borderlines

## Two Countries, One Population, Shared Problems

# Community Health in the Borderlands: An Overview

*From an epidemiological standpoint, Mexico's border* municipios *and the United States' southernmost counties are a single population whose health status is largely determined by a set of shared problems and common inputs. The region's population of some 2-3 million people breathe the same air, drink the same water, work together, share the same illnesses, and face the same health threats. In 1994 alone, an estimated 614 million persons crossed the border both ways: what affects public health on one side affects it on the other.*

Shared determinants of public health affecting the border's population include environmental hazards like air and water pollution, mismanagement of pesticides, and inadequate treatment of human wastes. Regional industry—in particular, Mexico's maquiladoras—not only generate toxic byproducts but oftentimes employ workers in unsafe conditions. Just as population growth has outstripped the ability of infrastructure to deal with wastewater, it has also overtaxed area health care systems. In the U.S., poverty and political alienation often mean that minority populations face disproportionate risks; in Mexico, incomes higher than the national average aren't matched by a commensurate health services infrastructure. North and south, access to affordable, quality care leaves much to be desired.

"Our health is not negotiable."
Citizens protest the CYTRAR toxic waste dump in Hermosillo, Sonora, MX. (Story on page 9)

Photograph courtesy of Richard Boren

Data for borderlands public health, unfortunately, does not make for pleasant reading. Sewage-contaminated water spreads parasites, bacteria, and viruses that have made gastrointestinal disease (e.g., shigella, amebiasis, salmonella, hepatitis) the leading cause of death of children in the six Mexican border states.

On the U.S. side of the border, the rate of hepatitis A—a gastrointestinal disease linked to the presence of fecal coliform in drinking water—occurs at a rate three times the national average. And discrepancies in morbidity don't change if border communities are compared to smaller, nearby populations. According to the Texas Border Health Office, for instance, the hepatitis A rate for border counties in 1995 was about three times the state average (50.3 per 100,000 inhabitants versus 16.1/100,000).

Tuberculosis (TB) is also a major problem on both sides of the line. In 1995, the rate of reported TB cases in the four U.S. border states was 13.3/100,000, compared to a rate of 8.7 elsewhere in the country. That same year, Mexico's TB morbidity rate in its border states was 32.6/100,000, compared to 12.1 in non-border regions. Indeed, Mexico's border states account for only one-sixth of that country's population but, according to recent data from the Secretary of Health, produced 61 percent of new TB cases reported in Mexico during the first ten weeks of 1998. North of the line, the border zone lays claim to one-third of U.S. TB cases, a figure totally disproportionate to the region's population.

High rates of occurrence of vaccine-preventable diseases are another cause for concern. The rate for measles on the U.S. side, for example, is 50 cases per 100,000 people, versus a U.S. national average of 11. And the morbidity for mumps in the region has been documented as high as 41/100,000 (the national average is only 2/100,000). Occurrence of rubella is between six and ten times the national average.

Particularly unsettling are occurrences on the border of rare illnesses like systemic lupus erythematosus (SLE), a painful disease that targets connective tissue throughout the body, and multiple myeloma, a form of bone marrow cancer, in numbers exceeding predicted rates. Neural tube birth defects (NTDs) remain a cause of concern as well—in particular, anencephaly, which inflicts babies with partial or missing brains, and spina bifida, a severe deformation of the spinal cord. Data from the Texas Department of Health (TDH) Neural Tube Defect Monitoring program reveals that in 1995 the border area of Texas' region 11 (Cameron, Hidalgo, Starr, Zapata, and Webb counties) saw nine cases of anencephaly, while region 11's remaining non-border counties had zero. (see sidebar p. 3).

## Contributing Factors, Cross-border Complications

A number of factors contribute to the border's poor health statistics. Poverty, certainly, plays a role. Low-income families have a difficult time finding ade

*continued on page 2*

**INSIDE:**

Alco Pacifico Redux Page 11

Border Tribes Poorly Served Page 12

*INCITRA* Action Kit Page 5

Border Forum Page 14

Volume 6
Number 4
May 1998

*continued from page 1*

quate housing and affordable health care, and studies have shown that persons who live in poverty, with all its companion stresses, experience much higher levels of disease morbidity and substance abuse than more affluent people. On the U.S. side, anywhere from 11.3 to 60 percent of the population lives below the poverty level. In fact, only one U.S. border county has a poverty level lower than the national average.

It is true that Mexico's border states, due largely to employment generated by the maquiladora industry, have poverty rates lower than the national average. But this fact renders more striking the region's lack of basic services and unmet community health needs. Nor do all communities (e.g., indigenous peoples) benefit economically from the border's boom (see page 10).

The regional housing market has responded to the border's demographic explosion via infrastructure-poor settlements known as colonias (see *borderlines* vol. 6, no. 1). Residents often acquire water from dubious sources and frequently dispose of wastes in septic tanks or pit toilets. The public health ramifications are clear: one 1997 survey of an El Paso colonia found 33 percent of eight-year-olds there had been exposed to hepatitis A; exposure in adults approached 90 percent.

Crowded living conditions also contribute to the spread of TB and typhoid fever. According to the Pan American Health Organization (PAHO), morbidity for typhoid in the U.S. border zone is 60 percent higher than the national rate, while occurrence of the disease in Mexico's border area runs twice as high as the national rate.

Finding affordable preventative care is a challenge for many of the region's low-income families. According to a survey by the Association of Community Heath Centers, 10 of 25 U.S. border counties are in "double jeopardy" due to an unfortunate combination of poverty and the lack of access to health care.

In Mexico, access to health care is a constitutional right, but while coverage is broad, the quality of care varies greatly between providers. Most Mexicans rely on a complicated system of government agencies and hospital networks for health care. The affluent work with private providers. The system theoretically covers everyone, but it frequently fails to make standardized care uniformly available—especially in the border's rapidly expanding urban centers. And Health Ministry-supplied care for the unemployed (utilized by 35 percent of Mexico's population) has a reputation for poor quality.

North of the line, low-income families don't fare well either. The Department of Health and Human Services has defined areas with a population to primary-care-provider ratio of at least 3,500 to one (or 3000 to one combined with high demand for services) as Health Professional Shortage Areas (HPSAs), and the majority of U.S. border counties qualify for this designation. According to the New Mexico Department of Health, in 1995 all border counties were HPSAs with population-to-provider ratios as much as twice that needed for designation. In Texas, the county-level state average for patients per doctor is 628 to one; in the border counties of Presidio, Zapata, and Starr, however, the numbers of patients per doctor are 7,229, 10,285, and 5,866 respectively.

The high cost of health care in the U.S. leaves many border residents with few options. The advocacy group Families USA reports that all four U.S. border states rank among the 10 states with the most uninsured children. In 1993, 89 percent of low-income parents surveyed by the San Diego chapter of the American Academy of Pediatrics said their children went without medical care when sick; 93 percent said they received no preventative care.

Diseases like TB, hepatitis A, rubella, and AIDS go unnoticed and unmanaged when basic care is missing. Without early treatment, noncontagious illnesses such as cancer, asthma, and diabetes become chronic, costly problems.

Given the high cost of health services in the U.S., each day large numbers of citizens cross into Mexico to buy cheaper prescriptions or to obtain affordable care. (According to a study by the Washington-based Families USA Foundation, the cost of visiting the doctor in the U.S. is about three times the cost of visiting a Mexican physician. And a 1994 *El Paso Times* survey found that prescriptions north of the line cost double or triple what they do in Mexico.) But Mexican caregivers aren't utilized for consistent health management; rather, they too are visited only when problems become unavoidably serious.

Additionally, the efforts of medical professionals to measure and treat illnesses effectively suffer as a result of this practice. The true incidence of many diseases, for example, is probably higher than statistics indicate, because problems treated across the border go unreported. Accurate epidemiological data is a prerequisite for remediation.

A related problem is that low-income residents most at risk are more likely to practice self-treatment, using low-cost medicines, resulting in the development of drug-resistant strains of bacteria. TB, for example, becomes resistant to drugs when patients begin but don't complete the six-month-long, daily treatment program. Those who misuse medicine by taking it only until they feel better are, in effect, selectively breeding for stronger bacteria. The occurrence of drug-resistant TB strains on the border reaches as high as 43 percent of total cases in some localities. In 1994, 20 percent of TB cases in San Diego and 30 percent in Tijuana were of the drug-resistant variety. In Nuevo Laredo, drug resistant strains composed a startling 56 percent of all TB cases. The cost to treat patients infected with drug-resistant TB is ten times higher than normal.

***borderlines***

**May 1998**

**Volume 6 ◆ Number 4**

Editor
George Kourous

Researchers
Tina Faulkner

Production/Design
Grant Moser

SUBSCRIPTIONS

Individual ***borderlines*** subscriptions are$12/year in the U.S. and Mexico, $17/year to other countries. Institutional subscriptions are $20/year in the U.S. and Mexico, $25/year to other countries.

Send subscriptions, renewals, and changes of address to the Albuquerque address given below. Postmaster: Send change-of-address information to:
***borderlines***
Box 4506
Albuquerque, NM 87196-4506

GENERAL INFORMATION

The Interhemispheric Resource Center is a nonprofit, research and policy institute. Publication of ***borderlines*** is supported by the Ford Foundation and the Charles Stewart Mott Foundation.

EDITORIAL OFFICES
Interhemispheric Resource Center
Box 2178
Silver City, NM 88062
Voice: (505) 388-0208
Fax: (505) 388-0619
Email: resourcectr@igc.org
WWW: http://www.zianet.com/irc1/bordline/

ISSN: 1065-1411

# Neural Tube Defects
## (National Rate per 10,000 population — 6)
## In Counties on the Texas/Mexico Border

| County | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---|---|---|---|---|
| Cameron | 14.4 | 18.2 | 15.6 | 11.7 | n/a |
| El Paso | 8.1 | 10.3 | 6.5 | 9.1 | n/a |
| Hidalgo | 15.8 | 14.1 | 16.3 | 13.2 | n/a |
| Maverick | 17.2 | 33.9 | 17.4 | 18.1 | n/a |
| Starr | 7.4 | 14.1 | 20.3 | 7.2 | n/a |
| Val Verde | 10.6 | 21.1 | 0 | 10.8 | n/a |
| Webb | 23.2 | 16.2 | 16.1 | 11.8 | 27.6 |
| **7 County Total** | **13.3** | **14.1** | **12.6** | **11.5** | **n/a** |

**Sources: Texas Department of Health Neural Tube Defect Program, 1998; Centers for Disease Control, 1997**

## Environmental Health Threats

It is well known that environmental factors are linked to gastrointestinal diseases, TB, childhood lead exposure, and pesticide intoxication. But often scientists don't feel they can say with certainty that industrial toxins are clearly linked—as area activists believe they are—to occurrences of lupus, multiple myeloma, and neural tube defects (NTDs) in the borderlands region.

Indeed, the subject of NTDs can be a controversial matter. Some statisticians suggest that these defects may not have any one specific cause, arguing that normal rates are always an average of highs and lows. High profile cases like the Mallory children, they say, could just be high points. Additionally, specialists have yet to identify any specific toxins as causing NTDs. Because toxic illnesses may occur over time and involve unknown interactions between multiple substances, they are very difficult to identify conclusively. One 1995 study of the Brownsville/Matamoros area that attempted to demonstrate a correlation between industrial activity and anencephalic birth did find a relationship between the two, but concluded: "It is tempting to attribute this correlation to environmental pollution; however, direct evidence between maquila emissions and exposure to mothers, fetuses, or infants has not been identified."

What is clear is that NTDs occur when the expecting mother has an inadequate supply of folic acid. Some attribute folic acid deficiencies to dietary problems, angering activists and other scientists who counter that the region's diet is generally high in folic acid. Many chemicals can block folic acid absorption, they point out, adding that although intake of folic acid reduces recurrences of anencephalic births, women who gave birth to anencephalic babies did not necessarily have low levels of folic acid during pregnancy. Studies do indicate that men working in occupations with high chemical exposure run a greater risk of having children who suffer from NTDs and that mothers exposed to certain solvents are more likely to give birth to anencephalic babies.

A similar discussion centers around the high rate of occurrence of lupus and multiple myeloma in the *ambos* Nogales community. A 1994 survey of Nogales by the Arizona Department of Health Services (ADHS) found that the incidence of multiple myeloma was 2.4 times the expected level. And the prevalence of lupus was 94/100,000, dramatically higher than the highest previously known rate of occurrence (50.8/100,000). Arizona-Sonora activists argue that the illnesses are linked to environmental contaminants. Even the ADHS's cautious survey concluded that "while the role of genetic predisposition is accepted as a component of risk, neither the proportion of Hispanics in Nogales nor the possibility of a higher SLE prevalence in Hispanics" could explain the cluster. The United States' Centers for Disease Control (CDC) is currently conducting a more comprehensive study that will gather data regarding diet, medicinal intake, and exposure to potential triggers as well as data on air and water contamination.

One borderlands environmental health threat that clearly plays a role is unsanitary water, produced by deficits in the region's infrastructure and industrial pollution (see *borderlines*, vol. 6, no. 3, and sidebar p. 4).

As in the case of contaminated water, medical professionals agree that air pollution is a health threat even at levels deemed safe by the EPA. Studies show that there is a clear link between air pollution and lung cancer, that pollutants like carbon monoxide and ozone irritate eyes and the respiratory tract, cause dizziness, headaches, sleep disturbances, and memory impairment. Exposure to particulate matter smaller than ten micrometers in diameter (PM10s) can cause declines in lung function, exacerbate asthma, increase hospitalization for respiratory disease, and lead to premature death. Borderlands areas not meeting EPA standards for PM10 exposure in 1995 included El Paso, TX, Doña Ana County, NM, Imperial and San Diego counties, CA, and the towns of Douglas, Nogales, and Yuma, AZ.

*continued on page 4*

*continued from page 3*

Pesticides, too, are a well-known problem. On both sides of the border, agricultural producers use large quantities of chemicals in the cultivation of vegetables, fruits, and other crops. Symptoms found in populations with long-term exposure to pesticides include rashes, neurological damage, birth defects, and infertility. There are also reports of statistically significant increased risks for lymphoma, leukemia, multiple myeloma, liver cancer, testicle cancer, brain cancer, and lung cancer.

## Obstacles and Options

Identifying borderlands public health problems is much easier than solving them. Despite shared problems, significant differences between the two countries encumber the efforts of public and private health professionals trying to deal with regional health issues. The most obvious: of all countries sharing a common border, the greatest economic disparity exists between the U.S. and Mexico, making transboundary cooperation difficult. Inconsistencies in the ways the two countries define, measure, treat, and immunize against disease inhibit the creation of a binational snapshot of health in the region and hinder collaborative, borderwide solutions. Two different sets of regulations, insurance systems, accountable government agencies, and worldviews compound the problem.

But political boundaries are meaningless from a public health perspective. It is apparent that disease prevention efforts on the border need to be developed and implemented binationally. Unfortunately, as an article in a recent *San Diego Union Tribune* wryly notes, "health officials often declare a program to be a success if it does little more than get them talking with their counterparts across the border." Decentralization and reform currently under way in Mexico offer the hope that at least some bureaucratic obstacles to cross-border cooperation will be removed in the future.

One example of the promise of transboundary cooperation—as well as one of its current limitations—is the Ten Against TB program, a binational initiative involving health authorities from all ten border states (see listing p. 7). Health professionals agree that the best method of treating TB is directly observed therapy (DOT), in which TB patients are shepherded through the full term of treatment by professionals whose observation insures that proper treatment is carried out for the prescribed period. Making DOT the standard for TB treatment border-wide is one of the goals of Ten Against TB. The program also hopes to establish a database system that will enable health professionals on both sides of the line to track TB patients and determine what sort of treatment and medication they received previously, which is essential to tempering the spread of drug-resistant strains of TB. But critics complain that the effort is proceeding at a painstakingly slow pace.

A binational TB initiative that has succeeded in partially bypassing the entanglements of red tape is the Juárez/El Paso-based JUNTOS program, started six years ago with help from the CDC. The program uses U.S. federal funds to dispatch Mexican nurses to the neighborhoods of Cuidad Juárez, where they locate TB patients and oversee their treatment. The Texas TB Network, created in 1996, is a binational registry that significantly expands the monitoring work of the JUNTOS program. Each TB patient is given a card that details her or his treatment record, information that is also contained in the network's database. Toll-free call-ins allow doctors anywhere on or off the border to acquire important information about transitory patients.

The roundabout process by which the CDC has to pay the Mexican nurses is symptomatic of the bureaucratic entanglements that all too often hamper such binational efforts. Disbursed first to the Texas Department of Health and then to El Paso city government, the funds are next transferred to the American Lung Association, which passes them on to the health department in Juárez, which finally pays the nurses.

There is a lesson in such innovation. In Mexico, where health agencies have modest budgets, authorities have learned to be creative, solve problems inexpensively, and rely on nontraditional solutions like the *promotora* model. This strategy, devised in developing countries during the 1960s and 1970s, is a community-based approach to primary healthcare services in which local residents are trained to provide preventative and simple curative care. Although it is a strategy increasingly utilized in the U.S., there are serious differences in the way it is implemented north and south of the border. In Mexico, promotoras are crucial and effective members of the health care community. They are empowered, for example, to provide care that they legally cannot in the U.S., such as dispensing insulin, giving shots, and conducting pap smears.

So far, grassroots networks of promotoras like the Environmental Health Coalition's SALTA project (see listing on p. 7 and Border Forum on p. 12) and SALAM, a cross-border network of promotoras organized by Hermosillo's Red Fronteriza de Salud y Ambiente (see listing p. 6), have had more success dealing with community health problems than the U.S. and Mexican federal governments. Powered by community, these low-cost efforts rely on education and simple prevention to afford border residents some control over their health status. ■

## Health and Water

Although the Texas state average for the occurrence of the waterborne disease shigellosis is about 16.2 cases per 100,000 inhabitants, in 1995 two Texas border counties, Maverick and Val Verde, had rates of 49.5 and 55.1, respectively. And in 1995, the rate for amebiasis—a gastrointestinal disease that frequently causes disabilities and, in extreme cases, death—for Cameron and Hidalgo counties was 60.7 and 53.1, while the statewide rate was only 0.6 that year.* Diseases like amebiasis present even more of a problem in Mexico. PAHO reports that the rate of occurrence for amebiasis in the Mexican border zone during 1989-1990 ran about 798.8—lower than Mexico's national average but over 600 times the U.S. national average. The Mexican practice of irrigating crops with partially diluted wastewater is particularly problematic with respect to waterborne pathogens. One study found that children exposed to produce grown from sewage-contaminated water run twice the risk for diarrheal diseases as unexposed children.

*Source: Texas Department of Health, Infectious Disease Epidemiology and Surveillance Division.

# Public Health

The following list is part of INCITRA's ongoing effort to make useful information and networking contacts available to border region residents and policymakers. Our directory of publications and contacts is an organic work-in-progress. Please advise us of any necessary additions, corrections, or errors of omission. They will be added to our database and used in future publications.

For an excellent and accessible introduction to health issues along the border, start with the *San Diego Union Tribune's* four-part series, "The Border: United in Sickness and Health," written by Susan Duerkson. *Border Health: Challenges for the United States and Mexico,* a collection of essays by some of the region's most well-known authorities and edited by John Bruhn and Jeffrey Brandon, provides an extensive range of information and analysis regarding public health issues and care provision on the border. For up-to-date statistics, the Mexican Health Ministry's website is recommended. PAHO's *Sister Communities Health Profiles* gives older data, but is still regarded as the most useful, comprehensive, and accurate source of data regarding health indicators in the borderlands region. San Diego's Environmental Health Coalition can offer materials and advice related to the development of a *promotra* strategy in your community, and the PAHO field office in El Paso serves as a center for cross-border epidemiological studies and health planning activities.

For more information regarding contacts or for questions regarding the acquisition of listed information, contact INCITRA-USA at (505) 388-0208.

## Contacts

**Ben Archer Health Center (BAHC)**
Box 370
Hatch, NM 87937
Contact: Paula Smith
Voice: (505) 267-3088
Fax: (505) 267-4606

Serving residents from three centers located in Doña Ana, Hatch and Truth or Consequences, BAHC offers the community comprehensive medical and dental care. Free educational classes and community presentations include diabetes and hanta virus prevention and management, pesticide safety awareness, family planning, prenatal education, and parenting. BAHC plans to open a center in Columbus in the near future.

**Arizona Department of Health Services**
Border Epidemiology
3815 N. Black Canyon Hwy.
Phoenix, AZ 85015
Contact: Dr. Luis Ortega
Voice: (602) 230-5880
Fax: (602) 320-5959

**Arizona-Mexico Border Health Foundation**
2501 E.Elm St
Tucson, AZ 85761
Contact: Kevin Drisene
Voice: (520) 795-9756
Fax: (520) 795-1365
Email: kdrisene@u.arizona.edu

In conjunction with public and private health entities, the foundation directs its efforts toward developing and implementing prevention and education programs for the Arizona-Mexico border area.

**Binational Emergency Medical Care Committee**
**Comité Binacional de Servicios Medicos de Emergencia**
492 Third Avenue, Ste. 205
Chula Vista, CA 91910
Contact: Celia Díaz or Sylvia Trejo
Voice: (619) 425-5080
Fax: (619) 425-4531

Composed of volunteer physicians and emergency workers on both sides of the border. Provides free emergency medical assistance for Mexican citizens by locating free medical services for those who are in desperate need. The committee has also developed medical emergencies, and conducts conferences four times a year to train and update police and emergency care providers in Mexico and the United States.

**Border Health Initiative/Project Concern International**
3550 Afton Road
San Diego, Ca 92123
Contact: Mary Morales
Voice: (619) 715-9921
Fax: 694-0294
Email: mary@projcon.cts.com

Developing a binational network with local groups from *ambos* Californias. Thirty community based organizations currently are involved in developing health training programs that use the promotora model.

## INCITRA

***Information for Citizen Transboundary Action on the Environment***
***Información Ciudadana Transfronteriza***

INCITRA is a binational effort sponsored by the Interhemispheric Resource Center (IRC) in Silver City, NM, and La Red Fronteriza de Salud y Ambiente (RFSA) in Hermosillo, Sonora. INCITRA-USA aims to promote sustainable development in the borderlands by serving as a clearinghouse for information and resources. INCITRA research can provide you with the specific information you want, based on your needs, according to your requests. Call and put INCITRA to work for you.

Compiler: Susan Smith
Researcher: Tina Faulkner


The Interhemispheric Resource Center is a non-profit research and policy institute. Funding for INCITRA-USA is provided by the Charles Stewart Mott Foundation.

**California/Baja California Binational Health Council**
3851 Rosecrans Street, P511B
San Diego, CA 92110
Contact: Annie J. Zuckerman
Voice: (619) 692-5774
Fax: (619) 692-8020
Email: acalinog@connectnet.com
Website: http://www.borderhealth.com

With over 1000 members, the council consists of people actively engaged in or interested in binational health activities. Working with other organizations to cultivate public/private partnerships to coordinate and support initiatives that improve border-related public health.

**Clinica La Fé**
700 S. Ochoa
El Paso, TX 79901
Contact: George Salazar
Voice: (915) 545-7072
Fax: (915) 534-7601

With a thirty-year history of serving the El Paso region's health needs, La Fé has developed a model program to identify health issues that are not very well-known and to tailor services to local needs. Currently engaged in a major environmental health initiative that will include eastern New Mexico. To better serve migrant workers, nurses and promotoras will be going into the fields to evaluate a wide range of environmental hazards and to perform health screenings, including breast cancer evaluations. Another aspect of the initiative researches lead poisoning due to old plumbing.

**Federación Mexicana de Asociaciones Privadas de Salud y Desarrollo Comunitario, A.C.**
Plutarco E. Calles 74 Nte.
Col. Progresista
Ciudad Juárez, Chih.
Contact: Enrique Suárez
Voice: (16) 16-08-33
Fax: (16) 16-65-35
Email: femap@infolink.net

The program provides many medical services, which include a full-service OB/GYN program, family planning, surgery, vasectomies, tubal ligations, and screenings for sexually transmitted disease. These services are provided at very low or no cost. The primary clinic is open 24 hours a day and handles thousands of patients every year. It also responds to walk-in emergencies.

**HealthWrights**
Box 1344
Palo Alto, CA 94302
Voice: (650) 325-7500
Fax: (650) 325-1080
Email: healthwrights@igc.apc.org
Website: http://www.healthwrights.org

Publishers of Newsletter from the Sierra Madre, HealthWrights sponsors two projects in western Mexico, Project Prójimo, run by and for disabled young persons, and Project Piaxtla, a villager-run health care network in the mountains.

**Hesperian Foundation**
Box 11577
Berkeley, CA 94712-2577
Voice: (510) 845-1447
Fax: (510) 845-9141
Email: hesperianfdn@igc.apc.org

The foundation's goal is to promote health and self-determination in poor communities by making health information accessible. Produces books and other educational resources for community-based health care. Publishers of the quarterly newsletters Women's Health Exchange and Saludos as well as the highly acclaimed Where There is No Doctor, the group is currently developing a book on environmental health.

**Indian Health Service in Tucson (IHS)**
Office of Health Program Research and Development
7900 South J Stock Road
Tucson, AZ 85746
Voice: (520) 295-2406
Email: webmaster@hqe.ihs.gov
Website: http://www.tucson.ihs.gov

The IHS helps Indian tribes develop their health programs through activities such as health management training, technical assistance, and human resource development. It also provides comprehensive health care services.

**Instituto de Culturas Nativas de Baja California, AC (CUNA)**
Av. Ryerson #99
Ensenada, BC 22800
Voice/Fax: (61) 78-8093
Email: cuna@telnor.net
Website: http://www.cicese.mx/~cunabc

The institute's priority assistance program, the Medical Aid Network, provides volunteer medical services, donated medicines and medical equipment directly to the indigenous and native communities of Baja California, as well as Ensenada.

**LAMBDA GLBT Community Services**
Box 31321
El Paso, TX 79931-0321
Contact: Ron Knight
Voice/Fax: (915) 562-4297
Email: admin@lambda.org
Website: http://www/lambda.org

Offers adults & teens accurate information and referrals, crisis and victim's services, and support/advocacy programs relating to homo/bisexuality. All services are confidential.

**La Red Fronteriza de Salud y Ambiente**
Emilio Beraud 6A, Col. Centenario
Hermosillo, Sonora 83260
Contact: Rosa Delia Caudillo
Voice: (62) 13-45-55
Fax: (62) 12-59-20
Email: lared@rtn.uson.mx

Works with NGOs along the border to develop creative responses and solutions to border health and environmental problems. Maintains a database of information and publications. Instrumental in the development of Project SALAM, which developed a local model for training and supporting promotoras de salud in the Sonora-Arizona region.

**Minority Cancer Prevention and Control Program**
1601 N. Tucson Blvd. #15
Tucson, AZ 85716
Voice: (520) 318-7064/5
Contact: Dr. Anna Giuliano
Email: minority@azcc.arizona.edu

In part, the program evaluates the effectiveness of lay health educators (promotoras) door-to-door educational programs in the areas of cancer prevention, cancer symptoms, and early screening programs. The promotoras will train volunteers in the community of Nogales.

**National Health Law Program (NHELP)**
2639 S. La Cienega Blvd.
Los Angeles, CA 90034
Voice: (310) 204-6010
Fax: (310) 204-0891
Email: inhelp@healthlaw.com
Website: http://www.healthlaw. org

Public interest law firm seeking to improve healthcare for the working and unemployed poor, minorities, the elderly, and people with disabilities. Publishers of *Health Advocate Newsletter* and reports and studies for analysts, advocates, and consumers. Consumer guides are published in several languages.

**Native American Women's Health Education Resource Center**
Clearinghouse of Educational Materials
Box 572
Lake Andes, SD 57356-0572
Contact: Charon Asasetoyer
Voice: (605) 487-7072
Fax: (605) 487-7964
Email: nativewoman@igc.apc.org
Website: http://www.nativeshop.org

This Resource Center prepares and develops health education materials for distribution to Native American audiences. These materials have been requested by tribes and agencies both in the Southwest and throughout the world. Reports, posters, pamphlets, and videos on several topics including AIDS, cancer prevention, fetal alcohol syndrome, environmental issues, diabetes, and native women's reproductive health are available through the clearinghouse.

**New Mexico Department of Health**
Border Health Office
1170 N. Solano Dr., Ste. L
Las Cruces, NM 88001
Contact: Dan Reyna
Toll Free: (800) 784-0394
Voice: (505) 528-5156
Fax: (505) 528-6045
Email: dreyna@NMSU.Edu

The BHO is directly affiliated with the Department of Health Sciences at NMSU. BHO programs include mobile clinics, which provide services such as breast and cervical cancer screenings, the Maternal and Child Health program, the Nuestros Niños campaign and an epidemiology program which has established a binational surveillance system with Texas and Chihuahua. The New Mexico BHO participates in **Ten Against TB**, a binational TB identification and eradication program.

**Pan American Health Organization (PAHO)**
6006 N. Mesa, Ste. 600
El Paso, TX 79912
Contact: Dr. Joaquín Salcedo
Voice: (915) 581-6645
Fax: (915) 833-4768
Email: mail@usmbha.org
Website: http://www.paho.org/english/fep/elpaso.htm

This governmental organization coordinates binational programs, shares and disseminates information to public health associations, and endeavors to unite and mobilize concerned citizens and publishes a newsletter for member organizations. PAHO will be sponsoring the 56th annual USMBHA conference from June 2-5 in Monterrey, Mexico.

**Physicians for Social Responsibility-El Paso (PSR)**
**Border Environmental Health Project**
1100 N. Stanton, Ste. 805
El Paso, TX 79902
Contact: Beatriz Vera
Voice:(915) 543-3223
Fax: (915) 543-3262
Email: bvera@agc.apc.org
Website: http://www.psr.org/mexasthma.htm

The task of PSR-El Paso is to design health surveillance studies and provide overall policy direction and scientific guidance for the Border Environmental Health Project. The project is documenting the connection between children's health, air quality, and exposure to hazardous chemicals in the border region.

**Programa de los Compañeros**
Tlaxcala #610 2* Piso
Ciudad Juárez, Chih.
Contact: María Elena Ramos or Apolónia Hernández
Voice: (16) 11-37-92
Fax: (16) 13-02-57
Email: compa@interjuarez.com

Pioneers in HIV/AIDS programs. Provide free, confidential referrals and counseling, and operate a hospice for AIDS patients. Also provide drug and alcohol rehabilitation services

**Project Hope**
U.S./Mexico Border
1002 Chihuahua St.
Laredo, TX 78040
Contact: Alberto Colorado
Voice: (956) 729-1030
Fax: (956) 729-1115
Email: hopetx@netscorp.net
Website: http://www.projhope.org/namerica/northamerica.htm

Addresses urgent health issues through educational programs and partnerships with local organizations. The office in Laredo offers precautionary TB programs and HIV/AIDS testing and prevention programs, addresses alcohol and substance abuse issues, and plans to deal with social problems, including domestic violence and family planning.

**Rural Health Office of the University of Arizona**
2501 E. Elm St.
Tucson, AZ 85716
Contact: Lee Ann Norvell
Voice: (520) 626-7946
Fax: (520) 326-6429
Email: atorres@hinet.medlib.arizona.edu
Website: http://highnet/highnet/medlib.arizona.edurho_ahec

The Rural Health Office educates, conducts research, and provides health services for the rural border area of Arizona. Cervical cancer and diabetes studies are being conducted in Douglas and Nogales.

**Salud Ambiental, Latinas Tomando Acción (SALTA)**
**Environmental Health Coalition**
1717 Kettner Blvd., Ste. 100
San Diego, CA 92101
Contact: María Moya
Voice: (619) 235-0281
Fax: (619) 232-3670
Email: ehcoalition@agc.org

Provides a structured training program in which participants become promotoras de salud ambiental (environmental health promoters). Promotoras train people to assume the role of social change agents, incorporating the requirement for environmental health into the definition of a healthy and sustainable community.

**Southwest AIDS Committee (SWAC)**
1505 Mescalero
El Paso, TX 79925
Contact: Alex Simental
Voice: (915) 772-3366
Fax: (915) 772-3494
Email: swac@aol.com

SWAC is a well-staffed El Paso community based health organization that provides bilingual community education and training through its volunteer speakers bureau. The group offers an extensive array of services and programs including confidential HIV/STD testing, counseling, transportation, a buddy program, in-home care and a hospice. SWAC produces a newsletter, maintains an up-to-date library, and sponsors the Annual El Paso AIDS Walk in May.

**South Texas Environmental Education (STEER-Laredo)**
Department of Family Practice UTHSC-SA
7703 Floyd Curl Drive
San Antonio, Texas 78284-7794
Contact: Pat Henderson
Voice: (210) 567-4557
Fax: (210) 567-4579
Website: http://www.uthscsa.edu/stbi/steer.htm

STEER coordinates Environmental Medicine/Border Health, a 4-week elective course for medical, dental, nursing, and public health students and residents. Students learn firsthand about border environmental health concerns, working with faculty and health professionals from both the U.S. and Mexico.

**State of California Department of Health Services**
**Office of Border Health**
Box 85524
San Diego, CA 92138-5524
Contact: Lori Senini
Voice: (619) 692-8472
Fax: (619) 692-8020
Email: Isenini@connectnet.com

The Office of Border Health's mission is to facilitate and coordinate communication between California and Mexico in addressing the public and environmental/occupational health concerns along the U.S.-Mexico border. The office is engaged in the California-Mexico TB Project, the Tijuana Childhood Lead Project and the San Diego-Tijuana HIV-STD Outreach and Education Project.

**Texas Department of Health**
Office of Border Health (OBH)
1100 West 49th St.
Austin, TX 78756
Contact: Cheryl Bowcock
Toll Free: (800) 693-6699
Voice: (512) 458-7675
Fax: (512) 458-7262
Website: http://www.tdh.state.tx.us/hottop.htm

The OBH has field staff in four border communities engaged in activities to conduct environmental health surveys, obtain baseline data for providing environmental exposure prevention services, and to link inter/intra-governmental activities. The office coordinates the Neural Tube Defects (NTD) Project, a binational program to share surveillance data on NTDs.

**United States-Mexico Border Health Association (USMBHA)**
**Training & Technical Assistance Project (TTAP)**
6006 N. Mesa, Ste. 600
El Paso, TX 79912
Contact: Rosa Benedicto
Voice: (915) 581-6648
Fax: (915) 833-4768

Established in 1943, the USMBHA's main objective is to bring together health professionals on both sides of the border to discuss high priority issues and to formulate policy recommendations on those issues. The organization supports ten active binational councils from Tijuana/San Diego to Brownsville/Matamoros. The TTAP is a collaborative effort of the Centers for Disease Control and Prevention (CDC) and USMBHA. TTAP provides training and technical assistance programs designed to build capacity and augment the strengths of CBOs and NGOs. The group conducts formal workshops, seminars, and conferences for those interested in/or working in the field of health.

## Ezines, Gophers, and Listservs

**Environmental Health Perspectives**
Website: http://ehpnet1.niehs.nih.gov/docs

Full-text, on-line academic research journal.

**Native American Women's Health Education Resource Center**
Gopher: gopher.igc.apc.org

Access to a myriad of organizations, and the place to order educational and training materials from this resource center.

## Websites

**American Public Health Association (APHA)**
Website: http://apha.org/resources/environment.html

This is the environmental and occupational health site which provides links to many agencies and nonprofit organizations dedicated to public health issues.

**Centers for Disease Control and Prevention (CDC)**
Website: http://wonder.cdc.gov/

Provides online library sources and links to a host of health-related sites.

**Consejo Estatal Contra Las Adicciones (CECA)**
Website: http://192.100.190.251:80/ceca

CECA joins together 37 institutions in the state of Nuevo Laredo with the objective of preventing and treating drug addictions. The website offers background and contact information for the participating organizations.

**Environmental Health Clearinghouse**
Website: http://infoventures.com

The clearinghouse responds to inquiries from the general public for information about health effects associated with exposure to electric and magnetic fields.

**Environmental Health Information Service**
Website: http://chis.niehs.nih.gov

Access to almost every health topic imaginable.

**Global Environmental Epidemiology Network (GEENET)**
Website:http://who/unep.ch/geenet

Geenet aims to increase the capacity of developing countries to secure environmental health by strengthening education, training and applied research in environmental epidemiology.

**Global Health and Environment Library Network (GELNET)**
Website: http://www.who.ch/peh/gelnet/index.htm

GELNET is composed of libraries located throughout the world dedicated to acting as sources for information on health and the environment.

**Healthfinder**
Website: http://www.healthfinder.gov

This website was created by the U.S. Department of Health and Human Services to improve consumers' health-information access to federal, state, and local agencies, nonprofit organizations and universities.

**New Mexico Public Health Association Healthletter (NYMPHA)**
Website:
http://members.aol.com/agomez17/nympha/nympha.html

In addition to the newsletter which covers social as well as health issues, this site provides membership information, minutes of board meetings, and links to APHA.

**Rachel's Environment & Health Weekly**
Website: http://www.monitor/net/rachel

To receive this newsletter free each week via email, send the word SUBSCRIBE by itself in an email message to: rachel-weekly-request@world.std.com

**Red Médica**
Website: http://www.redmedica.com.mx/

Provides online information for patients, a medical directory, medical magazines, information about prescription medicines, and upcoming medical conferences and events in Mexico.

**Salud y Desarrollo del Niño**
Website: http://ccr.dsi.uanl.mx/~macorona/autor/html
These Spanish language pages are written in a clear and friendly style. A virtual encyclopedia about children's development and health.

**Salud Pública de México**
Website: http://www.insp.mx/salud/index.html
Bimonthly journal published by the Instituto Nacional de Salud Pública (National Institute of Public Health). It disseminates information on public health, identifies health needs and the organizes integrated services.

**Secretaría de Salud**
Website: http://www.ssa.gob.mx/servicio/otroswww/salud.html
This site will link you easily to many health care providers, research centers, public health issues, and individuals who are engaged in a broad scope of health education and activities in Mexico and the world. Provides up-to-date epidemiological data for all Mexican states.

**United States Bureau of Primary Health Care, U.S-Mexico Border Health Program**
Website: http://158.72.85.159/bhp/border.htm
This program aims to improve the health status of people living on the United States side of the U.S.-Mexico border area through specific HRSA activities, improved agency coordination, and external partnership development. Its website gives some border health demographics.

## Publications

María Alvarez Amaya, Gail Ackall, and Belén Terrazas-Ponce, "Childhood Lead Poisoning on the U.S.-Mexico Border: A Case in Environmental Health Nursing Lead Poisoning," *Public Health Nursing*, vol. 14, no. 6, December 1, 1997.

Subroto Baerji, " Tuberculosis in San Diego County: A Border Community Perspective ," *Public Health Reports*, vol. 111, no. 5, September-October 1996.

Jim Barrett, "Learning from the Border," *The Mission*, Fall 1997.

Birth Defects Monitoring Division, Texas Department of Health, *Texas Birth Defects Registry: Report of Birth Defects Among 1995 Deliveries* (Austin: Texas Department of Health, October, 1997).

D. Bland, "Social Determinants of Health: Socio Economic Status, Social Class, and Ethnicity," *American Journal of Public Health*, vol. 7, no. 85, 1995.

Paul T. Bruder, "Developing a Common Ethical-Philosophical Basis for Initiating Joint Mexico-U.S. Healthcare Initiatives: A Policy Essay," *Border Health Journal*, July-September 1994.

John G. Bruhn and Jeffrey E. Brandon, eds., *Border Health: Challenges for the United States and Mexico* (New York: Garland 1997).

Dean E. Carter, Carlos Peña, and William A. Suk, "Environmental Health and Hazardous Waste Issues Related to the U.S.-Mexico Border," *Environmental Health Perspectives*, vol. 104, no. 6, June 1996.

Aaron Cohen, C. Arden Pope, Frank Speizer, "Ambient Air Pollution as a Risk Factor for Lung Cancer," *Salud Pública de México*, vol. 39, no. 4, 1997.

"Dengue Fever at the U.S.-Mexico Border, 1995-1996," *Morbidity and Mortality Weekly Report*, vol. 45, no. 39, Oct. 4, 1996.

Catalina Denman, "Las Repercusiones de la Industria Maquiladora de Exportación en la Salud: El Peso al Nacer de Hijos de Obereras en Nogales," *Serie Cuadernos de Trabajo*, El Colegio de Sonora (Hermosillo, Sonora: 1991).

Catalina Denman, Jill Guernsey de Zapien, Jesús Armando Haro, Nuria Homedes, Paul La Brec, Martha Monroy, and Ivy Schwartz, "Atención Perinatal en Ambos Nogales: La Necesidad de Cooperación Binacional," *Revista Salud Fronteriza/Border Health*, vol. 3, no. 3, July-September 1992.

G. Dever, *Migrant Health Status: Profile of a Population with Complex Health Problems* (Austin, TX: National Migrant Resource Program, 1991).

W.M. Draper, *Environmental Epidemiology: Effects of Environmental Chemicals on Human Health* (Washington: American Chemical Society, 1995).

Susan Duerkson, "The Border: United in Sickness and Health," Four part series, *San Diego Union Tribune*, December 28-31 1997.

Mark Feldstein, " The Border Babies: Did Toxic Waste from U.S. Factories Across the Border Damage the Environment of a Texas Town", *Time*, vol. 149, no. 21, May 26, 1997.

Julio Frenk, Octavio Gómez Dantes, Carlos Cruz, Fernando Chacón, Patricia Hernández and Phyllis Freeman, "Consequences of the North American Free Trade Agreement for Health Services: A Perspective from Mexico," *American Journal of Public Health*, vol. 84, no. 10, October 1994.

Maria de Lourdes García García, Luse Luis Valdespino Gómez, Muneal Palacios-Martínez, María Eugenia Mayer-May, Cecila García Sanco, Jaime Sepulveda Amor, "Tuberculosis y SIDA en México," *Salúd Pública de México*, vol. 37. no. 6, November-December 1995.

A. Kaufman, P. Galbraith, C. Alfero, C. Urbina, D. Derksen, W. Wiese, R. Contreras, and N. Kalishman., "Fostering the Health of Communities: a Unifying Mission for the University of New Mexico Health Sciences Center," *Academic Medicine*, vol. 71, no. 5, May 1996.

Maquiladora Health & Safety Support Network/Red de Apoyo Sobre Salud Ocupacional en las Maquiladoras, "Survey of Tijuana Maquiladora Workers Reveals Uncontrolled Hazards, Ill Health, and Non-Compliance with Health and Safety Regulations," Press release, November 18, 1997.

R. Moure Eraso, M. Wilcox, M. Punnet., L. Copeland, and C. Levenstein, "Back to the Future: Sweatshop Conditions on the Mexico-U.S. Border: Community Health Impact of Maquiladora Industrial Activity," *American Journal of Industrial Medicine* 25, 1994.

New Mexico Environment Department (NMED), *New Mexico's Border Area: Environmental Considerations* (Santa Fe, NM: New Mexico Environment Department, 1994).

L.N. Nickey, "The U.S.-Mexico Border: Environmental Squalor Threatens Public Health," T*he Internist*, vol. 35, no. 5, May 1992.

Yolanda C. Padilla, "Meeting the Social Service Needs of Mexican Immigrants in the United States," Antonio Ugalde and Gilberto Cárdenas, eds., *Health and Social Services Among International Labor Migrants: A Comparative Perspective*, (Austin: CMAS Books, the Center for Mexican-American Studies, University of Texas at Austin, 1997).

PAHO, *Substance Abuse in the U.S.-Mexico Border Region* (El Paso: PAHO— El Paso field office, 1995).

PAHO, *United States-Mexico Border Health Statistics*, Seventh ed. (El Paso: PAHO— El Paso field office, 1991).

PAHO, *United States-Mexico Border Health Statistics* (El Paso: PAHO— El Paso field office, December 1990).

PAHO, *Perfiles de Salud de las Comunidades Hermanas/Sister Communities Health Profiles, Frontera México-Estados Unidos/United States-Mexico Border, 1989-1990* (El Paso: PAHO— El Paso field office, October 1994).

D.L. Poole," NAFTA, American Health, and Mexican Health: They Tie Together," *Health and Social Worker*, vol. 21, no. 21, February 1996.

Public Citizen, *NAFTA's Broken Promises: The Border Betrayed - U.S. Mexico Border Environmental and Health Decline in NAFTA's First Two Years* (Washington: Public Citizen's Global Trade Watch/Red Mexicana de Acción Frente al Libre Comercio, January 1996).

B.J. Selwyn, "Epidemiological Issues in Family Health Along the U.S.-Mexico Border," Proceedings of the Symposium *Foundation for the Future: The Health of the Family on the United States-Mexico Border*, February 17-19, 1993 (El Paso: PAHO, 1993).

James Shields, "Ambient Air Arsenic Levels Along the Texas-Mexico Border," *Journal of the Air Waste Management Association*, vol. 41, no. 6, 1991.

James Shields, " Border Health Hazards," *Multinational Monitor*, vol. 16, no. 4, April 1995.

M Stehney, "Ghettoization of the Border: The Potential Health Impact of Free Trade, *Border Health Journal*, no. 10, 1994.

Texas Department of Health, Office of Border Health, "Border Health: Basic Facts," Pre-press draft, no date.

"The Major Causes of Illness," *Rachel's Environmental and Health Weekly*, No. 584, February 5, 1988.

"U.S. Border Residents and TB Susceptibility," *The New York Times*, November 30, 1996.

R. Varady and Maura Mack, "Transboundary Water Resources and Public Health in the U.S.-Mexico Border Region," *Journal of Environmental Health*, vol. 57 no. 8, 1995.

D.C. Warner, "Health Issues at the U.S.-Mexican Border," *Journal of the American Medical Association* no. 265, 1991.

John R. Weeks and Roberto Ham-Chande, eds., *Demographic Dynamics of the U.S.-Mexico Border* (El Paso: University of Texas at El Paso, 1992).

Gregg S. Wilkinson, Carmen Rocco, Gregoria Rodriquez, Dennis Daniels, Lei Meng, "Epidemiologic Study of Neural Tube and Other Birth Defects in the Lower Rio Grande Valley," Unpublished report (Galveston, TX: University of Texas Medical Branch, 1995).

## No June *borderlines*

*borderlines* will not be published next month so that staff can catch up on other work. We will resume publication in July with an edition focusing on hazardous waste management in the borderlands.

Topics that will be covered in upcoming issues include occupational health and safety in maquiladoras, and independent labor unions in northern Mexico.

## For Your Information

### *Announcing:* Fellowships for Environmental Conflict Resolution in the U.S.-Mexico Border Region

The Udall Center, with funding from the Ford Foundation, will initiate during the 1998-99 academic year a fellow-in-residence program pertaining to environmental conflict resolution in the U.S.-Mexico border region. The fellow will receive a stipend of US $23,000, a private office, and a half-time graduate student assistant while at the Center. The fellow will participate in the Center's ECR program, teach a graduate-level seminar, present informal lectures in the community, and prepare a manuscript for publication.

For more information, contact:

Robert Meredith, Coordinator
Global Change and U.S.-Mexico Border Programs
Udall Center
Phone: (520) 621-7189

### *Announcing:* First National Lay Health Worker/Promotoras Conference

This first conference is scheduled for May 20-23, in Phoenix, AZ. For more information, contact:

Tuli Medina
(520) 726-8270

### *Announcing:* EPA Public Comment Period

The EPA is releasing for public comment a draft strategy to minimize the public health and environmental impacts from animal feeding operations (AFOs). The strategy calls for new water pollution control requirements and immediate inspections and increased enforcement for large animal feeding operations to reduce animal waste runoff into waterways. Copies of the draft strategy are available from EPA's Water Resource Center at (202) 260-7786 or on the Internet at http://www.epa.gov/owm.

Written comments will be accepted until May 1, l998, and may be submitted to:

Ruby Cooper-Ford, U.S. EPA
Mail Code 4203
Washington, D. C. 20460
Email: Ford.Ruby@epamail.epa.gov.

Copies of the final enforcement strategy, the "Compliance Assurance Implementation Plan for CAFOs," will be available on the Internet at:

http://www.epa.gov/OECA/agbranch.html

You can also contact:

Michelle Stevenson
(202) 564-2355.

## Toxic Waste Dump Seen As Health Threat

# Hermosillo Residents Take a Stand

**by Richard Boren**

Hermosillo, the bustling capital of the Mexican state of Sonora, lies a few hours drive south of Nogales, Arizona. Currently one of the biggest struggles for environmental justice along the U.S.-Mexico border is taking place here. It's a battle over the dumping of toxic waste and the right of communities to safeguard their health. The outcome could have far-reaching repercussions.

For the past few years, a Spanish-owned company, TECMED, has been operating a toxic waste dump approximately four miles from Hermosillo. The dump's acronym is CYTRAR, which translates to Confinement and Treatment of Residues. Opponents say the dump is unsafe, threatens to contaminate groundwater, and menaces community health. They also argue that federal law requires the dump to be at least 25 kilometers from the city limits and that CYTRAR's permit allows it to accept waste only from Hermosillo. But despite these community concerns, toxic wastes from the border region as well as the interior of Mexico continue to be shipped to the CYTRAR facility.

An impressive coalition of nongovernmental organizations and unaffiliated residents has formed in the Sonoran capital to push for CYTRAR's relocation to a suitable area and to limit the dump to waste from Hermosillo. One of those groups, Alianza Cívica (Civic Alliance), has traditionally focused on promoting democratic reform in Mexico. Dr. Germán Ríos Barcelo, an Hermosillo orthodontist, is active in the Alliance and one of the leaders of the anti-dump movement. "The main reason I got involved against CYTRAR was my concern about health impacts," says Dr. Ríos. "Another reason is that I don't want to see my home turned into a dumping ground for other states and countries."

Last year Dr. Ríos and others became aware that CYTRAR was receiving toxic waste from the infamous Alco Pacifico battery recycling plant, located near Tijuana. Alco Pacifico was abandoned by its U.S. owner in 1991 after being temporarily shut down by Mexican authorities for environmental violations. Alco Pacifico has for years been nothing short of an environmental health nightmare for the nearby El Florido community. An estimated 30,000 tons of contaminated by-products laced with high levels of lead and other toxic substances were left exposed to the winds and rain when the facility was abandoned.

A graduate student from San Diego State University has measured lead concentrations in the exposed waste at over 20 times the level considered dangerous to human health. Lead exposure can permanently retard a child's development and can lead to comas, convulsions, miscarriages, and birth defects.

According to international law, toxic waste from U.S. owned companies in Mexico must be returned to the United States. Traci Griggs of the San Diego-based Environmental Health Coalition works with El Florido residents on the Alco Pacifico issue. Griggs is seriously concerned about the clean-up plan for the site and states, "our worst fears were that this toxic waste would be transported to another unsuspecting community in Mexico." In addition to the Alco Pacifico waste already deposited at CYTRAR, about 1,000 truckloads of waste from the site could end up there.

Hermosillo's diverse anti-dump movement gelled after residents learned that CYTRAR was receiving toxics from Alco Pacifico and other parts of Mexico. Under a previous owner, the dump only accepted industrial waste from Hermosillo. The largest organization in the movement is the Unión de Usuarios (Union of Users), which organizes low-income residents to fight for fair water and electric rates.

The most dramatic step the movement has taken occurred on January 30,1998. That morning coalition members physically blocked the entrance to CYTRAR. The blockade was implemented after a court ruling that temporarily prohibited CYTRAR from accepting waste from other states was ignored by CYTRAR's management and local officials alike. When opponents realized the authorities were not going to enforce the ruling, they shut down the dump themselves.

*"Our worst fears were that Alco Pacifico toxic waste would be transported to another unsuspecting community in Mexico."*

Silvina Ruíz, 59, took part in the blockade along with hundreds of other residents. "Since I'm older, maybe nothing will happen to me," says Ruíz, "but I'm afraid this toxic waste will cause my grandchildren to get sick." Her concerns for her family's health have heightened since Ruíz learned that 17 head of cattle have mysteriously died on the ranch that adjoins CYTRAR.

The blockade dragged on for days and then weeks. Fires were built at night to ward off the cold. At one point, up to 300 people were at the gate to participate in a mass offered by a local priest. Despite the hardship of sustaining the blockade, Silvina Ruíz has many good memories as well. "We would play cards, wash dishes, and drink coffee. There was a lot of togetherness."

By the fifteenth day, trucks parked outside the gate began blowing their horns at all hours and CYTRAR employees started playing loud music to try to demoralize the protesters. At one point a truck tried to force its way into the dump and one woman was slightly injured. But Ruíz and the others didn't budge; the blockade held.

During the early morning hours of March 5th—the 37th day of the blockade—about 150 police descended on the protesters and cleared the way for 19 truckloads of toxic waste to roll into CYTRAR. Instead of giving up, however, the citizens shifted tactics and set up a 24-hour encampment outside of City Hall in downtown Hermosillo.

On March 14, the movement held a rally and march in Hermosillo that was attended by about 700 people. The youngest speaker at the rally, 17-year-old Lucía Acuña, expressed anger toward City Hall. "I want to say a few words to our authorities," she said. "It is said that everyone is the architect of their own destiny. Well, you are not letting us do that. What kind of future are you leaving us with this contaminated land?"

The CYTRAR controversy remains unresolved, but anti-dump forces in Hermosillo have so far been successful in mobilizing their community. And recently, they formed an alliance with groups in California and Texas fighting nuclear waste dumps in their communities. The movement's clout has resulted in ongoing negotiations with local and federal government officials. Whatever the outcome, the power of grassroots citizen action in Hermosillo has been felt from Spain to Mexico City. ■

*Richard Boren is an environmental activist and freelance writer who divides his time between El Paso, TX, and Tucson, AZ.*

# Indigenous in Sonora without Medicine or Doctors

**by Brenda Norrell**

In March, Rosalba Sinoie, a member of the O'odham tribe in Mexico, walked six hours in search of medical help for her bedridden daughter, who suffers from asthma. A fellow O'odham, fifteen-year-old Luisa Valenzuela, was not as lucky. She died waiting for treatment.

"Luisa was a young girl with pneumonia. The roads are so bad, seldom a car passes. When she finally got a ride, she died immediately when she got to the hospital," reports María García, Tarasca Indian and spokeswoman for the council that represents Sonora's seven indigenous tribes.

Her husband, Joe García, governor of the O'odham peoples in Mexico, says his tribespeople in Mexico are victimized by the government, abandoned by the Tohono O'odham Nation in the United States, and frightened by Mexican drug-runners. Facing the loss of their land due to encroachment by non-Indians, the O'odham live in desperate conditions. Health problems are numerous, but health care is all too often out of reach.

Although the Mexican Instituto Nacional Indigenista (INI), similar to the U.S. Bureau of Indian Affairs, is mandated to develop health facilities and infrastructure for Mexico's native peoples, INI dollars are depleted by administrative costs, theft, and corruption. "We haven't seen any funds. All of these years I have been involved in this struggle, I haven't seen any funds from anybody," Governor García complains. "It is a system where you have to pay for everything—analysis, prescriptions, and medicines. Unless you have relations that are pretty well-off in Mexico or the United States, you don't have any help to get medical aid. If you are a poor man, trying to put food on the table for your family, forget it."

*"Unless you have relations that are pretty well-off in Mexico or the United States, you don't have any help to get medical aid. If you are a poor man, trying to put food on the table for your family, forget it."*

According to María García, public clinics for the poor in Sonora can be death chambers, often lacking medicine and beds. "They let you die there," she observes with a frown.

"We must demand health care, roads, and education as Nations. As the O'odham Nation in Sonora, we are nothing compared to 56 Nations in the Republic of Mexico. We must become united and make those demands," Governor García believes. "The goal of the government of Mexico is to divide and conquer indigenous people so they can't put pressure on the government to get the things they need. We have always known this is a strategy of Mexico: to divide and conquer." García tells his companions: "Like they say, 'One arrow is easy to break, but a bundle of arrows is more difficult to break.' That is what unity would be for us, a bundle of arrows."

His wife is among the indigenous women fighting back and forming a foundation to establish a women's health clinic, managed by Indigenous women, in Sonora. "They are raising their voices," Mrs. García says, but their struggle is entirely uphill. "They want to see if someone in the world is listening. We don't know how to start it with no money. We cannot even develop small projects. It seems impossible."

Northern Mexico's indigenous peoples have a tremendous need for prenatal and preventative health care as well as health education programs. But even getting a ride to a clinic can be impossible. Doña Esperanza, a Yaqui tribal member in Sonora, did obtain a car donated in the United States to transport the sick, but she was unable to pass beyond the border to Sonora. The cost of registration and taxes, the equivalent of purchasing another car in Mexico, prohibited her from proceeding. Esperanza told immigration officials at the border: "Because I am Indian, am I supposed to carry the sick people on my back to the road? Of course I am Indian, I can walk, but when the people are sick, I cannot carry them."

With indigenous women desperate to obtain food for their families, regular medical check-ups are not even considered. "The women only go to the doctor when it is too late. A lot of women die young," María García recounts with a sigh. Even when these women receive a medical examination for serious illness, more often than not, medicines are too expensive to purchase. "They barely have money to eat. I guess if they want to stop eating, they can buy medicine." During March, two O'odham in Mexico died of sicknesses that could have been cured by medicine. "They debated whether to eat or buy medicine," Mrs. García says of the tribal members, who died from diabetes and infections.

Many diabetic O'odham in Mexico can't get the insulin they need to control their illness. Others lack fresh fruits and vegetables and the variety of foods needed for a balanced diet. Although the O'odham's traditional intake of beans, flour tortillas, and eggs is nutritious, soft drinks and potato chips are also consumed.

In addition to the difficulties imposed by poverty, a lack of fresh water and water pollution are primary concerns. Latrines located too close to water sources often contaminate wells. Many communities rely on tanks or barrels to transport water. Some water barrels were previously used for the storage of toxic and hazardous wastes. "You never really know what those tanks have been used for before, and the people can't really afford bottled water," explains Governor García. "Because of NAFTA, big mining companies are going in. The O'odham have to be aware of what this is doing to their land and water."

O'odham ancestral land is bisected by the international border. Regardless of tribal migration to the United States, about 1,500 tribal members remain in Mexico. When O'odham in Mexico become grievously ill, dismal clinic conditions often lead them to look for treatment north of the border, despite the distances involved.

The Tohono O'odham Nation in Sells, Arizona, previously maintained an office there in order to coordinate better with tribal members in Mexico, but it closed its doors in 1995. Governor García says this effectively slammed the door on communication with tribal villages in Mexico. When the office was open, tribal members in Mexico with enrollment cards were provided transportation to medical services. Since the office closed down, however, only a few are cared for by spotty services. "It doesn't matter if you help 10 out of 100," Mrs. García remarks. "What about the other 90 people who receive no help?" Her husband adds that in cases of emergency, there are attempts to transport O'odham to the border with an ambulance waiting on the other side. But these attempts are often too late.

And modern facilities can be very frightening to indigenous people. "They are practically scared to death to go into a hospital where someone is wearing a green mask, a green smock and carrying anesthetic. They don't know what to do," says Bruce Black, a human rights activist who works with the Garcías.

Meanwhile, the government of Mexico blames the Tohono O'odham Nation in Sells, Arizona, for failing to care for tribal members in Mexico, while the Tohono O'odham Nation and the U.S. government place the responsibility on the government of Mexico. "They throw the ball back and forth," María García observes. "The government of Mexico is waiting for the O'odham to die or leave so they can have the land."

Other indigenous communities in northern Mexico face similar problems. Along the coast of Sonora live the Seri, fishermen whose ancestors lived on Tiburon Island. Known for their ironwood carvings of dolphins and sea creatures, the Seri battle non-Indians to maintain their fishing and land rights. The road to Seri villages is sandy and rocky, easily destroying passing automobiles. In the hot, coastal community, food spoils quickly and water is often contaminated.

In 1995, Jose Gamez, a lawyer based in Hermosillo, Mexico, participated in a study conducted by the Universidad de Sonora that investigated causes of Seri infant mortality. The primary cause of death was respiratory infection, with 14 deaths. Malnutrition claimed the next largest group of young lives, with 12 dead. Gastrointestinal illnesses took the lives of four infants. "The water is often contaminated in the tanks," Gamez reports. According to the study, many illnesses that resulted in death in the adult population—respiratory diseases, diabetes, hypertension, and heart disease—could have been prevented.

Further inland from the coast, near the state of Chihuahua, Kickapoo tribe members endure similar conditions. They have lost most of their land and are now reclaiming small amounts. Meanwhile, when the Kickapoo are sick, they must wait for days for bus transportation to a see a doctor. "They don't even have a clinic. They barely have a school. If they want to see a doctor, they have to pay," María García says.

In August 1997, the Garcías teamed up with Yaqui ceremonial leader Jose Matus to found the Indigenous Alliance Without Borders (Alíanza Indigenista Sín Fronteras). The Alliance's goal is to bring indigenous tribes across the Americas together in order to address issues affecting native peoples, such as access to health care, economic development, and land rights. With interest expressed by tribes as far away as Canada, the alliance is currently expanding its network.

García urges all concerned people to contact U.S. senators and congresspersons to let them know of the difficulties faced by the O'odham and other tribes. As for economic remedies, he believes if O'odham landowners had cattle, they could stay on their land and have an economic base; production of adobe and brick blocks would be a feasible project for the O'odham; the Seri and indigenous living along the coast need fishing boats. But the primary effort, Governor García stresses, must be toward building indigenous unity. "That is the only way to pressure any government into supplying what you need." ■

*"The women only go to the doctor when it is too late. A lot of women die young. They barely have money to eat. I guess if they want to stop eating, they can buy medicine."*

*Brenda Norrell is a staff writer for* Indian Country Today, *covering tribes in Arizona. She traveled with the Garcías and an Indian delegation to Chiapas in 1995. She also travels to villages in Sonora with human rights advocates active there.*

### *borderlines'* New Price

You may have noticed that *borderlines* has altered its subscriptions scheme. U.S./Mexico subscriptions for individuals, small NGOs, and community based organizations are now $12; subscriptions for libraries, large non-profits, and government agencies are $20 a year. Contact:

Interhemispheric Resource Center
Box 4506
Albuquerque, NM 87196-4506

### Don't Panic!

You didn't get the short end of the stick. Subscriptions received as of March 1998 have been pro-rated to account for the price change. If you have any questions regarding the new subscription policy please don't hesitate to contact us at (505) 842-8288.

### New Services

We've also added a new service to all subscriptions: occasional briefs covering borderlands news items of interest as they occur, distributed to you via email (includes an email advance notice that lets you know what topics *borderlines* is covering in the coming month—to receive notice, send email to irc1@zianet.com with borderlines as the subject). Extensive changes to the *borderlines* web page are in the works as well. Keep an eye on http://www.zianet.com/irc1/bordline

# Border Forum Insights & Perspectives

***Eva Moya,** of the Environmental Health Coalition's SALTA project, on using the promotora model to address environmental health problems in San Diego's Latino community:*

SALTA is based on the promotora model because we had observed the success it had had with other health campaigns in the area. We had observed that lay education works. We wanted our focus to be placed on environmental education; however, we also wanted to present the information that we had in ways that were not antagonistic to company activities in the area, because we did not want to jeopardize jobs. So we followed the promotora model, which uses people within the community to do the educating. These are the people who are going through the situation; they are living the problems, so they are the ones who can provide the solutions.

We are really trying to promote change in the home—at the most basic level—and this is where our campaign for safe cleaning products comes in. We often think that just because things are in the store they aren't harmful to your health, and this is one of the things we try to educate about. We recommend new ways of cleaning in the home but also out in the garden. We encourage people not to use artificial fertilizers and pesticides, and we also do training about safe methods for changing car oil. We are showing them that they can take care of their homes while also taking care of their health.

Empowering women in these ways helps to give them a larger voice in their communities. We have just seen women grow by leaps and bounds after the SALTA training. One good example is that for many years Barrio Logan has had a Project Area Committee, which serves to advise the City Council on redevelopment issues within the community. Hardly any residents from the area knew about its meetings and community attendance was almost nil. Most of the board was composed of business owners and other individuals with their own agendas; the committee had many outside interests. After the SALTA training, more and more community residents have been attending, and just recently elections for the board were held and three SALTA promotoras were elected to fill some of the vacancies. It just shows that when women are given the opportunity and tools, they become involved.

***Kitty Richards,** of the New Mexico Border Health Office, on identifying environmental health hazards and their effects on borderlands communities:*

I think it is important to realize the complexity involved with border health epidemiology. The number of factors that are involved is just enormous, and because people are so mobile today it is hard to trace what they have been exposed to, and this is especially true along the border with the forces of migration.

Generally what epidemiologists and others do is a lot of surveying and trying to identify what the exposure points are, that is what sources people are exposed to, to evaluate whether or not that could result in the health outcome that is being talked about. It's really hard with environmental health and epidemiology because throughout a person's life cycle, they have lived in a lot of different towns and have been exposed to many different influences. So with something like cancer, it's hard to see what is really causing it. There are so many causes; it may be environmental, it may be genetic, it may be something else.

So it is really difficult to find causes in environmental health research. But there is the case of the Stevenson Bennett Mines located east of Las Cruces. There is soil that's contaminated by lead there; and indeed in this case we've found high blood lead levels in a small group of children. We recently conducted further blood level screening of residents of the area and are awaiting the results. So there's definitely a link, and the EPA right now is involved with the process of remediation of soils there. Another case is a study of the links between air pollution and asthma that is being considered in the Southern Texas, El Paso, and Juarez area.

[Determining links between environmental hazards and health effects requires] first of all defining what the health problem is for the community and then going and looking at it through either water monitoring or air quality monitoring, looking at the potential environmental health exposures, and then really developing an extensive questionnaire in order to measure the problems, comparing that with results in a control group. Sometimes the questionnaire is developed by researchers, sometimes there is input from the community, but usually you want to try to make it unbiased, so it will usually be developed with outside people.

It is a good idea to get an idea of what the community feels the problems are, but to balance this with an outside perspective to enable the study to stand up under scrutiny. Then the results are analyzed by the administrator of the survey—be it a university, a border health office, or a community, like in Sunland Park.

Activism can really help inform people, help them to recognize the potential hazards around them, but it's important to do the scientific research as follow up. ■

**INTERHEMISPHERIC RESOURCE CENTER**
**BOX 4506**
**ALBUQUERQUE, NM 87196-4506**

**NON-PROFIT ORG.**
**U.S. POSTAGE PAID**
**ALBUQUERQUE, NM**
**PERMIT NO. 990**

ISSUE
*45*

The information at the top of your mailing label indicates when your subscription ends.