

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

**Meeting No. 3 Summary
Teleconference
February 9, 2010**

Call Objectives:

- Review the progress of the Scientific Understanding Work Group discussions.
- Identify and discuss key themes.
- Determine the dates for the March teleconference and April in-person meeting.
- Determine the overall next steps for the subgroups and the Scientific Understanding work group.

Upcoming Call	When and Where	Suggested Agenda Items
Full Scientific Understanding Work Group call	March 22, 2010 12:00 p.m.–2:00 p.m. Eastern Standard Time	<ul style="list-style-type: none"> ○ Updates on subgroup activities ○ Using the shared work space ○ Goals, outcomes and expectations for the April 22–23 work group meeting
Upcoming Meeting	When and Where	Suggested Agenda Items
Scientific Understanding Work Group in-person meeting	April 22–23, 2010 Washington, D.C. times TBD	TBD

I. Action Items

Updates on the National Conversation	By Whom	By When
1. Send Kim DeFeo any ideas on how to best use the Scientific Understanding Work Group template to organize your work	Any Scientific Understanding Work Group members with ideas to share	February 12, 2010
2. Develop proposal for how to use the Scientific Understanding Work Group template	Leadership Team	March 10, 2010

Brief Updates by Subgroup Leaders	Who	Completed by
3. Start an initial list of definitions for the Scientific Understanding Work Group to use in its work (posted here: http://www.nationalconversation-projectsite.org/scientific_understanding/node/1644)	Kim DeFeo	February 19, 2010
4. Read report suggested by Kevin Teichman that examines policy issues (http://www.nationalconversation-projectsite.org/scientific_understanding/node/1746)	Any interested Scientific Understanding Work Group members	Note: The document is now available through the attached link and on the website.

II. Call Summary

Welcome, Introductions, and Agenda Review

Kevin Teichman, the Scientific Understanding Work Group chair, welcomed the group. Abby Dilley, work group facilitator, reviewed the call agenda.

Updates on the National Conversation

Dr. Teichman announced that Dr. Thomas Frieden had appointed Dr. Howard Frumkin to serve as special assistant to the director for climate change and health. He thanked Dr. Frumkin for launching the *National Conversation on Public Health and Chemical Exposures (National Conversation)* and noted that we will miss his vision and leadership. Dr. Teichman assured the group that Dr. Henry Falk, NCEH/ATSDR's new acting director, is a strong supporter of the *National Conversation*. The *National Conversation* Leadership Council (Leadership Council) is working to identify a new co-chair to work alongside Nse Witherspoon.

Dr. Teichman also updated the group on the December 11, 2009 Leadership Council meeting and subsequent January 29, 2010 conference call. As a result of those meetings, the Leadership Council extended the timeline for writing workgroup reports. Final reports are expected by October 2010. (For a full schedule, please see the process map on the *National Conversation* Web site). The Leadership Council also reviewed the work group charges and was impressed with the efforts that the work groups have undertaken. However, the Leadership Council suggested some changes. In response, we have added "exposure science" to our charge (see attached final charge).

The Leadership Council agreed that including toxins from biological sources is appropriate to the *National Conversation* but left it up to each work group to decide to what depth each wanted to take this issue. The Scientific Understanding Work Group has now officially included "chemicals emitted by biological contaminants" in the Scientific Understanding Work Group charge.

Dr. Teichman informed the group that an attendance policy has been adopted by the Leadership Council. Each Scientific Understanding Work Group member is expected to make a

good faith effort to participate in all meetings and conference calls (no substitutes may participate in the place of a Scientific Understanding Work Group member to “make up for” a member’s absence). Members who miss four calls or meetings as of January 29, 2010 (when the Leadership Council adopted these protocols) will be considered to have resigned from the work group unless the member has contributed substantially in other ways and special arrangements have been made with the chair. Dr. Teichman encouraged people to talk with him if they anticipate missing four meetings during the remainder of this project.

Kim DeFeo reviewed the timeline for the *National Conversation* and informed the group that the draft Scientific Understanding Work Group report is now due in August 2010, with the final work group report due in October 2010. The *Leadership Council* will post its draft action agenda in December 2010, and the final action agenda will be ready about April 2011. The community conversations will take place from April–June 2010, and a report synthesizing these will be shared with work groups and the *Leadership Council* in July 2010. Three Web dialogues are planned in April 2010, September 2010, and January, 2011.

Ms. DeFeo also introduced the new work group report template, designed to help the group organize its work and combine the information into a cohesive report. She asked group members to review the template, think about their subgroups’ work, and e-mail her ideas about how to use the template. The work group’s leadership team will put together a proposal on how to use this template to organize a work group’s work. A member asked how the template fits with the 5 questions initially posed to each subgroup (i.e., Why is this topic area an issue? What is the current understanding? What are the proposed actions, short- and long-term? What are the anticipated products? What are the desired outcomes?). Ms. DeFeo responded that the answers to these 5 questions fit into the new work group report template thus members will not need to redo any work. However, members may need to add some information and ideas to fill out the template.

Brief Updates by Subgroup Leaders

Individuals Subgroup

Claudia Miller, the Individuals Subgroup leader, reported 9 of 12 participants attended their first call. Dr. Miller stressed the importance of considering individual susceptibility more comprehensively. Currently, she stated, people with more serious health effects tend to drive the assessment process disproportionately. She also discussed the need to understand gene-environment interactions that affect individual susceptibility.

Dr. Miller discussed the need for research that targets chemically intolerant people. Others have proposed the need to establish hospital units and study those people who enter these units.

The Individuals Subgroup members identified the need to develop a registry or longitudinal database to study genetic polymorphisms that contribute to susceptibility. They also discussed the need to start a mold registry. Other issues identified as important include research to identify approaches to reduce exposures and prevent illness and animal studies to understand new mechanisms.

Dr. Teichman thanked the Individuals Subgroup for its work to date. He said he is looking forward to specific research projects they might suggest to tackle these ideas. He noted that he sees some overlap with the Database Subgroup (regarding the suggestion of new registries) and suggested the groups coordinate.

A member expressed concern that not every member could participate in the entire call. Abby Dilley, Scientific Understanding Work Group facilitator, suggested that the group determine a mechanism to ensure they get input from everyone before making decisions in case everyone cannot stay on the entire call every time.

Communities subgroup

Doris Cellarius, the Communities Subgroup leader, reported that every subgroup member has participated and that the group is focusing on determining the major issues of concern to the Communities Subgroup. The major issues that were identified include the need for government representatives to understand community concerns, to help communities get technical assistance, to explain risk assessment and its uses to communities, to better examine the adequacy of scientific information, and to improve training provided to professionals on health effects.

The Communities Subgroup will begin to look at potential solutions as its next step.

Dr. Teichman communicated that he is interested in hearing more about the *scientific understanding* issues that the Communities Subgroup should consider. He also noted it may be appropriate to coordinate with the Serving Communities Work Group on some issues, or to pass the issues to that subgroup. He asked if issues of disproportionate risk had been discussed. He asked that the Communities Subgroup address scientifically how the United States addresses disproportionate risk.

A member suggested looking at the role of governmental employees and their role in delivering information to communities. This member noted that science in controversial areas (e.g., autism) has not been assessed fairly. Another member suggested that the work group consider difficulties with risk communication and with epidemiological studies that are conducted in small geographic areas (which are susceptible to false negatives).

Frameworks

Jeff Jacobs, the Frameworks Subgroup leader, reported this subgroup is evaluating risk assessment by looking at the four traditional steps of the risk assessment process—hazard identification, exposures assessment, dose-response, and risk characterization—to determine what ideas to contribute to improve these steps. The Frameworks Subgroup, which discussed acceptable risk, the need for transparency, and the precautionary approach, is asking whether risk assessment is the right tool to use in assessing the relationship between chemical exposures and public health. The Frameworks Subgroup developed a brief list of concerns to examine further, including issues with ATSDR ToxProfiles, the assumptions that underlie the margins of safety used in risk calculations (i.e., Minimum Risk Levels), the difficulty in assessing the impacts of mixtures, and the weight given to animal and epidemiological studies. The Frameworks Subgroup will develop both short- and long-term recommendations and will schedule another phone call shortly to continue their work.

Dr. Teichman counseled the group to clearly delineate where the Monitoring work group's work ends and where that of this Frameworks Subgroup begins. He hopes the Policies and Practices work group will examine what is an "acceptable risk." Dr. Teichman stressed that the Scientific Understanding Work Group will deal with the uncertainty around the risk of exposures and related health effects. He reminded the group to continue to focus on scientific issues; for example, he suggested that examining scientific questions to help support the precautionary principle would be appropriate.

Databases

Mark Buczek, the Database Subgroup leader, said that the Database Subgroup's first step is to understand what information is currently available. The Database Subgroup plans to talk with people at the U.S. Food and Drug Administration, U.S. Environmental Protection Agency (EPA), Centers for Disease Control and Prevention, and others to better understand the available resources. Once the Database Subgroup understands what information is available, it will be able to determine where gaps exist and discuss the next steps to take.

The Database Subgroup has also become aware of overlap between their work and that of the Monitoring Work Group. Mr. Buczek has exchanged e-mails with John Balbus, chairman of the Monitoring Work Group, but has not yet spoken with him. They will discuss ways to collaborate. The Monitoring Work Group has already started compiling a list of existing databases.

Dr. Teichman agreed that it makes sense for this subgroup to coordinate with the Monitoring Work Group and mentioned that he would like thoughts on how we could mine these databases to explore hypotheses related to public health and chemical exposures. Dr. Teichman counseled the Individuals Subgroup to give its suggestions for the creation of new registries to the Databases Subgroup.

Technologies

Jean Harry, Technologies Subgroup leader, reported that this subgroup has had full participation of all members. The group began by looking at the National Research Council's report "Toxicity Testing in the 21st Century: A Vision and A Strategy," which provides a testable framework for the incorporation of ever-advancing and evolving new technologies for assessing biological processes and environmental analysis. Members of the Technologies Subgroup asked how they could make this better scientifically. They are trying to develop scientific approaches that incorporate new technology and use *in vivo* data to get validation across components. Members expressed concern that the screening and epidemiologic approach used in academia is not always useful in a regulatory environment. The Technologies Subgroup also raised questions about how to use new technologies to address questions of susceptible populations.

The Technologies Subgroup is considering writing a white paper that would be published for *in vitro* data. Members are also examining how we can learn what information government agencies already have and how this information can be integrated into efforts to address these technological questions.

Dr. Teichman commented that the group's focus on computational toxicology is warranted; he suggested that this subgroup might consider greener products and lifecycle analyses in its work as well. Dr. Harry mentioned that no one in the work group has any experience in working on prevention through design and other lifecycle analysis-related questions and asked for volunteers. Dr. Teichman volunteered to connect the subgroup with EPA officials.

Discussion and Development of Key Themes

Ed Murray, senior liaison, noted the key theme he heard from the subgroups' reports is connection to communities. The Communities Subgroup mentioned needing a better understanding of communities' needs, and mentioned that scientific issues are just one part of that need. For example, Dr. Murray suggested the need to involve more behavioral scientists to help with risk communication. He also discussed the need to reassess the risk assessment paradigm, how to adequately assess multiple exposures, and individual susceptibility. The

Frameworks Subgroup mentioned some of these same ideas but added looking at dose-response and Minimum Risk Levels. The Individuals Subgroup discussed the need to examine genetic susceptibility. The Databases Subgroup is discussing ways to build better databases and mine them for information, including ways to make a user-friendly Web site where people can search for information. The Technologies Subgroup is focusing on computational toxicology. All of these issues being discussed by subgroups link back to communities.

III. Participation

Members Present

George Alexeeff, California Environmental Protection Agency
Nancy Beck, Physicians Committee for Responsible Medicine
Frank Bove, Agency for Toxic Substances and Disease Registry
Mark Buczek, Supresta—Retired
Doris Cellarius, citizen
Janice Chambers, Mississippi State University
Jeff Fisher, University of Georgia
Bob Hamilton, Amway Corporation
Jean Harry, National Institute of Environmental Health Sciences
Rebecca Head, American Public Health Association Environment Section Chair and 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
Frank Mirer, Hunter College Urban Public Health Program
Lisa Nagy, The Preventive and Environmental Health Alliance
Richard Niemeier, National Institute for Occupational Safety and Health
Melissa Perry, Harvard University
Stuart Schmitz, Iowa Department of Public Health
Megan Schwarzman, University of California, Berkeley
Rich Sedlack, The Soap and Detergent Association
Russell White, American Petroleum Institute

Regrets

Cherri Baysinger, Missouri Department of Health and Senior Services
Richard Becker, American Chemistry Council
Susan Hanson, Shoshone-Bannock Tribe
Kristi Jacobs, Food and Drug Administration
Jim Klaunig, Indiana University Center for Environmental Health
Deirdre Murphy, U.S. Environmental Protection Agency
Margaret Shield, Hazardous Waste Management Program, King County

Facilitation & Staff Team Members Present

Kevin Teichman, Chair, U.S. EPA
Ed Murray, ATSDR
Abby Dilley, RESOLVE facilitator
Kim DeFeo, NCEH/ATSDR staff