

"It's understood there is a large silent majority of individuals that strive day in and day out to create a quality learning environment. Consider taking credit for indoor air quality efforts in your school...."

Rich Prill

Indoor Air Quality in Northwest Schools

An electronic newsletter for school Indoor Air Quality (IAQ) exclusively for Northwest schools

Winter 2005

2004 Tools for Schools Symposium Washington, DC, December 2004

Article by Rich Prill,
Washington State University Extension Energy Program

More than 500 people attended the 5th Annual Tools for Schools symposium this year. To say the symposium is a great place for networking is an understatement. The level of enthusiasm among participants was apparent and the friendly atmosphere (and plentiful treats) facilitated much interaction. The program also included a mentoring breakfast session early one morning, where members of the mentor network and other school indoor air quality veterans were available to meet with those new to school IAQ to share experiences and offer assistance.



The symposium keeps getting better each year with more in-depth presentations offered. This year's program included the following:

- *The Right Stuff: Choosing and Maintaining School Flooring.* This session featured Tom Bates with BLRB Architects, Tacoma, WA; along with Tom Ellis, Tandus; and David Frank, American Institute for Cleaning Sciences.



- *Pest Management*
- *Benefits of Effective Cleaning*
- *Radon in Schools*
- *Beyond the Basics: Proactive IAQ Management*

Continued on page 2

School Indoor Air Quality Newsletter for Northwest Schools

A quarterly electronic newsletter exclusively for Northwest schools.

Please circulate this subscription opportunity throughout the Northwest to those who may be interested.

There are two ways to subscribe:

- 1) To view the newsletter, click here: www.energy.wsu.edu/projects/building/iaq_nl.cfm

The newsletter contains a link for subscription information.

- 2) Or, send a blank email message to: subscribe-iaq@listserv.energy.wsu.edu

You will receive a confirmation message. When you reply to that message you will be subscribed and will receive all future postings. You can easily unsubscribe at any time.

This broadcast email list not only provides automatic delivery of the quarterly School IAQ Newsletter, but includes announcements about news of interest, training events, grant opportunities, and other information useful to school districts, agencies, and stakeholders involved in school IAQ and operations and maintenance.

The newsletter is an opportunity for all interested parties to communicate, and add to the collective wisdom.



Table of Contents

Northwest Notes

Oregon 5
 Idaho 5

Notes from the Field

Cleaning 6
 Asthma 6
 School Asthma and
 Air Quality Initiative..... 7

2004 Tools for Schools Symposium

Continued from page 1

- Building a Safe Environment for Students = High Performance Schools
- Asthma Friendly Schools
- HVAC Systems
- Strategies for Mold Prevention and Management
- IAQ in Schools: Where the Buck Stops and Litigation Begins

Links to some of the presentations are available at this website:

www.iaqsymposium.com/program.asp

An energetic and highly motivated delegation of seven represented **Oregon**. Forty people from **Washington** made up the largest contingent from the Northwest, while the states of **Alaska** and **Idaho** were not represented this year.

Washington was awarded three out of the seven Special Achievement Awards, and two out of 12 Excellence Awards, as well as the first ever Distinguished Service Awards – a very impressive accomplishment and a testament to the progressive attitude in Northwest schools.

Special Achievement Award

Tim Hardin of the **Washington State Department of Health** was recognized for his statewide support for school indoor air quality, beyond his day-to-day work. He consistently provides expert technical IAQ advice and training for schools and health districts throughout Washington.

© 2005 Washington State University Extension Energy Program. This publication contains material written and produced for public distribution. You may reprint this written material, provided you do not use it to endorse a commercial product. Please reference by title and credit Washington State University Extension Energy Program.

WSUCEEP-05-02

February 2005



Elizabeth Costworth (left) of the U.S. EPA presents Tim Hardin (center) of the Washington State Department of Health with his Special Achievement Award. Susan Titus, EPA Region 10 Tools for Schools coordinator, is standing on the right. Photo courtesy of WPPI, © 2004.



Continued on page 3

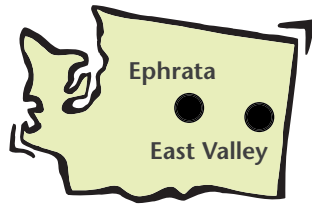
2004 Tools for Schools Symposium

Continued from page 2

Special Achievement Award

East Valley Middle School Science Club, East Valley School District, Spokane, WA, and **Ephrata High School** Environmental Health, Ephrata School District, Ephrata, WA.

These two student-led groups received Special Achievement Awards for aggressive IAQ projects in their districts. The student groups presented the findings of their IAQ projects to the school boards, resulting in the development of IAQ guidance and educational materials for district personnel. These students held the audience spellbound with their presentations: *Kids Making a Difference*, and were without a doubt the most charming and memorable part of the entire symposium for most attendees.



Elizabeth Costworth (center) of the U.S. EPA presents students and staff from Ephrata and East Valley with their Special Achievement Awards. Photo courtesy of WPPI, © 2004.

Excellence Award

Kent School District, Kent, WA. Led by Beth Gilbertson, the Kent School District has made IAQ education and communication a high priority. Custodians receive semi-annual training; all employees receive a weekly electronic newsletter with IAQ tips; and all new administrative staff receive IAQ information as part of their orientation. When an IAQ issue has a potential impact on students their parents are notified by letter and phone message with a clear explanation of



how the problem is to be addressed. This district also received a Leadership award last year!



Jeff Holmstead (left) of the U.S. EPA presents Beth Gilbertson of the Kent School District with her Excellence Award. Photo courtesy of WPPI, © 2004.

Excellence Award

The Tools for Schools Program in the **Spokane Public Schools**, Spokane, WA, is led by Larry Hagel (photo of presentation was unavailable). This program includes best practices in new buildings and focuses on the avoidance of allergy triggers. Each school has membership in a citizens' advisory committee, which has helped create a constructive environment for problem solving. Through communication, an increased understanding of the nature of IAQ problems helped facilitate the passage of bonds to finance long-term IAQ solutions through heating, ventilation and air-conditioning equipment and other capital upgrades in district buildings.



Continued on page 4

2004 Tools for Schools Symposium

Continued from page 3

Distinguished Service Award

Dave Blake of the Northwest Clean Air Agency, and Rich Prill of the Washington State University Extension Energy Program were selected to receive the first Distinguished Service Award for their comprehensive school-based IAQ management plans, implemented in the Northwest and nationwide.



It's understood there is a large *silent majority* of individuals that strive day in and day out to create a quality learning environment. Consider taking credit for indoor air quality efforts in your school – apply for next year's awards, or encourage others to apply. All award applicants will be recognized by the U.S. Environmental Protection Agency Region 10, and in this newsletter.

The winners are: students, staff and families. All benefit from the tireless commitment to providing a healthy and productive learning environment. For those who spend many waking hours at school, it is indeed a quality of life issue.

For additional information on the awards, contact Susan Titus at Region 10 EPA to discuss the possibilities: (206) 553-1189.



Jeff Holmstead (left) of the U.S. EPA presents Rich Prill (center) and Dave Blake (right) with their Distinguished Service Awards. Photo courtesy of WPPI, © 2004.

*All benefit from the
tireless commitment
to providing a healthy
and productive learning
environment.*

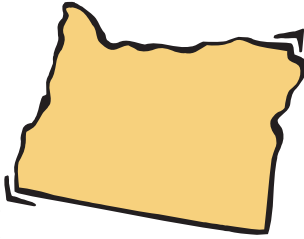
Rich Prill

Northwest Notes

Oregon

IAQ team progress

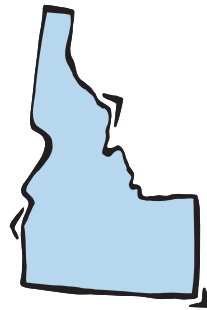
Plans are underway to implement good indoor air quality practices in a number of schools in the mid-Willamette Valley this year. Albany and Lebanon schools have formed an IAQ team and are leading the way thanks to coordination by James Sundell of the Oregon Education Association, Unit 423, in Albany. The IAQ team is improving the indoor air quality of their schools and the learning environment for their students using the U.S. Environmental Protection Agency's Tools for Schools toolkit. Team members will discuss their progress during a breakout session at the National Education Association's Pacific Regional Leadership Conference Feb. 19, 2005, in Portland. Participants are NEA employee union leaders from local associations representing school districts from California, Washington, Oregon, Alaska, Montana, Hawaii, Idaho and Nevada.



Idaho

School walk-throughs

Thanks to the efforts of Kara Stevens, Indoor Environment Program manager for the Idaho State Department of Health and Welfare, 13 school districts and 117 schools have participated in walk-throughs and adopted good IAQ practices during the past four years.



The Division of Health, the Idaho Indoor Environment Program and the Washington State University Extension Energy Program have provided IAQ evaluations in another 27 Idaho schools during the 2003-2004 school year. Comments received from school districts continue to be positive as they become proactive rather than reactive when it comes to IAQ issues in schools. In 2005, 38 walk-throughs are scheduled in six school districts. For more information please contact Kara at 1-800-445-8647, or stevensk@idhw.state.id.us

Head Start Training

The Idaho Indoor Environment Program is working jointly with the Idaho Asthma Prevention and Control Program to implement the Healthy Homes, Head Start

intervention with Head Start offices around the state. The goal of this intervention is to reduce environmental exposures that trigger asthma and allergies in the homes of Head Start clients. Staff are trained to conduct in-home environmental assessments. The intervention training has been offered to Head Start staff in Fruitland, Caldwell and Twin Falls. Two more Head Start offices have requested training in early 2005.

Radon awareness

The Idaho Indoor Environment Program is also working with Idaho's Environmental Health Education and Assessment Program to sponsor a Radon Poster contest for Idaho students in grades 6-8. Students can enter hand drawings or computer drawings. Students first compete at the regional level. Then the top two winners from each of Idaho's seven regions will compete at the state level for the grand prize. The first-place statewide winner will receive a Gary Fisher Wahoo Bike from WorldCycle in Boise. The second-place winner gets two lift tickets from Sun Valley Resort. The third-place winner takes home Smith sunglasses and a T-shirt. **Posters must be postmarked by Friday, Feb. 4, 2005.** For more information on the poster contest, or to get an entry form, contact Chris Corwin at 1-866-240-3553, or visit www.healthandwelfare.idaho.gov/_Rainbow/Documents/health/radon-contest-students.pdf

Environmental lesson plans

The Idaho Environmental Health Education and Assessment Program has recently finished its third update of an on-line publication titled *Environmental Health Lesson Plans for Educators*. These lesson plans were developed to increase awareness of environmental health issues in Idaho schools. The plans are broken down into two grade levels, K-6 and 7-12. In addition to the lesson plans, EHEAP staff will come to your school to demonstrate lessons. They can also provide a teacher or speaker to teach one of the lessons or speak on environmental health topics. For a free copy of our lesson plans, visit our website at www.healthandwelfare.idaho.gov/_Rainbow/Documents/Environmental%20Health%20Lesson%20Plans.pdf

For more information, or to schedule a presentation, contact Chris Corwin at 1-866-240-3553 or corwinc@idhw.state.id.us

Notes from the Field

Cleaning

Cleaning was a hot topic at the recent Tools for Schools Symposium, and of course it's a hot topic across the Northwest. Rich Prill of the Washington State University Extension Energy Program is planning to develop a model cleaning protocol for Northwest schools sooner than later. So, if you have some expertise – or just opinions – on what constitutes an acceptable “standard of care,” please consider adding to the collective wisdom. We'll be looking at equipment, products, techniques, protocols, frequency of tasks and, of course, how do we measure “clean?” We need every-



one's input to make this effort practical and meaningful. If you want to participate, contact Rich immediately at 509-477-6701. Any level of commitment is welcome!

The Big Picture

According to EPA:

- ◆ 56 million people spend their days in elementary and secondary schools every day in the U.S.;
- ◆ In 1999, a survey of schools found 43 percent of America's public schools reported at least one unsatisfactory environmental condition (IAQ, ventilation, noise, lighting, etc.);
- ◆ 25 percent of these schools reported unsatisfactory ventilation; and
- ◆ 20 percent reported unsatisfactory IAQ.

Asthma

According to the U.S. Centers for Disease Control and Prevention, the incidence of Asthma has reached “epidemic proportions.” Here are some important facts:

- ◆ Asthma is the most common serious chronic disease of childhood.
- ◆ Asthma is the leading cause of school absenteeism from a chronic childhood condition.
- ◆ Since 1980, there has been a 160 percent increase in the disease in children under age 4.
- ◆ In an average classroom, one or two children are likely to have asthma.
- ◆ An average of one out of every 13 school-age children has asthma.
- ◆ More than 20 million people, including 6.3 million children have asthma.

Each Year:

- ◆ Fourteen million school days are missed due to asthma.
- ◆ Asthma accounts for more than 10 million outpatient clinic visits.
- ◆ Nearly two million emergency department visits.
- ◆ Asthma in children is the cause for almost five

million physician visits and more than 200,000 hospitalizations.

- ◆ Asthma is the third ranking cause of hospitalization among children.
- ◆ Asthma accounts for a third of all pediatric emergency room visits.
- ◆ Asthma is the fourth ranking cause of pediatric visits to the physician's office.

Hispanics living with asthma report more asthma attacks and visits to emergency departments for asthma than non-Hispanics. African Americans have higher rates of asthma emergency department visits (125 percent higher), hospitalizations (220 percent higher), and deaths (220 percent higher) compared to Caucasians.



Asthma Triggers commonly found in some schools include the following:

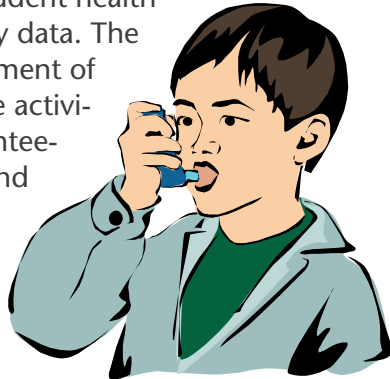
- ◆ Molds and pollens;
- ◆ Animal dander, mites, insects and rodents;
- ◆ Combustion byproducts, diesel soot;
- ◆ Volatile organic compounds, fumes, chemicals; and,
- ◆ Secondhand cigarette smoke, and wood smoke.

Notes from the Field

School Asthma and Air Quality Initiative

Article by Glen Patrick, Washington State Department of Health

Three Washington State school districts have launched pilot projects aimed at developing models for the electronic collection of student health and environmental quality data. The Washington State Department of Health is supporting these activities, which focus on absenteeism, nursing room visit, and indoor environmental quality data associated with asthma and asthma-like conditions.



Asthma is a significant contributor to the burden of childhood illness, affecting approximately 10 percent of children in Washington State. It is one of the most common causes of childhood hospitalizations. In addition to affecting a child's quality of life, asthma can increase school absenteeism and impact learning. While the primary goal of these pilot projects is data collection, the information gathered may enable school districts to take steps to improve student health.

To develop these electronic data collection systems, the department is working with the Washington State University Extension Energy Program and Seattle's Children's Hospital, Center for Children with Special Needs. The work with the WSU Energy Program focuses on the review and development of indoor air quality testing recommendations for establishing routine environmental testing programs in schools; while Children's Hospital is developing recommendations for student health condition and

intervention data coding. The results of both of these efforts support the standardization of routine data collection by schools. The goal is to improve schools' and school districts' abilities to detect changes and trends in student health and indoor environmental quality. The success of these efforts will depend on the participation of school district staff and other experts.

Participants began data collection in the fall of 2004 and plan to continue through the end of the current school year. The Washington Department of Health provides funding to support these efforts through a grant from the U.S. Centers for Disease Control and Prevention, Environmental Public Health Tracking Network. For more information on these activities please contact Glen Patrick at 360-236-3177, or by e-mail at g.patrick@doh.wa.gov

Resources used in this issue:

EPA Website: www.epa.gov

EPA Hotline for publications and information:

1-800-438-4318

Susan Titus, EPA Region 10 Tools for Schools Coordinator
(206) 553-1189 – titus.susan@epa.gov

WSU Energy Program:

Rich Prill – (509) 477-6701 – prill@energy.wsu.edu

David Hales – (509) 477-6702 – halesd@energy.wsu.edu

Northwest Clean Air Agency:

Dave Blake – (360) 428-1617, ext 212 – dave@nwcleanair.org

Washington State Department of Health:

Tim Hardin – (360) 236-3363 – tim.hardin@doh.wa.gov

Idaho State Department of Health and Welfare:

Kara Stevens – (208) 332-7319 – stevensk@idhw.state.id.us