US EPA ARCHIVE DOCUMENT
Border Indicators: Moving Forward
A Working Meeting
El Paso TX, May 4-5, 2004

A. General Information

Hosted by: Pan American Health Organization, El Paso Field Office

Place of meeting: Camino Real Hotel, El Paso, TX

Sponsored by: Border 2012 Indicators Task Force (BITF) & Environmental Health Work Group (EHWG)

Agenda: See Appendix A
Participants: See Appendix B

B. Meeting Objectives
- To identify projects to be supported in the near term;
- To lay out steps/assignments/timetable to develop a long term strategy for fiscal year ’05 to establish a plan to move from planning to action.

C. Meeting Summary Report

<table>
<thead>
<tr>
<th>Key Point</th>
<th>Contribution</th>
<th>Presenter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information System to collect environmental data along the border</td>
<td>It is a priority to define an information system to collect environmental health data</td>
<td>Enrique Suarez</td>
</tr>
<tr>
<td></td>
<td>There is a need to develop capacity in health care providers related to diagnose environmental health diseases</td>
<td>Enrique Suarez</td>
</tr>
<tr>
<td></td>
<td>Need to make data already collected accessible</td>
<td>Eric Hudson</td>
</tr>
<tr>
<td></td>
<td>Need for greater surveillance</td>
<td>Michael McGeehin</td>
</tr>
<tr>
<td></td>
<td>Lack of a location to place data collected</td>
<td>EPA Region 9</td>
</tr>
<tr>
<td></td>
<td>Ojinaga/Presidio a good example of collaboration</td>
<td>Guillermo Mendoza</td>
</tr>
<tr>
<td></td>
<td>Maps and GIS are there, but it is pivotal to collect the proper data</td>
<td>Victor Valenzuela</td>
</tr>
<tr>
<td>Environmental Health Indicators</td>
<td>Need to select simple indicators that mean something to the public</td>
<td>Nora McGee</td>
</tr>
<tr>
<td></td>
<td>Possibility of using proxy indicators</td>
<td>Eric Hudson</td>
</tr>
<tr>
<td>Ongoing Research Projects</td>
<td>Applied research made by UTEP-CERM</td>
<td>Veronica Corella-Barud</td>
</tr>
<tr>
<td></td>
<td>Respiratory Health Research</td>
<td>Victor Valenzuela</td>
</tr>
<tr>
<td></td>
<td>Pathology agents related with gastrointestinal diseases and quality of drinking water</td>
<td>Kevin Oshima</td>
</tr>
<tr>
<td>Selection of Environmental Health Indicators</td>
<td>GIS work being developed by PAHO</td>
<td>PAHO/Victor Valenzuela</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>-----------------------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>Narrow down to 1 or 2 indicators for each area and test their utility</td>
<td>Rick Van Schoik</td>
<td></td>
</tr>
<tr>
<td>Binationality is important</td>
<td>Several participants</td>
<td></td>
</tr>
<tr>
<td>Need to probe relationship between data and environmental diseases to advise public, legislators, potential funders, and funding resources</td>
<td>Several participants</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pilot Environmental Health Indicators Research Projects</th>
<th>Funding</th>
<th>There will be funding available for 2 to 3 research projects</th>
<th>Michael McGeehin Hal Zenick</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAHO will be the funding agent</td>
<td>Hal Zenick Michael McGeehin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Characteristics of projects</td>
<td>Up to 24 months</td>
<td>Need to have concrete results, whether they are positive or negative to find the relationship between environmental indicators and health</td>
<td></td>
</tr>
<tr>
<td>Request for Proposals</td>
<td>The Border Health Commission will help with dissemination of RFP</td>
<td>Eva Moya</td>
<td></td>
</tr>
<tr>
<td>Ideas for pilot projects</td>
<td>CDC/EPA/PAHO will develop the proposal after collecting ideas from this meeting</td>
<td>Hal Zenick Michael McGeehin</td>
<td></td>
</tr>
<tr>
<td>Level of training about the proper use of pesticides and rate of admissions to a toxicology center</td>
<td>Several participants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage of children under 5 with diarrhea and percentage of people connected to the public sewage</td>
<td>Several participants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Involve Mexican academics using relationship with Instituto Nacional de Salud Publica</td>
<td>Hal Zenick</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

D. Meeting Narrative

Tuesday May 4, 2004
Introduction was made by Hal Zenick of EPA and Michel McGeehin from CDC and opening remarks were made by Steve Young and Salvador Sanchez Colon, co-chairs of the Border 2012 Indicators Task Force. Participants had the opportunity to introduce themselves.

Goals of the meeting were stated as:

- Identify projects to be supported in the near term
- Lay out steps/assignments/timetable to develop a long term strategy for fiscal year '05
- Try to move from planning to action.
Steve Young (BITF) explained that since the BITF was established, it had the goal of building on team projects along the border and developing strategies to work on indicators of environmental health.

Salvador Sanchez Colon (BITF) added that the goals of the border indicators task force are to work in close collaboration with other Border 2012 task forces, and produce a set of indicators that are useful in predicting the quality of air, water, environmental health, etc. The BITF program was achieving its immediate goals and producing resources for the program. It was important not to be redundant between task force projects.

Then, presentations were made in the following order. Presentations can be provided upon request.

- Region 6: Bill Luthens/Norma Duran
- Region 9: Nora McGee
- PAHO: Piedad Huerta
- SCERP: Rick van Schoik

The next part of the agenda was initiated by Rick Van Schoik, regarding what projects are already underway or soon to be initiated from the participants.

- SCERP: Rick van Schoik and colleagues
- PAHO: Piedad Huerta
- Region 6: Bill Luthens/Norma Duran
- Region 9: Nora McGee
- Air Policy: Mike Hadrick
- Victor Valenzuela
- Water Policy: Kevin Oshima-New Mexico State University
- Other: USGS Meeting – Salvador Sanchez Colon

**Major points made during the session were:**

Norma Duran: There are only bits and pieces of information. It is not consolidated yet.

Dr. Enrique Suarez mentioned the priority was 1) to have the information about environmental health data and 2) to define and create consensus for an information system to obtain and collect the data. Environmental health is very abstract; there is no information system to provide us with concrete information. It is necessary to develop the capacities of health care providers to increase proper diagnoses and make the relationships with disease and environment.

Eric Hudson mentioned that there is a need that the information collected be accessible and available. There is a lack of data on asthma, pesticides, and gastrointestinal diseases.

Dr. Michael McGeehin pointed out that there is a need for greater surveillance. There is no ongoing collection of data in the USA. There are only discrete efforts.

It was discussed what the financial cost of having economical indicators available to the public. Nobody among the participants knew the cost.
Dr. Hal Zenick said EPA is trying to leverage some financial resources from NADBank and the challenge here is how to sustain such efforts and to determine feasible environmental health indicators.

Eric Hudson introduced the idea of using proxy indicators as with fecal coliform sampling vs. e.coli.

EPA Region 9 pointed out that there is no real location to place the information collected. And they asked if the health indicators research should be done based in risk perception or in data availability.

EPA Region 9 spoke about their approach of selecting simple indicators that appeal to the public (mean something to the public).

Steve Young pointed out how everybody needs to keep in mind the Border 2012 Agreement as the pivotal piece to start working in this field.

It was stated that this is not a public risk assessment business, rather an indicators business, therefore providing (identifying) environmental health indicators is one of the priorities.

After the presentation of Veronica Corella-Barud about some concrete applied research and interventions made by UTEP-CERM, CDC pointed out how infant diarrhea is a good indicator.

Victor Valenzuela pointed out the need to train Mexican technicians to maintain the surveillance system.

Carlos Rincon stated that University personnel should be considered since they are more stable in their position.

Dr. Mendoza stated that Ojinaga/Presidio coordination in research and surveillance is a good example of collaboration. One agency does the training; another does the data collection, and so on.

EPA Region 9 told the group that there is a need to let the public know (make sure they know) where we are going with all this research and effort, since they are the ones financing.

Salvador Sanchez Colon made the point of keeping in mind joining other initiatives and the need to organize a meeting among Border 2012 Indicator Task Force and US-Mexico Border Health Commission and USGS-US/MX Border Environmental Health Initiative.

It was acknowledged the importance of narrowing down to 1 or 2 indicators for each area (air, water etc.) and work on collecting and testing if the selected EHI’s were actually good indicators or not.
The first day ended with a discussion about the next day’s agenda for participants to provide input to the BITF.

**Wednesday May 5, 2004**
The day started with a presentation by Eva Moya (US-MX Border Health Commission) where she stated:

- There are opportunities at the Border, the experts, the organizations and the willingness of the people are there.
- The commission will help with dissemination of the Request for Proposal (RFP)
- The commission will offer their on-line resources to help the goals of the BITF
- Their willingness to include statistics on environmental health along with other issues such as diabetes, tuberculosis, substance abuse, immunizations and HIV/AIDS that make up the main health problems of the border (Mexico Frontera Saludable).

Dr. Michael McGeehin stated that there was funding available for 2 to 4 research pilot projects through PAHO-FEP. The participants were told that identifying opportunities and specific research areas related to health indicators was the goal of the second part of the meeting. Such projects should be innovative and accomplished in a 12 to 24 month period. The RFP will be prepared after the meeting. He asked if there is any other ongoing research projects that can be funded and sees opportunities of “piggy backing” with them.

Dr. Enrique Suarez talked about doing projects to establish environmental factors, like having indicators that relate environmental factors with gastrointestinal diseases.

Dr. Michael McGeehin asked for clarification, if what they were saying was that it would be a benefit to look at gastrointestinal diseases as indicators along the communities on the border.

Dr. Suarez verified gastrointestinal data was valuable and stated that in their organization they have promotoras (health promoters) which have the role to inform the community and potentially could collect indicators data. He gave the example about acute respiratory disease rates in children under 5 and related it with housing conditions, economic situation, level of education and smoking conditions.

The group discussed the need for indicators to be binational and the need of a location to place all the information available. The possibility was discussed of comparing 2 communities at different levels of exposure and being able to link percentage of children under 5 years with diarrhea to the percentage of people connected to the sewage system, therefore being able to say that if we have sewage to a specific percent we will be able to decrease diarrhea rates among children under 5.

Other possible projects mentioned were to link percentage of people with knowledge (as people attending trainings and educational campaigns) and rates of environmental diseases.
Other examples given mentioned the level of training about proper use of pesticides and the rate of admissions to a toxicology center because of poisoning.

Dr. Hal Zinick said that there is a great need to go beyond the indicator word and go on to probe the relationship between data and environmental diseases. For EPA, it is critical to support and to strengthen the BITF work based on Border 2012.

Salvador Sanchez Colon stated that they, BITF, would like to pose questions the other way around and ask what Environmental Health Work groups have been doing instead of the BITF telling them what they are or what they are going to do or what they want other work groups to do. The BITF is trying to learn and identify the key players and key actions from the different Border 2012 working groups.

Steve Young noted that one important piece of information that came out of this is that PAHO is doing GIS work, and that this will allow for better information access. Steve stated that to make data more available and disseminate it in the area, it is important to make it more visible to a broader population and all regions.

Victor Valenzuela stated that data available through INEGI has been converted to GIS maps and data by PAHO, but there is still a need to find epidemiological data on environmental health to add to this data set.

Rick van Schoik shared the idea of providing money to the communities so they can obtain and develop a baseline for their environmental health indicators.

Dr. Hal Zinick affirmed that it is very important to have an indication of the progress of the BITF group and Border 2012 work. There is a lot of work, but no indication of progress, and the public and congress needs to know that relationship. We need to make a better link among our work and health, and as a consequence more resources can be applied to this work.

After a long conversation about pre-post EPI studies versus pilot project research the agreement was to develop surveillance studies about the effectiveness of health indicators along the border. CDC stated that it was OK if a pilot project was carried out and they find no correlation between environmental indicators and health.

Eric Hudson stated that since there are a lot of unknown factors about asthma and that it is difficult to demonstrate relationships, a possible solution could be the use of proxy indicators.

Norma Duran shared a list of proposed projects submitted to EPA region 6 to be funded with the group and asked for possibilities of co-funding on those kinds of projects.
Dr. Michael McGeehin again remarked on CDC’s willingness to fund pilot projects along the border for up to 2 years with the goal of having concrete results about environmental health indicators.

Steve Young started to close the session noting the need to capitalize on the work that was done so far, and make it available and visible to the public and stakeholders. Also, they want to create mechanisms to communicate with other taskforce groups and provide and receive feedback. They intend to move from strategies to actions with more realistic approaches and use a bottom up approach.

Dr. Hal Zenick stated that it was very important that the group establish a relationship with INSP (Instituto Nacional de Salud Publica) and through them the possibility to involve academia on the Mexican side of the border in the EHIs work.

Rick Van Schoik from Southwest Center for Research and Policy (SCERP) asked if BITF could come up with a draft of 1 or 2 indicators to be used as a base to develop pilot projects. As a consequence, taskforce groups could work with that draft list and debate about them and choose the proper ones.

Salvador Sanchez Colon suggested looking for the basic data available through the Border Commission and INEGI and USGS.

Dr. Enrique Suarez suggested studies to obtain a base line of possible environmental factors and correlate them with diseases and from there produce or choose more useful indicators.

EPA Region 9 was questioned about having some indicators identified in their work in the border, but they mentioned their struggle.

After thanking the participants the session was closed by stating that the work will continue and the Request for Proposal (RFP) will be developed and disseminated through PAHO to all the participants.

E. Conclusions and Recommendations

- CDC/EPA/PAHO will summarize participant’s contributions during the meeting and will develop a Request for Proposals.
- Funding will go through PAHO-FEP.
- There is funding available for 2-5 pilot projects.
- Innovation should be part of pilot project design.
- Research projects should aim to develop the usefulness and effectiveness of Environmental Health Indicators along the border and enhance surveillance.
- Mexican academics are encouraged to become involved in the discussion and research.
APENDIX A : AGENDA

Border Indicators: Moving Forward
A Working Meeting
May 4-5, 2004
El Paso, Texas

Sponsored by: Border 2012 Indicators Task Force (BITF) & Environmental Health Work Group (EHWG)
Host: Pan American Health Organization – Camino Real Hotel, El Paso, TX

May 4: Day 1

01:00 – 01:15: Welcome from BITF and EHWG
(Hal Zenick, Steve Young, Salvador Sanchez Colon)

01:15 – 01:45: Review goals of the meeting
(Hal Zenick, Steve Young, Salvador Sanchez Colon)
- identify ongoing, or soon-to-be initiated, projects/activities that might be supported near term
- lay out steps/calendar/assignments to develop a longer term implementation plan by FY05

01:45 – 03:00: Setting Priorities Near Term\(^1\): (Chair: Nora McGee)

- Region 6: Bill Luthens/Norma Duran (20 min.)\(^2\)
- Region 9: Nora McGee (20 min.)
- PAHO: Daniel Gutiérrez and colleagues (25 min.)
- SCERP: Rick van Schoik (10 min.)\(^3\)

03:30 – 05:45: Presentations as to what is already underway and/or soon-to-be initiated projects
(Chair: Rick van Schoik)\(^4\)

- SCERP: Rick van Schoik and colleagues (25 min.)
- PAHO: Daniel Gutiérrez and colleagues (25 min.)
- Region 6: Bill Luthens/Norma Duran (20 min.)
- Region 9: Nora McGee (20 min.)
- Air Policy: Mike Hadrick (20 min.)
- Water Policy: TBD (20 min.)
- Other: USGS Meeting – Salvador Sanchez Colon

---

\(^1\) Presenters should send out their material ahead of time to facilitate discussions and reduce the amount of time needed for the actual presentations.

\(^2\) Regions/Regional Task Force leads will provide a prioritized list of areas extracted from regional discussions for which projects might arise to link environmental and health indicators

\(^3\) Dr. van Schoik will answer questions on Matrix provided before meeting
The above information is quite important for it may identify some near term efforts for which additional funding might greatly enhance, accelerate etc. Such opportunities would allow us to show some progress early on even as a more strategic plan evolves.

05:45 – 06:00: Discussion of Next Day’s Agenda

Border Indicators: Moving Forward
A Working Meeting
May 4-5, 2004
El Paso, Texas

May 5: Day 2

08:30 – 10:00: Continued Discussion on Near Term Opportunities and Action Items
(Chair: Michael McGeehin)

10:30 – 12:30: Laying out a game plan on how to move forward to develop of an implementation plan by FY05
(Hal Zenick, Steve Young, Salvador Sanchez Colon)

*Actions
*Assignments

This session needs to define roadmap, time table and assignments that will produce a flexible implementation plan for FY05 and beyond.
APENDIX B: PARTICIPANTS

<table>
<thead>
<tr>
<th>Name</th>
<th>Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harold Zenick</td>
<td>U.S. Environmental Protection Agency (EPA)</td>
</tr>
<tr>
<td>Albes Gaona</td>
<td>EPA</td>
</tr>
<tr>
<td>Michael Hadrick</td>
<td>EPA</td>
</tr>
<tr>
<td>Steve Young</td>
<td>EPA</td>
</tr>
<tr>
<td>William Luthans</td>
<td>EPA-Region 6</td>
</tr>
<tr>
<td>Norma Duran</td>
<td>EPA-Region 6</td>
</tr>
<tr>
<td>Nora Mcgee</td>
<td>EPA-Region 9</td>
</tr>
<tr>
<td>Michael McGeehin</td>
<td>Centers for Disease Control and Prevention</td>
</tr>
<tr>
<td>Gary Noonan</td>
<td>Centers for Disease Control and Prevention</td>
</tr>
<tr>
<td>Raquel Sabogal</td>
<td>Centers for Disease Control and Prevention</td>
</tr>
<tr>
<td>Rick Van Schoik</td>
<td>Southwest Center for Research and Policy (SCERP)</td>
</tr>
<tr>
<td>Salvador Sanchez Colon</td>
<td>Secretaria de Medio Ambiente y Recursos Naturales (SEMARNAT)</td>
</tr>
<tr>
<td>Enrique Suarez</td>
<td>Federación Mexicana de Asociaciones (FEMAP)</td>
</tr>
<tr>
<td>Kevin Oshima</td>
<td>New Mexico State University</td>
</tr>
<tr>
<td>Verónica Corella-Barud</td>
<td>University of TX-El Paso-Center for Environmental Research Management (UTEP-CERM)</td>
</tr>
<tr>
<td>Daniel Gutiérrez</td>
<td>Pan American Health Organization-El Paso Field office (PAHO-FEP)</td>
</tr>
<tr>
<td>Guillermo Mendoza</td>
<td>PAHO-FEP</td>
</tr>
<tr>
<td>Piedad Huerta</td>
<td>PAHO-FEP</td>
</tr>
<tr>
<td>Alma Galván</td>
<td>PAHO-FEP</td>
</tr>
<tr>
<td>Eva M. Moya</td>
<td>US-Mexico Border Health Commission (USMBHC)</td>
</tr>
<tr>
<td>Eric Hudson</td>
<td></td>
</tr>
<tr>
<td>Victor Valenzuela</td>
<td>TX Commission on Environmental Quality-Region 6 El Paso</td>
</tr>
</tbody>
</table>