

streamline

The Migrant Health News Source

The 2007 San Diego Firestorm

Editor's Note: The following was excerpted from the recently published report, "San Diego Firestorm 2007 Report: Fire Impact on Farmworkers & Migrant Communities in North County". To read the full report go to www.csusm.edu/nlrc.

"The San Diego Firestorm 2007 Report" documents fire impacts on farmworkers and migrants in North San Diego County resulting from the firestorms of October 2007. Research findings suggest that during and immediately following the firestorms, farmworkers and migrants in North San Diego County were negatively impacted by the fires and in some cases encountered structural and institutional barriers in accessing information and relief efforts. Farmworkers' and migrants' socio-economic situation is usually precarious; however, the fires exacerbated their already difficult situation.

This report presents the results of a fire impact assessment in farmworker and migrant communities conducted from October 2007 to February 2008 by the National Latino Research Center (NLRC) at California State University San Marcos and the Farmworker CARE Coalition. The assessment was conducted with individuals in affected communities throughout North San Diego County. While local and national media sources covered large relief efforts like those held at Qualcomm Stadium, they neglected the thousands of Latino farmworker and migrant families who were impacted by the fires in rural and unincorporated regions of San Diego County. As this report shows, Latino farmworkers faced multiple barriers in the evacuation phase, were unable to access appropriate relief services and today continue to be impacted with limited or no relief in sight. Several reports about the fires have already raised concerns about farmworkers' experiences during the initial week of the firestorms. According to the American Friends Service Committee (AFSC), farmworkers in North San Diego County received disparate treatment or no services at all. AFSC argues that some of these irregularities



amount to serious civil and human rights violations needing additional investigation to assess the treatment of vulnerable populations by government agencies. Specifically, the presence of the Border Patrol near evacuation sites in Fallbrook, Valley Center, and other communities created an atmosphere of fear and intimidation for farmworkers which prevented many families from evacuating to safety zones. Secondly, several accounts indicate farmworkers labored in fields during the fires exposed to dangerous air contaminants because employers failed to disseminate adequate information for employees regarding evacuation procedures and/or did not allow some employees to evacuate. Furthermore, AFSC notes there was a general lack of informational resources describing relief assistance for farm-

workers concluding that "despite the continuous need of basic food and water, these communities were not serviced by any formal/government relief efforts."

General research findings include:

- Farmworkers and migrants were disproportionately exposed to fire impacts with limited or no relief.
- Large numbers of farmworkers and migrants living in substandard housing conditions in rural communities lost housing during the fires and had no recourse for recovery.
- The relationship between farmworkers and migrants and emergency service providers is tenuous.

continued on page 2

- The majority of emergency service providers lack the necessary cultural and linguistic competency to communicate appropriately with Latino, primarily Spanish-speaking and Mexican indigenous farmworkers and migrants.
- Culturally and linguistically appropriate resources on health and safety during emergencies are limited or do not exist. Some farmworkers and migrants who were fearful of deportation during evacuation did not evacuate their homes in mandatory evacuation zones.
- Farmworkers and migrants did not receive appropriate evacuation notifications.
- Farmworkers and migrants were unaware of emergency relief services and procedures to solicit assistance.
- Farmworkers and migrants did not receive adequate information about emergency relief eligibility criteria.
- Resources for farmworkers who were ineligible to receive traditional sources of assistance were limited or non-existent.
- Economic effects of the fires are compounded by language, cultural and social barriers that limit access to support programs and services.
- Volunteers and/or staff at evacuation centers enforced eligibility criteria at whim and/or misinformed families seeking assistance.

According to the survey, the needs of greatest concern in farmworker and migrant communities in order of priority were employment, shelter & housing, food & water, personal hygiene products, health, educational & mental health services.

Employment

Lack or limited access to employment resulting from the fires is the top concern for farmworkers and migrants. While many families faced difficulty finding jobs since the freeze in January of 2007, the fires further damaged economic activities making work difficult to find. Overall wellbeing is dependent on their ability to secure employment.

According to the survey, 99% of participants reported losing income and/or a job as a result of the fires.

Shelter and Housing

Housing is a critical issue for farmworkers and migrants year-round. Farmworkers face serious challenges with housing costs due to high costs in North San Diego County and their relatively low wages. The fires worsened the situation for farmworkers by making housing less available and more expensive. In some instances, farmworkers and migrants lost their housing during the fires.

According to the survey, shelter and hous-

Editor's Note: These recommendations were developed specifically for the San Diego area, however they are very relevant for any targeted effort to include migrants in a disaster preparedness community plan. This list represents an excerpt of the total recommendations made by the NLRC. For a full list download the report www.csusm.edu/nlrc.

Recommendations for Emergency & Disaster Relief Systems for Farmworker and Migrant Communities

- Design system of notifying people in unincorporated, rural areas about emergencies.
- Insure that separate emergency plans are coordinated with one another. Make sure that farmworkers are included in the emergency plans.
- Create culturally and linguistically appropriate outreach and materials available in times of emergency.
- Provide immediate relief to impacted communities.
- Adopt explicit policy prohibiting the presence of border patrol and uninformed officers in both federal and local evacuation centers.
- Provide public transportation to assist during evacuation.
- Provide multi-lingual streamlined information about evacuation through a variety of sources including a hotline, website, etc.
- Design centralized communication system.
- Designate relief services for individuals regardless of immigration status.
- Create more flexible criteria for emergencies and coordinate with local community organizations and leaders to assist with delivery of humanitarian relief.
- Expand definition of long-term recovery to include basic needs such as rental assistance, food, water, clothing, school supplies, etc.
- Increase public education and training for emergency preparedness including resources available during an emergency, communication plan, and first aid.
- Coordinate and develop relationship between farmworker CARE coalition, agencies, local officials, governments and relief agencies, and farmworkers.
- Build capacity to make resources available to create networks of support in the event of an emergency.
- Train service providers to be culturally and linguistically competent to deal with local population.

ing were in the top three of the most urgent needs in the community. Eight percent of survey participants lost their housing or shelter as a result of the fires.

Food and Water

Access to food and water is an ongoing pressing issue for farmworkers and migrants in North San Diego County. Many farmworker families living in remote regions often have difficulty accessing grocery stores due to lack of transportation. Furthermore, they are unable to afford basic food staples due to limited income. Eighty-two percent of participants reported having lost food and water as a result of the fires. According to the survey close to half of the participants reported having urgent and long-term needs for food and water.

Non-Food Items

Access to non-food items is an ongoing challenge for farmworkers. Personal hygiene products were the non food items most needed by participants.

Access to health care both during and after an emergency is an ongoing pressing issue for

farmworker and migrant families. Thirty-three percent of survey respondents reported not having access to medical care. Over half (57%) of participants reported mental health issues (depression and stress) as a result of the fires. Sixty-five percent of participants do not have any type of health insurance coverage for themselves and 23% have no insurance for their children.

Participants reported alarmingly high rates of asthma and/or lung disease in this community (22%).

Educational and Emotional Well-Being

The fires affected general emotional well-being of farmworkers and their families. Limited or no mental health services have been provided to help farmworker families cope with aftermath of the fires. According to the survey, the top three pressing needs are: employment/income, food/water, and housing.

As evidenced in the results of the survey assessment, farmworker and migrant communities are facing immediate and longer term recovery needs in regards to health care, food, employment, housing and other needs. ■

Migrant and Seasonal Farmworker Descriptive Profiles

Migrant Health Centers (MHCs) consistently need to document and report the characteristics of their target population. All applications for new federal funding require the applicant to complete the Need for Assistance worksheet by identifying the size and characteristics of the migrant and seasonal farmworker population they purport to serve. Similarly, the Bureau of Primary Healthcare (BPHC) is continually asked to describe those being served. There is a need to know information as basic as whether more single adults or families are present, family size, presence of children, ethnic composition and language needs.

At the same time, those receiving health care services are in constant flux, driven by economic need, changes in local agricultural production and even national politics. To best serve this ever changing group, MHCs must understand local agricultural industry conditions and labor population characteristics in order to adjust services to provide the most appropriate care.

For example, those who assist migrant and seasonal farmworkers (MSFWs) across the country have seen an increasing number of indigenous workers from Mexico, Guatemala and other Central and South American countries. These individuals have different cultural care needs and most often speak neither English nor Spanish. Those who provide services to MSFWs have found themselves unable to assist because of the lack of a common language.

Agricultural production changes have a direct bearing on who requires health care services. Increasing or decreasing a hand-labor crop may affect the number to be served. Pressures related to immigration policy and enforcement, or concern over such activity may affect the number and characteristics of migrants coming to the area looking for work. Simply knowing if local agricultural producers are increasing their H2A applications (request for imported workers), or what type of farmworker housing they expect to support (dormitory versus family units) can help centers plan to assist more single males or families.

All of these issues have a direct bearing on health services delivery and formulation of health care plans. They can affect staffing decisions, outreach activities, preventive care emphases, budgeting and appropriate service hours. In the past, MHCs have played a more reactive rather than proactive role. Often they have found that the population in need of care has changed, leaving them scrambling to provide appropriate services.

To begin to address this critical need for relevant information about the MSFW population nationwide, MCN is working with the BPHC to develop an innovative project that will test a variety of methodologies for collecting and analyzing MSFW data. The methods used in this project present a way to enhance planning for health services by gathering up-to-date descriptive profiles of the MSFW population as well as a mechanism to determine future trends that will affect the effectiveness of MHCs. The systems which will be put in place can be self-sustaining, providing continual updates at a local level where such information is most useful. The lag time between gathering information and distributing it to individuals who can find it most useful would be minimal. The systems would also have the added benefit of building team work with other local service providers, allowing Migrant Health Centers and others who serve the MSFW population to work together to share information which can be beneficial to all.

The pilot methodologies are outlined in the following three major categories:

- 1. Directly gather input from knowledgeable individuals to profile MSFWs and identify changes:**
 - a. Administer surveys to key individuals that ask for a description of the farmworker population in their area, as well as changes that have occurred in recent years.
 - b. Develop an online sentinel network of individuals across the nation who work with MSFWs. The members of the sentinel network will be asked the same set of questions as are asked in the in-person interviews.
 - c. Develop an in-person focus group of key stakeholders in a specific geographic area.
- 2. Gather MSFW profile data from service agencies assisting the population:**
 - a. Identify key MSFW assistance agencies (i.e., Migrant Health Centers, Migrant Education, Migrant Head Start, MSFW



Job Training/WIA 167) that collect demographic data on their population.

- b. Develop a grid of similar/contrasting/complimentary data elements regarding the MSFW population reported by each.
- 3. Design a method to continually gather and assess agricultural and MSFW profile changes:**
 - a. Identify contacts likely to have input on elements of agricultural and worker profile changes and ways to gather information on such changes.
 - b. Develop a list of elements of agricultural and labor profile changes and methods by which relevant information might be collected on a continual basis.

The purpose of this initial project is to assess the viability of each one of these data elements for future use and planning. Linked together, these data sources have the potential to provide much needed but difficult to obtain data for use in health care planning, budgeting and preparation of grant applications for renewals, expansions and new access points.

For more information about this project including how you might be able to get involved, please contact Ann Marie Wilke, at 512-327-2017 or awilke@migrantclinician.org. ■

Juana's Village

by Erika Peterson

Editor's Note: Erika Peterson is an outreach worker for Eastern Shore Rural Health Systems, Inc. in Virginia. She recently went on vacation to the Pacific Coast in Oaxaca, Mexico with three friends she worked with doing outreach to migrants living in labor camps in Virginia. While in Mexico they visited with the family of one of the promotoras they partnered with on one of MCN's environmental health projects. This piece is an excerpt from the journal Erika kept during that visit. The names are changed for privacy. Erika's entry highlights the changing demographics of the migrant populations as more indigenous populations make their way to new receiving communities in the United States. More importantly, Erika's entry highlights the richness and beauty of working in migrant health. Erika says that "What amazed me about this trip is discovering the global impact the work we do for farmworker health has, and having the opportunity to witness it firsthand. This is just as much a tribute to all of you and the work you do for our patients, as I'm sure that you have all made a huge impact on many lives."

December 8, 2008

"Today we decided to seek out the Zapotec Indian family of some farmworkers we knew from Virginia. Before leaving home, I had got the phone number and name of the town from our good friend Juana, a farmworker we have known and worked with for many years. We tried to call many times from our hotel, but the phone call to her family would never go through. We were unsure about striking out on our own to look for them, but we finally decided, 'what the heck, we've already come this far and will regret it if we don't try.' So that's how we ended up on the edge of the highway in the middle of nowhere, waiting for the pickup truck that makes a run up to the village of Santo Domingo every hour, watching the chickens peck at old fruit rinds at our feet and dogs digging out a cool spot in the shady dirt patches.

"Eventually the driver came and we loaded up, still unsure of how our luck would turn out. The trek was a forty minute ride on a dirt road into the interior, with mountains and rivers all around us, pretty but very dusty. I started talking to the driver, who was from the town we were headed to, and it turns out that he had worked in Virginia as a farmworker two years ago. He said 'Yeah, I worked for Six L's', which is the company I work the most with! It felt like such a small world in that moment—here we were literally in the 'middle of nowhere, Mexico' having a conversation with an indigenous pick-up truck driver about all the people we knew in common in Virginia.

"The town of Santo Domingo is definitely

'off the beaten track'. So much so that everyone blatantly stared at us, some children pointed, and most spoke their indigenous language of Zapoteco. If we hadn't had our Mexican friend Benny with us, I would have felt really uncomfortable. Our driver directed us to the town phone booth, where most people in rural Mexico receive calls. The receptionist announced over the town loudspeaker that Lety Juarez had visitors, and from there all we could do was wait and hope for the best. It was not more than ten minutes before I saw Lety walking towards us. I recognized her because a few years prior she and her husband had spent a summer working in Virginia and I had helped them with a health problem.

"She received us with a huge, worried hug, and told us that we had just caught her since she had been at the local market that day selling clothes and was just about to head back to their ranch, which was up the mountain. She loaded us in her pick up truck, my friend Kari and me in front, and poor Benny eating dust in the back with Lety's husband. We drove up the pot-holed dirt road, at one point driving THROUGH A RIVER with many naked children bathing in it. She had a bobble-headed moose ornament on the dash, missing part of his face, and several virgins and religious mementos hanging from the rearview mirror, which were all bouncing around vigorously as we climbed up the hill. It was so amazing to have her point out many little houses along the way and tell me, 'That's Pedro Ambrosio's house, that's Ana Ruiz's house, that's Veronica Diaz's house,' because these are all people I work with and have known for years in Virginia. To be able to see their homes and true life in Mexico was just mind-blowing. Most people who work in the fields in the U.S. come with the dream of buying a lot and building their own house in Mexico, sending money home regularly while relatives build their houses. Many of them have never actually seen their houses which I have had the privilege of seeing, so we took pictures to show them when we get home.

"We pulled into Lety's yard and turned off the motor, and just as she was saying, 'Welcome to my home!' the turkeys wandering around the yard started gobbling like crazy, as if to emphasize her welcome. It turns out those turkeys had been saved for our visit, they were going to fix them as the traditional *mole* dish and have a big family party, so we all had a laugh that the broken phone had saved the turkeys' lives, for a little while at least...

"They brought out three old plastic chairs for us to sit in the dirt yard as the guests of honor, while they stood around with shy grins. Cooking was done over a fire, so there were big stacks of firewood, and hanging

from the clothesline was a large sheet with the alphabet written on it where one sibling was teaching the others to read. The out-house was in the back, primitive but clean. One of the brothers shimmied up a tall palm tree in the yard with his machete and lowered down several branches loaded with coconuts, which the father hacked with the machete until they were flat on the bottom and stuck straws in the tops for us to drink the water.

"The family lived in an adobe home, and the grandparents did not speak Spanish, only Zapoteco, so their children had to interpret for them. A few of the brothers had also worked in Virginia and remembered me, so we broke the ice by talking about people in the States, updating everyone on who is doing what, and how big their children are now. There were several children there who are being raised by relatives while their parents are working in the U.S.; looking into those children's eyes it was hard not to appreciate the huge sacrifice, social and emotional toll that separation, often for years at a stretch, takes on these families driven by poverty to make that journey.

"We didn't have very long to visit with them because the last truck out of town back to the highway was leaving in about an hour. It was a shame because since Juana had told her family I was going to come for a visit, they had planned many activities for us, big meals and trips in and around the mountains. I never had realized what a big deal it was for us to visit, and was so humbled by how many of them told me that even though they had never met me, they had been hearing about me and the community health centers in Virginia for years, about how much I helped their family and friends in the U.S. Juana's parents, through an interpreter, thanked us with all their hearts for being there for her children and grandchildren in Virginia, who have received care many times at Eastern Shore Rural Health centers. It was a total reaffirmation of the work that I've been doing for the last six years. You just have no idea how far reaching the impact of our work has been.

"As our time with the family came to a close, Lety drove us back to town, where we met the same driver who brought us in. He was so excited that we had made our connection and had taken away a good impression of his town. We bounced back along the dirt road that had carried us there hours earlier, this time heading into the sunset over the Pacific Ocean, viewed from above as we wound along the mountain road, the silhouettes of the cacti and trees marked against the sunset sky.

"It had been a long but deeply satisfying day."

Shelley Davis

Attorney and Deputy Director, Farmworker Justice, 1952-2008

Shelley Davis passed away in Washington, D.C., on Friday, December 12, 2008, at age 56 from breast cancer.

Shelley was a nationally-recognized expert attorney on immigration policy, occupational safety and health and labor rights for migrant farmworkers.

She also established innovative programs to help community-based organizations reduce the incidence of HIV/AIDS, prevent pesticide poisoning and facilitate access to health care.

Shelley was well known for helping farmworkers have an effective voice at the Environmental Protection Agency and the Occupational Health and Safety Administration. Her advocacy and litigation led to strengthened worker safety protections regarding pesticides and field sanitation for farmworkers.

Shelley was a major strategist in complex litigation on behalf of farmworkers, the AFL-CIO and the NAACP in litigation against U.S. Department of Labor during the 1980's and early 1990's concerning policies under the nation's agricultural guestworker program and in successful lawsuits for guestworkers against their employers.

Medical providers at migrant health centers around the country relied on Shelley and her staff for information on recognizing symptoms of pesticide poisoning and on labor and immigration policies affecting their patients.

The 2008 Farm Bill includes a new pesticide safety research program that Shelley designed to study the relationship between pesticide exposure and cancer, with the goal of acquiring the data needed for better policies and health prevention programs for farmworkers. The new Farm Bill program also includes research to develop medical testing for farmworkers exposed to pesticides and new technology for testing pesticide residues in the fields to determine safe re-entry times.

Shelley's services were in constant demand from major farmworker organizations, including the United Farm Workers and the Farm Labor Organizing Committee (an AFL-CIO member union). The President of the UFW, Arturo S. Rodriguez, wrote in a website posting upon learning of Shelley's illness:

"She repeatedly identified ways in which we and other organizations who fight for farmworker rights around the country could get our voices heard, be it by joining confer-

ence calls with key agency personnel, attending meetings, or even suing the agency and denouncing their failures in the media. She is driven by an intense desire to ensure that the people who harvest the food we eat not be forced to sacrifice their health in the process."

Ms. Davis earlier this year won a lifetime achievement award, the Firefly Award, from Beyond Pesticides, the National Coalition Against Misuse of Pesticides; Shelley was a member of the organization's Board of Directors. Two years ago, Shelley won a career achievement award from the National Legal Aid and Defender Association, the Reginald Heber Smith Award, for her effective legal representation of poor people. Farmworker Justice won recognition in November 2008 from Organización de Lideres Campesinas de California, a statewide farmworker women's organization, for Shelley's assistance on health promotion projects and women's leadership development in the farmworker community. In 2000, due to Shelley's work, Farmworker Justice won the Business and Labor Award for HIV/AIDS prevention from the Centers for Disease Control and Prevention.

Shelley began representing farmworkers in 1986. She joined Farmworker Justice in 1992, then worked for the Legal Assistance Foundation of Chicago, and returned to Farmworker Justice in 1996, where she served as Deputy Director until her death.

She was a graduate of Bryn Mawr College, Bryn Mawr, PA (BA 1973 cum laude), and Catholic University, Columbus School of Law, Washington D.C. (JD 1978). Early in her career Shelley, as part of a legal team at the Political Rights Legal Defense Fund in New York, won a landmark lawsuit against the government for illegally spying on the Socialist Workers Party. She also worked, at two different times, at the Legal Assistance Foundation of Chicago representing poor people in disability rights, employment discrimination and other litigation. Due to her extensive volunteer work in the United States to end apartheid in South Africa, she met and received thanks from Nelson Mandela when he visited Washington, D.C. after apartheid ended.

Farmworker Justice Executive Director Bruce Goldstein, said: "I am proud to have been a collaborator and friend of Shelley for the last 20 years and will do everything I can to ensure that her vital work continues. Our organization and the farmworker movement



have lost an extraordinarily gifted, committed, and productive advocate, whose major contributions have been felt in the fields and communities where farmworkers work and live, in federal and state courts up to the U.S. Supreme Court, in the halls of Congress, and in the policies of federal and state agencies. Her passing is a tremendous loss that we bear with great sadness."

Shelley was known as a vigorous, unrelenting advocate for migrant and seasonal farmworkers who did not complain about obstacles in her path but found ways to overcome them for the good of the people she served. Shelley said many times, "It is a privilege to be able to do this work." Though not widely known, Shelley's many accomplishments occurred despite a severe visual impairment caused by retinitis pigmentosa.

Her survivors include her husband Thomas Smith (who is Director of Finance and Administration at the National Senior Citizens Law Center in Washington, D.C.) and her son Nicholas Smith, who is a senior in high school, in Silver Spring, Maryland, and brothers Donald and Joel, and her mother Helen, as well as brothers-in-law, sisters-in-law, nieces, nephews, and cousins to whom she was close and beloved.

Leave messages for Shelley's family on the Caring Bridge website: www.caringbridge.org/visit/shelleydavis.

Shelley's family decided to collaborate with Farmworker Justice to further Shelley's important litigation and advocacy on behalf of migrant and seasonal farmworkers. Donations may be made to the Shelley Davis Memorial Fund, which will go to Farmworker Justice. Go to the Farmworker Justice website to learn more about donating, www.farmworkerjustice.org.

Private Well-Water Testing in the Yakima Valley Region of Washington

Randy J. Treadwell, MPH(c), University of Washington

Those who see patients or conduct health research in a region that is largely agricultural are keenly aware that the area's residents are often exposed to a unique combination of environmental and occupational hazards. Although it is often thought that individuals are willing to accept higher risk in an occupational versus a residential setting, the hazards that are common to these agrarian locations tend not to discriminate between the two.

Drinking water is one of the most vulnerable resources in agricultural areas. Concern over this environmental issue inspired an ambitious collaboration among five organizations working in the Yakima Valley region of Washington State. The goal of Proyecto Bienestar, a partnership between the Northwest Center for Community Education/KDNA Radio, the Yakima Valley Farmworkers Community, Heritage University and the University of Washington Pacific Northwest Agricultural Safety and Health (PNASH) was to ascertain how hazards inherent to agricultural practices may be influencing the quality of drinking water taken from private wells throughout the Yakima Valley.

The Yakima Valley is often considered the seat of Washington's agricultural empire and is well-known for the large-scale cultivation of apples, cherries, grapes, and hops. This intense agricultural activity poses certain hazards to the environment and thus to individuals who reside in it. Pesticides and fertilizers, old and new, are of particular interest to clinicians and researchers in regards to negative health outcomes. One pesticide used extensively in apple cultivation before the introduction of organochlorines and organophosphates in the late 1940's was lead arsenate. Due to their elemental nature, both lead and arsenate have the ability to persist in the environment for many years and are therefore more likely to contaminate ground water.

Another threat to safe drinking water is the production and decomposition of fertilizers including triple superphosphate fertilizers which can produce fluoride. Nitrogen-containing fertilizers also have the ability to increase nitrate concentrations in water. In addition, contamination of ground and surface waters from animal manure can contribute to increases in nitrate concentrations, especially in areas where many animals are concentrated such as dairies. Ill-maintained on-site waste treatment systems such as septic tanks have also been associated with increased nitrate

concentrations.¹

The Yakima Valley is not alone in their battle with nitrate and heavy metal well contamination. Thirty-seven percent of private wells sampled in Iowa from 1988 to 1989 were observed to have nitrate levels exceeding 3 mg/L, a concentration that is often considered to be indicative of anthropogenic pollution.¹ This same study also observed that well-depth tended to be the best predictor of well-water contamination. Studies performed in Chile observed that individuals exposed to drinking water contaminated with arsenic had an increased risk of acute myocardial infarction as well as lung and bladder cancer.^{3,4} The authors appropriately emphasized the long latency period for the latter two conditions, emphasizing the point that health effects can continue to be observed long after peak exposures have decreased or have disappeared entirely.

The Project Design

Due to their potential adverse impact on human health, Proyecto Bienestar chose to take a cross-sectional sample of nitrate, arsenic, lead, and fluoride concentrations in private well-water samples from around the Yakima Valley region. Proyecto Bienestar staff chose to focus their efforts on private wells with less than 25 service connections because these wells are not monitored or regulated by federal or municipal agencies and thus may have a greater likelihood of continued use even when contamination levels are high.

In addition to addressing a key environmental concern, Proyecto Bienestar had an added focus on developing leadership and skills



Photo courtesy of Stacey Holland

among farmworker youth in the area. PNASH and KDNA Radio staff contacted students enrolled in ConneX, a program affiliated with the Yakima Valley Farm Workers Clinic that identifies young people living in the Yakima Valley who are interested in healthcare careers to collect and analyze water samples from the community. ConneX, in addition to facilitating job shadowing of healthcare providers during the summer program, introduces students to public health, epidemiology, toxicology, statistics, environmental justice, and environmental and occupational health. As a final project, the students participate in a local environmental health-oriented research project, allowing them a "taste" of how academic research is performed. The program is free to accepted students who earn university credit upon completion of the session. The participation of the ConneX students was critical to the success of the Proyecto Bienestar effort.

Working with project staff, ConneX students successfully recruited some 65 interested resi-

continued on page 7

New Lead Initiative

MCN is pleased to announce a new lead poisoning prevention initiative in partnership with Texas Tech University, Texas State University, and Motivation Education & Training, Inc. Funded by the EPA, this effort will concentrate on lead poisoning prevention and reduction through outreach and training of clinicians and labor specialists.

This initiative will focus on the estimated 320,000 mobile workers and their families who live along the Texas-Mexico border and other families who move from community-to-community in search of work. These mobile workers are disconnected from their communities where they reside, and as a result are less likely to receive or have received information about lead risk provided by local governments and community organizations.

MCN, Texas Tech University, Texas State University and Motivation Education & Training will work on lead outreach, education and training by intercepting individuals as they travel to and from their destination communities. This intercept strategy will focus on the most vulnerable individuals living in farm labor and public housing, those living in low-income neighborhoods, and those living in impoverished colonias along the US-Mexico border.

For more information about this project please contact Amy Liebman at aliebman@migrantclinician.org. ■

Happy Mother's Day 2009!

Looking for a gift that honors the meaning of Mother's Day?

Invest in the life of a migrant family, and we'll recognize your gift with a beautiful card sent in your honor to celebrate the mother or special person who has been there for you. Proceeds from our Mother's Day cards will be used to assist migrant women to access essential healthcare during pregnancy. Many of these women struggle to obtain prenatal care, good nutrition, sound medical advice, and the basic necessities that promote good health. Your tax deductible contribution will help these women have healthier babies.

Thanks to your generous contribution, last year we helped hundreds of migrant women and infants. Please help us make this year a success too. Pledge your tax deductible donation by May 2nd, 2008, and we will mail your mom or your chosen recipient a beautiful card with original artwork by MCN staff members and friends. You may purchase your card using the form below or through our website at www.migrantclinician.org. All cards will be mailed in time for Mother's Day.

Make your check out to MCN and mail it to: Mother's Day Campaign, Migrant Clinicians Network, P.O. Box 164285, Austin, TX 78716

If you have any questions, do not hesitate to call Theresa Lyons at 512.327.2017, x4511. Thanks!



MCN MOTHER'S DAY PLEDGE FORM

Please fax or email the below information to the attention of Theresa Lyons at (512) 327-0719 or PO Box 164285, Austin, TX 78716

Amount of your contribution:

\$15 \$30 \$50 \$100 other amount _____

If you would like to send more than one card please call or email Theresa Lyons at the MCN office - 512-327-2017 x4511.

Name of the mother/person you are honoring: _____

Address to Mail Card: _____

Your Name: _____

Your Address: _____

Your phone number: _____

Your e-mail: _____

■ Private Well-Water Testing continued from page 6

dents who were given sterile cups and instructions on how to collect their own well-water sample. A few days later, residents were invited to Radio KDNA headquarters in Granger, Washington, where the ConneX students performed field testing on the water samples for nitrates. In addition to the field testing, the students collected demographic and water-use data from the participating residents through one-on-one interviews. All participating community members were later informed of nitrate concentrations in their private well-water.

Results

Although statistical analysis is still underway, preliminary data suggest that most of the lead, arsenic, and fluoride concentrations in the samples taken for this project are below the EPA drinking water maximum contaminant level or treatment technique of 0.015, 0.010, and 4.0 mg/L, respectively.² However, a few samples were above the EPA maximum for nitrates and arsenic. It is impossible to determine if the arsenic is from human or natural sources, however the nitrate is almost certainly anthropogenic and may be an indicator of bacterial contamination of the same well. Although the findings are generally good news, they confirm that private wells may have unrecognized contaminants that can potentially affect the health of users. These contaminants can go undetect-

ed unless testing is initiated by the owner or user. Federal regulations do not apply and local regulations may also exempt private wells from regular testing.

Project staff has informed all participants of the results from their individual well. Included in the letters are explanations of possible health effects associated with the specific contaminants. The project is presently working with Radio KDNA and community leaders in the valley to coordinate an on-air information session about well-water contamination. Contaminant concentrations will be explored for significant associations with demographic factors such as residence time in the valley, water ingestion frequency and volume, self-reported health status, well depth, and proximity of farm animals in relation to the wellhead.

Conclusions

This experience suggests that private wells in rural areas may have harmful contaminants with potential association to the rural activities that surround them. Arsenic is a known carcinogen and may be naturally occurring or anthropogenic. Nitrates, which may induce harmful levels of methemoglobinemia in infants and negatively impact pregnancies, may also indicate coliform contamination.

It should not come as much of a surprise to

those who have intimately worked and/or lived in an agricultural region that there are unique health hazards associated with these locations waiting around every corner. Even one's home, a place traditionally thought of as a respite from the potential hazards and challenges of the outside world, can pose an excess risk. Hopefully, with the continued collaborative efforts between academic and community institutions, hazards associated with residing in agricultural regions can continue to be mitigated, potentially increasing the quality of life for the residents and thus the community as a whole. ■

References

1. Kross BC, Hallberg GR, Bruner R, Cherryholmes K, Johnson JK. The Nitrate Contamination of Private Well Water in Iowa. *American Journal of Public Health* 1993;83:270-2.
2. EPA Drinking Water Contaminants. 2008 6/5/2008;2009(1/12).
3. Yuan Y, Marshall G, Ferreccio C, Steinmaus C, Selvin S, Liaw J, et al. Acute Myocardial Infarction Mortality in Comparison with Lung and Bladder Cancer Mortality in Arsenic-exposed Region II of Chile from 1950 to 2000. *American Journal of Epidemiology* 2007;166(12):1381.
4. Marshall G, Ferreccio C, Yuan Y, Bates MN, Steinmaus C, Selvin S, et al. Fifty-Year Study of Lung and Bladder Cancer Mortality in Chile Related to Arsenic in Drinking Water. *Journal of the National Cancer Institute* 2007;99:920.



Migrant Clinicians Network

P.O. Box 164285 • Austin, TX 78716

Non Profit Org.
U.S. Postage
PAID
PERMIT NO. 2625
Austin, TX

calendar

43rd National Immunization Conference

March 30-April 2, 2009
Centers for Disease Control and Prevention
Dallas, TX
www.cdc.gov/vaccines/events/nic/

Unite For Sight 6th Annual Global Health & Development Conference

"Achieving Global Goals Through Innovation"
April 18-19, 2009
New Haven, CT
www.uniteforsight.org/conference

American Occupational Health Conference

April 26-29, 2009
San Diego, CA
American College of Occupational and Environmental Medicine
www.acoem.org/aohc09.aspx

2009 National Farmworker Health Conference

May 12-14, 2009
San Antonio, TX
National Association of Community Health Centers
www.nachc.com/farmworker-health-conference2.cfm

NWRPCA Spring Primary Care Conference

May 16-20, 2009
Anchorage, AK
Northwest Regional Primary Care Conference
www.nwrpca.org/

The American College of Nurse-Midwives 54th Annual Meeting & Exposition

May 21-27, 2009
Seattle, WA
www.midwife.org/



Acknowledgment: *Streamline* is published by the MCN and is made possible in part through grant number U31CS00220-09-00 from HRSA/Bureau of Primary Health Care. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of HRSA / BPHC. This publication may be reproduced, with credit to MCN. Subscription information and submission of articles should be directed to the Migrant Clinicians Network, P.O. Box 164285, Austin, Texas, 78716. Phone: (512) 327-2017, Fax (512) 327-0719. E-mail: jhopewell@migrantclinician.org

Frank Mazzeo Jr., DDS
Chair, MCN Board of Directors

Karen Mountain, MBA, MSN, RN
Chief Executive Officer

Jillian Hopewell, MPA, MA
Director of Education, Editor

Amy K. Liebman, MPA, MA
Guest Editor

Editorial Board — Marco Alberts, DMD, DeSoto County Health Department, Arcadia, FL; Matthew Keifer, MD, MPH, University of Washington, Harborview Occupational Medicine Clinic, Seattle, WA; Nikki Van Hightower, PhD, Department of Political Science, Texas A & M University