

This fellowship position is located in Houston, Texas and is a partnership of the Centers for Disease Control and Prevention's (CDC) Houston Quarantine Station (HQS) and 3 Houston area partners: Texas Department of State Health Services, Regional Epidemiology Program; Harris County Public Health & Environmental Services and; City of Houston, Department of Health and Human Services.

The CDC Houston Quarantine Station is operated by the Division of Global Migration and Quarantine (DGMQ), which is part of the CDC National Center for Infectious Diseases (NCID) and is housed in the Federal Inspection Service Building with Customs and Border Protection at the George Bush Intercontinental Airport. Although the Quarantine Station is housed at Bush Intercontinental Airport (IAH), the jurisdiction for Quarantine Activities of this office extends from Oklahoma to the Mexico Border and includes all of the major airports in Texas and all of the seaports. Houston is the 4th largest city in the United States and has one of the largest seaports in the world and the 6th largest airport in the world. The fellow will have offices at Bush Intercontinental Airport, the City of Houston Department of Health and Human Services, and at the Harris County Public Health & Environmental Services.

The DGMQ's primary responsibility is to prevent the introduction, transmission, or spread of communicable diseases from foreign countries into the United States. In order to enforce the legal and regulatory authority of DGMQ in support of its mission, the HQS works closely with other federal authorities (e.g. Customs and Border Protection, US Department of Agriculture, US Fish and Wildlife, United States Coast Guard, Federal Bureau of Investigations, etc.) and local partners (County Health Departments, Aviation partners, marine industry, police, fire rescue, etc.) in tasks such as monitoring the health status of immigrants, refugees and travelers; performing inspections of maritime vessels and cargo for infectious diseases; providing travelers with essential health information; and ensuring appropriate disposition as well as public health action for illnesses on planes and vessels.

It oversees the medical examination of aliens abroad and in the United States, screens arriving international passengers for illness of public health importance, and coordinates with state and local public health agencies to ensure that immigrants receive needed follow up and treatment. It also provides travelers with essential health information through publications and the Internet, responds to immigration emergencies, and collects worldwide health data. Among the Division's most important current activities are surveillance for diseases such as SARS and avian influenza, and developing plans, procedures, and relationships with state and local health departments to respond to outbreaks of these and similar diseases. Hemorrhagic fevers are of special concern to the East Texas region because of the area's extensive ties to the oil industry and parts of the world where such diseases are most common.

The DGMQ is actively involved in preparation for bioterrorism response through collaboration with other CDC components, public health agencies, and the City of Houston Office of Emergency Management.

Harris County Public Health & Environmental Services and the City of Houston Department of Health and Human Services both include programs to control and prevent both infectious and non-infectious diseases. Infectious diseases targeted by these public health agencies include: TB,

STDs, HIV/AIDS and general communicable diseases. Non-infectious diseases and risks targeted by these programs include: injury and violence, chronic diseases, tobacco use, and screening for breast and cervical cancer. The Departments are both very active in state and local bioterrorism preparedness.

The public health activities of the three sponsoring agencies are complementary and will give the fellow experience with a broad range of federal and local programs. The fellow will take part in inspections at the Houston Quarantine Station, and attend emergency planning meetings of the George Bush Intercontinental Airport community, Harris County Public Health and Environmental Services, City of Houston and the Texas Department of State Health Services, and disaster (e.g., hurricane) and pandemic influenza planning activities with the City of Houston Emergency Management Program. Attendance at staff meetings will ensure that the fellow is fully aware of current events and opportunities to become involved in the community.

The possibilities for projects that a fellow could pursue are also broad. While the main emphasis of the position is infectious diseases, there will also be opportunities to explore chronic diseases and sociologic phenomena. These projects may include, but are not limited to:

1. Active surveillance for respiratory and GI disease among airline and cruise ship passengers
2. Detailed description of airline and cruise ship passenger illnesses
3. Assessment of tuberculosis follow up and treatment of immigrants
4. Analysis of use of county health services by immigrants
5. Participation in acute disease outbreak investigations carried out anywhere by DGMQ and locally by Houston, Harris County or the State health departments
6. Any projects being carried out by DGMQ headquarters in Atlanta, GA
7. Exploring and implementing active and passive surveillance methods of passengers, crew and cargo on international and domestic conveyances for indications of communicable diseases
8. Designing and implementing a program for preventing the introduction and spread of communicable disease, by analyzing disease trends, and existing prevention practices
9. Assessing the cost effectiveness of screening for communicable diseases that are transmissible person-to-person, in food handlers or others working on cruise lines
10. Assessing cost effectiveness of screening and/or immunizing cruise line crew against certain vaccine preventable diseases (e.g. hepatitis A, varicella, etc.)
11. Describing public health management (e.g diagnosis, isolation, treatment, quarantine of contacts) of cruise line crew who are ill with communicable disease of public health significance (e.g. varicella, Salmonella typhi, hepatitis A, TB, etc)
12. Describing the incidence of contagious and non-contagious conditions, and other reportable communicable diseases in maritime population arriving in Texas
13. Developing and refining protocols and procedures for public health responses at ports of entry
14. Developing and presenting training to various federal, state and local partners on public health emergency response protocols, communicable diseases and quarantine activities.

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The fellow will receive training and experience in bioterrorism preparedness and response through DGMQ's CDC activities and the intense work being performed by the City of Houston, Harris County, airport and seaport officials.

Assignment Location: Houston, TX

Primary mentor: Steven Harris, MD, MSc
DGMQ Medical Officer

Secondary mentor: Raouf R. Arafat, MD, MPH
Assistant Director
City of Houston Department of Health and Human Services

Associate mentors: Carolyn Fruthaler, MD
Harris County Public Health & Environmental Services

Associate Mentor: Luis A. Gonzalez, M.D., M.P.H.
Epidemiologist, Epidemiology Response Team Leader
Public Health Preparedness, Health Service Region 5/6 South
Texas Department of State Health Services