Infectious Disease- CDC Quarantine Station

The El Paso Quarantine Station (QS) oversees infectious disease surveillance at international land border, air, and sea ports of entry in south central Texas and New Mexico. The fellow will become an integral member of the QS team. The QS Medical Officer, primary mentor, and the Officer in Charge secondary mentor, will provide technical guidance, and CDC headquarters and station infrastructure will provide administrative support. The QS collaborates closely with the El Paso City-County Health Department through a formal community epidemiology research and surveillance consortium. A formal affiliation with local Public Health will facilitate community epidemiologic research involvement and direct experience in community outbreak investigation and control.

Daily fellowship activities will emphasize QS research priorities, and core QS public health officer duties at ports of entry. The latter includes participation in community Public Health preparedness meetings and illness and cargo response at ports of entry. Fellow will act as QS lead for research operational activities. Limited travel to distant U.S. QS jurisdiction areas and the Mexico Border will be encouraged. Fellow will interact with the following Border Bi-national authorities; Texas Department of State Health Services, Servicios de Salud De Chihuahua, the Pan American Health Organization, and the US/MX Border Health Commission.

Possible Projects:
The fellow will have ample opportunity to consider and discuss research interests and select a project from among several possible proposals.

Epidemiologic Analysis of infectious Tuberculosis patients who experienced long haul international air travel
The events surrounding the recent air travel by infectious patient with Multi Drug Resistant TB highlights the need to document air conveyance transmission risk. A prospective analysis of passengers with infectious tuberculosis will be conducted among international air passengers with various intervals of air travel. Infectious Tuberculosis will be defined using criteria from the International Health Regulations. Confirmation of transmission will be through contact investigation using Quantiferon Gold. Data from the state genotyping projects will be used to search for possible clusters and epidemiologic links.

Descriptive analysis of cross-border travel of Tuberculosis Patients
There are over 50 cases of active TB cases reported to the El Paso Health Department and 250 cases to the Ciudad Juarez Health Department. Eighty percent of El Paso Cases are Mexico foreign born. A descriptive epidemiologic analysis of Tuberculosis patients reported to the El Paso and Ciudad Juarez Health Departments will be conducted. This will include analysis of cross-border TB transmission using information from cross border patterns and results of contact investigation. Use of available genotype data will

be used to search for possible clusters and epidemiologic links in congregate settings, including immigration detention centers.

Pilot Proposal to Increase the Capture Rate of Immigrants with conditions of Public Health Significance

This project will evaluate the feasibility of introducing the use of a stamp to highlight medical records of immigrants who have been found to have a Public Health condition needing follow up after arrival in the U.S. This procedure is needed because Customs and Border Protection Officers who screen documents are unable to capture a large percentage of medical records with these conditions. Pre and post project capture rates of health conditions and user evaluations will be conducted to help to evaluate implementation of the stamp.

Use of Emergency Medical Services Dispatch Data for Illness Surveillance at El Paso International Ports of Entry

According to a computerized EMS data base, there were 537EMS patient responses at international land ports in El Paso in 2006. Approximately 5% of these calls were for possible infectious disease conditions. The project will assess the feasibility of using real time EMS dispatch data (First Watch) as an early detection tool for infectious conditions of Public Health Significance entering the U.S. through El Paso International land ports. This will done through use of pre-determined electronic dispatch system triggers and analysis of hospital disposition follows up data.

Assessment of Health Status of recent immigrants

The health status of newly arrived immigrants is not well known, although is believed to be marginal. New immigrants are widely believed to be heavy users of emergency room and community health center services in the U.S. This project will asses overall health status of newly arrived immigrants and refugees. We will assess health status indicators through analysis of data from the immigrant medical exam performed by Mexican Panel Physicians on all new immigrants and refugees approved for permanent/long-term residence in the U.S.

Assignment Location:	CDC Quarantine Station- El Paso, TX
Primary Mentor:	Miguel A. Escobedo, M.D., M.P.H. Medical Officer El Paso Quarantine Station
Advanced Degrees:	M.D., Stanford University MPH, University of California, Berkeley
Secondary Mentor:	Todd Wilson, MPH

	Officer in Charge
	El Paso CDC Quarantine Station
Advanced Degrees:	M.P.H., University of Oklahoma