

Establishment of Air and Water Environmental Public Health Indicator (EPHI) Teams

Purpose of Teams is to advise the Environmental Health Work Group (EHWG) on priority projects and programs to identify and develop environmental public health indicators (EPHIs), so as to better assess impacts on public health resulting from efforts to improve air and water quality.¹ Such guidance will help direct new project solicitations (e.g., RFPs) or identify opportunities to leverage ongoing, complementary work.

Team Composition: The Co-Chairs of the EHWG will appoint Federal designees to help facilitate the organization of each team, and then later the coordination and implementation of their respective plans of action. Representatives from the Air and Water Policy Forums will also be included. However, the core of each team will be two representatives from each of the Regional Environmental Health Task Forces who have been designated by their respective Co-Chairs. These individuals will need to be knowledgeable about the environmental health activities present in their regions, and to some extent, activities that are border-wide. Specifically, representatives will need to be aware of ongoing and/or future projects related to improving air or water quality on both sides of the US-Mexico Border. If not completely knowledgeable, these representatives must know whom to engage to acquire such information.

Tasks:

1. *Identify and prioritize extant projects and programs that might contribute to indicator development and validation.*

Each regional representative should be prepared to provide information on air and water projects or programs occurring within his/her respective region, as well as any activities related to “indicators.” Examples of the former might include road paving or border crossing projects; residential water hook-up or disinfection treatment projects, etc. The latter might include monitoring/surveillance efforts, demonstration/pilot projects, or epidemiology studies.

Product: A list of ongoing, or soon-to-be-initiated, environmental programs/projects and indicator activities. In addition, each team will provide a prioritized subset of projects and programs which provide the best opportunity to incorporate EPHIs to contribute further to assessing the environmental and health improvements envisioned. This process will also allow for the identification of similar/complementary projects, data sharing, and possible collaboration and leveraging/addition of resources to such ongoing work.

¹ The types of research envisioned might include, but not be limited to the following objectives:

1. demonstrating the causal linkages between changes in environmental quality and actual changes in a health outcome(s);
2. developing and validating surrogate EPHIs that may be used in the absence of ongoing public health surveillance; and
3. establishing EPHI models that would draw upon limited, but more readily accessible, measures (e.g., changes in environmental concentrations) to predict the anticipated improvement in health. Successful completion of objectives 1 and 2 would provide the critical basis for such models.

After identifying priority programs/projects, each group will need to select a limited set of indicators (3-4) that have value to the Border 2012 program and promise of supplying long-term information on border environmental health.² The indicators picked should involve a hazard, exposure, and health outcome (or State, Exposure, and Effect as defined by the DPSIR model—“See Strategy for Indicator Development”). For example, a town might pave a road (Response) to reduce particulates in air (State) which might be inhaled (Exposure), and ultimately lead to fewer asthma cases (Effect). The data (and ultimately indicator) may only be available for state and effect, but the exposure should still be considered. The support of research on these indicators would then be the near term focus of any project/program supplementation or solicitation issued by the Environmental Health Workgroup.

Product: A limited set of indicators aligned with the health-modified DPSIR model, and appropriate for consideration as linked to priority programs/projects identified in Product 1.

2. *Evaluate inventory of possible Hazard, Exposure, and Health data bases*

Each team will be provided with an inventory of border hazard, exposure, and health databases (where available) to gain a more complete understanding of known monitoring and surveillance activities. The team will assess the inventory for accuracy and completeness, based on the regional knowledge of the team representatives. Knowledge of available data will also likely inform the teams' recommendations of priority programs/projects and indicators.

Product: Identification of gaps in current data bases

It is assumed that the teams will remain intact after this initial task so as to sustain a longer term effort to review and evaluate research results and recommend indicators for incorporation into Air and Water programs.

Task Due Date: The Teams should be prepared to present all products, particularly the proposed indicators and next steps, to the Environmental Health Workgroup within 60 days after the first meeting of each group.

² The EHWG has already recommended its Border 2012 proposed priority indicators. A list of these indicators will be supplied to the teams for their consideration