Infectious Disease-CDC Quarantine Station

A. Program Area Background

Honolulu Quarantine Station offers a unique mentoring opportunity through a fellowship involving a multi-jurisdictional and broad-based, practical program focused on public health program management at U.S. ports of entry. HQS has an ongoing responsibility for surveillance and response to specific communicable diseases at ports of entry in Hawaii, American Samoa, and Guam. Quarantine Station activities involve

- Response to reports of illness or death on airplanes, cargo vessels, and other conveyances at international ports of entry;
- Review of medical records of migrants who will reside permanently in the United States and notification of state and local health departments of specific medical conditions;
- Partnering with other federal agencies and local and state health departments, private medical providers, and hospitals in preparedness activities related to quarantine and isolation at ports of entry;
- Monitoring importations that may have pathogens infectious to humans; and
- Partnering with health departments on emergency response, migrant health partners, and other public health issues.

This fellowship provides real-time, practical, hands-on experiences that enhance the Fellow's understanding of public health practice at U.S. ports of entry in the Central and Western Pacific. In addition, collaborations with State HDOH generate specialized epidemiological and surveillance studies that inform and enhance the understanding of communicable disease transmission involving air or sea conveyances.

Potential Projects

Interdisciplinary teams

The Quarantine and Border Health Services Branch (QBHSB) is comprised of several functional teams that carry out the mission of the Branch. Examples of teams and their functions include: Airline Team (outbreak investigations occurring on airplanes; assessing risk of transmission on airlines); Maritime Team (outbreak investigations on cruise ships and cargo vessels; assessing risk of transmission on maritime vessels); and Alien Processing Team (looking at issues related to QBHSB responsibilities for monitoring immigrant/refugee health, e.g. TB, vaccination status).

Station activities

Daily actions are organized around airport and seaport passenger movements. The projects available for a fellow are wide ranging among infectious diseases, including but not limited to numerous activities:

- Collaborations with US-Affiliated Pacific Island (USAPI) public health providers-partners on evaluation and coordination of ongoing surveillance efforts and non-pharmaceutical interventions related to influenza prevention

- Analyzing demographic traveler data using regional, state, GIS and outbreak surveillance systems, including evaluation of border infection surveillance and intervention systems
- Collaboration with state or military TB authorities in the evaluation of border surveillance systems for migrant and/or immigrant tuberculosis (TB) or multi-drug resistant (MDR) TB, including QuantiFERON-In Tube TB testing for international travelers
- Participation in acute disease outbreak investigations with state public health facilities involving air or sea travelers, specimens or syndromic surveillance data
- Multi-station implementation of research projects in coordination with DGMQ headquarters on communicable diseases of public health importance or significance at U.S. ports of entry
- Public health education with Traveler Health Alert Notices (THAN) to airlines or cruise lines involving reviews of key signs/symptoms with attendant staff

Many of these activities are conducted in conjunction with state public health partners and involve handling and distributing traveler information governed by privacy laws and restrictions (e.g. SSN, passport).

Program/Surveillance System Evaluation

Summaries of project analysis will be presented to local and regional private, state and Federal partners, professional associations, academic centers and lay groups. Feedback from these presentations have the potential to become part of policy solutions to the scientific, economic, and ethical challenges involved in the evolution of an enhanced communicable disease responses or preparations at Honolulu (HNL) International Airport (HIA) and other Pacific ports.

Additional program planning opportunities outline steps for estimates of fever and infections among international travelers. These encompass importation estimates of seasonal influenza, latent or infectious tuberculosis or vaccine preventable communicable diseases. All opportunities will provide insights on public health practice and decision-making via group interactions.

Projects/Surveillance Evaluation

- Evaluation of international aviation and maritime traveler infection surveillance plans with congruent, ongoing state health programs.
- Development of staffing plans and budgets supported by written justifications for port-based public health initiatives.
- Draft consensus documents from multi-party planning meetings with goals and organizational responsibilities.
- Develop and implement interventions that involve collaboration with non-traditional public health practitioner-providers and/or involvement with the at-risk community (e.g. shipboard masseurs, spa-wellness technicians, herbalists).
- Analyze various aspects of overlapping computer data systems (i.e. QBHSB/state surveillance, registries, or information systems) and recommend appropriate actions (e.g., improving reporting delays or targeting limited resources).

• Develop health needs assessments that provide data on the factors contributing to or identifying port public health service gaps (e.g., travel community surveys, emergency systems records review).
• Communicate effective and timely port health risk information to the public (e.g., public service announcement, consumer fact sheets, newsletters, or journal articles).

State and Territorial Emergency Planning Assignments
State and territorial Communicable Disease/Disaster Response planning will provide opportunities for formulations consistent with Hawaii Departments of Health and Civil Defense and appropriate territorial response agencies. Current drafts of port response plans will need delineation into tasks and collaborations between DGMQ, state, county, and territory authorities on an island by island basis. Finally, agreed task assignments and sequences must be set down in a standardized National Incident Management System (NIMS) format consistent with Presidential Executive Orders.

B. Fellow Supervision
All activities will require considerable independent planning and execution, but nearly daily review and guidance is available to maximize fellow benefit. Initiatives will remain consistent with at least three principles: 1) translating science into practice; 2) policy-making and program development; and 3) preparedness program evaluation from these perspectives.

Assignment Location:	**CDC Quarantine Station-Honolulu, Hawaii**
Primary mentor:	William. L. Jackson, MD, PhD, MSPH, MA Commander, US Public Health Service DGMQ Medical Officer, CDC Honolulu Quarantine Station Medical Microbiologist/Epidemiologist, Flight Surgeon (1986-present)
Advanced Degrees:	MD, University of Wisconsin (1983) PhD, University of Wisconsin (1984) MSPH, Meharry Medical College (1999) MA, Naval War College (2007)
Secondary mentor:	Jennifer Brooks, MPH Officer-in-Charge Honolulu Quarantine Station
Advanced Degrees:	MPH, University of Tennessee (1988) BS, East Tennessee State University (1987)
Associate mentors:	Paul V. Effler MD, MPH Chief, Disease Outbreak Control Division

Hawaii State Department of Health