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Summary Meeting Draft
Report for the Environmental Health Workgroup Meeting
October 6-8, 2003
Juarez, Mexico

Key Participants

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Dr. Mike McGeehin, Director, Division of Environmental Hazards and Health Effects, National Center for Environmental Health, CDC
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Dr. Alfonso Ruiz, Director, PAHO-El Paso Field Office
Ms. Mara Oliveira, Environmental Health Advisor, PAHO
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Executive Summary

Following the establishment of the Border 2012 Program (the new environment and health forum for the U.S.-Mexico border) and the replacement of the Director General for Environmental Health at the Federal Commission for Protection Against Sanitary Risks (COFEPRIS), the Environmental Health Workgroup (EHWG) held a binational meeting on October 6-8, 2003 in Cd. Juarez, Mexico. The purpose of the meeting was to develop lines of action and coordination with the Air, Water and Pesticide Workgroups in preparation for the Border 2012 National Coordinators meeting to be held December 4-5, 2003. The overall Border 2012 Program is organized by the U.S. Environmental Protection Agency (EPA) and the Mexican Secretariat for Environment and Natural Resources (SEMARNAT).

The meeting included approximately eighty persons from US and Mexican sides of the Border representing environment and health from the state and federal ministries.

In addition, representatives from academia and non-governmental organizations were present.

The agenda was built around five subject areas of mutual interest between the EHWG and other groups formed under Border 2012: Air, Water, Pesticides, Human Capacity (training/education), and Information Technology (data sharing/communication mechanisms along the Border). It also included reports from SEMARNAT and EPA on overall progress of the Border 2012 Program, summaries on the regional consultations conducted by EPA, discussion of the U.S.-Mexico Border Health Commission (BHC), initiatives and projects of the Panamerican Health Organization (PAHO) and discussion of health indicators.

Highlights of the meeting discussions included the following topics:

- Intent to establish a formal partnership between the EHWG and the BHC.
- Further focus and direction for the groups working on Water, Air, Pesticides, Training and Communications to be shared with the Region Groups at the upcoming National Coordinators Meeting December 4-5, 2003.
- Better delineation on indicators to link environmental and human health data, and on development of outcome measures to better assess the improvements in human health that may accompany improvements in environmental quality (e.g., air).
- Indicators of outcomes and program success were also discussed. For example, proposed development of an integrated US-Mexico surveillance reporting system for diseases as a measure of success for the air, water and capacity building programs, and to direct future interventions.
- Agreement to capture information on ongoing training opportunities in Environmental Health specifically in the area of distance learning certification and post graduate degree programs being formulated by FUMEC with support from PAHO. Continuation of training programs for the reduction of pesticide exposures with the results of the SENSOR program used as measures of success were also proposed.
- PAHO, BHC and Border 2012 to explore electronic mechanism for capturing a directory of health, environment, and other key organizations/officials using the “Yellow Pages” pilot project as a baseline. Approaches and possible mechanisms of data collection and dissemination at local and border-wide levels were also discussed.

Meeting Summary

The meetings were presided by co-chairs Dr. Miguel Lombera, Director for Mexico’s Federal Commission for the Protection Against Health Risks (COFEPRIS), SALUD, Dr. Harold Zenick, Associate Director for Health, National Health and Environmental Effects Research Laboratory, ORD/EPA, and Mr. Richard Walling, Director, Office of Americas & Middle East.

Meeting Purpose

The United States and Mexico, co-chairs of the Environmental Health Work Group (EHWG), convened at the annual meeting of the EHWG on October 7-9 2003 in Ciudad Juarez, Mexico. EPA and SEMARNAT, through a series of meetings with federal agencies, US-Mexico Border States, communities and regional workshops, have been reshaping a new program for environmental and environmental health concerns along the border. The focus of the meeting was to review the outcome of previous meetings and other border health program planning exercises to help reshape future developments.

Tuesday, October 7, 2003 (Day 1)

The co-chairs delivered a welcome message along with a review of the purpose and goals of the meeting. Summary presentations were given by the Federal EHWG Coordinators from EPA, SEMARNAT and COFEPRIS on the Border 2012 plan and EHWG goals and objectives.

An overview of the new Border 2012 program was presented by Omar Rodriguez, SEMARNAT. The National Coordinators, EPA and SEMARNAT will lead the efforts of the working groups which include: the Regional Workgroups (RWG), Border Workgroups (i.e. Environmental Health), and the Policy Forums which address binational media-specific issues (air, water, soil-waste) in accordance to each Country's policies and regulations. A new addition to the program is the competitive fund allocation process for the first set of projects under Border 2012 (EPA/OIA). A similar mechanism will be put in place by SEMARNAT.

Dr. Miguel Lombera, Director for COFEPRIS, summarized the EHWG goals and objectives, and ongoing projects on the following focus areas: Air, Water, Pesticides and Capacity building. Data on monitoring and surveillance generated by the Information the National System for Epidemiological Surveillance (SUIVE), the Secretariat of Social Development and Statistics Branch was also presented.

A review of all the Regional Group meetings was scheduled for the afternoon session. Presentations were delivered from representatives from the EPA regions 9 and 6 (Border Offices), US- Border Health Commission, and the Good Neighbors Board.

Dr. Lee Passarew (OIA) presented an overview of the overall progress and meetings held with Border 2012 partners along with recommendations for the EHWG. All four Regional Workgroups for the Border have started the dialog with partners by holding meetings. The BNC meeting will take place November 12 in D.C. In addition, a National Coordinators Meeting is scheduled for December 2-4 in Matamoros, Mexico. All Border-wide Working Groups and Policy Forums (except EHWG) will have a first meeting at the NCM.

Highlights of the meeting on "Indicators of Progress" co-sponsored by the EPA, OIA, the US-Mexico Chamber of Commerce and The Border Trade Alliance in Rio Rico

California were also presented. For detailed information see the Executive Summary prepared by the Southwest Center for Environmental Research and Policy. A list of general recommendations was generated from the proceedings of this meeting. Examples are (1) the development of a binational baseline indicator suite to serve as an assessment tool for program effectiveness; and (2) designation of unofficial binational common sister-city airbasins for measurement of air pollution (one common/binational indicator for air quality).

Lorena Lopez Power talked about the Task Forces created according to regional environmental priorities and specific projects proposed. General priorities considered by the new Border 2012 program include:

- Solid Waste- Impacts of Undocumented Immigrants
- Extend Outreach & Communication to Tribes in Mexico
- Lack of Water Infrastructure- Ambos Nogales, Water Quality Issues in Northern Sonora/Eastern AZ
- Air- PM₁₀ Impacts

The regional workgroup session concluded with a presentation by Dr. Amandina Ortiz for Healthy Border 2012. The commission put in place the bi-national and border-wide program titled "Healthy Border 2010" (formerly known as Healthy Gente) to accomplish the following: (a) to institutionalize a domestic focus on border health which would transcend political changes, and (b) to create an effective venue for bi-national discussion to address public health issues and problems. This program has set 20 main objectives including improvement of access to health, focus on diseases and issues affecting public health (e.g. cancer, diabetes, tobacco use, environmental health) and parallel indicators of success (*Indicadores de resultados*). For detailed information of this health and prevention agenda see "*Healthy Border 2010: An Agenda for Improving Health on the U.S.-Mexico Border*" published in October 2003.

The commission plans to build the capacity of successful initiatives such as the Promotoras program in Dona Ana County, NM. This program uses health workers (Promotoras) to visit local residents and provide assessments on several focus issues (i.e. hazardous household products), provide education and information, and to evaluate the effectiveness of their strategies. U.S.-Mexico Border Health Commission web site: <http://www.borderhealth.net>.

The second part of the afternoon was dedicated to several presentations on Indicators. Binational Indicators of human and environmental health, as well as, indicators of progress and program success are a major focus for the new Border 2012 program.

The Panamerican Health Organization (PAHO) was represented by Dr. Alfonso Ruiz who offered a Global perspective on the organization's approach to the development of Public Health Indicators. Environmental, Socioeconomic, behavioral and Health System determinants were considered for the development of public health for the border. PAHO has conducted numerous workshops to define, select and harmonize Public Health Indicators for the border area since 1999. As a result, indicators have been developed for

the main thematic areas of air (indoor and outdoor), water, pesticides and waste among others. Important recommendations made included the following:

- Need for intersectoral collaboration for information exchange
- Greater understanding on environmental public health indicators programs
- Improvement of infrastructure
- Harmonization of concepts, measures and standards

Dr. Van Schoik, (SCERP/CIPAS) discussed the roles and challenges of the development of program indicators, and environmental health (EH) indicators, as well as, lessons learned using the Border Institute V. Indicators serve to determine status, design and evaluate and optimize returns on community-based programs. A number of general recommendations on indicators were presented. It is important to harmonize the selection, collection and database development according to the needs of the users. The indicators should be bi-national, but measurable locally i.e., sister cities. Pre and post-assessments must be performed in order to measure outcome. These initiatives should include the participation of the private sector, and other partners with expertise such as EPA (State and Federal), PAHO, BHA, CEC, GNEB, BHC.

Specific recommendations for ambient air included the need for adequate monitoring stations, operation, maintenance, and reporting system for good quality data collection. For example, the use of "pulmonary distress" was suggested as the primary indicator. Cost-benefit analysis to determine the best remedies were recommended prior to implementation. Development of evaluation of indoor air should also be included.

A presentation on Environmental Public Health Indicators was delivered by Dr. Michael A. McGeehin, Director, Division of Environmental Hazards and Health Effects National Center for Environmental Health, Centers for Disease Control and Prevention (CDC).

The Environmental Public Health Indicators Project (EPHI) was conducted by NCEH/CDC in collaboration with CSTE, EPA, ATSDR, NACCHO, PHF, APHL. The goal of this project was to incorporate non-infectious diseases into a national public health surveillance system. The objective was to identify a core set of environmental hazards and health effects for which there will be unified and systematic national reporting system. The EPHI will conduct surveillance of status and trends, program and policy development/evaluation, and build core capacity to respond to problems. The EPHI Project will identify leading public health indicator suites and develop measures to evaluate all aspects of the project success, followed by appropriate remedial interventions. This group plans to work closely with experts on similar indicators including PAHO, Canada, and the WHO-European Office. Candidates for indicator suites for air and water are currently under development.

Dr. Antonio Barraza Sanchez presented several projects/ products of the Federal Commission for the Development of Environmental Health Indicators. These included:

- The Diagnostic Project of Occupational and Environmental health conducted in 2001 (DGSA/COFEPRIS)
- The Basic Environmental Health Indicators for the US-Mexico Border XXI, 2001(PAHO)

- Children's and Environmental Health Indicators in North America, 2002 (CCAAN), Cumbre Mundial de Desarrollo Sustentable
- Healthy Environment for Children , (OMS), Cumbre Mundial de Desarrollo Sustentable
- US- Mexico Border 2012

Examples of products from these programs include: a list of 24 Indicators in agreement with the Mexican infrastructure, Indicators for the US-Mexico Border on main thematic areas (i.e. air, water, etc) and development of health indicators specifically for children (e.g. respiratory and gastrointestinal disease indicators).

Tuesday, October 8, 2003 (Day 2)

The agenda for the second day was built around five subject areas of mutual interest between the EHWG and other groups formed under Border 2012: air, water, pesticides, human capacity (training/education), and information technology (data sharing/communication mechanisms along the Border).

Air

Representatives from EPA and SEMARNAT presented current efforts and directions.

William Luthans (Region 6) and Christine Vineyard (Region 9) talked about priorities (past and current) and directions. During the Border XXI program the focus was on: (1) putting in place a monitoring network, (2) creating regional emissions inventories of the "Northern Mexican States" air basin, (3) creating implementation plans, (4) creating the Border Energy Project Website (for improvement of the environmental quality through the promotion and use of energy efficient equipment). Air quality attainment status is being monitored for the following air pollutants: O₃, PM₁₀ and CO (PM_{2.5} will be included also) on several border regions. For example, air quality measurements showed that the El Paso/Juarez air shed reflected non-attainment for 1-hr for O₃, PM₁₀, and CO. New priorities will be implemented at the regional as well as border-wide level. The major focus of Border 2012 will be to control ambient pollution of Particular Matter (PM₁₀ and PM_{2.5}) as well as their sources. The data obtained from monitoring and emissions inventory investment under Border XXI will assist in the identification of emissions reducing projects under Border 2012. The regional workgroups, task forces, and stakeholder groups will work together to put into action the control measures and recommendations made in the Implementation Plans developed under Border XXI.

Guadalupe de la Luz (SEMARNAT) mentioned the strong commitment of the US and Mexican governments to work on an integrated strategy to improve air quality. Pilot projects are under way to evaluate and facilitate the information exchange related to the airbasins, project planning, management, and application of innovative approaches.

Reports for these initiatives will be presented at the border forums. This Program is focused on monitoring/control ambient air pollution (e.g., PM₁₀), reduce vehicle emissions, improvement of technology and modernize infrastructure for regulations. SEMARNAT is working on the Border 2012 Program goal of reducing air pollution by the year 2012.

Water

Representatives for the EPA and CAN proposed to improve infrastructure for bi-national information exchange. New and improved fresh water monitoring technologies are being used for contact water (Imperial and Corpus Christy Beach). There is local interest in performing cost-benefit analysis for monitoring technologies for sewage systems.

Several capacity building efforts are being lead by FUMEC in collaboration with local Universities and INSP (Environmental Health accreditation program).

Pesticides

Kennan Garvey, EPA/OPP, described the cross-Border Pesticides Efforts Supporting Border 2012 (see Cross-Border Pesticide Activities, NIEHS Environmental Health Perspectives, August 2003). Partners in this effort include the NAFTA Technical Working Group (TWG) on Pesticides, NA CEC, U.S./Mexico Pesticide Info Exchange (USMPIE), SENSOR program, and the Health Care Providers Initiative. The NAFTA TWG on pesticides includes pesticides associations from Canada (CropLife America-CLA), USA, and Mexico (AMIFAC), and is the primary liaison with NAFTA TWG. Initiatives include (1) efforts on building capacity at the level of the health practitioners as well as pesticide users (i.e. workers handling pesticides), and (2) at the level of pesticide toxicity surveillance and information dissemination across the border. USMPIE is the local mechanism for information dissemination, while SENSOR surveillance program is a more formal notification system for Occupational Risk Tracking of acute occupational pesticide-related illness in U.S. For more information on NAFTA visit <http://www.epa.gov/oppfead1/international/naftatwg/>.

Stephen Hern presented highlights of the *Pesticides in Young Children – Border States Program*, designed to assess the relationship between health outcomes in children living along the United States – Mexico border and repeated pesticide exposures via multiple sources and pathways. There are several completed projects and others are being completed. Project summaries and presentations can be found at: www.epa.gov/orsearth/.

Building Human Capacity

Ana Rosa Moreno presented information on FUMEC (US-Mexico Science Foundation). The goal of this program is build human capacity by producing competent graduates on the concepts and methods of risk assessment and communication applicable

to countries in Latin America and the Caribbean. Emphasis will be given to development of expertise on border-related environmental health issues. The objectives are to develop bi-national environmental health workshops, and a full graduate training program in collaboration with local Universities and other institutions. Partnerships: PAHO, Local Universities, INSP, OPS, Research Center, The Border Commission, University of Massachusetts, EPA, INSP, OPS, and ATSDR, local government resources and UCLA-FOGARTY.

Mara Oliveira, Sanitary Engineering, PAHO is actively working on building human capacity by conducting training on Epidemiology, GIS, Public Health, Entomology and Toxicology. Training efforts have been developed and adapted to local needs with the collaboration of University of Arizona, SALUD, CDC and ATSDR. Another initiative is the Bibliografic database informatics project. This is a virtual library with links to all types of information gathered from different border initiatives, as well as health-related information.

Tuesday, October 9, 2003 (Day 3)

The last day of the meeting was dedicated for a summary of actions, reaching consensus on the next steps and identify responsible parties.

General issues highlighted:

- Need for improvement of communication and data flow across the Border. Any platform generated for dissemination of information should be useful for a broad audience (information generators and users)
- Harmonization of bi-national information to be able to compare data
- Discuss the challenges of continuity of data collection
- Centralized information source needed for data flow at the local level. Federal information is rarely distributed at the local level. The municipal, State and Federal arms need to be present at the local meetings to exchange information
- Mechanism needed to integrate data from all the EHWG initiatives, and communication with the other workgroups
- Forum should also be used to educate regulators
- Air
 - Regional Air workgroups should develop health indicators to link to air quality standards
 - Need for a bilingual air quality center - Information should reach the community
 - Need for a border Web site with access to air quality information

Action Items Identified:

- Inventory of all training activities. This will allow for the reduction of redundancy, focus on border-related problems and help determine what training is needed for each of the EHWG thematic focus areas

- White paper on each thematic focus area: air, water, pesticides, human capacity (training/education), and information technology (data sharing/communication mechanisms along the Border). An outline has been composed for discussion and selection of appropriate participants.
- Create a directory of health, environment, and other key organizations/officials using the “Yellow Pages” pilot project as a baseline. It was proposed to use the organization/job title instead of the name of the person due to high turnover of local authorities and representatives.
- Proposal for the implementation of Environmental Health Indicators Workgroup that will gather existing work across the Border. PAHO offered to coordinate these efforts.

WHITE PAPER OUTLINE FOR EHWG PRIORITY AREAS

DRAFT

- I. Authors:** For this “quick turn around exercise, the writing group should be no more than 4-8 people perhaps drawn from:
EPA/DHHS, SALUD, SEMARNAT, 1-2 States, Others

II. Background:

III. Binational Environmental Health focus areas.

- Air
- Water
- Pesticides
- Human capacity (training/education)
- Information technology

IV. Currently Available, Relevant Environmental Monitoring, Biomonitoring or Health Surveillance Data Sets

- (a) Focus on environmental public health indicators that can be evaluated equally on both sides of the border e.g. respiratory distress used as an indicator for effect or air pollution on exposed population- Baseline approach (as recommended by indicators workshops)
- (b) Different kinds of indicators (see grant proposal and provide examples)
- (c) What is available at the moment
- (d)What has been proposed by focus area

At this stage, an all inclusive list is not needed, but rather a quick inventory of what is available and perhaps some characterization of the data set (e.g., temporal and spatial parameter, population covered, etc). (Two examples presented at the meeting were the soon-to-be-released air emissions data base and the extensive pathogen-relating reporting system described by Dr. Lombera). In this section, some discussion should be provided as to already developed indicators that could be used to monitor the status of the health issue you are addressing.

V. Data Gaps/Needs

A description of the environmental and/or health data needed. For example, there may be a rather complete, and routinely gathered data set on stationary source emissions but no systematic health surveillance in place for pulmonary and/or cardiovascular-related illness.

VI. Recommended Next Steps

- This could be based on grant proposals accepted or proposals
- possible demonstration pilot projects to develop/validate
 - potential collaborators