



NORTHWEST PORTLAND AREA INDIAN HEALTH BOARD

Northwest Portland Area Indian Health Board Community Environmental Health Profiles

The Northwest Portland Area Indian Health Board (NPAIHB) is developing Community Environmental Health Profiles (CEHPs) for Pacific Northwest Tribes through the NPAIHB Environmental Public Health Program. The CEHPs are comprehensive written reports that describe a tribal community's environmental health status, needs, and resources and are developed by conducting Community Environmental Health Assessments (CEHAs) and Community Environmental Health Improvement Plans (CEHIPs). The CEHAs will include collecting, analyzing, and interpreting a system of integrated health effect, exposure, intervention, and hazard data to characterize the community's environmental health status, needs, and issues. The process will also include collecting and incorporating tribal input and traditional ecological knowledge through interviews and surveys. The CEHIPs will map community assets, engage community members, and integrate each Tribe's cultural and organizational strengths into action plans to improve the community's environmental health status and determine how and where resources should be allocated to best meet and address the community needs identified through the CEHA. These efforts will be done in partnership with the Tribes and will be tribal and community-led; for the community by the community.

Resources for the Tribes

- NPAIHB Environmental Public Health (EPH) Program staff expertise and support & Northwest Tribal Epidemiology Center (NWTEC)
- Microsoft Surface Tablet with Microsoft Office Suite (1)
- A subscription to ESRI and Tableau
- Garmin GPS unit (1) and protective case
- In addition, using separate program dollars, the NPAIHB can offer the following to support the effort:
 - Up to \$5K to help support the effort in each community. These funds may be used to cover staff time, provide incentives and honorariums for key informants and community members to provide input into the process, host community meetings to get input/buy-in, print resources, or other expenses directly related to the CEHA and CEHIP process.

Strategy and Methods

We will utilize the Social-Ecological Model (SEM) as a systems-level approach to understand the dynamic interrelations among various personal, social, and environmental factors. The SEM describes a conceptual framework that can be used to understand the multilevel factors that



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influence the health status of individuals and populations and the components that address these influences. The SEM is used in public health as an analytical method to systematically and comprehensively assess and analyze social and environmental determinants of health by identifying and understanding how individual, interpersonal, organizational, community, and policy level factors influence individual and population health status and outcomes. Understanding the many factors influencing a population's environmental health status can help reveal risk and protective factors and help identify effective interventions.

Our method is rooted in the public health approach to problem-solving, which utilizes a systematic, scientific approach to understanding and preventing disease. There are multiple steps in the public health approach, with each phase informing the next, engaging a wide variety of stakeholders with diverse perspectives and experiences. The first step is to define and monitor the problem by asking a question(s), doing background research, and constructing a hypothesis. This might involve utilizing data from various existing resources and databases and collecting information from the public. The second step is to identify risk and protective factors and gather more data, which often entails conducting a comprehensive community health assessment. The third step is to develop and test prevention and intervention strategies (the hypothesis), which requires a multi-stakeholder approach that seeks to engage a variety of individuals representing a vast sector of the population. The final step is to analyze the data, draw a conclusion, and communicate the results to assure widespread adoption through outreach, education, and policy changes. CEHAs are essential to achieving steps one and two, while the CEHIPs help accomplish step three. The CEHP is the product for communicating the results.

We use the 10 Essential Services of Public Health as our core guiding principles and foundational elements of public health practice. The Centers for Disease Control and Prevention (CDC) describes the 10 Essential Services of Public Health as public health activities that all communities should undertake to actively promote policies, systems, and overall community conditions that enable optimal health for all and seek to remove systemic and structural barriers that have resulted in health inequities. This CEHA and CEHIP effort addresses the first two essential services of public health: "assess and monitor population health" and "investigate, diagnose, and address health hazards and root causes."

Timeline/Tasks

This effort will have a similar overall approach in all communities. Still, we will work with each community to identify the exact tasks and corresponding timeframes that are necessary, reasonable, and appropriate. We estimate for the entire process to take 2-6 months. In general, the tasks include:



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- Pre-Planning (~0-1 month)
 - Reach out to Tribe and give program introduction overview, and set up individual one-on-one meetings with tribal EH point of contact and NPAIHB EPH staff
 - Submit a project proposal to the Tribe – follow formal internal processes/resolution & Tribal Council approval.
- Planning (~ 1-2 months)
 - Review indicators, define scope, goals, and objectives
 - Form the team: identify community partners to be included for data collection based on environmental health (EH) indicators
 - Team: Tribal Health Director, Clinic, Community/Public Health Programs, Natural Resources, Environmental, Cultural, Housing Departments, Child Care Centers, etc.
 - Develop individual project timelines, including a specific timeframe for each task
 - The overall timeline is estimated to be anywhere from 2 – 6 months.
 - Identify tasks, roles, and responsibilities
 - Develop a community engagement plan
- Implementation of the Plan (~2-6 months)
 - Phase I: Data Collection
 - The first stage includes the community survey, key informant interviews, and data collection from secondary sources. The Tribe will lead the community survey with the support of NPAIHB.
 - Second stage: All of the local primary data collection (this can also include photovoice and mapping)
 - During this phase, if there is no available data for an indicator (and finding a source and collecting the data will be very time-consuming) or the community is not interested in the indicator, note as so; e.g., data not available or N/A.
 - Phase II: Data Analysis and Interpretation
 - A written document summarizing the process and findings
 - Phase III: Report of Findings and Prioritization of Issues to Address
 - Provide a report to the community and get their input – as well as Tribal Leadership's input – into what priorities (2-5) to focus on over the next 3-5 years
 - CEHA and CEHIP will be "living" documents updated routinely as needed and will rely heavily on tribal input to ensure they adequately address community needs and priorities.
 - Phase IV: The CEHIP is developed
 - Includes action plans for the priority issues, including intervention design and implementation plan



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Outcome Goals/Deliverables

Each tribal community will be provided a Community Environmental Health Assessment report that summarizes the data collection process and findings, as well as a Community Environmental Health Improvement Plan that identifies and prioritizes long-term goals and action items to elevate the status of and better serve the public health of their community members. The CEHA and CEHIP will be compiled into a final report: The Community Environmental Health Profile (CEHP). The CEHP, or sub-parts, may be used for getting funding, developing other projects, implementing policies, or requesting assistance or action from other federal, state, or local agencies. Anticipated long-term outcomes and benefits include the following:

- Improved community EH status results in improved population health
- Improved organizational and community coordination and collaboration
- Enhanced credibility with stakeholders, improved customer accessibility to health services and information, and a better educated and aware customer base.
- Improved government public health infrastructure to deliver essential environmental public health services through an increased number of public health policies, codes, and programs at the tribal level.
- Increased knowledge about public health and the interconnectedness of activities
- Strengthened partnerships within the federal, tribal, state, and local public health systems
- Identified strengths and weaknesses to address in quality improvement efforts
- Baselines on performance to use in preparing for accreditation
- Benchmarks for public health practice improvements