

**ID: 76095076**

**Infectious Diseases, Maternal and Child Health - Host Site Description**

**Northwest Portland Area Indian Health Board**

**Assignment Location:** Portland, US-OR  
Northwest Portland Area Indian Health Board  
Northwest Tribal Epidemiology Center

**Primary Mentor:** Victoria Warren-mears, PhD, RDN  
Director and Principal Investigator, Northwest Tribal Epidemiology Center  
Northwest Portland Area Indian Health Board

**Secondary Mentor:** Sujata Joshi, BS, MSPH  
Project Director, Improving Data and Enhancing Access-NW  
Northwest Portland Area Indian Health Board

**Work Environment**

Hybrid

**Assignment Description**

The fellow will provide NWTEC with support in the areas of general communicable disease epidemiology and maternal and child health, two areas where we currently have limited capacity. The fellow will support both the Epidemiology and Surveillance Unit and the IDEA-NW project within NWTEC. The Epidemiology and Surveillance Unit provides routine surveillance, data analysis, and reporting to Northwest Tribes by responding to Tribes' requests for data and technical assistance, developing community health profiles and other epidemiological data products, and providing epidemiology-related training and capacity building. The Unit's staff includes general biostatisticians and epidemiologists with subject matter expertise in chronic diseases, cancer, substance use epidemiology, and other areas. The IDEA-NW project works to increase Northwest Tribes' access to accurate public health data for their communities by working to acquire and support data sharing activities with Tribal, state, and federal partners, conducting record linkages to improve the accuracy of data for Northwest Tribes, and developing the Northwest Tribal Data Hub to connect Tribes with accurate community-level public health data on demand. The IDEA-NW project team includes an informatician, data engineer, data visualization specialist, outreach and training manager, and intern. The fellow will have the opportunity to support the work of both programs, as well as connect with staff and programs supporting broader data modernization, training and outreach, and health policy initiatives.

The fellow's day-to-day activities will include attending individual and team meetings, completing objectives and deliverables related to the projects and activities detailed in this application, assisting with ad hoc requests and projects, and attending meetings and events offered to all NPAIHB staff. The fellow may occasionally be requested to travel to attend meetings and trainings with Tribal, state, and federal partners, including the organization's Quarterly Board Meetings and site visits with Tribes.

**Describe Statistical and Data Analysis Support, Such as Databases, Software, and Surveillance Systems Available to the Fellow**

Upon completion of required confidentiality training, the fellow will have access to many datasets stewarded and accessed by NWTEC, including vital records, communicable disease, clinical encounter, population-level surveys, and syndromic surveillance data obtained from tribal, state, and federal partners. NWTEC currently conducts most of its analyses in SAS and may transition to R or other statistical software packages in the coming years. The fellow will be given licenses to these software packages and DataCamp to support their use and learning in these packages. Depending on the maturity of the system, the fellow may also be onboarded to the Northwest Tribal Data Hub, a cloud-based data management and reporting tool being developed to modernize NWTEC's data pipelines and data sharing with Tribes.

## **Projects**

### **Surveillance Activity Title: Support timely monitoring and effective reporting of respiratory diseases to Tribal audiences**

#### *Surveillance Activity Description:*

NWTEC currently utilizes syndromic surveillance data from Idaho, Oregon, and Washington to monitor respiratory diseases (Covid-19, flu, RSV) in the American Indian/Alaska Native populations in these states. These data are pulled monthly and shared internally and during NPAIHB's Tuesday update calls with Tribal, state, and federal partners for situational awareness. The fellow will continue and expand on this reporting to ensure timely and effective reporting of respiratory illnesses to inform Tribal prevention and response activities.

#### *Surveillance Activity Objectives:*

##### **Objectives:**

- Gain access to state syndromic surveillance systems and complete introductory trainings on the NSSP platform
- Support completion of monthly reports on respiratory illnesses in the AI/AN population using respiratory disease-related syndromes available in NSSP
- Identify opportunities to improve the scope and timeliness of existing reporting (e.g., expand syndromes included in reporting, change reporting cadence) and expand the reach of information (e.g., identify additional communication channels)
- Identify additional data sources for respiratory illness monitoring and opportunities and challenges for their inclusion in existing reporting

##### **Deliverables:**

- Completion of credentialing and introductory training on NSSP platform
- Monthly reports using existing methods
- Summary of recommendations to expand scope, timeliness, reporting methods, and data sources of NWTEC respiratory illness surveillance

#### *Surveillance Activity Impact:*

This project will help to improve NWTEC's internal situational awareness and external reporting to Tribal and other partners regarding respiratory illnesses in the region. This will assist NWTEC and Tribes in understanding both seasonal conditions and potential emerging threats that require public health response. This awareness will help NWTEC mobilize internal resources to support Tribal responses and facilitate information sharing and coordination between Tribal, state, and federal partners.

### **Surveillance System Evaluation Title: Evaluation of the Northwest Tribal Data Hub**

#### *Surveillance System Evaluation Description:*

As part of its data modernization efforts, NWTEC is developing the Northwest Tribal Data Hub, a secure platform providing NW Tribes with access to reliable, timely, and actionable tribe-specific health data. When fully developed, the Data Hub will provide Northwest Tribes with secure, direct, and easy access to public health data on topics such as demographics, cancer, substance use and overdose, hospitalizations, leading cause of death, and other public health issues within their Tribal area. The information will be presented in dashboards that report data on key indicators for each public health issue, with the ability to choose date ranges, geographies, and other interactive elements. The Data Hub was recently launched to its first Tribal user, with plans to expand to all Northwest Tribes who wish to access the system beginning in the summer of 2025. We have a robust evaluation plan and evaluation tools to collect quantitative and qualitative data from Data Hub users. These data will be used for continuous improvement of the platform, training resources, and other Data Hub user supports.

**ID: 76095076**

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**Northwest Portland Area Indian Health Board**

*Surveillance System Objectives:*

Objectives:

- Review existing documentation related to the Data Hub, including the Data Hub's evaluation plan's goals, objectives, and data being collected to support evaluation efforts
- Develop and implement an analysis plan to access, analyze, and synthesize quantitative and qualitative evaluation data collected during the first year since the Data Hub's launch
- Develop a summary data product (report, dashboard, etc.) and replicable methods to report evaluation findings and recommendations to Tribal and other partners
- Assist the Data Hub team to integrate recommendations in the Data Hub development workplan

Deliverables:

- Analysis plan describing evaluation goals, data sources, methods, and outputs
- Summary data product and code sets
- Updated Data Hub development workplan that integrates evaluation recommendations

*Surveillance System Impact:*

The evaluation of the first year of the Data Hub project will provide information to guide almost aspects of the next phase of the Data Hub's development and implementation. The evaluation will provide the Data Hub team with information on tribal priorities for data, user experiences in utilizing the Data Hub platform, and opportunities to provide users with effective training and other resources on utilizing data in their work. The summary data product and recommendations will provide transparency to Tribal leaders and Data Hub users on how NWTEC will continue to improve the platform and ensure it meets Tribal needs.

**Major Project Title: Regional Community Health Profile (CHP) for American Indians and Alaska Natives in Northeast Washington State**

*Major Project Description:*

The Regional CHP will provide an overview of health conditions impacting American Indian/Alaska Native communities in Northeast Washington State. Data from linkage-corrected death certificates and birth certificates will be analyzed to provide mortality rates and birth-related proportions, in addition to gathering demographic data from the U.S. Census American Community Survey and communicable disease surveillance data from CDC's AtlasPlus tool.

*Major Project Objectives:*

Objectives:

- Review existing documentation related to the linkage-corrected death certificates and birth certificates, U.S. Census American Community Survey, and communicable disease surveillance data from CDC's AtlasPlus tool
- Conduct analyses to provide mortality rates, communicable disease incidence rates, and proportions related to births and population demographics
- Develop data visualizations and interpretations for Tribal and other partners
- Write a report to summarize the findings

Deliverables:

- Analysis plan
- Statistical analysis code set
- Community Health Profile report

**ID: 76095076**

**Infectious Diseases, Maternal and Child Health - Host Site Description**

**Northwest Portland Area Indian Health Board**

*Major Project Impact:*

The Regional CHP can be used to help identify health priorities, apply for funding, develop policy, guide program planning, prioritize research to close data gaps, create targeted and culturally relevant interventions, and track health outcomes over time.

**Additional Project #1 Title: Development of requirements for a respiratory illness dashboard in the Northwest Tribal Data Hub**

**Project #1 Type: Major Project**

*Project #1 Description:*

As previously described, NWTEC is developing the Northwest Tribal Data Hub to improve reporting and sharing of public health data with Tribes and other partners. As the first step in development, each dashboard included the Data Hub must undergo a process of defining the scope and user requirements for the dashboard. This information informs all stages of the development of the data pipeline, from raw data to visualized indicators. For this project, the fellow will leverage their experiences and deliverables from the surveillance activity to assist the Data Hub team in defining the scope and requirements of a dashboard that provides Tribes with timely access to respiratory illness information.

*Project #1 Objectives and Expected Deliverables:*

**Objectives**

- Review NWTEC and other resources related to the Software Development Lifecycle, with a focus on processes and tools involved in the planning and requirements gathering stage of the lifecycle
- Identify and meet with internal and external subject matter experts and future users to document user requirements for the dashboard
- Review and identify opportunities and limitations in utilizing syndromic surveillance data for developing a dashboard within the Data Hub, including reviewing restrictions on data use documented in data sharing and confidentiality agreements with state systems
- With support from the Data Hub team, adapt existing tools to document and organize information gathered from the surveillance activity and user requirements meetings to define minimum and desired requirements to guide the development of respiratory illness dashboard

**Deliverables**

- Synthesis of desired requirements requested by subject matter experts and future users of a respiratory illness dashboard
- Draft of requirements spreadsheet to define scope and minimum requirements/desired requirements for respiratory illness dashboard

*Project #1 Impact:*

The Data Hub team hopes to eventually include real-time information sourced from syndromic surveillance systems in the Data Hub, as this will improve Tribes' situational awareness and ability to monitor seasonal and emerging threats. This project will help the Data Hub team begin defining requirements for a respiratory illness dashboard based on syndromic surveillance data and will provide the fellow with valuable experience in assisting with the initial step of developing a modernized application to report timely public health data.

**Additional Project #2 Title: Assessing Disability Among Children Seen at Participating IHS, Tribal and Urban Programs in the Northwest**

**Project #2 Type: Major Project**

**ID: 76095076**

**Infectious Diseases, Maternal and Child Health - Host Site Description**

**Northwest Portland Area Indian Health Board**

*Project #2 Description:*

The IHS Epidemiology Data Mart (EDM) is derived from clinical data reported to the IHS National Data Warehouse and contains de-identified demographic, diagnosis codes, and visit information for people who have been seen at participating IHS, Tribal, and Urban Programs. Analysis of the EDM will look at the prevalence of children with disability-related diagnoses, the most common disability-related diagnoses, and types of health care services used by children with disability-related diagnoses.

*Project #2 Objectives and Expected Deliverables:*

**Objectives:**

- Review existing documentation and trainings related to the IHS Epidemiology Data Mart
- Conduct analyses to provide descriptive statistics on children with disability-related diagnoses, the most common disability-related diagnoses, and types of health care services used by children with disability-related diagnoses
- Develop data visualizations and interpretations for Tribal and other partners
- Write a report to summarize the findings

**Deliverables:**

- Analysis plan
- Statistical analysis code set
- Data brief

*Project #2 Impact:*

This project will help inform priorities of Tribal communities and direct program planning and development of culturally relevant interventions.

**Please Describe the Fellow's Anticipated Role in Preparedness and Response Efforts – Include Activities and Time Allocation (Required Competency of Fellowship)**

The fellow may have opportunities to participate in and potentially support joint tribal/state tabletop exercises related to emergency preparedness. In addition, the fellow may be able to attend and/or support planning and facilitation during the annual Northwest Tribal Public Health Emergency Preparedness Conference, which is organized by NWTEC. We will work to identify and clarify these opportunities before and during the fellowship.

**Please Describe the Fellow's Anticipated Role in Cluster and Outbreak Investigations – Include Activities and Time Allocation (Required Competency of Fellowship)**

The fellow can analyze retrospective communicable disease registry data related to a past cluster or outbreak and provide recommendations to inform future investigations. They could also work with the IHS Medical Epidemiologist and/or Tribal Public Health staff to support emerging communicable disease investigations. We will work to identify and clarify these opportunities before and during the fellowship.