

Maternal and Child Health

This CSTE fellowship is being offered by the Maternal and Child Health Program (MCH EPI) in the Division of Reproductive Health at CDC, but is located in the heart of the US-Mexico border region in El Paso, Texas, at the offices of the US-Mexico Border Health Commission (BHC). Dr. Jill McDonald, the primary mentor for the fellow, is a senior epidemiologist in the MCH EPI program and will be relocating to the BHC offices in Spring 2009. Dr. McDonald has been responsible for developing MCH data and epidemiologic capacity in the border region for the last two years and is currently the MCH EPI border assignee. Administrative and technical support for the fellowship is provided by the MCH EPI program and the BHC, and the Texas Department of State Health Services Office of Border Health, where the fellow's secondary mentor, Dr. Allison Abell Banicki, is based. Dr. Banicki is an epidemiologist with cross-cutting responsibility for analyzing and describing health concerns of the entire Texas border region. She works on enhancing infectious disease surveillance and epidemiological capacity along the border as part of the Early Warning Infectious Disease Surveillance (EWIDS) project. Dr. Banicki also analyzes data for chronic diseases and maternal and child health issues of special concern to the border region, including teen pregnancy, access to health care, and breast feeding.

The border region includes 44 US counties and 80 Mexican municipalities that fall within 100 kilometers of the international boundary, and is home to about 7,000,000 US and 7,000,000 Mexican residents. MCH EPI works closely with US states and Mexican and binational health institutions on activities such as the Border MACH (Maternal and Child Health) Initiative to develop MCH infrastructure and epidemiologic data capacity across this geographically and culturally unique region.

El Paso is home to one current and one former CSTE fellow. El Paso is also home to a variety of organizations working in public health, such as the El Paso del Norte Health Foundation, US-Mexico Border Health Association, a regional office of Texas DSHS, a CDC quarantine station, a campus of the University Of Texas School Of Public Health, and the BHC.

ANTICIPATED DAY-TO-DAY ACTIVITIES OF THE FELLOW: This fellowship potentially entails a great variety of experiences that can generally be classified into two types of activities. The first involves routine and close collaboration with current and new governmental and academic program partners and epidemiologists in the region. The BHC guides and convenes border states to address public health priorities and improve health in the region and thus provides a strategic location for MCH EPI to work across political entities and health institutions and build effective and sustainable partnerships in the region. The second activity involves immersion in local MCH-related data. There is a critical need for analysis of regional and binational MCH data and the CSTE fellow will have access to many CDC and state-based surveillance systems and surveys. Regardless of the types of the specific activities the fellow chooses to take on, he or she will have the opportunity to shape the evolving MCH infrastructure and build capacity in the region through establishing and nurturing key partnerships and through broad-based data analysis and dissemination. In addition, the fellow will participate in weekly MCH EPI team meetings; monthly calls with other field assignees and fellows; and regular conference calls and meetings with governmental, non-governmental and academic partners across a range of program areas.

POTENTIAL PROJECTS FOR THE CSTE FELLOW:

- Map MCH indicators to U.S. counties and Mexican municipalities in the border region, using data from a variety of sources
- Analyze MCH data
 - geographic: across and along the border and within border states
 - ethnic: between Hispanic and non-Hispanic sub-populations
 - racial: between Native American and white sub- populations
- Analyze BRFSS and Mexican ENSANUT data to describe and assess reproductive health and chronic disease-related behavior in the region
- Use BMSCP data (binational risk factor data from one pair of sister cities) to determine the role of migration and acculturation in healthy and unhealthy reproductive health behavior
- Use BMSCP data to identify factors associated with high rates of cesarean birth
- Work with Mexican and U.S. states to pool vital statistic records and establish baseline measures for shared indicators
- Link regional birth and death records to conduct analyses of perinatal periods of risk (PPOR)
- Use border data and a variety of software packages, including no- and low-cost packages such as Epi Info, to conduct similar analyses and compare results across packages
- Develop curriculum to build skills to use MCH data effectively at the community level
- Participate as a faculty member in Border MACH data use workshops
- Work with binational partners to develop strategies to increase dissemination of MCH research findings bilaterally
- Present results of his/her work to programs within CDC's Division of Reproductive Health and Coordinating Office for Global Health, at the MCH EPI Annual Meeting, at the United States-Mexico Border Health Association Annual Meeting, other binational meetings, and/or in peer-reviewed journals.

PROGRAM OR SURVEILLANCE SYSTEM EVALUATION COMPONENT:

- Assess potential usefulness of pooling other US and Mexican data systems records, such as mortality reviews, as binational surveillance tools in region

- Work with sister city teams of epidemiologists and program experts to evaluate the impact of local and regional MCH programs
- Conduct an evaluation of PRAMS (NM and TX) and MIHA (CA) as effective surveillance systems for the border population
- Assess birth defects surveillance in the border region
- Conduct a qualitative study to assess the validity of standard MCH and demographic survey measures in the border population

ROLE OF FELLOW IN REGIONAL/STATE EMERGENCY PREPAREDNESS PLAN:

- Conduct a survey among health departments with jurisdiction in the border area to evaluate overall MCH capacity for disasters
- Participate in Texas state trainings and exercises for emergency public health preparedness. May be asked to deploy for a large exercise or actual disaster along the Texas-Mexico border, such as the annual Operation Lone Star exercise that provides free health services to medically underserved residents of the Rio Grande Valley or natural events such as flooding.

DATA SOURCES: The MCH EPI program CSTE fellow will have access to multiple tools to conduct these activities in data collection, analysis, program evaluation, surveillance and preparedness. Key data sources include:

PRAMS (the Pregnancy Risk Assessment Monitoring System) is a CDC/Division of Reproductive Health, U.S. state-based surveillance system of vital records and interview data that contains pregnancy and related information for women from 39 states, including the border states of Texas and New Mexico;

MIHA (the California Maternal and Infant Health Assessment) is a similar state-based surveillance system in California with records that are available for analysis;

BRFSS (the Behavioral Risk Factor Surveillance System) is a CDC/National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP), state-based survey that includes all border states; enhanced data for the border region have recently become available through an oversample of US border communities in Texas;

ENSANUT (Mexico's National Health and Nutrition Survey) is a state-based periodic survey that is similar in design to the BRFSS and includes all 6 Mexican border states;

YRBS (the Youth Risk Behavior Survey) is a CDC/NCCDPHP state-based biannual behavioral risk survey of 9-12 grade students, which includes data from each US border state;

BMSCP (the Brownsville-Matamoros Sister City Project) is a binational reproductive health and chronic disease behavioral survey conducted in 2005 in one pair of border communities, Cameron County and Matamoros, and is maintained by the United States-Mexico Border Health Association;

NVSS (the US National Vital Statistics System) and equivalent birth and death registry data systems in Mexico.

Assignment Location: El Paso, Texas

Primary Mentor: Jill McDonald, PhD

Senior Epidemiologist and U.S.-Mexico Border Region Assignee

MCH Epidemiology Team

Division of Reproductive Health

CDC/National Center for Chronic Disease Prevention and Health Promotion

Advanced Degrees: MS, University of Washington, School of Public Health (1982)

PhD, University of Washington, School of Public Health (1986)

Secondary Mentor: Allison Abell Banicki, PhD

EWIDS Epidemiologist

Office of Border Health

Texas Dept of State Health Services

Austin, TX 78714-9347

Advanced Degrees: PhD, University of Chicago, 1996

MS, University of London, London School of Hygiene & Tropical Medicine, 2004