

# **Collaborative on Health and the Environment – Washington**

## **Meeting Notes**

**February 22, 2005, 4:30 – 6:30 p.m.**

**Antioch University**

**Seattle, WA**

### **Participants:**

Chetana Acharya – Community Outreach and Education, University of Washington  
Morgan Barry – Seattle and King County Public Health  
Mary Bartholet – Washington State Nurses Association  
Tom Burbacher – Center for Ecogenetics and Environmental Health, University of Washington  
Madeline Beery – Washington State Department of Health  
Marnie Boardman – Washington Environmental Health Public Health Tracking  
Kate Davies – Antioch University in Seattle  
Elizabeth Davis – League of Women Voters of Washington  
Sibyl Diver – Toxics Free Legacy Coalition  
Robin Evans-Agnew – American Lung Association of America  
Richard Gelb – City of Seattle, Office of Sustainability and Environment  
Lise Glaser – Cascadia Consulting  
Donna Keller – Department of Public Health, King County  
Kyoko Maruyama – Seattle Biotech Legacy Foundation  
Elise Miller – Institute for Children’s Environmental Health  
John Moore – Mercury Awareness Team  
John Rodgers – Mercury Awareness Team  
Janna Rolland – consultant  
Pam Tazioli – Breast Cancer Fund  
Danielle Welliever – Lutheran Community Services

(Note: Chetana Acharya served as recorder.)

### **1) Welcome and Updates – Elise Miller, MEd, chair of CHE-WA**

Elise said she was delighted to announce that our Oregonian colleagues had catalyzed the Collaborative on Health and the Environment – Oregon (CHE-OR) on February 3<sup>rd</sup> in Portland. Given this, CHE-NW has officially changed its name to CHE-Washington (CHE-WA). However, we will launch a CHE-NW website that will have CHE-OR and CHE-WA pages so that we can highlight opportunities, like implementing the precautionary principle, that clearly cross state borders. This will also allow new states, like Alaska, Idaho and Montana to join as well as the Canadian province of British Columbia so that we can collectively leverage environmental health in the Northwest.

Elise also noted that the CHE steering committee had their first meeting in January and the agenda of this meeting was a result of that productive conversation.

### **2) Science update - Tom Burbacher, PhD, Research Associate Professor, University of Washington**

Tom has been involved with mercury investigations for over 20 years at UW. The National Institute of Allergy and Infectious Diseases (NIAID) supported this project to investigate the health effects of thimerosal, which has been used as a preservative in vaccines since the 1930s.

In the 1990s the number of vaccines given to kids aged six to nine months increased significantly, and with that the dose of thimerosal they received increased, too. FDA and others calculated that the doses of kids were greater than the EPA’s methyl mercury reference dose. Methyl mercury has 30 years of

research behind it, and the reference dose is robust. But thimerosal is ethyl mercury, and there is very little information on the effects of this form of mercury. With support from families with kids with autism, researchers began looking at the link between thimerosal and autism. Based on the statistical analysis, there was speculation there was a link.

Tom's research question was: Where does thimerosal go in body systems?

Infant monkeys (who grow four times faster than humans) were vaccinated and results were compared to methyl mercury. Based on blood mercury level measurements, thimerosal clears much faster from the body than methyl mercury. Methyl mercury has a 21-day half-life and ethyl mercury (thimerosal) has both a two-day and eight-day half-life (there is a faster and slower half-life for ethyl mercury). So the good news is that ethyl mercury clears faster than methyl mercury from the body.

But what about in the brain? The bad news is that ethyl mercury does not clear as quickly from the brain as methyl mercury and it demethylizes – it is converted into inorganic mercury. This inorganic form has a half-life of years, and there is some evidence to show that inorganic mercury causes inflammation of microglia cells in the brain.

Conclusions: Ethyl mercury (thimerosal) clears faster from the body than methyl mercury but does not clear as quickly from the brain. Both the organic and inorganic forms of mercury are of concern.

Other questions and suggestions:

- Hair samples cannot be used for exposure analysis as it is too short a time frame.
- Not sure if residue thimerosal that is trapped in organs/tissue can be remobilized back into blood and redistributed to the brain.
- Ask your doctor for thimerosal-free vaccines.

### **3) Presentations on Four Initiatives**

*(Note: The CHE-WA Steering Committee decided to have one portion of the meeting devoted to having 4-5 participants make somewhat longer presentations on their particular initiatives. These four were chosen on a first come, first serve basis.)*

a) Richard Gelb with the City of Seattle's Office of Sustainability and the Environment discussed their environmental justice programs. These are under the Mayor's Environmental Action Agenda Item and the Race & Social Justice Initiative. At the moment there is a push in the International District, working with the businesses there to 'green' the restaurants. Addressing issues such as conservation of gas/electricity and water and use of safer cleaning products.

The city is interested in resources/service delivery → How can it be done better?

Are these distributed equally throughout the city? How do they vary? What are the citywide conditions?

For example: traffic speeds in a community – how many crosswalks and how many traffic lights are there? Who has access to the process to make changes in their community? It is skewed towards those who know the system.

The city is also undertaking a disproportionality assessment. The goal is to cross-reference against ethnicity and income data.

b) Sybil Diver with Toxic Free Legacy Coalition gave an update on legislation regarding the phase out of polybrominated diphenyl ethers (PBDEs). Hearings on Senate Bill 5515 and House Bill 1488 were held in Olympia the previous Thursday, March 17<sup>th</sup>. Over 100 people attended the hearings. A California EPA scientist testified on the urgent need to ban all three forms of PBDE, as did Erika Schrader, a scientist with the Washington Toxics Coalition, who focused on concerns about the body burden of PBDEs, particularly in breast milk. There was strong support from the associations of firefighters and commercial

fishermen as well as State Departments of Ecology and Health. Opposition came from the chemical industry, seafood processors and retailers. Sibyl emphasized this is a controversial and close fight and will need much more support if these bills are ultimately to be approved by the Legislature. She also noted that the Toxics-Free Legacy Coalition has developed a media campaign to increase awareness of the PBDE issues, which will be launched on March 1, 2005.

c. Elizabeth Davis with the League of Women Voters gave an update on other bills of interest under the Healthy Washington Initiative. These included:

- Green Buildings – this bill would require all state-funded buildings, including schools, to use US green building and LEED standards. The Office of the Superintendent of Public Instruction (OSPI) is very supportive of this issue because of the potential impact on student learning and performance.
- Cleaner Cars – the bill is based on California’s fuel emission standards.
- Sound Solutions – this encompasses four interconnected bills that affect the Hood Canal and Puget Sound. These would address issues of forest conservation, failing septic tanks and protecting water quality by implementing growth management and ensuring Department of Health’s authority over water quality.

d. Donna Keller with the Department of Public Health, Seattle-King County, discussed the Tacoma Plume Project. Elevated levels of arsenic and lead have been found in some King County soils – most likely from airborne emissions from the Asarco copper smelter that operated for almost 100 years near Tacoma. There has been soil sampling to determine the boundary of arsenic and lead contamination – South King County and Vashon Island are the most impacted, but a recently completed footprint study found slightly elevated amounts as far north as Woodinville and Duvall. . In addition to soil clean-up activities, the agency has been involved in a massive education campaign to reduce exposure to contaminants in the soil. The focus has been on reaching schools, child care providers (via the STARS training program and other outreach initiatives) and gardeners. Donna distributed some of the “Dirt Alert” materials they use for this purpose.

#### **4) Open Space – facilitated by Morgan Barry**

Four topics were identified: a) mercury; b) environmental justice; c) older adults & environmental health; and d) PBDEs. After spending 30 minutes in the break-out groups, we reconvened and gave summaries of the discussions.

a) Mercury: Tom Burbacher, Madeline Beery, John Moore and John Rodgers

- Discussed whether chelation therapies can reverse mercury-induced damage in young people.
- Discussed how the methyl mercury exposures are *in utero* (prenatal) and the thimerosal exposures are postnatal.
- Discussed the Mercury Reduction Act and impact on businesses.

b) Environmental Justice: Elise Miller, Richard Gelb, Morgan Barry, Donna Keller, Chetana Acharya, Marnie Boardman, and Lise Glaser

- Further discussed the City of Seattle’s initiative—e.g. why one community gets a response and another doesn’t, how to navigate the system so that communities get what they need, etc.
- Discussed ways to engage diverse communities and community-based organizations in CHE-WA.

c) Older Adults & Environmental Health: Kate Davies, Robin Evans-Agnew, Kyoko Maruyama, Elizabeth Davis and Danielle Welliever

- Discussed the various exposures and impacts on health, such as prostate cancer, Parkinson’s, etc.
- Discussed how much more research needs to be done in this area.

d) PBDEs: Janna Rolland, Sybil Diver and Pam Tazioli

- Discussed the immediacy of the issues, especially addressing all forms of PBDE, including DECA.
- Discussed how eliminating sources of PBDEs can address the body burden concerns.