas stood at 22,822 people. As of 1997, Texas ranked 43rd in overall per capita expenditures for mental health services.[137] Of the over 300,000 colonia residents living in Cameron, Hidalgo, and Willacy Counties, it is estimated that as many as 50 percent may have some form of mental illness. This higher incidence of mental health issues is most likely due to the high unemployment rate, low access to general health care, and high percentage of the population living in poverty. As of June, 2000, the Tropical Texas Center for MHMR, which primarily serves Cameron, Hidalgo, and Willacy Counties, had 1,301 individuals registered on a waiting list for mental retardation services.[138] Of the estimated 36,000 colonias residents in Webb County, the Laredo State Center is seeing only about 20 of these individuals, or approximately one out of every 1,800 colonia residents. "Clearly the colonias are being underserved with respect to Mental Health services."[139]

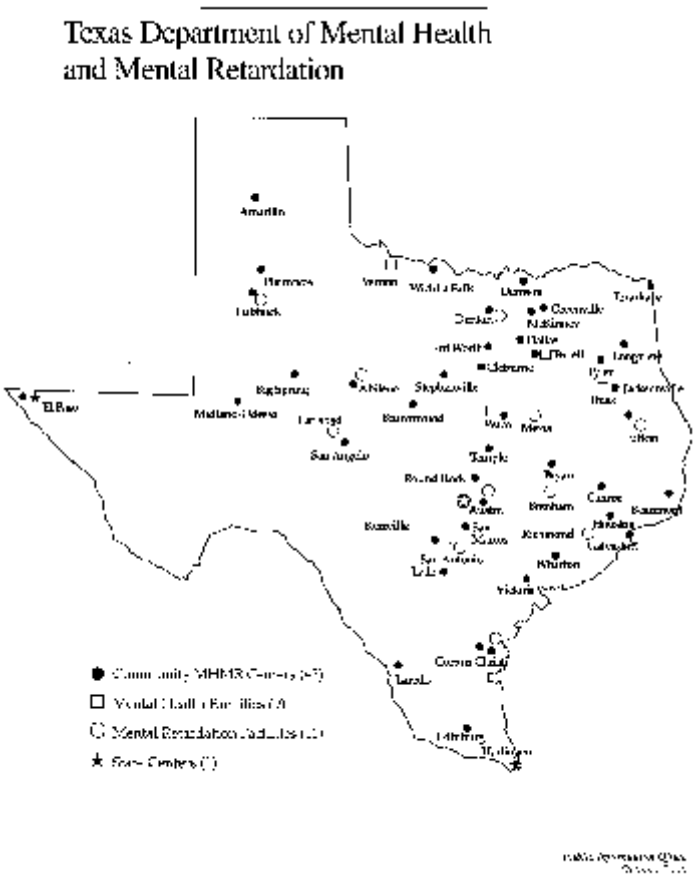
Persons of Hispanic origin are the fastest growing segment of the population, with a growth rate of about 26 percent per decade. Projections show that Hispanics will make up 46 percent of the total Texas population by the year 2030, with Anglos comprising 36 percent, and African-Americans 9 percent. By the year 2020, 50

[136]Texas Department of Mental Health & Mental Retardation. Recommendations of the Task Force on Equity of Resource Allocation-Final Report. Submitted to the Texas Board of Mental Health and Mental Retardation, June 29, 2000.

[137]ibid.

[138]Tropical Texas Center for Mental Health & Mental Retardation. "Barriers to the Provision of Behavioral Healthcare Services in Cameron, Hidalgo, and Willacy Counties." July, 2000.

[139]MHMR. "Laredo State Center Colonias Project" . Testimony submitted July 19, 2000.



percent of the population of children ages 0-17 will be Hispanic, 37 percent Anglo, and 12 percent African-American. According to MHMR's Strategic Plan, approximately 17 percent of the total population of the state is living below poverty level, and 24 percent of all persons under the age of 18 are living in poverty. Of the 1.4 million uninsured children in Texas, 52 percent are Hispanic.[140]

Based on these figures, MHMR must consider differing cultural requirements for services, the disproportionate number of minorities being underserved, and areas with higher levels of poverty or higher percentages of youth. The MHMR has been using a formula for the allocation of new mental health resources which includes adjustments for areas with high concentrations of poverty since 1994; they will continue to use this formula.[141]

The Equity Task Force is seeking the resources to bring all communities that are presently funded below the mean up to the mean level by the next biennium. Under

[140]MHMR. Strategic Plan: Fiscal Years 2001-2005. June 2000. Testimony submitted July 19, 2000.

[141]ibid.

this plan, which will be included in the agency's Legislative Appropriations Request, 18 of 43 Border counties would receive additional funding in order to promote equity and bring them up to the mean.[142]

ACCESO INITIATIVE

MHMR's Colonias Initiative, which is aimed at improving access to services along the Texas-Mexico Border, is titled ACCESO. This stands for "**A**ction committee on **C**olonias **C**ommitted to **E**xpand and improve access to **S**ervices to create new **O**pportunities." The goals of the ACCESO program are to:[143]

BARRIERS AFFECTING ACCESS TO MENTAL HEALTH SERVICES:

Stigma
Isolation
Inadequate Transportation
Language
Willingness to seek help
Understanding of the system: Fear of accepting government services/fear of deportation and fear of cost of treatment

Commissioner Karen Hale, MHMR

- Promote access to services along the Texas-Mexico Border region.
- Develop strategies to improve access to information, education and services.
- Outline potential barriers and identify strategies to achieving mission and vision.
- Identify key stakeholders in local communities, cultivate existing partnerships, and develop new networks.
- Coordinate efforts with colonia residents, county governments, local, state, and federal agencies, nonprofit organizations, and other institutions with established programs and initiatives in the colonias.
- Include colonias effort in local and statewide strategic planning.

[142] ibid.

[143] Information provided by Karen Hale, Commissioner, MHMR. July 10, 2000.

The promotora training for mental health outreach is conducted in Spanish, on-site at the Texas A&M community resource centers. The Laredo State Center, for example, is training promotoras to perform case-finding functions, which includes how to recognize the signs and symptoms of mental illness, how to approach the individual, and how to recommend that the person seek mental health services. The promotoras also receive additional support and written material, in Spanish, to distribute. Texas A&M, at the Laredo State Center Colonias Project, has agreed to provide transportation to colonia residents who desire services.[144]

Psychiatric beds are badly needed in the Rio Grande Valley where, for example, there is a complete lack of local residential treatment beds for children under the age of twelve.[145] With the recent closing of Charter Palms in Harlingen and also in Corpus Christi, there are no psychiatric beds south of San Antonio for children of that age. There are only 50 beds in the Valley for children between the ages of 13 & 17 years old. This forces those in need of services to go to San Antonio, putting a strain on the services available in San Antonio.[146] There is also a huge gap in substance abuse services in the Border, which often correlates with the need for mental health services. There is not a single hospital bed for detoxification in the entire region and there are no residential services.[147]

Based on these findings, the Senate Committee on Border Affairs makes the following

[144]MHMR. "Laredo State Center Colonias Project." Testimony submitted July 19, 2000.

[145]Tropical Texas Center for Mental Health & Mental Retardation. "Barriers to the Provision of Behavioral Healthcare Services in Cameron, Hidalgo, and Willacy Counties." July, 2000.

[146]Information provided by Eloy Pulido, County Judge, Hidalgo County. April 27, 2000.

[147]Information provided by Paul Edwards, PAE Associates. February 4, 2000.

recommendations to the Legislature:

RECOMMENDATIONS

- Increase accessibility to the following services along the Border region.
    1) Mental health services
    2) Children's Inpatient treatment
    3) Dual diagnosis treatment (Mental Health/ Substance Abuse and Mental Retardation/Mental Health)
    4) Mental retardation services
    5) Preventive intervention and education

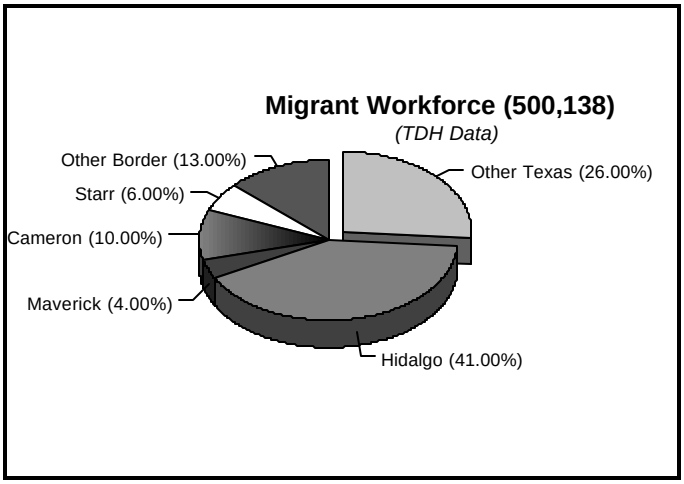
- Work with the Texas Commission on Alcohol and Drug Abuse to ensure that alcohol and drug abuse services are available within a reasonable distance for Border residents.

- Support and strengthen the Texas Department of Mental Health & Mental Retardation's Colonias Outreach Initiative.

MEDICAID, CHIP, THE BALANCED BUDGET ACT, & INDIGENT HEALTH

> "More than one third of Medicaid eligible children live in immigrant families, and over 70 percent of children in immigrant families are Hispanic. Barriers to enrolling children into Medicaid or other programs include the immigration status for one or both parents, and cultural and language differences."
>
> Health Resources and Services Administration (HRSA). "Assuring a Healthy Future Along the U.S.-Mexico Border- A HRSA Priority"

While problems with publicly-funded health programs and indigent health services are not unique to the Border, certain aspects of life intrinsic to the area further complicate already difficult situations. For example, non-citizen Border residents feel that they do not have access to emergency medical care because they believe that the fees incurred will have to be paid for if they were ever to seek citizenship.[148] A degree of misinformation exists in the Immigration and Naturalization Service and Border Patrol agencies regarding access to health care, and a negative atmosphere at both agencies causes individuals to be apprehensive about attaining emergency medical assistance. In 1999 for example, Mercy Hospital in Laredo served approximately 300 patients who were eligible for Emergency Medicaid, but they or their families were fearful of adverse immigration repercussions and would not fulfill the necessary procedural requirements. As a result, the hospital lost $850,000 in potential reimbursement.[149]



[148]Information provided by Berta Sanchez, Methodist Healthcare Ministries. February 4, 2000.

[149]Information provided by Mark Stauder, Mercy Health Systems of Texas. January 12, 2000.

Circumstances such as these are additional layers of concern in an already complicated system.

MEDICAID & MANAGED CARE

> "The [reimbursement] rate proposed for El Paso, both Medicaid and CHIP, will cement financial inequality in health care reimbursements along the U.S.-Mexico Border.... the only ones that have not yet been affected by the Medicaid rollout is the rest of the Border and the Valley."
>
> Pete Duarte, CEO, El Paso County Hospital District

A substantial amount of testimony was brought before the Committee regarding the importance of remedying the current Texas Medicaid system, specifically as it relates to the reimbursement rates set by the state. A 1999 Congressional Research report indicated that a growing number of HMOs that had previously accepted large numbers of Medicaid clients are now pulling out of the program "due to the low negotiated per capita payments, from which many states have claimed Medicaid savings."[150] Blue Cross has already withdrawn its bid on the El Paso contract due to the substantially lower reimbursement rates for Medicaid Managed Care proposed for that area; the reimbursement rate for El Paso is 13 percent below the state average.[151]

There are two general forms of Medicaid reimbursement: one is the "fee-for-service" (FFS) rate which is standard statewide and the other is the capitated rate method which is used for Medicaid Managed Care. Regarding capitated rates specifically, the cost of the services used by an enrolled population, divided by the number of enrolled

[150] Information provided by Pete Duarte, Thomason Hospital. November 18, 1999.

[151] ibid.

people, yields the average cost per person.[152] If a population represents a relatively low historical demand for services, the capitated rate is then lower than in an area where overall utilization is higher. Lower utilization theoretically indicates a lower level of need for health care services (for example, the relatively lower incidence of low birth weight babies on the border.[153]) Medicaid and CHIP reimbursement rates based on historical utilization, while assumed to illustrate the *needs* of the population, are actually a reflection of inadequacies in the health care system. Any reimbursement rate based on utilization may be flawed for a number of reasons, including but not limited to the use of healthcare services in Mexico and/or other non-covered services. These populations are not incorporated into the formula applied by the state to calculate the use of services, thereby distorting historic utilization rates.[154]

The first issue to address relating to Medicaid Managed Care reimbursement rates is therefore utilization, particularly as a function of infrastructure. Poor infrastructure leads to poor access and in turn to decreased utilization. A prime example is the lack of a children's

Access to Physicians Participating in Medicaid, 1998

	Eligible Pop.	# Phys.Part.	Elig./Phys.Part.
Cameron	102,648	194	530
El Paso	155,645	374	416
Hidalgo	180,542	320	564
Maverick	17,221	19	906
Presidio	2,228	0	X
Starr	23,145	17	1361
Val Verde	11,254	13	865
Webb	55,479	99	560
Willacy	7,811	11	710
Zapata	3,394	0	X
TEXAS AVG.	2,680,583	9,929	270

(TDH data) -*Note the difference between the state average and county averages in the ratio of eligible population to physicians participating in Medicaid (Elig/Phys.Part.)*

[152]HHSC

[153]Information provided by Don Gilbert, Commissioner, Texas Health & Human Services Commission. July 10, 2000.

[6]Miguel Escobedo, M.D., Texas Department of Health. November 19, 1999.

hospital in El Paso.[155] In the Laredo region, the community has less than half of the average state ratio of physicians per thousand population. The use of historical utilization rates to forecast funding needs for the population would not take into account the difficulty in accessing services in an area already underserved with physicians, technical, and other related hospital diagnostic services.[156] (Note that place of origin is used in utilization statistics *when possible*; for example when a patient travels from McAllen to Houston, the patient should be documented as part of McAllen utilization.[157])

The El Paso Medicaid managed care pilot project set off a red flag in the health care community. Many providers began to fear that reimbursement inadequacies would be cemented through prospective capitation rates. The infrastructure itself, the financial condition of the hospital, and the degree of dependency on Medicaid and CHIP are factors in how communities are affected by reimbursement rates in both Medicaid Managed Care (when applicable) *and* traditional Medicaid. In Maverick County, for example, 87 percent of Fort Duncan Medical Center's payments come from Medicaid/Medicare.[158] This makes their situation different from that of other hospitals who receive a lower percentage of compensation from treating Medicaid patients. The cumbersome bureaucratic Medicaid processes and delayed reimbursement were cited as additional factors which discourage participation. Many doctors place a cap on the number of Medicaid patients they will accept because they consistently lose money on accepting those patients, and this in turn creates an additional barrier to health care

[7]Information provided by Pete Duarte, Thomason Hospital. November 18, 1999.

[156]Information provided by Mark Stauder, Mercy Health Systems of Texas. January 12, 2000.

[157]Information provided by Don Gilbert, Commissioner, Texas Health & Human Services Commission. July 10, 2000

[158]Information provided by Juan Martinez, Fort Duncan Medical Center. February 4, 2000.

access.[159]

CHIP and Medicaid Managed Care reimbursement rates originate from the Medicaid fee schedule used in the traditional Medicaid program. The resulting low reimbursement rates contribute to physicians' decisions to either leave the program or limit their participation in it. These reimbursement rates combined with higher liability insurance rates (as compared to other areas of the state) and other financial factors make recruitment and retention of health care providers to the Border region extremely

Fort Duncan Medical Center Figures- Maverick County

Year	Indigent Care Cost	Medicaid/ Medicare	Private Pay
1997	$914,000	91%	6%
1998	$1,021,000	88%	6%
1999	$1,370,000	87%	7%

The two largest employers in the Eagle Pass, Maverick County community are Fort Duncan Medical Center and the local public school system. It was brought before the Committee that despite this fact, the school insurance plan is not geared toward the Fort Duncan hospital system, and many of the school employees are forced to travel to San Antonio to honor their coverage.

Juan Martinez, Fort Duncan Medical Center. February 4, 2000.

Direct Patient Care Physicians by County of Practice - September, 1999

	Estimated Pop.	# Physicians	Pop./Phys.	#Phys./100,000
Cameron	328,158	363	904	110.6
El Paso	755,339	701	1,078	92.8
Hidalgo	528,300	514	1,028	97.3
Maverick	44,277	34	1,302	76.8
Presidio	8,502	0	X	0
Starr	61,722	9	6,858	14.6
Val Verde	44,190	28	1,578	63.4
Webb	182,195	170	1,072	93.3
Willacy	19,915	11	1,810	55.2
Zapata	12,866	3	4,289	23.3
TEXAS AVG.	19,995,428	28,595	699	143

TDH Data

[159]Information provided by Gordon McGee, M.D., Texas Medical Association, El Paso County Medical Society. November 18, 1999.

problematic.[160]

A 1998 Texas Medical Association survey found that only 42 percent of family practitioners, 42 percent of pediatricians, and 26 percent of internists accepted new Medicaid patients. Low Medicaid reimbursement rates further compound the problem of health care access in the Border region where the communities are already medically underserved. Medicaid remains the single largest payor for *insured* residents along the Border,[13] and this reliance on Medicaid directly affects provider practices.

The overwhelming consensus of those who testified before the Committee regarding the Medicaid program as a whole was that reimbursement rates need to be reviewed and increased statewide. Raising Medicaid reimbursement rates would:[14]

1) **Increase access to primary care services in Border and other underserved regions.** "Low reimbursement rates undermine efforts to retain and attract new physicians and other health care professionals to the region."
2) **Promote stronger Border economies**. Health systems are often major employers in a community. Not only are jobs and a stronger tax base provided, but the viability of the hospital or practice itself contributes to a competitive economy.

The issues with Medicaid reimbursement rates concern the state's Medicaid program overall. In Medicaid, capitation is used only for managed care, which is currently under a moratorium on its expansion into other areas of the state. In El Paso, only 30 percent of Medicaid enrollment is in managed care. Furthermore, capitation is a relatively recent method of reimbursement and fee-for-service rates have been and

[160]Information provided by Eduardo Sanchez, M.D., MPH., Texas Medical Association. July 10, 2000.

[13]ibid.

[14]Information provided by Gordon McGee, M.D., Texas Medical Association, El Paso County Medical Society. November 18, 1999.

remain uniform across the state. From this, it is arguable that addressing capitated rates alone will not solve the Border region's health care problems, although it is a ***crucial*** component. There is also a need to encourage individuals to change their decisions about how they access health care and to promote their use of network services rather than going across the border for services.[15] Outreach, such as the work done by promotoras, is an important part of encouraging individuals to seek care in available, appropriate settings. **However it is vital to have sufficient levels of services in place in order to provide these patients with readily accessible health care once they are referred.** Efforts to improve infrastructure must address the health care shortage areas along the Border and how the state can provide incentives to attract professionals to these areas where they are most needed. With respect to Medicaid, this would be achieved at least in part with increased reimbursement rates.[16]

TDH MEDICAID UTILIZATION & COST STATISTICS BY SERVICE AREA (1)(2)

	Inpatient Facility Services For All Risk Groups			
Service Area	IP Adms Per 1,000	IP Days Per 1,000	Avg Pymt Per Adm	Avg Pymt PMPM
El Paso	22.9	63.8	$2,524	$57.83
Laredo	23.0	64.2	$2,150	$49.49
Rio Grande Valley	21.0	59.2	$2,333	$48.95
Houston	27.9	83.9	$3,119	$87.04
Statewide	26.2	73.6	$2,614	$68.46
	Outpatient Facility Services for All Risk Groups			
Service Area	OP Visits Per 1,000	OP Svcs Per 1,000	Avg Pymt Per Visit	Avg Pymt PMPM
El Paso	85.9	369.7	$87.35	$7.50
Laredo	112.9	420.9	$71.65	$8.09
Rio Grande Valley	50.4	266.7	$116.74	$5.89
Houston	102.5	518.3	$119.02	$12.20
Statewide	115.6	491.5	$98.33	$11.37

1) Statistics for services incurred under Medicaid fee-for-service plan, Sept 1995-Aug 1997. 2) From NHIC ST750 STAT data files by county for Aug 1997 & Aug 1998.

[15]Information provided by Don Gilbert, Commissioner, Texas Health & Human Services Commission. July 10, 2000.

[16]ibid.

Children's Health Insurance Program (CHIP)

The CHIP reimbursement rates were determined by actuaries, again taking utilization into account.[17] According to testimony by Commissioner Gilbert, public school clinics provide a key opportunity to make the community aware of the CHIP program, and to inform parents through their children of the child's right to health services.[18] However, under federal law, the 600,000 uninsured Texas children who are "Medicaid eligible but not enrolled" may not participate in CHIP. Many of these children live in the Valley and along the Border. Unfortunately, significant barriers to Medicaid enrollment are actively maintained by the state.[19]

Because of questions and concerns from local providers and community groups regarding Medicaid and CHIP reimbursement rates, the Health and Human Services Commission was asked to convene a workgroup to study Border rate issues for Medicaid and CHIP. The purpose of the workgroup is to identify and examine Border rate issues, review the impact of the rates on the local community, and develop potential solutions for resolving rate issues. The Border Rate Workgroup will issue recommendations for consideration by the 77th Legislature.

MEDICAID ENROLLMENT

[17]Information provided by Don Gilbert, Commissioner, Texas Health & Human Services Commission. May 25, 2000.

[18]Information provided by Don Gilbert, Commissioner, Texas Health & Human Services Commission. July 10, 2000.

[19]Information provided by Gordon McGee, M.D., Texas Medical Association. May 25, 2000.

> "The most common adjectives used to describe the [medicaid enrollment] experience are 'frustrating,' 'dehumanizing,' and 'humiliating.'"
>
> Dr. Gordon McGee, El Paso County Medical Society

Last fall, the Health Care for Every Child Coalition in San Antonio, made up of more than 300 individuals, schools, neighborhood organizations, health care systems, faith-based organizations, and non-profit group members, organized a Medicaid enrollment pilot project. (The Coalition is also involved with the Texas Department of Health in providing community-based organization outreach and assistance programs for CHIP and TexCare Partnership enrollment.) In their enrollment pilot project, the Coalition found that in Bexar County, there were almost 115,000 uninsured children. Twenty percent of Bexar county children under the age of 19 did not have access to regular or preventive care and did not have health insurance. 50,000 children were estimated to be Medicaid eligible but not enrolled. Evidence also showed that, "as parents return to work many children are becoming uninsured."[20]

The Medicaid enrollment process is not family friendly, especially as it relates to Border residents. The process is complex and time-consuming, many forms must be submitted to verify need, and the face-to-face interview takes several hours of a parent's time, which is often valuable time that must be taken off from work. To be penalized for having an "asset" such as an old vehicle is counterproductive in areas such as the Border region, where public transportation is limited and services may be spread out over a large geographic area. Since federal welfare reform took place in 1996, the Temporary Assistance for Needy Families (TANF) enrollment numbers have gone down, but so have the Medicaid enrollment figures. This is most likely due to a lack of emphasis placed on "de-linking" the programs. Although $27 million was made available to Texas by Congress for outreach efforts, this money has not yet been

[20]Information provided by Vicki Perkins, Health Care for Every Child Coalition. March 22, 2000.

accessed by the state.[21] One reason the Medicaid application is so lengthy is that the state does not currently cross-reference data. When the TANF and Medicaid applications were joined, the lengthy application was necessary. Now, even though the programs have been de-linked, the same application is in use.[22] The Texas Health and Human Services Commission (HHSC) stated that letters were sent out notifying TANF recipients that they were still Medicaid eligible, but many Border residents may have limited language skills to understand these letters *(as discussed in the Promotora chapter)*.

The Senate Interim Committee on Human Services reviewed the impact of welfare reform on children and adopted recommendations to streamline the application process, including the elimination of the assets test for children's Medicaid eligibility; allowing 12-month continuous eligibility for children's Medicaid in order to avoid disruptions in service; and the creation of a workgroup to revise the Department of Human Services' (DHS) eligibility, application and review processes to make them more accessible and supportive of families. The adopted recommendations also included the recommendation to revise the Temporary Assistance for Needy Families (TANF) vehicle resource limit to exclude the value of one vehicle when determining a family's assets; utilize expanded federal categorical eligibility rules for Food Stamps; and streamline the recertification process for Food Stamps by allowing phone-in recertification and requiring clients to make only one face-to-face DHS office interview annually. These recommendations would address the needs of many Border residents.

DISPROPORTIONATE SHARE

Much testimony was received urging that public money go to where there is the

[21]Information provided by Berta Sanchez, Methodist Healthcare Ministries. February 4, 2000.

[22]ibid.

greatest public need, in particular as it relates to Medicaid Disproportionate Share Hospital (DSH) dollars. The protection of DSH allocations for the Border is vital, due in part to the fact that many communities do not have a provider safety net.[23] Losing these dollars will especially hurt facilities with populations primarily served by Medicare and Medicaid. Theoretically, even if 100% of the eligible population was insured, it would remain important to maintain DSH funding in light of the large number of undocumented immigrants treated along the Border.[24]

LEVEL 1 TRAUMA SYSTEMS & REHABILITATION

After the first state-funded program for trauma and EMS systems across Texas was established via Senate Bill 102 (1997), the Critical Care Transfer Coordinating Board for Trauma (CCTCB) in San Antonio developed a pilot project called Trauma MEDCOM. This program was designed for the 22 counties of trauma region P, and serves to coordinate the acceptance of patients needing Level 1 trauma care.

One concern, however, is the lack of long-term rehabilitation services in many Border communities. These patients are forced to stay in trauma centers away from their homes in order to receive rehabilitative care. This places an additional financial strain on the receiving facilities, as well as on the patients and families who incur travel expenses. Balanced Budget Act cuts have also contributed to this problem by forcing small hospitals to cease rehabilitation and outreach programs. Uninsured and underinsured U.S. Citizens, along with a number of undocumented immigrants, pose a financial risk and are at risk themselves in a limited trauma system. [25]

[23]Information provided by Gordon McGee, M.D., Texas Medical Association. May 25, 2000.

[24]Information provided by Berta Sanchez, Methodist Healthcare Ministries. February 4, 2000.

[25]Information provided by William Rasco, Greater San Antonio Hospital Council. March 22, 2000.

BALANCED BUDGET ACT

Non-profit and public hospitals will continue to be under a tremendous financial strain as the state deals with the Federal Balanced Budget Act (BBA), which cut $100 billion out of national health care and hospital reimbursements. The primary providers of health care to the underinsured and uninsured will have difficulty providing the level of care and access they have historically been providing.[26]

The BBA was projected to yield $160 billion in federal spending reductions for the years 1998-2002. The majority of these cuts were projected to come from Medicare and Medicaid based on 1997 figures. Total BBA reductions to hospitals were expected to be approximately $44.1 billion, with $3.8 billion in projected cuts for Texas hospitals. However, realized cuts have been significantly higher than originally anticipated. The revised figures estimate 1999 Medicare reductions at $71.2 billion, with Texas hospitals seeing reductions of $5.7 billion. By 2002, 70 percent of Texas hospitals will lose money when treating Medicaid and Medicare patients.[27] The first thing that many hospitals do in order to cope financially with such budget shortfalls is to eliminate non-revenue producing programs, such as outreach, rural clinics, women and children programs, and home-health visits, which are all vital to the Border.[28] The 1999 Balanced Budget Relief Act (BBRA) restored approximately $17 billion of the projected reductions, and extended the BBA to the year 2004. However, this will provide only temporary relief.[29]

[26]ibid.

[27]Ibid.

[28]Information provided by Juan Martinez, Fort Duncan Medical Center. February 4, 2000.

[29]Information provided by William Rasco, Greater San Antonio Hospital Council. March 22, 2000

UNCOMPENSATED CARE

The Border is also faced with a disproportionate burden of uncompensated health care. Solutions to providing indigent care will necessarily include the federal government and various state agencies, county indigent care, community health centers, the private sector, hospitals, philanthropy, and volunteerism.[30]

> "Uninsured minimum wage workers face bills from both hospitals and their doctors that will plague them for the rest of their lives... [E]xpensive prescriptions are beyond their economic means; they face the pitiless reality of buying their medicine and forgoing their meals, or eating while their health worsens."
>
> Dr. Lorenzo Pelly, The Valley Doctor's Clinic

In 1997, the Greater San Antonio Hospital Council membership, which consists of 46 hospitals in 27 counties, reported over $500 million dollars of uncompensated care. This included bad debt, which refers to those services provided for which payment was anticipated but never received, and charity care, which refers to services that were provided at no charge to the patient without expectation of repayment. A representative from the Hospital Council stated that "there appears to be a direct relationship between the nation-leading 24% uninsured rate in Texas and the increasing uncompensated care within our health care institutions. In order to decrease the uncompensated care figure, we must make a concerted effort to study the uninsured population at the sub-poverty level, as well as those uninsured who fall above the federal poverty level."[31]

House Bill 1398 (1999) was passed by the Legislature in order to improve the physical

[30]Information provided by Brian Smith, M.D., Texas Department of Health. April 27, 2000.

[31]Information provided by William Rasco, Greater San Antonio Hospital Council. March 22, 2000.

health of indigent clients and the fiscal health of counties. The bill was a collaborative effort of health providers, state agencies, local officials and others concerned with indigent health care. Improving the Indigent Health Care and Treatment Act, the bill allows additional counties to draw state assistance funds and opens the program to more clients. Prior to the legislation, a county had to spend 10 percent of its general revenue tax levy on indigent care before it could tap into state funding. The new statute lowers the initial county spending to eight percent and increases the state share to 90 percent. Additionally, counties are afforded more latitude in the services that can be credited toward their eight percent expenditure level.

The collection of valid data on the number of people who are actually uninsured is, in particular as it relates to including an accurate number of undocumented immigrants in those figures, extremely problematic. The Hospital Council relayed that "twenty-four percent of the population within the Greater San Antonio Hospital Council membership is uninsured; consistent with Texas as a whole. Considering that many of our membership counties are in close proximity to the Mexican border and are populated with undocumented immigrants, we can state with confidence that the uninsured statistic for our membership is understated."[32]

In the Lower Rio Grande Valley, for instance, McAllen Medical is the main provider of acute health services in Hidalgo County, which has 141,949 uninsured individuals between the ages of 0 and 64, equaling 31 percent of the population. Cameron County has 86,389 uninsured at 30 percent of the population. The causes of high rates of uninsured are continued migration, population increase, and the movement to full employment, where many employers do not offer health insurance benefits.[33]

[32]ibid.

[33]Information provided by Harold Siglar, South Texas Health System. May 25, 2000.

Based on these findings, the Senate Committee on Border Affairs makes the following recommendations to the Legislature:

RECOMMENDATIONS

- Review the methodology by which the state sets CHIP and Medicaid reimbursement rates. Direct the Health and Human Services Commission to address the rate-setting methodology and increase rates, in particular as it relates to Medicaid reimbursement along the Border. This should include developing a tiered system that will provide for equitable rates to regions in need.

- Consider the recommendations of the Border Rate Workgroup upon their finalization in January, 2001.

- Direct the Texas Department of Health to develop indigent care programs specifically designed for the Border. Examine the healthcare funding currently provided by the state and correlate distribution of dollars to rates of uninsured and indigent care.

- Increase awareness of and participation in federal and state health care programs available to the Border region. This should include attracting more federal dollars for uncompensated care and protecting disproportionate share funding, especially for hospitals which serve large numbers of undocumented immigrants.

- Further develop bilingual education strategies regarding the availability of and explanation of health and social service programs in the Border region.

- Coordinate INS, Border Patrol, and Texas Health and Human Services Commission efforts in order to eliminate fear, clear-up misconceptions, and correct misinformation regarding access to health care. Create a system to monitor

progress.

- Bolster preventive and primary care services in the Border and other underserved regions of the state.

- Review medical liability insurance rates for providers in the Border region.

- Examine the allocation of tobacco funds for health services to ensure efficacy.

- Fund the continued development of health service districts.

- Streamline the state Medicaid application and support legislative efforts to:
  - Make Medicaid enrollment process as identical to the CHIP process as possible.
  - Eliminate the assets test for children's Medicaid eligibility.
  - Require clients to make only one face-to-face interview annually.
  - Allow 12 month continuous eligibility.
  - Improve Medicaid de-linking outreach.
  - Revise the TANF vehicle resource limit to exclude the value of one vehicle when determining a family's assets.

- Continue to develop creative outreach programs for CHIP and Medicaid enrollment.

- Examine the use of Trauma MEDCOM as a viable system in improving the coordination and utilization of limited trauma resources along the Border.

- Establish a Veterans Administration hospital in the Lower Rio Grande Valley, Middle Rio Grande Valley and the El Paso region.

- Provide continued support at the state level for federal relief from the Balanced Budget Act.

HEALTH EDUCATION AND RESEARCH INITIATIVES

> There is a crucial need for research along the border in order to provide information for public policy and raise awareness of Border public health issues.
>
> Dr. Jacob Heydemann, Paso del Norte Foundation

Multiple health disparities exist in the Texas Border region, especially in the colonias. An essential approach to addressing these disparities is the establishment of effective public health infrastructure, including developing health surveillance systems, assuring the availability, accessibility and high quality of health care systems, identifying and implementing comprehensive strategies for prevention, early identification, intervention, and referral of individuals with health problems, with special attention to harder to reach populations. Integrated approaches to addressing environmental problems, developing culturally specific solutions to border health problems, creating advanced telecommunications for distance learning, information sharing and research must all be implemented to address Border health issues.[34]

A necessary component of public health infrastructure development is an increased capacity of local public and private institutions to improve access to underserved communities, such as colonias, while ensuring the capability of local organizations to collaborate and mobilize to meet pressing health and health-related needs such as education and economic well-being.[35]

It is of prime importance that an effective and efficient public health infrastructure be built utilizing pre-existing resources, where available, in collaboration with newly

[34] Information provided by Glen Roney, South Texas Center for Rural Public Health. April 27, 2000.

[35] Information provided by Dr. Ciro V. Sumaya, Dean, Texas A&M School of Rural Public Health. April 27, 2000.

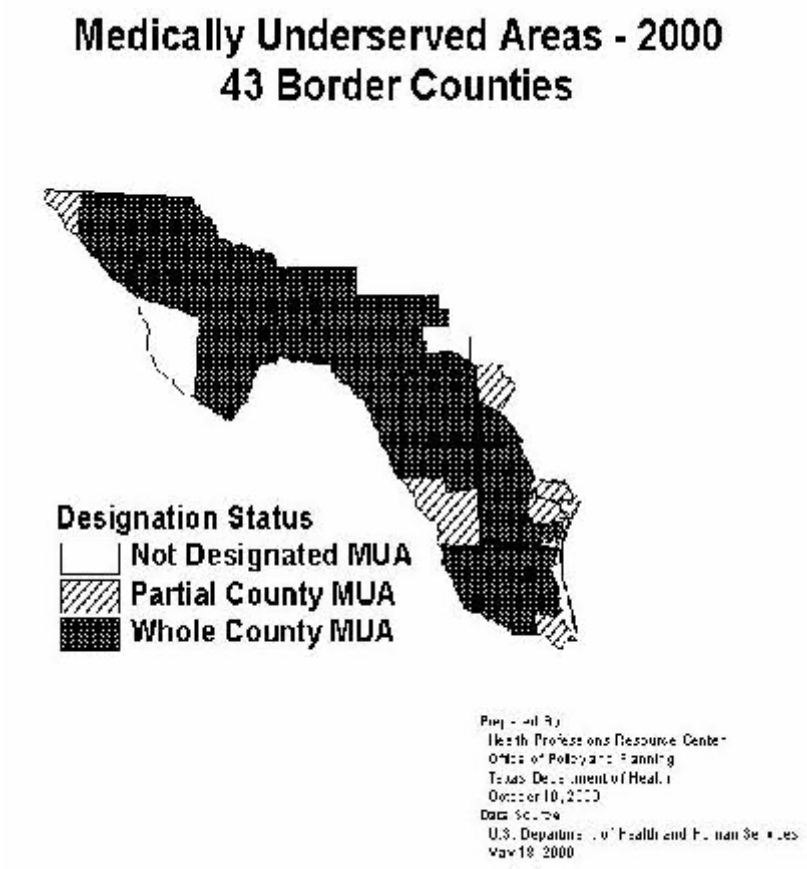
created resources in order to address community-identified public health needs.[36] This issue was addressed on several occasions before the Committee by the Texas Department of Health, the Texas Health and Human Services Commission, and many individual witnesses. Strengthening partnerships between local universities, community colleges and Border communities through open forums, seminars, guest speakers and other means of interaction will also facilitate the communication of research findings to the community.

> "The study of medicine along the Border is unique; the study of medicine in Hispanics is not unique, but we can do it better than anyone else across the country."
>
> Manuel de la Rosa, Texas Tech University Health Science Center

Many individuals testified on the importance of health education as a means of improving the health care system along the border. One of the issues brought before the Committee was "brain drain," which refers to students' inability to return to their home region upon completing their college education due to the lack of an adequate job base in their area of expertise. There is a need to reinvest in the intellectual capital in the Border region, especially in the field of health care. Health care professionals need to continue to be developed and maintained locally.[37] In order to increase clinical and basic science research on border health issues, significant investments in both academic talent and research infrastructure must be made.

[36] ibid.

[37] Manuel de la Rosa, Texas Tech University Health Science Center. November 18, 1999.



HEALTH EDUCATION INITIATIVES

NAFTA related growth is rapid along the Border region, and its effects on the increasing population extend into areas such as higher education and health education needs. For instance, South Texas Community College (STCC) is one of the fastest growing community colleges in the state. STCC currently serves approximately 10,000 students, only six years after their initial 500 student enrollment.[38] Serving Hidalgo and Starr counties, STCC offers technical programs, business classes and fine arts curriculum at more than 30 sites in McAllen, Rio Grande City, Weslaco and other cities in the two counties.

In regards to health education, when local hospitals began recruiting nurses from as far away as Canada and the Philippines, STCC responded by training local residents

[38]Dr. Ramiro Casso, South Texas Community College. April 27, 2000.

in many health-related fields, including associate degrees in nursing (LVN). It is believed that this effort will lead to residents staying in the community and contributing to the local economy, while at the same time working to reduce the shortage of health professionals in the region and enhance the overall availability of health services.[39]

The City of McAllen has offered a gift of $1.2 million in land, adjacent to the new primary health clinic El Milagro and to the STCC Nursing & Allied Health building. The A&M School of Rural Public Health is already offering ongoing curricula via distance learning for the Masters Degree in Public Health. If a permanent facility is created, future degree plans could include a Doctorate in Public Health program. A variety of public health research projects will be based out of the proposed Texas A&M building. These projects will be conducted in rural areas and colonias by outreach workers known as promotoras. STCC, in partnership with Texas A&M, is also preparing to train promotoras.[40]

The didactic portion of the instruction will be provided at South Texas Community College or at the A&M School of Public Health. The practicum will take place in the colonias. This will assist the public health researchers in accessing health information regarding immunization records, screening for hypertension and diabetes, and the arrangement of referrals from the colonias to the El Milagro clinic for follow up by physicians and nurse practitioners. Early breast cancer screening would also be promoted as part of the preventive health program. (This is the most common malignancy in women, but has a 90 percent cure rate if found at an early stage.) The Texas A&M medical van will travel to the colonias with promotoras and nurse practitioners in order to provide information and health services.[41]

[39] ibid.

[40] ibid.

[41] ibid.

The objectives of the public health approach are:[42]

1. Form a pool of well-educated, well-trained local public health professionals, who can effectively address the needs of the Border population. The public health education training programs include a Master's of Public Health degree for those seeking a higher level of concentrated skills. Many of these students will be existing physicians, dentists, and nurses from the community. Also included are certificate programs for updated training, and short courses for those with less time. These programs are critical because it is has been estimated that over 70 percent of the individuals currently employed in public health lack, or have minimal, formal public health education training.

2. Develop and integrate public health activities and social services with the direct local healthcare delivery systems available.

THE BORDER HEALTH INSTITUTE

House Bill 2025 was passed in the 76th Session, and the creation of the Border Health Institute (BHI) was authorized. The Border Health Institute will provide highly skilled, highly paid job opportunities in the health care profession, while simultaneously providing much-needed additional health care services and research.[43] The Institute has the potential to make a positive impact on economic development, education, research, service and policy development in the El Paso region. The initial member institutions included in the legislation are the University of Texas at El Paso (UTEP), Texas Tech University Health Sciences Center at El Paso, El Paso Community College, Thomason General Hospital, El Paso Health District, UT Health Science

[42]Dr. Ciro Sumaya, Dean, Texas A&M School of Rural Public Health. April 27, 2000.

[43]Pete Duarte, Thomason Hospital. November 18, 1999.

Center at Houston, El Paso County Medical Society, El Paso del Norte, and TDH. The University of Texas at El Paso, El Paso Community College, and Texas Tech at El Paso were awarded $50 million in tobacco monies to begin research through the Border Health Institute.[44]

In December 1998, the University of Texas at El Paso and Texas Tech University asked the Paso del Norte Foundation to finance and coordinate a feasibility study, which would provide function guidelines and recommend research priorities for the Border Health Institute. The request for proposal (RFP) for the study sought to determine the health needs of the general population of El Paso in the areas of health education services, health research, and health care services. The Lewin Group was offered the contract for the study, and they began to gather data to assess the health needs of the region.[45]

The Paso del Norte Foundation, by creating the Center for Border Health Research, has also made a commitment of $9 million over a five-year period. "In 1999, $600,000 in research grants [had] already been funded for various researchers from El Paso, southern New Mexico and Ciudad Juarez" by November. The Foundation spoke of raising that amount to $1 million in 2000, in order to support local health research efforts.[46]

The vision of the Border Health Institute is to be a research-biomedical-industrial complex. This is important because the El Paso/Juarez metroplex is one of the world's largest geographic concentration of people along an international border, and

[44]Dr. Manuel de la Rosa, Texas Tech University Health Sciences Center. November 18, 1999.

[45]Dr. Jacob Heydemann, Chairman, Board of Paso del Norte Health Foundation. Written testimony provided November 18, 1999.

[46]ibid.

the migration patterns of a highly mobile population from Mexico contribute to infectious disease. According to Texas Department of Health workforce data, El Paso County also has a higher population-to-provider ratio than the state and is also among the highest in the Border region.[47] The Institute would have a major economic impact on El Paso because it would help retain highly-trained, qualified El Pasoans instead of losing local talent to other areas of the state due to the scarcity of high-level career opportunities in the health sciences. For example, San Antonio's medical campus had an economic impact on that city of $7.4 billion last year. The Texas Tech Board of Regents recently committed to pursuing a four-year medical school in El Paso. This makes the BHI an even more tangible reality. When testimony was received in November 1999, a feasibility study was underway to determine the particulars of the physical campus. The campus resources would include accessibility between the medical education centers, hospital, the universities and participating institutions, local clinics and service providers, and doctors from the area.[48]

TTUHSC-El Paso already educates 100 third- and fourth-year medical students and is affiliated with 10 medical residency programs. UTEP offers nursing, allied health, and mental health degree programs, and participates in a cooperative pharmacy degree program with the University of Texas at Austin. El Paso Community College offers certificate and associate degree programs in dentistry, nursing, allied health, and pharmacy. Representative of both UTEP and TTUHSC's commitment to research activities, in 1999, UTEP spent $28 million in research and development, with $6 million directed at health-related projects, and TTUHSC-El Paso spent $1.3 million in research.[49]

[47]Texas Higher Education Coordinating Board. Letter to Senator Eliot Shapleigh. November 8, 2000.

[48]Texas Tech University Health Sciences Center at El Paso - written profile.

[49]Texas Higher Education Coordinating Board. Letter to Senator Eliot Shapleigh. November 8, 2000.

The implementation of the Border Health Institute research initiative has already begun, with the Assistant Dean for Research Development position created in late 1998. A Clinical Research Organization has also been established by the Texas Tech Physicians' Association in order to provide marketing opportunities to attract clinical trials on a national level.[50]

Diabetes Mellitus will be the focus of major research. Current areas of research are genetic causes of insulin resistance, micro vascular disease (particularly due to interest in coronary artery disease in all patients), and research on the hypercoagability of diabetic patients. Clinical trials for new classes of medicine, such as inhaled insulin, are also important.

A research technician for patient interviews, follow-ups, and data-tracking would enable the center to focus on patient trials. The National Institutes of Health and American Diabetes Association currently sponsor large clinical trials, however in order to participate, faculty and research assistants are needed. In-depth research in diabetes prevention, education, treatment, complications, and psychological aspects would require additional investment. Basic sciences, which focus on the cure for diabetes and the development of better drugs for treatment, would also result in the need to recruit additional faculty.[51]

The clinical epidemiology and laboratory focus on emerging/re-emerging infectious diseases requires strengthening in order to conduct effective research. Tuberculosis and viral infections endemic to the Border, such as Hepatitis C, HIV in women, and neurocystic cirrhoses would be areas of study.[52]

[50]Texas Tech University Health Sciences Center at El Paso - written profile.

[51]ibid.

[52]ibid.

The Border Health Initiative's work in environmental health is a joint effort between Texas Tech Institute on Environmental and Human Health and UTEP's Office of Biostatistical Research. Texas Tech and UTEP would have consensus planning for initial joint projects focusing on issues such as El Paso/Juarez air pollution, the economic impact of carbon monoxide exposures, lead toxicity on the Border, the health impact of folk medicine in the region, and water quality and pollution in West Texas.[53]

Diabetes, infectious disease, and environmental health are the three major border health initiatives for the Border Health Institute, however, none of these initiatives could be undertaken until proceeds from the endowment were received. As a result, the initiatives are still in the preliminary phases.[54]

When testimony was received in July, 2000, TTUHSC-El Paso and UTEP had developed a Memorandum of Understanding (MOU) in order to expand research and ensure that activities are coordinated. This MOU would facilitate the collaboration of the two institutions in order to better address border health issues. Two examples of collaboration already taking place are:[55]

- The jointly supported Center for Border Biomedical and Human Health Research, which utilizes the resources and research talents of both institutions.

- TTUHSC/UTEP Migrant Border Health Initiative, the initial phase of which is being funded through a Congressional appropriation of $250,000. The focus of this initiative will be on medical and public health interventions, applied

[53]ibid.

[54]Glen Provost, Texas Tech University Health Sciences Center. July 10, 2000.

[55]ibid.

research on migrant health issues, and migrant health education activities. The development of a local and regional health database for migrant workers and their families is the initial emphasis.

Both the University of Texas at El Paso and Texas Tech Health Science Center in El Paso emphasized that working together is the key to eliminating duplication and consolidating research activities. Also of prime importance is the availability of graduate degree opportunities for under-represented students.[56]

TEXAS CENTER FOR INFECTIOUS DISEASES (TCID)

As evidenced in the chapter on tuberculosis, increased resistance to current treatment regimens is on the rise for diseases that once were controlled by antibiotics. The NAFTA corridor acts as a gateway for many diseases to enter from across the Mexican Border at an ever-increasing rate.

> "South Texas healthcare assets are the first line of defense against this new health threat."
>
> William Rasco, Greater San Antonio Hospital Council

The Texas Center for Infectious Diseases, located in San Antonio, is the flow-point for low income, and/or foreign born patients with cases that are often drug resistant, and serves as the chronic long-term inpatient facility for TB and other communicable diseases. The average stay at the facility is between 3 months to 2 years. The services provided by the Texas Center for Infectious Diseases significantly reduce the negative economic impact these patients traditionally have on healthcare facilities throughout the Border region.[57]

[56]Richard Audato, University of Texas at El Paso - written testimony.

[57]William Rasco, Greater San Antonio Hospital Council. March 22, 2000.

THE AREA HEALTH EDUCATION CENTER (AHEC)

The Area Health Education Center (AHEC) Program is a federal program, created by Congress in 1971, whose goal it is to improve the supply, quality, and distribution of primary health care personnel in rural and medically underserved areas. In 1990, the University of Texas Health Science Center San Antonio (UTHSCSA) received federal dollars in order to establish the South Texas AHEC.[58] The region serviced extends from San Antonio to the Coastal Bend to Del Rio and then south, covering some 2.5 million people and 38 counties. Most of the area is designated by the United States government as a medically underserved region.[59]

There are 56 health professional training programs in the South Texas AHEC, which include medicine, dentistry, nursing, allied health, pharmacy, and 20 support programs, including health careers awareness programs, continuing education for health care professionals, library access services, and telecommunications. The Health Careers Awareness Program, for example, is instrumental in getting high school and college students from the Border region interested in medical professions. The state appropriated monies for the program were reduced by 10 percent in the 76th Session, and are estimated to continue to be reduced over the next ten years.[60] The five regional offices of the South Texas AHEC are in Harlingen, Laredo, Corpus Christi, Del Rio, and San Antonio.[61]

[58]Information obtained from UTHSCSA website: www.uthscsa.edu/ahec/index.html

[59]Dr. James Young, University of Texas Health Science Center at San Antonio. March 22, 2000.

[60]ibid.

[61]Information obtained from UTHSCSA website: www.uthscsa.edu/ahec/index.html

THE SOUTH TEXAS HEALTH RESEARCH CENTER

The South Texas Health Research Center (STHRC) is a UTHSCSA- based center that awards small grants to faculty in order to focus research endeavors on problems which afflict the people of South Texas. The STHRC began in 1989, reports to the Dean of the Medical School at UTHSCSA, and is funded by the Texas Legislature. The grants are awarded on a "peer review" basis, much as they are for the National Institutes of Health.[62] Some of the STHRC projects have addressed the underutilization of health services, high rates of chronic disease, the lack of data on disease incidence and severity in Hispanics, cultural barriers to treatment, the shortage of minority health care workers, and the under-representation of Hispanics in policy development.[63] For each state dollar appropriated to the STHRC from 1995 to 1997, the Center attracted nearly 10 dollars from other sources.[64]

SOUTH TEXAS/BORDER HEALTH EDUCATION INITIATIVE

The South Texas/Border Health Education Initiative (STBI) was created in the 74th Legislature in order to expand graduate medical education and other health professional education opportunities in the South Texas/Border region. The UTHSCSA implemented the program and the office of the Vice President for the

[62]Information provided by Dr. James Young, University of Texas Health Science Center at San Antonio. March 22, 2000.

[63]Information obtained from Cervando Martinez, Jr., M.D., Associate Dean for South Texas Programs and Continuing Medical Education, UTHSCSA.

[64]ibid.

South Texas Border Initiative was opened in McAllen on September 1, 1995.[65]

The targeted areas of the Initiative are the Lower Rio Grande Valley (four counties), the Mid Rio Grande Valley (eight counties), and the Coastal Bend Area (eight counties). Among the current objectives of the STBI are to monitor and evaluate existing programs, implement additional educational programs as funds become available, continue to serve as an advocate for South Texas, assist with the implementation of the Regional Academic Health Center (RAHC), to expand continuing medical education opportunities, and to continue to assist with the expansion of the Med-Ed program, which actively promotes health professions to high school students throughout the Lower Rio Grande Valley.[66]

Examples of some STBI programs are a Family Practice Residency Program in McAllen (approximately 14,556 outpatients were seen through this program in 1999), Family Practice Residency Programs in Harlingen and Nueces County, a Dental Assistant Program at Texas State Technical College in Harlingen, advanced prosthodontics training in Laredo, and a health careers opportunities program in Laredo which targets fifth and eighth grade students.[67]

Programs such as these are an integral part of Border medical education. It will be an economic boost to the local economies and allow Border residents to access higher education in health care arenas without needing to travel. Many prospective students cannot afford to attend school in San Antonio or Austin and pay for boarding away

[65]Information provided by Mario E. Ramirez, M.D., Office of the Vice President for South Texas/Border Initiatives.

[66]Information provided by Mario E. Ramirez, M.D., Office of the Vice President for South Texas/Border Initiatives.

[67]ibid.

from home.

REGIONAL ACADEMIC HEALTH CENTER (RAHC)

The 75th Legislature authorized the creation of a medical education and research program referred to as the Regional Academic Health Center (RAHC) which would be administered by the University of Texas System and primarily serve Cameron, Hidalgo, Starr and Willacy Counties. The three major divisions of the RAHC are Medical Education, Medical Research, and Public Health. Brownsville, Edinburg, Harlingen, and McAllen are the locations of these component divisions.

Of the $50 million received by the Regional Academic Health Center (RAHC), $30 million were appropriated by the Legislature, and $20 million were appropriated by the UT Board of Regents from the Permanent University Fund (PUF). The RAHC time-line is as follows:[68]

2000- Groundbreaking for RAHC
2001- Opening of The School of Public Health in Brownsville
2002- First class of 24 medical students begin 3rd year studies
Research facility becomes operational
2003- First class of 24 medical students begin 4th year studies
Second class of medical students begin 3rd year studies

Harlingen is the site for the Medical Education component of the RAHC, with the Valley Baptist Medical Center as a partner and primary inpatient teaching facility. Twenty-four medical students from UTHSCSA medical school will begin their clinical education (the last 2 years of medical education) beginning in 2002. Practicing

[68] ibid.

physicians in the Valley are currently going through the process of being named UT faculty. Recruitment is community-based, and focuses on drawing from the local talent. Community involvement is and has been an important part of the success of the RAHC.[69]

There are six medical specialties required for the clinical years of medical school. Of these, the family practice program is already fully established while the pediatrics, internal medicine, and OB/GYN programs are currently being developed; general surgery and psychiatry will follow. The goal is to have all six programs fully accredited and established within ten years.[70]

Increasing the number of students from the Border region applying to medical school is a challenge that must be addressed. The RAHC will not only provide role models in the community but will also work directly with public schools to cultivate interest in the medical professions.[71]

The education of students in the Border region will be seamless in its connection to other campuses and cities such as San Antonio. The medical education available at the Border will be enhanced by the opportunity to experience unique conditions, such as the colonias, and specific training in endemic diseases such as tuberculosis. Learning medical Spanish will be an integral part of the students' education.[72]

The Medical Research portion of the RAHC will be adjacent to UT Pan American, in

[69]Dr. Leonel Vela, University of Texas Health Science Center at San Antonio.

[70]ibid.

[71]ibid.

[72]ibid.

Edinburg, and will tap into current infrastructure in the Valley. The goal is to have binational bioresearch that addresses problems that are unique and/or specific to the border. For example, when considering the high concentration of diabetes, molecular genetics programs will study "why?" in terms of genetic and environmental factors, especially as they relate to the Hispanic population.[73] The public health component will be a satellite of UTHSC-Houston.

LAREDO CAMPUS EXTENSION

The 76th Legislature authorized the Laredo Campus Extension of the University of Texas Health Science Center at San Antonio. The campus will be adjacent to Mercy Health Center on 10 acres donated by the City of Laredo. Students will receive undergraduate and graduate training in allied health fields such as clinical laboratory sciences, respiratory therapy, medical technology and occupational therapy. The campus also will house medical and dental residency training programs.

Nearly $6 million is available in fiscal year 200-01 to construct and operate the campus. An amendment to House Bill 1945 (1999) relating to the distribution of tobacco settlement funds resulted in a $2 million commitment to the campus by UTHSCSA. Additionally, House Bill 1, the General Appropriations Act, appropriated $1.4 million to The University of Texas System Administration to establish a Laredo campus extension of the San Antonio health science center. Because of the generosity of Laredo leaders, $2.5 million in private endowments also is available for constructing and operating the campus.

The Laredo campus extension bill evolved from the legislative agenda developed at the South Texas/Border Region Health Conference held in June, 1994. The agenda

[73] ibid.

addressed the health priorities of the medically underserved South Texas/Border Region. Bringing these priorities into fruition, the center is an example of how public and private entities can work together to advance health education opportunities for families in Laredo and the entire region.

UT-HOUSTON HEALTH SCIENCE CENTER SCHOOL OF PUBLIC HEALTH

The UT-Houston Health Science Center School of Public Health will offer the Master of Public Health degree in Brownsville as the third tier of RAHC education. Current plans have the first class of students scheduled to begin in Spring of 2001. The School of Public Health is already very involved in border health outreach and research.

The Office of Community Outreach and Education in the UT-Houston Health Science Center coordinates several projects designed to assist medically underserved Border communities. The Starr County services project has over the last 17 years screened Mexican Americans looking for genetic factors related to Type II diabetes and hypertension, among other things. They have successfully identified a gene which indicates risk of Type II diabetes.[74]

In El Paso, there are 25 active research and community intervention projects, such as a cervical cancer screening project for Hispanic women, HIV prevention in El Paso and Juarez, a community nutrition awareness program, and nutrition and exercise programs for school-age children. Earlier this year, a 14-month needs assessment project was started in Brownsville.[75]

[74]Gene Schroder, PhD, University Texas - Houston Health Science Center at Houston School of Public Health. January 12, 2000.

[75]ibid.

THE UNIVERSITY OF TEXAS PAN-AMERICAN

The University of Texas Pan-American, located in Edinburg, is another Border institution dedicated to improving the quality of life for and providing higher education opportunities to the residents of the Border Region. In order to achieve this goal and further support health care professions in the region, the University of Texas Pan-American's healthcare development plan includes the initiation of the following:[76]

- Diabetes Center- A collaborative effort with the Edinburg Regional Medical Center and other healthcare providers.
- Doctorate of Pharmacy Program- In cooperation with the University of Texas program.
- Pediatric Nursing Practitioner Program- This program will provide high-level pediatric nurses in the Rio Grande Valley.
- Geriatric Nurse Practitioner Program- Will provide nurses to address the large geriatric population in South Texas.
- MSN-MBA in Health Care- Master's degree program to train health care administrators in fiscal management, bi-cultural health care needs, and ethical issues relating to binational health policy development.

Based on these findings, the Senate Committee on Border Affairs makes the following recommendations to the Legislature:

[76]Dr. Rodolfo Arevalo, Provost, University of Texas Pan American. May 25, 2000.

RECOMMENDATIONS

- Health Science Center personnel should conduct a needs assessment of South Texas/Border Region health. The assessment should include solutions to needs in the following areas:
  1. Health promotion;
  2. Disease prevention;
  3. Environmental health;
  4. Professional training; and
  5. Health services.
- Fund and promote research on the disproportionate incidence of cardiovascular disease, diabetes, and certain cancers along the Lower Rio Grande Border.

- Evaluate the health care programs that exist along the Border in order to streamline services and maximize resources.

- Enhance scholarship programs, student financial aid, and student loan forgiveness programs to attract more medical professionals to the Border.

- Support and expand the South Texas/Border Region Health Education Initiative (STBI). These programs are necessary to a region that is vastly educationally underserved in the field of health professions.

- Support and increase funding for the South Texas Center for Rural Public Health.

- Support the Border Health Institute.

- Continue support for Texas Center for Infectious Disease initiatives in order to contain the spread of diseases that pose a hazard to public health.

- Increase funding for the Coastal Bend Health Education Center to encourage residents of South Texas to pursue careers as medical professionals.

- Support the Regional Academic Health Center (RAHC).

- Examine the Texas Education Code section 54.060 as it relates to including UT-Houston School of Public Health Brownsville and El Paso satellites in the institutions eligible to waive, under certain circumstances, non-resident tuition rates for Mexican residents. Mexican citizens in El Paso pay nonresident tuition at the UTHSC satellite in El Paso, but pay resident tuition at UTEP. Mexican students pay nonresident tuition at the UT-Houston Brownsville satellite, but pay resident tuition at UT Brownsville. Texas education code has been interpreted to read that foreign residents may pay resident tuition at a state university that is located in a county adjacent to the country in which they reside. Brownsville and El Paso satellites are considered part of UT-Houston and therefore part of Harris county, which is not adjacent to Mexico.

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January 4, 2001

The Honorable Eddie Lucio
Chair-Senate Committee on Border Affairs
P.O. Box 12068
Austin, Texas 78711

Dear Senator Lucio,

There is no denying that the condition of our Border calls for comprehensive and sweeping changes to the way our state addresses the needs of the region.

As with any report with sweeping proposals, individual members may have reservations about specific recommendations while still being generally supportive. I have attached a brief summary of my reservations. My reservations do not necessarily constitute objection to any specific proposal, rather they highlight issues that should be considered before certain recommendations can be fully implemented.

Most importantly, my concerns do not reflect any wavering of support for health care strategies to improve Border health conditions and environmental problems of the region.

I commend the work of you and your staff in developing a report that clearly addresses the vital needs of our Border. I look forward to working together in addressing these needs and in accomplishing our common goals.

Sincerely,

David Sibley

Enclosure

Summary of Reservations

Following are some of the issues that create some reservations or concerns that should be further considered.

Issues:	Direct the Texas Department of Health to develop indigent care programs specifically designed for the Border.
	Increase awareness of and participation in federal and state health care programs available to the Border region.
	Increase water, wastewater, and environmental industry services, training and education along the Border.
Concern:	Several of the recommendations are intended to apply only to the Border region when those recommendations could justifiably be applied statewide to help all Texas residents, particularly in rural areas of the state.
Issues:	Provide continued support at the state level for federal relief from the Balanced Budget Act.
	Place highly trained epidemiologist along the Border in El Paso, Laredo, and the Lower Rio Grande Valley.
	Increase funding for prenatal care.
	Increase state funding for Title B programs.
Concern:	Many of the recommendations are very good recommendations; however, many will carry significant costs to the state to implement the recommendation.
Issues:	Allow the sharing of resources bi-nationally in order to diminish the barriers encountered when working with Mexico.
	Bi-national relationships have been a positive development. However, it must be made easier to coordinate, communicate and transfer information and resources between the United States and Mexico.
	Establish bi-national HIV/AIDS/STD programs.
Concern:	These issues are items which undoubtedly need attention. However, sharing Texas resources with Mexico and/or transferring Texas resources to Mexico is a concern since our resources are needed by our own Texas residents.