

**NATIONAL CONVERSATION ON PUBLIC HEALTH AND CHEMICAL EXPOSURES
SCIENTIFIC UNDERSTANDING WORK GROUP**

**Meeting No. 7 Summary
Teleconference
June 17, 2010**

Meeting Objectives:

- Review remaining draft recommendations and decide which are ready to begin drafting

Upcoming Meeting	When and Where	Suggested Agenda Items
<i>National Conversation on Public Health and Chemical Exposures</i> Scientific Understanding Work Group (Scientific Understanding Work Group) call	July 12, 2010 1:00 p.m.–5:00 p.m. EST	<ul style="list-style-type: none"> • Decide on top 12 recommendations • Provide input on draft report concepts • Milestones and assignments for completing the draft report
Scientific Understanding Work Group call	August 3, 2010 1:00 p.m.– 5:00 p.m. EST	<ul style="list-style-type: none"> • Finalize language in draft report

I. Action Items

Wrap Up and Next Steps for Work Group	By Whom	By When
1. Solicit volunteers for second set of recommendations	Gail Bingham	June 20, 2010
2. Drafting teams submit revised recommendations	Members of drafting teams	July 6, 2010

II. Meeting Summary

Welcome, Introductions, and Agenda Review

Kevin Teichman, Scientific Understanding Work Group chair and U.S. Environmental Protection Agency (EPA) staff member, welcomed everyone to the call. He introduced Pete Fargo and Ed Washburn, who work with him and who have volunteered to assist Kim DeFeo in creating the draft work group report. Dr. Teichman said that he feels good about the group’s progress and looks forward to discussing the second set of recommendations. He reminded everyone that the goal of the call is to discuss the recommendations further so they can be refined before our July call. He thanked everyone for their work to date and gave a special thank you to those who have volunteered to flesh out the recommendations.

Discussion of Second Set of Recommendations

Recommendations 5 (improve technical aspects of risk assessment analysis), 20 (better determination of degree of sensitivity to levels of chemical exposures in the general population to validate the margins of safeties used), and 23 (refine uncertainty factors).

Ms. Bingham noted that this set of recommendations pertaining to risk assessment was tabled on the previous call. One member summed up the intent of these recommendations as improving the technical aspects of risk assessment, including better clarity on margins of safety and better communication of uncertainty factors in the computational steps of risk analysis, and determining the ways in which communities and policy makers use risk assessment. Dr. Teichman reminded the group that the *National Conversation on Public Health and Chemical Exposures* Policies and Practices Work Group is looking into implementing risk assessment and the precautionary principle and asked the group to focus recommendations on the science needed to implement them.

The group members pointed out that risk assessment and the precautionary principle are not mutually exclusive. They also discussed their interest in seeing risk assessment used as a tool, with the precautionary principle used as an overarching paradigm to guide decisions.

The specific improvements individual members noted included taking into account vulnerable populations and non-chemical stressors, communicating what the results of risk assessment do and do not mean, and removing some of the arbitrariness of uncertainty factors that are used in setting reference doses.

A member suggested that the most important message this group could put forward is that risk assessment has failed at the community level, and a new approach to making decisions needs to be developed. Others commented that risk assessment is a tool that has value when used appropriately; thus, outlining ways that risk assessment can be improved does not need to be at odds with implementing the precautionary principle. Another member suggested that recommendations to improve risk assessment could be put in the context of the need for better tools generally. Others urged not making too broad a statement that risk assessment has failed and stating instead what the weaknesses of risk assessment are and the goals it has failed to achieve. The members commented that the National Academy of Sciences (NAS) report states that risk assessment is at a crossroads. If risk assessment is used as a tool in the proper context, it can be useful for this process to add its voice to the value of implementing the NAS recommendations, at least as improvements in the interim until a new paradigm evolves. A member noted that most of these sentiments are in the Frameworks Subgroup report.

The group agreed to integrate recommendations 5, 20, and 23, with the suggestions that the specific actionable steps not get lost and that drafters consider organizing the ideas in clusters of related actions.

Recommendation 17: Examine gene and environmental interactions in chemical and mold exposure in complex diseases. Fred Miller shared that the thinking behind this recommendation was to convene groups that are doing genetic work and environmental research for a coordinated effort to find either linkages or holes in existing studies that would shed light on gene-environment interactions. The group discussed that some data from past studies might be able revisited with an emphasis on gene-environment interaction. A member raised a concern about looking only retrospectively. Although a prospective approach can be important in some cases, it also can be very expensive. Taking a retrospective approach depends on the disease and the original study design (e.g., sister study).

Recommendation 19: Establish interagency research on toxicant induced loss of tolerance using clinical, epidemiological, and animal studies. Claudia Miller introduced this recommendation and suggested integrating it with recommendations 16 (characterize the nature and determine the prevalence of chemical intolerance and chronic disease in selected patient groups using the QEESI scale and other measurements) and 18 (facilitate research, diagnosis, and treatment of chemically-exposed patients using environmental medical units). The benefit of having environmental medical units is being able to see which genes are expressed when persons are exposed to certain chemicals. This information could advance research and help chemically sensitive individuals. Another member noted that she had read the intent of 19 differently (i.e., as how to refine the currently relatively crude endpoints of animal studies). Dr. Teichman noted the importance of clinical treatment of ill persons but stated that this group's focus is improving scientific understanding. He urged that this recommendation focus on research, perhaps by making the research questions more explicit. Another member questioned combining 16 and 19, given that the former appears to be a communities study and the latter a lab study. The group agreed to ask the reviewers to determine what should be combined and what should be separate.

Recommendation 12: Use site-specific and community-specific information to identify actual risks to members of vulnerable subpopulations (e.g., Native Americans and other communities). The member who had suggested this recommendation was not on the call. Others thought that the intent is to ensure that often overlooked community needs, such as reliance on traditional food sources, are considered when community effects of chemical exposures are being identified. For example, risk assessments often do not consider the fact that some tribes rely on locally-caught fish as a food staple. The subgroup members that worked on this recommendation wanted to ensure that this topic is included in research and not relegated to the policy realm. The group agreed that identifying often-ignored types of risk would be one way accomplish this goal. Ms. Bingham suggested that the group that drafts this recommendation check with its sponsor to ensure that her thoughts are captured. One member also asked whether there was a relationship with Recommendation 10.

Recommendation 8: Identify solutions to obstacles preventing states from adopting the toxics use reduction model as implemented in Massachusetts. A work group member suggested that research into how to implement a toxics use reduction model is important. Questions that should be investigated include the following. How do we overcome the obstacle of "confidential business information"? How do we expand pollution prevention? How do we ensure the cost effectiveness of these measures? How can we facilitate toxics use reduction among industry?

The group discussed the utility of surveying current efforts to understand what has been accomplished in different states. The group also discussed the need for increased information collection, for example on the transport of hazardous materials. Decisions about where these ideas might be integrated into other recommendations will be left to the volunteer drafters. A brief discussion ensued about combining Recommendation 22 with Recommendation 4 (fill data gaps in scientific knowledge of health effects of chemical exposure to prioritize chemicals of concern), but the group decided against this.

Status Report on Assignments and Progress on First Set of Recommendations

Ms. Bingham thanked Mr. Fargo and Mr. Washburn for formatting the draft recommendations. She stated that no one had volunteered to work on Recommendation 3. She advised that she would send an e-mail the following day requesting volunteers to draft the second set of

recommendations (plus Recommendation 3 from the first set) and asked for all revised drafts to be submitted to Ms. DeFeo and Ms. Bingham by July 6, 2010.

Report from June 1 Leadership Council Meeting

Dr. Teichman reported on the June 1, 2010 Leadership Council meeting. He shared that the Scientific Understanding Work Group is on pace with the other work groups. He noted that overlap exists between the work groups, as anticipated, but that the recommendations appear to complement one another.

Work Group Timeline

Ms. Bingham reviewed the updated timeline for the work group. She reminded the group of the upcoming call on July 12, 2010 from 1:00 p.m.– 5:00 p.m. EST during which the group will identify its top 12 recommendations and ensure that all of the topics that are important to the group are covered in the recommendations. On an August 3, 2010 call from 1:00 p.m.–5:00 p.m. EST, the group will reach agreement on the language in the draft report.

III. Participation

Members Present

George Alexeeff, California EPA
Cherri Baysinger, Missouri Department of Health and Senior Services
Frank Bove, Agency for Toxic Substances and Disease Registry
Mark Buczek, Suprestra- Retired
Doris Cellarius, citizen
Bob Hamilton, Amway Corporation
Jean Harry, National Institute of Environmental Health Sciences
Rebecca Head, Monroe County Health Department
Wade Hill, Alliance of Nurses for Healthy Environments
Jeff Jacobs, American College of Occupational and Environmental Medicine
Stephen Lester, Center for Health, Environment, and Justice
Claudia Miller, University of Texas Health Science Center at San Antonio
Fred Miller, National Institute of Environmental Health Sciences
Lisa Nagy, The Preventive and Environmental Health Alliance
Melissa Perry, Harvard University
Stuart Schmitz, Iowa Department of Public Health
Rich Sedlack, The Soap and Detergent Association
Margaret Shield, Local Hazardous Waste Management Program, King County
Russell White, American Petroleum Institute

Regrets

Nancy Beck, Physicians Committee for Responsible Medicine
Richard Becker, American Chemistry Council
Janice Chambers, Mississippi State University
Jeff Fisher, University of Georgia
Susan Hanson, Shoshone-Bannock Tribe
Kristi Jacobs, Food and Drug Administration
Jim Klaunig, Indiana University Center for Environmental Health
Frank Mirer, Hunter College Urban Public Health Program
Deirdre Murphy, US Environmental Protection Agency
Richard Niemeier, National Institute for Occupational Safety and Health

Facilitation and Staff Team Members Present

Kevin Teichman, Chair, EPA

Ed Murray, ATSDR

Gail Bingham, RESOLVE facilitator

Kim DeFeo, NCEH/ATSDR staff

Others Present

Pete Fargo, EPA

Ed Washburn, EPA