

Putting Indicators to Work

A Summary of Roundtable Presentations on the Latin American and Caribbean Experience with Environmental Health Indicators

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ABSTRACT

A roundtable was held at the conclusion of the formal conference presentations to present and discuss experiences in Latin America and the Caribbean with indicator selection, implementation and use. Four presentations were given covering the following topics: the Pan American Health Organization's (PAHO) implementation of a core indicators program in the Americas; Latin America's use and application of the WHO developed Driving forces, Pressure, State, Exposure, Effect, Action framework (DPSEEA) for indicators; the Chilean experience in identifying, selecting and implementing indicators for use throughout the country; and finally, the use and application of the WHO DPSEEA framework to the issue of water quality monitoring in Brazil. Each paper presented a summary of knowledge gained to date from their experience and some of the strengths and challenges identified from the various approaches taken. The summary presented here provides a brief overview of the presentations given at the workshop.

RÉSUMÉ

À la fin des présentations habituelles de la conférence, un groupe de discussion a présenté et analysé les résultats des expériences en Amérique latine et dans les Caraïbes en ce qui a trait au choix, à la mise en place et à l'utilisation des indicateurs. Quatre présentations ont abordé les sujets suivants : le rôle de l'Organisation panaméricaine de la santé (OPS) dans la mise en place de programmes d'indicateurs de base dans les Amériques; l'utilisation et l'application en Amérique latine du cadre Forces motrices-Pressions-État-Exposition-Effets sur la santé-Actions (DPSEEA) de l'OMS en ce qui a trait aux indicateurs; l'expérience chilienne de détermination, de choix et de mise en place d'indicateurs partout au pays; et finalement, l'utilisation et l'application du cadre DPSEEA au Brésil. Chaque article résume les connaissances acquises à ce jour dans le contexte de ces expériences et certains des points forts et des lacunes propres à chacune des approches. Ce résumé constitue un aperçu des présentations de l'atelier.

PAHO Health Indicators Initiative: Selection, Analysis, Use and Dissemination of Health Indicators in an International Context

Presentation by: Dr. Carlos Castillo Salgado, Coordinator of Special Program for Health Analysis-PAHO

Created in 1902, PAHO is the oldest international public health agency. The organization has a strong technical and political presence with offices in most of its countries, a field office in El Paso, Texas specifically dealing with issues along the Mexican American border area, and several research centres covering the areas of nutrition, environmental research, and epidemiology. The PAHO core health indicators initiative was started in response to the tremendous inequalities in health that exist in the Americas. This gap had been growing consistently over the past decades with the exception of the 1980s, during which many of the countries in the Americas lost much of their economic capacity, thus reducing the gap in inequalities.

The purpose of the PAHO core health indicators initiative was to provide input for strategic planning activities of PAHO and its participating countries and support the identification, evaluation and monitoring of specific issues. These core data are considered to be the minimum data needed to describe the health situation in a given country, area, or population group. In developing core indicators, we used specific requests from the countries for the inclusion of critical aspects relating to health, such as the inclusion of indicators on smallpox eradication, life expectancy, etc. Many of these elements were needed in all countries, but we also realized that different countries had unique needs and therefore the core data set needed to expand. As a result, it expanded to accommodate several local and regional needs. The process to get to this point took several months. Initially, an inter-thematic group was created made up of the thematic and technical advisors. This group interacted with country representatives who had technical teams supporting them for the selection of their indicators. Initially, more than 6,000 indicators were reviewed. At first, participants wanted all the indicators included, however, as this was impossible, a more practical core of indicators was developed and retained; 117 indicators

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are now included in the core list, with approximately 8-10 in each thematic category.

Since the implementation of this program, we have seen the countries in the region maintaining or showing no change in the status of these indicators, with the exception of the rich countries that have been growing. For almost all indicators, the great differences that were originally expected between some countries can be observed. The core health indicators process attempted to develop common definitions, standard validation procedures, and common communication networks among the participating countries. Currently, 21 countries have adopted the core indicators disaggregated to the sub-national level. This has allowed PAHO, and the individual countries, to address far more than previously possible as national estimates would never have reflected what is happening in various regions inside these countries. To date, all countries, with the exception of Canada and the United States, have developed core data following this format. Through the use of GIS technologies, we have also used the data to show inequalities between groups and geographical areas. A great deal of disaggregated health data are now available for the first time in these regions and PAHO is using these data in the identification of issues and areas needing attention within the countries of the Americas (for examples of applications, see <http://165.158.1.110/english/sha/shasitio.htm> and follow links for "Country Health Data"). Through its use by various groups (communities, health professionals, politicians) and in various applications, these data have evolved into a source of information now used for the most important health analyses and reports in the Americas.

Regional Meeting on Environmental Health Indicators in the Latin American Region

Presentation by: Mr. Alexandrino Maciel, Coordinator of Environmental Surveillance, Ministry of Health of Brazil

Representatives from several countries of the Americas (Brazil, Chile, Costa Rica, and Peru) came together in Washington, DC in November, 1999 to discuss issues

related to indicators for environmental health. Some consensus was reached at this meeting regarding a variety of indicator-related issues (comparability, applicability, identification of at-risk areas to facilitate political action, etc.) as well as the value of the World Health Organization (WHO) DPSEEA framework for indicator selection and organization. Further, a number of priority environmental health issues were identified to which monitoring through indicators could be applied. Priority areas and issues identified included:

- Sanitation – water supply system, sanitation sewer system, excreta and solid waste disposal system
- Workers' health and health of the work environment
- Zoonoses – the control of vectors
- Protection of foods
- Environmental protection – water, air, soil and the biota
- Hazardous waste – chemical substances and radiation
- Natural and technological disasters
- Housing and urbanization.

Further, participants identified a number of actions necessary for the implementation and use of indicators in the Americas:

- Incorporate indicators of environmental health into country health plans;
- Disseminate information generated by the use of indicators of environmental health to production sectors, general population and service providers;
- Orient technical cooperation among countries;
- Orient capacity for the implementation and use of indicators.

The goals of these efforts were to:

- Guide health policies and other sectors involved in education for environmental health;
- Evaluate the projects and programs using the indicators of environmental health;
- Mobilize resources for the implementation of indicators for environmental health.

Participants agreed on the need to proceed with indicator use and the development of a system for environmental surveillance. They agreed on the need to work with basic or essential groups of indicators for environmental health for a specific purpose and finally, recommended that

PAHO should promote an intense mobilization of resources for this purpose. (For further information on this workshop, see <http://165.158.1.110/english/hep/heqare02.htm>)

Chile's Experience in Choosing, Using, Promoting and Disseminating Environmental Health Indicators

Presentation by: Dr. Mauricio Ilabaca, Director, Environmental Health Division of the Ministry of Health of Chile

The national system of public health in Chile is made up of 23 health services, each containing an environmental health team. Regularly, the national health department requests environmental health status information from each region. However, we have realized the challenge in this because of an inequality in data availability among regions and have therefore adjusted the number of indicators for which we request data accordingly. The simplification of this process, through requesting fewer samples, variables and indicators from each region, has improved our response rate and data quality. In order to establish this core group of indicators for which we collect data from each region, we started with 9 main indicators. As the environments are vast and diverse in the country, the regions are invited to propose new indicators according to their own local needs and issues and resources for collection. Ideally, we would like to slowly increase the number of indicators used throughout all regions as regional capacities for collection, organization and management develop. At the national level we are reviewing this information and establishing goals on a quarterly basis, providing training to regions, and taking action on environmental health issues. We are challenged by the fact that a great deal of variability exists between the regions and departments dealing with environmental health in the country. Some teams are comprised of only veterinarians, and have neither engineers nor physicians on staff. This challenges their ability to provide quality data. In closing, the now established national surveillance system is directly concerned with problem-solving and long-term planning. Indicators for management, control, and environmental

health status are an integral part of this work. Indicators currently included in these activities cover aspects of: occupational health, fatal accidents, zoonoses, air pollution, food safety, basic sanitation, urban population health, domestic waste deposition, water quality, chemical safety, and chemical production.

(For more information on this topic, see <http://www.minsal.cl/>).

Brazil's Water Quality Surveillance System

Presentation by: Mrs. M. Lucia Oliviera, Environmental Surveillance, National Health Foundation, Brazil

In Brazil, two workshops have been held to discuss the WHO model for indicator organization. In August 1992, a meeting was held during the Brazilian Presidential Congress to discuss theoretical and conceptual issues with regard to environmental and public health indicators. Recommendations made by participants at this meeting

included the need for various aspects of health and the environment to be covered by any potential indicator selection process, the need for public participation in this process, as well as the inclusion of various existing environment and health indicators related to environmental quality, human exposure and health effects. The following May, the Brazilian Association of Sanitary and Environmental Engineers Congress took place. At this meeting, a workshop on surveillance systems for water supplies was convened, and the DPSEEA framework for indicators was used to discuss and organize indicators on various topics. The model helped the participants identify many inadequacies in the water systems and related policies. For example, currently Brazil's sewer sanitation system reaches 60% of the country but only 20% of the population have access to treatment systems. Nearly 80% of individuals are reached by the water supply but many only get water once or twice a week. By using the DPSEEA framework, the workshop

identified many of the indicators required to identify and monitor these situations and it was realized that much of the information required by many of the indicators already existed. A basis for the national health information system now exists and is being augmented with the national hospital information system, disease information system, mortality data, etc. Eventually, these data will all be included with the drinking water information system that is now under construction. The issue of drinking water surveillance was also discussed at this meeting and an initiative to document the different types of water supplies used by people (e.g., public system, private system, rivers, lakes, etc.) has begun. Many of these information systems are being developed with the hope of making them web-based in the future, ultimately searchable on various geographic scales. Expected completion of the initial data systems in Brazil is 2003.