



Oregon Environmental Public Health Tracking

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Oregon Technical Advisory Group (OTAG)

Monday, April 12, 2010 9:00 a.m. – 11:00 a.m.

Portland State Office Building, Conference Room 1A-80

Co-chairs: Gail R. Shibley, OPHD Office of Environmental Public Health Administrator
Kerri Nelson, DEQ MSD Administrator

Staff:

Jae Douglas	R&E Section Manager, EPHT Principal Investigator
Curtis Cude	EPHT Program Manager
Dan Rubado	EPHT Epidemiologist
Jenny Staab	EPHT Senior Research Analyst
Daniel Costantino	EPHT GIS/Research Analyst
Marina Counter	EPHT Research Analyst
Tara Chetock	EPHT Outreach and Education
Karen Worden	EPHT Administrative Coordinator
Courtney Sullivan	EPHT IT Project Manager/Business Analyst
Shawna Job	EPHT IT Senior Systems Analyst
John Dougherty	EPHT PDES Program Evaluator
Won Kim	DEQ Data Exchange Specialist

Meeting Attendees	
Don Austin	OHSU, OPHA
Michael Donchi	OPHD OIS
Stephanie Farquhar	PSU Com Hlth
Joyce Grant-Worley	OPHD CHS
Renee Hackenmiller-Paradis	OEC
Anna Harding	OSU Pub Hlth
Toby Harris	Washington County, CLHO
Gregg Lande	DEQ AQ
Rick Leiker	OPHD Lead
Dave Leland	OPHD Drinking Water
Richard Leman	OPHD ODPE
Catherine Riddell	OPHD OsCaR
Ken Rosenberg	OPHD OFH
Lila Wickham	Multnomah County

Welcome and Introductions - 9:15 a.m.

Gail R. Shibley, Kerri Nelson – OTAG Co-chairs

Gail stated that the purpose of today's meeting is to ask ourselves where are we going; how do we intend to move forward; and is this the right focus or frequency of meetings to best advise EPHT? She requested candid and complete engagement in this process from the OTAG members. Next year at this time, EPHT will be putting together the grant application for the next 3-5 year time period. Gail requested that OTAG members please keep in mind how we move forward over the next several months, and be in the best position to make smart, sophisticated decisions in regard to the upcoming grant period. Kerri recognized the importance of collaboration between DEQ and OPHD; as well as DEQ's commitment to the continued success of EPHT.

New EPHT Carcinogenic Emissions Indicator

Dan Rubado

PowerPoint presentation: CDC Carcinogenic Emissions Indicator Proposal 4/9/2010

1. EPHT's National cancer workgroup is proposing a new indicator for air quality.
2. The indicator is focused on exposure to carcinogenic air toxics and the resulting lifetime excess cancer risk.
3. Pollutant concentrations are obtained from EPA's National Air Toxics Assessment (NATA).
4. The NATA model is based on emissions inventories, mobile pollution sources information, air monitoring data, and atmospheric data. They obtain most of their Oregon emissions data from DEQ. It estimates average air toxic concentrations at the census tract level. It shows how pollutants are being emitted and how they play out on the ground. It displays a nationwide estimate of the concentrations of approximately 200 chemicals in the air.
5. A subset of air toxics that are carcinogenic are selected from the nearly 200 pollutants in the NATA dataset.
6. Lifetime excess cancer risk for each of these air toxics is calculated based on its unit risk estimate and modeled concentration.
7. Measures for this indicator: modeled concentration for each selected air toxin; number and percent of people exposed at different risk levels (<1/million, 1-<10/million, 10-<100/million, ≥100/million).
8. Limitations: NATA results cannot be compared over time; lifetime excess risk makes certain assumptions and can be misinterpreted.
9. Our concerns: there needs to be a summary risk measure that adds together the risk from each air toxin.
 - Need to include nickel and dioxin in the list of carcinogens
 - Need to use the most up-to-date NATA results available
 - Reporting at Census tract would be preferable to county level.

Major Discussion Points

1. Check selection criteria for subset of air toxics that are carcinogenic, make sure it captures important carcinogens.
2. Compare compounds that IARC and California Environmental Health Assessment / EPA with the current list.

3. Look into carcinogenicity and importance of mercury, manganese, polycyclic aromatic hydrocarbons, and radon from emissions in outdoor air.
4. In determining the concentration values for a census tract, does NATA use a geographic or population weighted centroid?
5. If data can't be compared year to year, is this something that we should use? Maybe we should consider making comparisons anyway, even if the methods differ. It might be possible to observe some larger trends.
6. What is the signal to noise ratio in this model?
7. Are there other air toxins that should be included?
8. Individual risk estimates for each air toxin will underestimate total risk; better to combine risk estimates, but even that will be an underestimate since some air toxins not included, some unknown, some not modeled.
9. Adding risk together tends to underestimate overall risk because synergistic effects are not accounted for.
10. States may not be highly comparable because of differences in data collection efforts.

Q&A and discussion:

Q: (referencing the Powerpoint presentation, slide #3, CDC Carcinogenic Emissions Indicator Proposal) What does the NATA Results map show?

A: This map shows the final results of NATA at the county level represented in terms of lifetime excess cancer risk. Automobile emissions are included.

Q: Did CDC embrace using the NATA model vs. a hazard based model?

A: Possibly. NATA is a nationwide model of exposure and risk which is what CDC was looking for. None of the Oregon EPHT staff were involved in the workgroup that created this indicator [so we don't have detailed knowledge of its development].

Q: Is Ozone included?

A: No, we are talking about modeling air toxics, not criteria air pollutants. EPHT already has indicators for ozone as well as particulate matter.

Q: Dan Rubado posed the question to OTAG attendees, "What do we think about this as an indicator and do we support using it as one? What do you think about the creation of a subset of the NATA air toxics into carcinogenic pollutants by the national workgroup based on EPA and IARC classifications?"

A: Mercury is a neurotoxin, not a carcinogen. But look into mercury compounds. Nickel and Dioxin are not on the list because they did not have the proper benchmark concentrations at the time the list was created. Manganese is of concern and should be considered.

Q: If you don't think people should compare years, then is there a consistent methodology that we think could be repeated which would increase the value of NATA?

A: This is modeling, not monitoring. The methodologies change from year to year. We (DEQ) struggle with that. NATA has been run in the years 1996, 1999, 2002, 2005. Each time it is done nationwide, the methodology improves. There are 2 elements we look at:

1. How much of activity goes on?
2. What pollutants are released at what level?

People compare years no matter what disclaimer you put out there.

Q: Does it seem that the results are actionable?

A: We (DEQ) made low level decisions based on prioritizing counties and placing monitors but

would not use this for some major health advisory.

Q: How bad is the trend data?

A: Not “real” unreliable. It gives qualitative, semi-quantitative information.

Q: What information is most helpful for us to capture about this indicator at this point in time?

A: There will be a workshop in two weeks at which a decision will be made whether to continue to pursue this indicator or not. If anyone has ideas how to change this indicator to make it more appealing, please send it to us.

Q: Could we use this indicator as part of our county health rankings?

A: Yes, depending on what you’re trying to look at in your report. If there is a model receptor in every census tract, then you could probably use it.

Q: Is the indicator robust enough to use as an association with Cancer?

A: There is probably not enough precision in the NATA estimates to look at relationships with cancer. And the concentrations are generally low, so the signal would be small compared to the amount of noise. But that is the type of thing that EPHT would like to do.

Q: Is this a model for exposure or risk?

A: It is primarily an exposure model. Risk is estimated based on a linear dose-response relationship for each chemical based on EPA unit risk estimates.

The action level for EPA is a lifetime risk of more than 10,000 cancers per million population. DEQ has an air quality goal of 1 cancer per million population.

Technical Update: IRMA demonstration and feedback

Courtney Sullivan

PowerPoint presentation: PH Initiative EPHT IRMA 1.0/Indicator-based Report-Style Map-Centric Application

The IRMA application, a query-driven data analysis tool for environmental public health indicator data, is under development. Users will be able to dynamically query aggregated indicators in eight content areas. To date, three of the content areas (air quality, asthma, and heart attacks) are alpha complete. The development team is working on reproductive outcomes and water quality, as well as a robust suppression engine. This application is scheduled to go live on September 30, 2010.

IRMA is being developed as a stand-alone web application with its own URL, but will be able to be incorporated into the new Public Health website structure.

EPHT Year 5 IT Planning Discussion

Courtney Sullivan, Curtis Cude

Courtney explained where we are going and what the potential projects for year 5 might be following the September 30 release. Some things have been discussed and tabled due to the complexity of the work involved. At some point, this is going to become a menu. The team is currently working on a matrix that will include quantitative estimates.

Year 5 Potential Projects:

1. Secure Portal
 - Unsuppressed data by county or content area (will need to work with the data stewards to determine what data can be released in secure portal).
 - Finer geographic resolution of data (again will need to obtain approval from data stewards).
 - Piloting of new content areas/indicators
 - Access to GEORGE
2. Data Automation
3. Additional Indicators
4. GIS Updates/Programs.

With all the potentials available for the year ahead, Gail Shibley asked that OTAG participants identify their three highest potentials for the upcoming year, and to state which of those potentials would be number one on their list.

The attendees responded, stating the three potentials as:

1. demographic data
2. finer grained data – secure portal
3. additional indicators.

At Gail's request, a vote was taken on additional indicators to be added:

2 votes: Climate Change: health outcomes, heat related, excess mortality/morbidity

8 votes: Built Environment: more accessible and actionable

1 vote: Algae.

OTAG Evaluation

John Dougherty, Tara Chetock

In the past, EPHT distributed short surveys at the close of every OTAG meeting in order to evaluate the feelings of members towards the meetings. We found over time that the response to those surveys declined. We decided to initiate an annual, more formal evaluation session to elicit both written and spoken response. The following is a compilation of responses to the OTAG evaluation.

Feedback on evaluation questions:

1. At OTAG meetings, is there sufficient time provided for information from EPHT staff and also opportunities for discussion and/or feedback? If not, what would you like to be different?
 - Allow more balance during the meeting between presentation of program information and other meeting activities.
 - Feedback time allowed: Quality of feedback might be better if questions were formulated ahead of time and sent out via email.
 - Presentations should be more concise, allowing more time for questions and discussion.
 - Discussion time is too short. Lengthen time allowed for discussion and problem solving.
2. Do you believe that OTAG meetings are accomplishing what you expected? If not, what would you like to be different?

- Create clear expectations of what is to be accomplished at each meeting.
 - At the end of each meeting, the EPHT Team should provide a brief preview of what is to be addressed at the next meeting.
 - Members could ask their OTAG colleagues within the same organization to be thinking about the agenda items, and discuss with colleagues in order to represent them at the OTAG meetings that they cannot attend.
 - Questions that the EPHT team has for members will be emailed prior to the meeting.
 - Yes, the OTAG is accomplishing its intended objectives.
3. Do you feel that your input is sufficiently valued in OTAG meetings? If not, what would have to change to make your input valued?
- I feel that my input is valued.
 - Suggest that OTAG be briefed on how previous feedback and advice was used by the project.
 - Email could be used to solicit advice from OTAG members in between scheduled meetings.
4. Do you believe that the EPHT program is responsive to the recommendations and suggestions made during OTAG meetings? If not, how could the program be more responsive?
- Advisory groups are more helpful when they have a list of questions, allowing them to respond on the recommendations given, especially if the questions are sent to OTAG members in advance of the meeting where they are to be discussed.
 - Did we receive enough feedback from recommendations and how they were incorporated?
 - Increase the frequency of communication to OTAG members in regard to points, and issues discussed in the OTAG meetings so that participants will know if their recommendations were heard, and what was done with it.
 - Discussion about carcinogens; community-based organizations involved should be here to hear their thoughts.
 - Outside agency participation.
 - Asked for input on benchmark (ex: people who have knowledge that we may not have in how to present to CDC.)
 - EPHT can email out power point slides and background information prior to meeting so members have time to familiarize themselves with topics. The goal in mind here is that we can focus more of our meeting on discussions rather than background information.
 - Issue backgrounds and proposal options.
 - Five minute stretch breaks between presentations.
 - Once a year, members should break into smaller groups to focus on specific topic areas.
5. Do the benefits of your participation in OTAG outweigh the time and effort needed to attend? If not, what and how could the meetings be improved?
- Technical problem solving
 - Scientific discussion
 - Vehicle for policy

- Updates on program activities could be provided more efficiently by means other than a meeting; meeting to consider questions are a good use of time.
 - OTAG should consider how data can be used and hopefully to affect appropriate policies.
6. Are there any other ways in which you believe the OTAG meetings could be improved?
- Instead of having more time allotted for discussion at upcoming OTAG meetings, we could send out a list of topics to be discussed and objectives to be achieved in advance, in order to allow attendees to be prepared with input on the specific topics. Also a recap of the prior meeting should be sent out with the new meeting notification.
 - Provide a video conference option for members who can not attend the meeting in person.
 - Include more participants from counties.
 - Good opportunity for the environmental health world people to discuss and get involved.
 - Value in conversations. DEQ not as involved as they could be. Would like to have others more involved.
 - Should we lengthen meeting time to 3 hours? No, and we should continue to meet three times a year.
 - Soliciting ideas for research projects and offering data to students who would be interested in participating on a research project,
 - OTAG should consider focusing more on big-picture questions, such as sustainability and constituency.

Evaluation discussion: closing comments/open-ended questions

- Would it be helpful to have themes for individual meetings to touch on some of these areas? An example would be to have the next meeting more methodically step through how to move forward with some epi-based investigations and how this can lead to information or drive IT priorities, leading to plan for the next calendar year.
- Could the next meeting include information feedback on indicators or IT bugs?
- Would it be practicable to have small group meetings of indicators, mechanical questions, and start to make list of research topics?
- Have a list of things we are interested in, go out and talk to the students with the list of what we have available for projects?
- Where are we on sustainability? Continued CDC grant funding for the Oregon EPHT Program is likely – the renewal application for the next 5-year period is non-competitive.