



# Eliminating Lead Risks in Schools and Child Care Facilities:

## A United and Urgent Call to Action for Children

2018



# Acknowledgments

*A collaborative workshop*

*hosted by*

**Children's Environmental Health Network**  
**Healthy Schools Network**  
**Learning Disabilities Association of America**

*at*

**The Pew Charitable Trusts**  
*Washington, DC*  
*December 6-7, 2017*

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Lead Risks  
in Schools and  
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DISCLAIMER: The opinions and conclusions expressed herein do not necessarily represent the views of any federal or state agency attendees.

All workshop attendees had the opportunity to review and comment on this report. To the best of the abilities of the co-hosts, it addresses all perspectives and represents the major findings and conclusions of the workshop.



## **Workshop Collaborators and Report Authors:**

### **Healthy Schools Network:**

Jeff Jones, Claire Barnett, Alex Naidoo

### **Children's Environmental Health Network:**

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### **Learning Disabilities Association of America:**

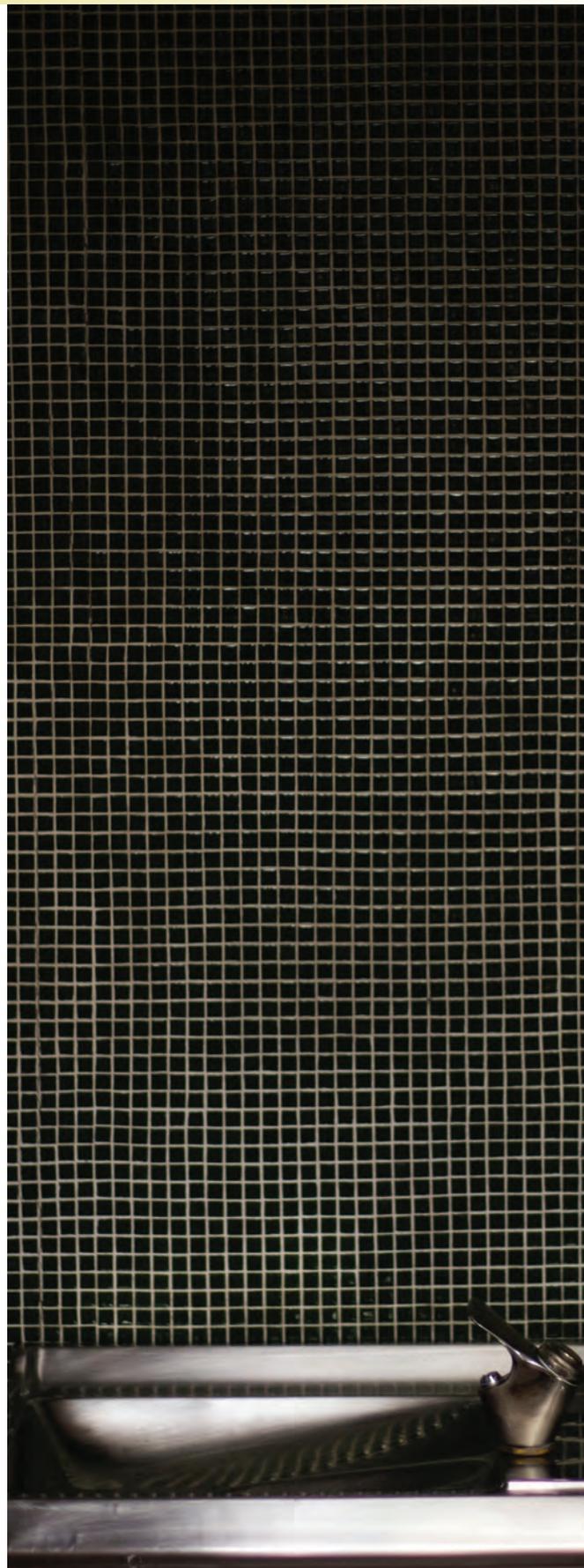
Maureen Swanson, Tracy Gregoire

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# Eliminating Lead Risks in Schools and Child Care Facilities:

## A **United** and **Urgent** Call to Action for Children



**Southeastern  
PA elementary  
school with  
peeling lead paint  
(J Roseman,  
AFT consultant)**

CDC is in the process of reviewing a scientific recommendation to revise the blood lead reference value for children from 5 micrograms per deciliter to 3.5 micrograms per deciliter.

In recent decades, great strides in reducing lead exposure have been made by banning lead in gasoline and in most paints. Yet lead remains pervasive in the environment. Lead in old paint and contaminated dust, especially in older homes and buildings, is the leading cause of EBL in children and has long been a target of interventions. Water, especially drinking water in homes, schools, and child care facilities, is another persistent source of lead exposure.

But many exposures remain unexamined and unaddressed, despite their quantifiable impacts on children's health, learning, and behavior. For instance, lead in manufactured products and, increasingly, recycled goods is an emerging problem. In addition, crucial *settings* of lead exposure have long been ignored, in particular schools

and child care facilities, which enroll over 66 million children during their developing years (50M in public and 5M in private PK-12 schools and over 11M ages five and under in child care facilities). These large group settings offer a major but largely untapped public health opportunity to prevent lead risks to large numbers of children at once, versus the current primary method of intervening one household at a time.

As more is known about how even tiny amounts of lead can irreversibly harm children, it becomes important to address additional sources and settings of exposures, especially for

the poorest children, for children with poor diets, and for those whose health is already impaired. They are among the most vulnerable populations.

Eliminating lead risks in PK-12 public and private schools (going forward, we'll simply call them *schools*) and licensed and license-exempt child care (*child care facilities*) was the focus of a facilitated workshop co-sponsored and organized by Healthy Schools Network, the Children's Environmental Health Network, and the Learning

*In his keynote address, Bruce Lanphear, MD, MPH, urged the group to focus on prevention at the population level by removing lead hazards in the environment rather than testing individual children after they have already potentially been exposed.*

*In his keynote address, health economist Corwin Rhyan described a recent study indicating that lead-poisoned children may cost the nation as much as \$84 billion each year, measured in terms of future earnings, as well as additional education, health, and incarceration costs. This means the nation could save \$84B every year if it could eliminate all sources of lead exposures to children.*

**Workshop at work. Standing at left: Bill Hudson and Bruce Lanphear.**



*John Rumpler, Environment America: “I was inspired to meet so many talented and committed advocates and researchers in one room. Now let’s roll up our sleeves and convince policymakers to ‘get the lead out’ wherever our children go to learn and play every day.”*

Disabilities Association of America. Held December 6-7, 2017, at The Pew Charitable Trusts in Washington, DC, it included some 40 participants. They were experts in varied fields—toxic chemicals, children’s health, economics, education, environment, and public health—who came together for the first time to learn, discuss, and map near-term steps in a comprehensive strategy for eliminating lead exposure in schools and child care facilities.

The workshop took place against the backdrop of new federal efforts on lead, including a 2016 updated inventory of federal lead prevention programs. A study by economist Corwin Rhyan, one of the keynote speakers, recognizes that lead poisoning of children is preventable and that eliminating all exposures to lead could save the nation as much as \$84 billion annually. With these factors in mind, participants created an urgent public-private strategy to address all sources of lead in schools and child care facilities.

### Following is the list of workshop findings that informed this strategy:

- No amount of lead is safe for any child.
- Lead poisoning is preventable.
- Children of color and children from low-income communities experience greater exposures to lead hazards than other children.
- Lead poisoning of American children is an urgent issue costing the nation as much as an estimated \$84 billion annually.
- Lead poisoning erodes our future as an economically competitive nation.
- Public- and private-sector agencies and entities must work together to end risks of lead in school and child care facilities.
- There are existing programs and campaigns to build on or expand and new strategic efforts that must be taken up.
- Lead embedded in paint, water, products, and equipment associated with school and child care facilities must be addressed with united advocacy campaigns, new public and private resources, and new federal and state programs.

#### **This report documents participants’ goals and plans to eliminate lead risks, focused on the need to:**

- develop a strategic framework to eliminate lead risks in schools and child care environments,
- draft implementation plans and identify activities that can be collectively advanced, and
- motivate participants to work together toward this common agenda.



*Workshop attendees.  
See attendee list in Appendix B.*

## After a well-facilitated workshop process, seven ambitious strategic areas emerged as priorities:

- 1 Win policies to eliminate sources of lead risks in schools and child care facilities.
- 2 Improve, promote, and enforce regulations and standards for these settings.
- 3 Encourage or persuade the private sector to commit to lead-free solutions.
- 4 Identify and prioritize sources of lead in schools and child care facilities.
- 5 Press for increased government funding to eliminate lead exposures at school and child care facilities.
- 6 Develop a strong message and communications campaign on lead for diverse audiences.
- 7 Seek expanded foundation and other sources of support for NGO campaigns and actions to eliminate risks of lead in school and child care facilities.

## Breakout groups then developed and shared a proposed set of actions that could be undertaken to achieve these goals.

- 1 Win policies to eliminate sources of lead risks in schools and child care facilities.

Breakout group participants began by citing wins to build on—for example, New York State’s first-in-the-nation law to test at the tap for lead in all public schools (2016) and federal laws and broadly supported infrastructure bills pending federally and in multiple states that could help reduce sources of lead and lead exposures. Participants then identified other current opportunities and the need for timelines at the federal, state, and tribal levels to develop policies to reduce lead in school and child care drinking water and paint and to eliminate lead exposures during construction and renovation of occupied facilities.

*Mark Mitchell, MD, National Medical Association: “I feel re-energized to work on lead as a result of this workshop.”*

They also saw opportunities to address lead-free products in public agency green procurement programs. Policies to eliminate lead adopted by NGOs (such as the National PTA/PTO; associations representing teachers, facility owners, directors, and managers of child care facilities; school leaders; and community groups), as well as public health and health care entities, were cited as important steps. Coordinated public and private campaigns to expand access and require the use of lead-free products and equipment were also identified as critical. Equally important is the need for the new and energized policy campaigns in the school and child care sectors to collaborate closely.

## 2 Improve, promote, and enforce regulations and standards for these settings.



Facilitator Amy Murphy at work.

Here participants noted federal regulations that should be strengthened, such as EPA's Lead Safe Renovation and Repair rule (LSRR) and EPA's drinking water regulations and guidance for educational facilities, and recommended a workshop priority on promoting and strengthening existing regulations. However, participants also saw the need to advocate for uniform lead levels in testing and standards and to agree on an appropriate children's EBL threshold to be used consistently by all federal, state, and local health agencies. (CDC is considering dropping its reference values for EBL in children from 5 to 3.5 micrograms per deciliter, as recommended by its Board of Scientific Counselors, based on the most recent National Health and Nutrition Examination Survey (NHANES) data.)

It will also be important to evaluate the array of existing state policies and regulations on lead in school and child care facilities in the states.

Acting to eliminate lead before one child—or a whole classroom or building full of children—has an EBL is a pivotal call for a preventive public health approach to all sources of lead exposure across the population.

**Note:** It is important to understand that decades of testing children's blood lead levels has not resulted in the elimination of lead, even in older housing, let alone any other sources of lead in other settings. But EBL is the measure health agencies use to trigger investigations of sources of lead, and reductions in the incidence and prevalence of EBL are used by agencies to track progress in public health.

## 3 Encourage or persuade the private sector to commit to lead-free solutions.

Workshop participants identified existing campaigns to ban toxic products that could be built on. They also saw opportunities to further engage with the business sector as an important goal parallel to actions by health and education entities and by public interest organizations. Companies or vendors that sell to families and school and child care facilities need to understand and commit to a zero-lead strategy.

Meanwhile, hard-pressed school and child care facilities increasingly direct parents to buy school and personal care supplies. School and child care leaders, owners, facility managers, staff, and providers need to be more aware of the dangers of lead in products. In particular, they should know more about how to find and buy lead-free or lead-safe products and equipment for instruction, personal care, and construction.

And, because public schools are public agencies that respond to or work with other public agencies in every state, government incentives, education, advocacy, and political pressure are important goals, as noted in Strategy 1 (Win Policies). It will also be important to embed lead-free purchasing policies in state procurement programs. Over a dozen states have green procurement policies and programs, and public and private school and child care entities can buy healthy products such as lead-free paints and equipment on state contracts, a potentially large platform for embedding new lead-free procurement provisions.

Within the child care arena, state licensing, state Quality Rating Improvement System (QRIS) standards, and national

accreditation indicators and standards also need to be targeted to encourage or require lead-free purchasing. Child care entities could be encouraged to engage with state, county, or city green/sustainable procurement programs that can assist them, or programs such as the national Eco-Healthy Child Care® Program. School communities can tap into EPA's rich array of guidance documents or Healthy Schools Network's Healthy Schools/Healthy Kids Clearinghouse for guides for parents and others.

*Leslie Finnan, The School Superintendents Association (AASA) + Association of School Business Officials International: "I really got a lot out of this workshop and I learned a lot."*

#### 4 Identify and prioritize sources of lead in schools and child care facilities.

Workshop participants noted that some states already require child care facilities to test for lead before they are licensed. Moving on, the participants identified mapping sources of lead contamination as a necessary step to creating meaningful strategic elimination goals.

The New York test-at-the-tap law is the first in the nation for public schools; today over 20 states are considering some type of school or child care test-at-the-tap policy. In these cases, identifying lead has been made a priority.

Overall, it will be helpful to know: What are the effects of new exposures among older school-age children? How are new lead risks identified and quantified? Finding these answers will include new research as well as updated, faster, and more sophisticated monitoring, especially of results of school and child care drinking water and tests of dust swipes in educational settings.

#### 5 Press for increased government funding to eliminate lead exposures at schools and child care facilities.

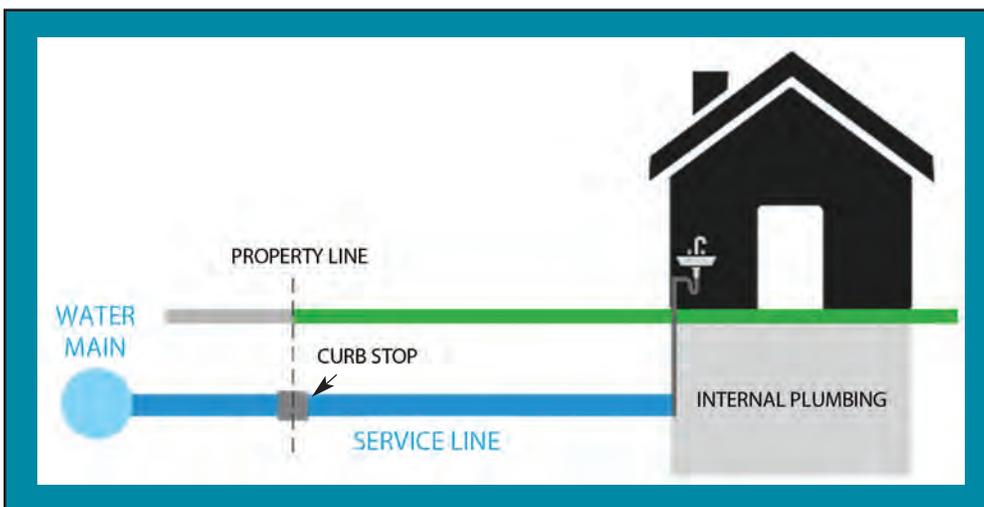
Workshop participants identified funding for a robust federal strategy as essential. New support from states and cities will also be needed to reduce sources of lead. For example, creative funding support for lead replacement initiatives was used in Madison, WI, and Cincinnati, OH. Some cities are using loan programs, while others are funding lead service line replacements over time with support from utility ratepayers. Madison became the first city in the nation to replace all of its lead pipes after a decade-long commitment to address that issue. Additional research may be needed (and would need funding) to justify stronger regulations. For example, since the effect of lead on young children has been well researched, it could be helpful to improve the knowledge of how lead affects older children and adults.

Removing lead from old buildings with old paint and from lead-containing pipes and fixtures can be costly for school and child care facilities, especially those serving low-income communities. Finding and using lead-free products and equipment, sometimes at comparable pricing, is likely to be simpler. Workshop participants noted a range of investment options for eliminating lead, as well as the need to seek broad bipartisan support for funding public agencies.



Closed fountain in a New York State school.

*Wendy Hord, representing American Federation of Teachers: "This was a very, very good workshop. It was a great group and we've found lots to work on."*



## 6 Develop a strong message and communications campaign on lead for diverse audiences.



**Crumb rubber can contain lead and other heavy metals.**

Participants also agreed that a strong, unified communications campaign directed at diverse audiences will be necessary. A campaign will require targeting audiences, developing sophisticated messages, and employing a range of media, from public service announcements on radio and television to print ads to social media campaigns. Crafting clear, mainstream language that includes solutions-focused approaches will be critical, using the time-honored test of *Will it play in Peoria?*—that is, in *everytown*? We also need to communicate with state and local funders so they can understand and support efforts to eliminate lead.

Can families be mobilized as advocates and allies through greater awareness of the blood lead level crisis, particularly regarding neurotoxic impacts? Will elected officials, school districts, special education experts, public health officers, and the media speak up and act? Participants noted that some helpful resources are already available: Healthy Schools Network's HealthySchools/HealthyKids fact sheets and guides for parents and others; CEHN's Eco-Healthy Child Care program for child care professionals and families; the EPA's guidance documents on drinking water and paint in schools and child care facilities; and the Lead Service Line Replacement Collaborative's online toolkit.

There are also natural opportunities for messaging campaigns to build on: in April annually, National Healthy Schools Day and National Public Health Week; in October annually, Children's Environmental Health Day, Lead Poisoning Prevention Week, and Learning Disabilities Month. Early August is also "back to school" time for shoppers.

*Bill Walsh, founder and president of the Healthy Building Network: "This process was one of the best and most inclusive I've ever participated in."*

*Mansel Nelson, Institute for Tribal Environmental Professionals: "I am energized and I can make the commitment now that I will expand the time I spend addressing lead when I do my environmental training for Tribal Environmental Professionals."*

## 7 Seek expanded foundation and other sources of support for NGO campaigns and actions to eliminate risks of lead in school and child care facilities.

Advocates will need support to build on the momentum of the workshop and to continue to collaborate across sectors to meet the identified near-term goals. Advocacy campaigns to ensure that lead in water and paint is identified and remediated will need support, and the campaigns can advocate for public remediation funding for hard-pressed educational settings. Finding and using lead-free products and equipment will require education, awareness, communications, and new NGO policy pushes at all government levels. Workshop participants noted a range of investment options for eliminating lead, as well as the need to seek broad bipartisan support for funding public agencies. Funding from federal, state, private, and philanthropic sources is critical to the success of this agenda and of promised federal efforts.

## The Urgent Call to Action for Children

A series of national events, highlighted by the water crisis in Flint, MI, along with similar and less-publicized public health disasters around the country, has created a renewed awareness: what has been presumed safe for children is not necessarily the case. Workshop participants started with presentations on the latest scientific evidence of lead's impact on children's health and cognitive development. By starting with the most up-to-date research, followed by an analysis of costs and benefits associated with the primary prevention of lead risks, workshop participants were newly motivated to confront this public health crisis in settings that have been ignored too long: schools and child care facilities.

By surveying existing programs designed to address lead problems in schools and child care facilities at the federal, state, and tribal levels, participants were reminded that progress is possible, even though much remains to be done. Concern about the current direction of federal policy was noted, but the possibility of a new federal lead prevention strategy provides a source of optimism, as does attendees' demonstrated successes in moving state and local policies.

Perhaps the most important result of the workshop is the growing sense of urgency to practice prevention—that is, to eliminate lead risks to children—combined with a renewed commitment of this national group of educators, environmentalists, and advocates for public health and children's environmental health to solving the problem.

Working at the community, tribal, state, and federal levels to promote the next-generation strategy, this group is determined to **put children first** and end the risks of lead exposures, particularly from paint, drinking water, and products and materials in schools and in child care facilities.

### A note on workshop limitations:

This workshop was the first national convening of its kind on eliminating all sources of lead in learning environments. It produced a variety of exciting new recommendations. The organizers, funders, and participants acknowledge that this workshop report is limited by the actual time and limited number of participants who could attend. For example, presenters were asked to deliver their most important points in no more than five slides. That means there are subjects such as lead in toys and building and instructional materials that must be amplified, as well as issues related to the supply chain of lead-containing products and the need to engage with the large array of education, environment, and health stakeholders. Such gaps need our continued attention and action.

*See Appendix D for expanded summaries of the breakout groups.*

### Workshop collaborators, facilitator, and funders:

*L-r: Nsedu Obot Witherspoon, Children's Environmental Health Network, Jeff Jones, Healthy Schools Network, Gabriella Illa, Health Impact Project, Amy Murphy, Facilitator, Rebecca Morley, Consultant/Robert Wood Johnson Foundation,*

*Claire Barnett, Healthy Schools Network, Maureen Swanson, Learning Disabilities Association of America,*

*Kristie Trousdale, Children's Environmental Health Network, Tracy Gregoire, Learning Disabilities Association of America.*



## In addition to invited presentations, additional references:

*10 Policies to Prevent and Respond to Childhood Lead Exposure: An assessment of the risks communities face and key federal, state, and local solutions.* A report from the Health Impact Project. August 2017.

*Targeting Environmental Neuro-Developmental Risks: The TENDR Consensus Statement.* 2016. Environ Health Perspect 124:A118–A122.

Lanphear BP, Hornung R, Khoury J, Yolton K, Baghurst P, Bellinger DC, et al. 2005. *Low-level environmental lead exposure and children's intellectual function: an international pooled analysis.* Environ Health Perspect 113(7):894–899.

Schnur J, John RM. 2014. *Childhood lead poisoning and the new Centers for Disease Control and Prevention guidelines for lead exposure.* J Am Assoc Nurse Pract 26(5):238–247.

*Towards Healthy Schools: Reducing Risks to Children,* Healthy Schools Network and the Coalition for Healthier Schools, state of the states' data and policy report, 2016.

Seltenrich N. 2013. *Environmental Exposures in the Context of Child Care.* Environ Health Perspect, 121(5): A160-A165.

American Public Health Association adopted Policy Statements on children:

- # 2017-10 Protecting Children's Environmental Health: A Comprehensive Framework
- # 2017-13 Establishing Environmental Public Health Systems for Children at Risk or with Environmental Exposures in Schools



**CHILDREN'S  
ENVIRONMENTAL  
HEALTH  
NETWORK**



**HEALTHY SCHOOLS NETWORK**



**Learning Disabilities  
Association of America**

### **Eliminating Lead Risks in Schools and Child Care Facilities Workshop**

**Conveners:** Children's Environmental Health Network  
Healthy Schools Network  
Learning Disabilities Association of America

**Date:** December 6-7, 2017

**Time:** Breakfast & Networking Both Days: 8:15-9:00am  
Lunch provided both days  
Workshop: Day I: 9:00am - 5:00pm  
Day II: 9:00am - 2:00pm

**Location:** Pew Charitable Trusts  
901 E. Street, NW - 10<sup>th</sup> Floor  
Washington, DC. 20004

**Facilitator:** Amy Murphy, MPH  
Public Health Consultant  
ICA Certified ToP™ Facilitator & Trainer

**Meeting Goals:** The purpose of this workshop is to ***focus on efforts to eliminate lead exposure risks in school environments and child care settings.*** The workshop goals are to:

- Raise awareness and increase knowledge of the status of current efforts;
- Develop a strategic framework to eliminate lead risks in schools and child care environments;
- Draft implementation plans and identify activities that can collectively be advanced; and
- Motivate participants to work toward a common agenda.

### **Agenda**

#### **Day I - December 6, 2017**

1. 9:00-9:45am Welcome Panel, Introductions, Meeting Overview & Goals
  - Gabriela Illa, Health Impact Project, Pew Charitable Trust
  - Nsedu Obot Witherspoon, MPH, Executive Director, Children's Environmental Health Network
  - Claire L. Barnett, MBA, Executive Director, Healthy Schools Network and Coordinator, Coalition for Healthier Schools
  - Maureen Swanson, MPA, Director, Healthy Children's Project, Learning Disabilities Association of America
2. 9:45-10:25am Keynote Presentation: Little Things Matter: The Impact of Lead on the Developing Brain
  - Bruce Lanphear, MD, MPH  
Clinician Scientist, Child & Family Research Institute, BC Children's Hospital  
Professor, Faculty of Health Sciences, Simon Fraser University

3. 10:25-10:55am The Economics of Childhood Lead Poisoning Prevention: Costs and Benefits
  - Corwin Rhyan, MPP, Health Care Research Analyst, Altarum
4. 10:55-11:10am Break
5. 11:10-11:30am Federal Updates
  - Ruth A. Etzel, MD, PhD, Director of the Office of Children's Health Protection, U.S. Environmental Protection Agency
  - Sandra Howard, Senior Environmental Health Advisor, Office of the Assistant Secretary for Health, U.S. Department of Health and Human Services
6. 11:30-11:45am Lead Service Line Replacement Collaborative
  - Lindsay McCormick, MPH, Project Manager, Chemicals and Health, Environmental Defense Fund
7. 11:45-12:15pm Lead in Drinking Water
  - Laura Vollmer, MPH, RD, Policy Analyst, Nutrition Policy Institute, University of California, & the National Drinking Water Alliance
  - John Rumpler, JD, Senior Attorney and Clean Water Program Director, Environment America
  - Lindsay McCormick, MPH, Project Manager, Chemicals and Health, Environmental Defense Fund
8. 12:15-12:30pm Observer Comments
9. 12:30-1:30pm Lunch
10. 1:30-2:00pm Lead in Paint: Federal and State Laws in the Schools and Child Care Environment
  - Tobie Bernstein, JD, Senior Attorney; Director, Indoor Environments and Green Buildings Program, Environmental Law Institute
  - Sharunda Buchanan, PhD, MS, Director, Division of Emergency and Environmental Health Services (DEEHS), National Center for Environmental Health (NCEH), Centers for Disease Control and Prevention (CDC)
11. 2:00-2:30pm Lead in Products, Building Materials and Sites
  - Bill Walsh, JD, Founder and President of the Board of Directors, Healthy Building Network
  - Eve Gartner, JD, Staff Attorney and Litigator in the Healthy Communities Program of Earthjustice
12. 2:30-2:45pm Observer Commentary
13. 2:45-3:00pm Break
14. 3:00-4:45pm Development of Strategic Framework

*"What do we need to accomplish in the next 2-3 years to eliminate lead risks in schools and child care settings?"*
15. 4:45-5:00pm Day I Reflections and Wrap-Up

**Day II - December 7, 2017**

1. 9:00-9:30am Debrief Day I & Review of Strategic Framework
2. 9:30-11:00am Strategy into Action: Implementation Planning
3. 11:00-11:15am Break
4. 11:15-12:00pm Sharing of Implementation Plans
5. 12:00 - 12:45pm Lunch
6. 12:45-1:15pm Sharing of Implementation Plans
7. 1:15-2:00pm Meeting Wrap-up and Next Steps

ATTENDEE NAME	ORGANIZATION	OBSERVER
Tim Barchak	National Education Association (NEA)	
Claire Barnett	Healthy Schools Network	
Tobie Bernstein	Environmental Law Institute	
Shanita Brown	Children's Environmental Health Network (CEHN)	x
Sharunda Buchanan	CDC Division of Emergency and Environmental Health Services	
Kara Cook-Schultz	U.S. PIRG	x
Ruth Etzel	EPA Office of Children's Health Protection (OCHP) & co-chair of the President's Task Force on Environmental Health Risks and Safety Risks to Children	
Anne Ferrero	Maternal and Child Health Bureau	x
Leslie Finnan	The School Superintendents Association (AASA) + Association of School Business Officials International	
Margaret Frericks	Improving Kids' Environment (IKE)	
Eve Gartner	Earthjustice	
Tracy Gregoire	Learning Disabilities Association of America (LDA of Maine)	
Angela Hackel	US Environmental Protection Agency: Office of Children's Health Protection (EPA OCHP)	
Marissa Hauptmann	American Academy of Pediatrics (AAP)	
Susan Hedges	National Association for the Education of Young Children (NAEYC)	
Susan Hoffmann	National Association of School Nurses (NASN)	
Wendy Hord	New York State United Teachers (NYSUT) for American Federation of Teachers (AFT)	
Sandra Howard	US Department of Health and Human Services & Co-Chair of the President's Task Force on Environmental Health Risks and Safety Risks to Children	
Bill Hudson	National Association of Family Child Care (NAFCC)	
Gabriella Illa	Health Impact Project	x
Jeff Jones	Healthy Schools Network – New York Program	
Robin Joseph	Children's Environmental Health Network (CEHN) Eco-Healthy Child Care Program	x
Carlette KyserPegram	U.S. Department of Education	x
Bruce Lanphear	Simon Fraser University	
Janet Mascia	U.S. Government Accountability Office	x
Lindsay McCormick	Environmental Defense Fund	
Mark Mitchell	National Medical Association	
Rebecca Morley	Robert Wood Johnson Foundation	x
Mansel Nelson	Institute for Tribal Environmental Professionals (ITEP/NAU)	
Mekela Panditharatne	Natural Resources Defense Council (NRDC)	
Surili Patel	American Public Health Association (APHA)	
Hester Paul	Children's Environmental Health Network (CEHN) Eco-Healthy Child Care	

ATTENDEE NAME	ORGANIZATION	OBSERVER
Colin Pekruhn	Grantmakers in Health	x
John Rumpler	Environment America	
Corwin Rhyan	Altarum Institute	
Krista Scott	Child Care Aware of America (CCAoA)	
Maureen Swanson	Learning Disabilities Association of America	
Kristie Trousdale	Children's Environmental Health Network (CEHN)	
Laura Vollmer	National Drinking Water Alliance of the University of California's Nutrition Policy Institute	
Bill Walsh	Healthy Building Network	
Nsedu Witherspoon	Children's Environmental Health Network (CEHN)	

**Workshop Facilitator:** *Eliminating Lead Risks in Schools and Child Care Facilities* was facilitated by Amy Murphy, MPH.

Ms. Murphy is a public health consultant and professional group facilitator and trainer. Based in Milwaukee, WI, she provides facilitation services to assure that meetings and workshops fulfill their stated objectives, respect the time and talent investment, support inclusive participation, and connect people in a meaningful way to one another for sustained involvement. She is an ICA (Institute of Cultural Affairs) Certified ToP™ (Technology of Participation) Facilitator and a Qualified Trainer. Ms. Murphy has 30 years of experience as a public health professional, with 25 of those years in the field of childhood lead poisoning prevention. She is an adjunct faculty member at UWM Zilber School of Public Health.

- Organizers are planning to convene a larger conference for K-12 and child care constituencies to share results of the workshop. There are over 130,000 K-12 school facilities and over 6 million employees in school settings; with a small workshop, only a few representatives could be invited.
- State Agency Procurement and Lead: Leading green procurement programs in two states have been contacted regarding the workshop and are interested in assessing their procurement specifications for lead.
- Lead in Building Materials/School Design standards: All states have adopted the International Building Code for schools, but lead in water and paint is not included. In terms of advanced school design certification standards, the Collaborative for High Performance School (CHPS, Sacramento, CA), whose design protocol has been adopted in 12 states, is aware of the workshop and indicated its interest in addressing lead in its list of approved building products and in its retrofitting guidance.
- A full panel (90 minutes) discussion on the lead workshop has been accepted for peer-reviewed presentation at the American Public Health Association annual conference in San Diego in November 2018. The organizer is Claire Barnett of Healthy Schools Network; the moderator is consultant Rebecca Morley; in addition to Barnett, speakers are Nsedu Witherspoon/CEHN, Maureen Swanson/LDA, and Mansel Nelson/ITEP-NAU.
- Learning Disabilities Association of America hosted a presentation on the lead workshop at its national conference in Atlanta in February. Maureen Swanson and Tracy Gregoire presented.
- In January, “[Drinking Water and Lead Service Lines: Partnering to Protect Public Health](#)” focused on lead service line replacement within the broader context of tackling all sources of lead. The event addressed the health risks of lead service lines, the role of public health professionals in the replacement process, and the importance of effective partnerships between public health agencies and water utilities to develop and implement creative solutions, providing public health professionals with practical tools to tackle the problem in their own community.
- Healthy Schools Network has completed a brief analysis of the New York State preliminary data report on results from tests at the tap for lead by all public schools statewide. While the preliminary data need to be “cleaned”, HS Network found indications that schools enrolling the poorest children have the most taps shut off due to lead contamination.
- The 16<sup>th</sup> annual National Healthy Schools Day on April 3, coordinated by Healthy Schools Network, has announced the theme of Infrastructure and Lead. See Plan Your Activities at [www.NationalHealthySchoolsDay.org](http://www.NationalHealthySchoolsDay.org) . The Day will also be promoted by the Children’s Environmental Health Network’s outreach campaign.

**KEYNOTE: Bruce Lanphear**

**Bruce Lanphear, MD, MPH, a researcher and professor at the Child & Family Research Institute at British Columbia Children’s Hospital and Simon Fraser University**, provided the first keynote address, “Little Things Matter: The Impact of Lead on the Developing Brain.” Lanphear opened by sharing his “[Little Things Matter](#)” video, which illustrates how the loss of just a few IQ points in children as the result of lead exposure shifts the entire population curve down in terms of learning capacity. As a result, fewer children fall into the “gifted” category, while more children fall into the “challenged” category, unable to reach their full cognitive potential. He explained that a prescription drug like Ritalin—which people commonly understand is meant to affect a child’s behavior—works in a child’s body and brain at very low levels. But we often fail to understand that lead—although exposures are unintended—affects a child’s body and brain at the same very low levels of exposure.

Lanphear described research findings that indicate additional damage from lead exposure occurs in older children. Indeed, children who have higher concentrations of lead in their blood at 5 or 6 years of age, relative to one year, had larger decrements in IQ scores.

Concerns with lead exposures also extend to teachers and school and child care staff, most of whom are women of childbearing age. As maternal lead exposures increase, women are more likely to give birth preterm. Preterm birth is an established risk factor for learning and developmental problems.

Lanphear also urged the group to focus on prevention at a population level—in other words, broad strategies and measures to identify and eliminate sources of lead in children’s environments. Lead, he noted, is insidious. Past uses of lead in paint and pipes are major sources of exposure to children in homes, schools, and child care centers, while ongoing uses of lead in products (including aviation gas, ammunition, some jewelry and cosmetics, carpeting, and synthetic turf) also put children at risk of exposure and harm. The keynote set the foundation and tone for the meeting, with participants sobered by the stark consequences of even tiny levels of lead exposure, but also inspired by the potential to finally get the job done—to prevent lead exposure and protect healthy brain development for all children.

See “[Little Things Matter](#)” video for the presentation.

**KEYNOTE: Corwin Rhyan**

**Corwin Rhyan, a health economist with Altarum Institute and a contributor to The Pew Charitable Trusts’ report “10 Policies to Prevent and Respond to Childhood Lead Exposure,”** spoke on the economics of preventing childhood lead poisoning. Rhyan uses a “Value of Prevention” model to assess what a child’s life path might look like without lead exposure.

The estimated cost of lead exposures for the cohort of children born in 2018 is \$84 billion. This figure includes \$77.2 billion in lost future earnings annually and \$6.8 billion in health, education, and incarceration costs annually. Conversely, the economic benefit of reducing children’s blood lead levels to around zero is \$84 billion for each annual cohort born in that year. Rhyan noted that lead elimination and prevention interventions in school and child care facilities have the potential for large returns on initial investments.

See this presentation here: C Rhyan, Altarum Institute - <http://bit.ly/2CrV4j5>

**FEDERAL UPDATES**

**Sandra Howard, Senior Environmental Health Advisor in the Health and Human Services Office of the Assistant Secretary for Health and Angela Hackel, with the Office of Child Health Protection at the U.S. EPA,** presented on a new federal lead strategy. The new strategy is being developed by the President’s Task Force on Environmental Health Risks and Safety Risks to Children. The key objectives of the Task Force are

to: identify priority environmental health and safety risks to children to address through research, programmatic collaboration, outreach, and education; recommend and implement federal interagency actions; and communicate information to federal, state, and local decision makers on protecting children from environmental health and safety risks. The task force consists of 11 federal agencies and 6 White House offices and the co-chairs, including the secretary of Health and Human services and the U.S. Environmental Protection Agency administrator. Currently there are subcommittees on asthma disparities, healthy settings, climate change, chemical exposure, and lead. In 2000, the Task Force released “Eliminating Childhood Lead Poisoning: A Federal Strategy Targeting Lead Paint Hazards.” At that time, the focus was primarily on expanding efforts to correct lead paint hazards, especially in low-income housing.

Today, the Task Force acknowledges that disparities in childhood lead exposure overburden minority and low-income families and the urgency to address these issues as a matter of environmental justice. There is no single federal agency that can address all aspects of children’s health. However, the interest is high to prevent lead exposure to children. The Task Force acknowledges the research findings available that indicate significant health affects for children at low levels of lead exposure.

In 2016, the Task Force published “Key Federal Programs to Reduce Childhood Lead Exposures and Eliminate Associated Health Impacts”. In fall 2017, the Task Force requested public comment on its preliminary plan for stakeholder engagement. The goals identified are to 1) reduce sources of lead exposure in children’s environments, 2) improve identification and monitoring of lead exposed children, 3) improve the health of children identified as lead exposed, 4) communicate effectively and consistently with stakeholders about childhood lead exposure, and 5) research to advance our scientific understanding of the effects, evaluation, and control of lead hazards in children’s environments. A variety of public engagement activities are under way to gather input on the Draft Lead Strategy, including stakeholder discussions. By spring 2018, the plan is to revise and finalize the Plan.

*See this presentation here: Pres Task Force - <http://bit.ly/2BWteuf>*

**Sharunda D. Buchanan, PhD, MS, Director, Division of Emergency and Environmental Health Services for CDC**, discussed Lead Poisoning from CDC’s national perspective, stating that CDC saw continual progress through the removal of lead from all sources of a children’s environment as key to reducing blood lead levels as low as possible. As one example of newer work, Buchanan described ATSDR’s all-hazard 2017 Safe Siting Initiative for child care facilities, with a section on lead-safe drinking water. Attendees noted that it is an important parallel to US EPA’s School Siting guidance issued in 2011.

Buchanan also discussed CDC’s role in creating a new policy tool, a Blood Lead Reference Value (BLRV), to help health agencies identify the most at-risk children, a step that could help target prevention by identifying high-risk children earlier. CDC is re-evaluating BLRVs every four years.

*See this presentation here: CDC - <https://tinyurl.com/yblyjb7h>*

## **LEAD SERVICE LINE REPLACEMENT COLLABORATIVE**

**Lindsay McCormick, MPH, Project Manager, Chemicals and Health, Environmental Defense Fund (EDF)**, shared information about the Lead Service Line (LSL) Replacement Collaborative, a diverse group of 25 national public health, water utility, environmental, labor, consumer, housing, and state and local government organizations. The Collaborative has released an [online toolkit](#) to help communities voluntarily develop and implement lead service line replacement programs to address lead in drinking water. The toolkit includes a roadmap for getting started; suggested practices to identify and remove lead service lines in a safe, equitable, and cost-effective manner; policies that federal and state leaders could adopt to support local efforts; and links to additional resources that may be helpful when developing local programs.

Regarding school and child care facilities: LSLs are more commonly found serving smaller buildings (e.g., school annexes, residential child care) than larger facilities. Due to the limitations of water testing to locate LSLs, visual inspections of service lines are necessary.

See this presentation here: LSLR - <https://tinyurl.com/ycq8edmo>

## KEY ISSUE: LEAD IN PAINT

Several presenters mentioned the progress in banning lead in paint and controlling or removing lead-based paint from housing as a longstanding and successful strategies. Nonetheless, leaded paint is still present in many school and child care facilities (the average age of public schools in the US is nearly 50 years) and remains in older housing. EPA's Lead Safe Renovation Rule applies to educational settings where children ages six and under are present--a step forward, but a step that does not protect older children or even the personnel in these settings, who are mostly women of childbearing age. Also mentioned was that leaded-paints are still in use, for example, in selected outdoor and industrial applications.

## KEY PAINT AND RELATED CONSIDERATIONS FOR SCHOOLS AND CHILD CARE ENVIRONMENTS

**Tobie Bernstein, Senior Attorney, Environmental Law Institute (ELI)**, addressed "Lead Based Paint Hazards in Licensed Child Care." She outlined key federal regulations and discussed how states are moving beyond those regulations to ensure better protection for young children. Her office routinely tracks school indoor environment policies and published a 2015 report on state policies addressing environmental health in child care.

Bernstein noted that some states have advanced primary prevention through strengthening state laws and regulations for the identification and elimination of lead based paint (LBP) in child care settings. Sample strategies included requiring documentation of lead hazards and remediation as part of child care licensing and inspections. Importantly, Bernstein noted that while states license and inspect child care facilities, the PK- 12 sector is not licensed or routinely inspected at the state level.

See this presentation here: ELI - <https://tinyurl.com/ybornyna>

## KEY SOURCES OF LEAD: WATER

**Laura Vollmer, MPH, RD, of the National Drinking Water Alliance (NDWA), coordinated by the University of California Nutrition Policy Institute** presented on "Bringing Lead-Free Drinking Water to Schools and Childcare". Water is a healthier beverage choice over sodas and sports drinks for children. Media reports nationwide have highlighted high levels of lead in school water but the true extent of lead contamination in school drinking water is currently unknown. About half of states have attempted to or taken some kind of action on school tap water. She also highlighted features of federal laws regarding school meal programs that could be used to address lead in school water and highlighted the need to tackle lead in drinking water in childcare settings.

See this presentation here: NDWA - <http://bit.ly/2ow0n8r>

**Lindsay McCormick, Project Manager, Chemicals and Health, Environmental Defense Fund (EDF)**, presented a pilot project to test and remediate lead in water in about a dozen child care centers in four states, expanding on EPA's 3Ts guidance. In the pilot, EDF first inspected for lead service lines and, if they were discovered, replaced the lines prior to testing the taps. EDF used portable lead meters to screen lead levels at the tap before sending samples to the lab for analysis and replaced problem fixtures with new, NSF-certified fixtures. EDF also tested water heaters and found that water heaters may function as sinks for upstream sources of lead or be a source of lead themselves. Compared to schools, child care centers have limited

facility support systems and residential-based child care centers are most likely to have lead service lines. Currently only five states require testing for lead at the tap in child care.

See this presentation here: EDF - <http://bit.ly/2EZ8PaB>

**John Rumpler, Director, Clean Water Program, Environment America**, presented Environment America and US Public Interest Group's joint "Get the Lead Out Campaign," launched in 12 states in early 2017. Test results are confirming lead in water at schools across the country. Because testing for lead at the tap can be like "Russian Roulette" (meaning lead can appear unpredictably at very high levels), the groups are calling for proactive removal of lead-bearing parts in school and child care water delivery systems and installation of certified filters at schools and child care centers. The campaign is also advocating adoption of a 1 ppb standard for lead in schools' water, as recommended by the American Academy of Pediatrics. A small but growing number of school districts and states are considering or have already adopted 1-5 ppb standards. While substantial funding will be needed to ensure lead-free water at all schools, it is also true that there are low-cost steps not being taken and sources of funding that are not being used. On questioning about the use of filters and lack of school maintenance, he agreed that filters alone do not assure lead-free water for the long term and that monitoring and transparency are needed.

See this presentation here: Env-Am/US PIRG - <https://tinyurl.com/yaikdcqj>

## KEY SOURCES OF LEAD: PRODUCTS

**Eve C. Gartner, JD, Earthjustice**, presented on "Lead Emissions from General Aviation Airports Near Schools," citing studies of elevated BLL in children in association with aviation gas (av-gas) and citing reports that lead from aviation fuel accounts for 62% of all lead emissions into the air. She also noted that an EPA study found over 250 schools within 500 meters of airport runways nationwide and that those schools enrolled some 78,000 children, over half of whom were children of color. Gartner closed by noting the momentum to address av-gas is strong, in part because only the smaller regional airports are locked into av-gas and lack the resources to install less polluting fuels.

See this presentation here: Earthjustice - <http://bit.ly/2F3ol15>

**Bill Walsh, Founder and Board President, Healthy Building Network**, focused on the old and emerging issues of lead in building products, specifically mentioning lead in recycled products that can earn credits for US Green Building Council LEED certification. He cited a study showing that 69% of vinyl floors had lead levels above those allowed in children's toys. He also discussed examples of lead in other building products: recycled crumb rubber used for turf, playground padding, and infill and fly ash in carpets and ceiling tiles, as well as leaded TV and computer screen glass recycled into glass tiles and fiberglass insulation.

See this presentation here: HBN - <https://tinyurl.com/y83hy5lw>

**BREAKOUT GROUP: WIN POLICIES TO ELIMINATE SOURCES OF LEAD RISKS IN SCHOOLS AND CHILD CARE FACILITIES**

Goal: To promote new or updated policies and enforce standards and regulations.

**Key Strategies:**

- Encourage federal interagency strategies and adequate appropriations to remediate all sources of lead in school and child care facilities.
- Refine policy goals and timelines for work with states, local governments, and tribes on lead in water, paint, soil, construction materials, and equipment.
- Encourage professional associations and advocates for children and staff in the school and child care sectors to adopt and disseminate lead-free policies.
- Expand the Lead Service Line Replacement initiative to cover all school and child care facilities.
- Adopt laws and regulations to protect children and other occupants from lead dust in school and child care facilities under renovation; all new and renovated facilities should have lead-free construction standards.
- Use dust swipe tests in school and child care facilities.

**Current Reality and Gaps:**

There are some 66M children and millions more adults who work in schools or in child care, most of whom are women of childbearing age. Every state requires children to attend school, but no state takes the environmental conditions of schools into account, unlike child care, which may be state inspected. Lack of funding for these facilities is universal, and the sources of lead may be very similar, but the two settings operate differently. All states and tribes require children to attend schools. No state requires children to attend child care. About half of the nation's child care facilities are state licensed and inspected and about half of those participate in the Child and Adult Care Food Program. States do not license or provide general inspections of schools, but public and private schools may have both food service and fire safety inspections. Schools can refuse an on-site inspection by an outside agency and there are no federal, state, or tribal public health programs that track children's exposures in schools or in child care (APHA policy 201713). While tribal nation school facilities have federal funding (as do some child care entities), school facilities do not. In fact, some 12 states do not provide any funding for public school facilities, making new federal support to remediate legacy toxics like lead in paint and water essential.

EPA's drinking water regulations and guidance are outdated and not well understood by schools. EPA's Lead Safe Renovation Rule is not well enforced and applies only to facilities where children six and under are present. USDA's subsidized meal programs require two food service inspections annually, but those do not test for lead at the tap in kitchens or cafeterias.

**Near-Term Opportunities to Build On:**

State and national campaigns are beginning to address school facility funding. Major coalitions are supporting the need to rebuild America's schools and the \$100 billion federal infrastructure bills moving through the U.S. House and Senate. New York State's first-in-the-nation law to test at the tap for lead in all public schools set a new benchmark; there are now campaigns in 20-some states tackling school and child care water. The federal WINN Act authorizes appropriations for lead in school water. Every Student Succeeds Act Title IV provides space for addressing risks to children's health, as does EPA's Indoor Environments Division's deep history of addressing educational facilities. Beyond those, campaigns and programs such Eco-Healthy Child Care, Getting Ready for Baby, Environment America's *Get the Lead Out*, and the national Coalition for Healthier Schools are engaged. The national Coalition actively supports funding for U.S. EPA and for rebuilding schools and hosts a national work group on chemical policy reform in schools that won procurement reforms in 12 states. Following the Flint, MI, disaster, the National Conference of State Legislators has tracked dozens of bills in as many states to address lead in educational facilities for children.

There are two major green/high performance school design standards: from the U.S. Green Building Council, active in multiple local districts, and from the Collaborative for High Performance Schools, adopted into a dozen states for public school construction. Three years ago, the General Services Administration (GSA) produced an online architectural schematic and specifications for designing green child care centers. While these programs do not explicitly address lead in school and child care facilities, they represent a small but widely recognized set of motivated and influential marketers who should be encouraged to address lead-free products in facilities, from plumbing to synthetic turf to recycled carpeting and insulation.

#### **Year 1 Goals:**

- Encourage and support a robust federal lead prevention strategy.
- Identify and champion new federal, tribal, and state funding sources.
- Assess existing state/tribal/local policies and standards regarding lead in school and child care facilities.
- Develop model policy guidance for use by state/tribal/local agencies to reduce all sources of lead.
- Encourage high performance/green design groups to adopt no-lead standards for acceptable building products.
- Encourage public agency green procurement programs to address lead-free products and equipment.

#### **Indicators of Success:**

- Federal lead prevention strategy to be published in 2018 robustly addresses all sources of lead in schools and child care facilities.
- States/tribes/localities begin to adopt policies or enact laws consistent with our policy guidance.
- Federal infrastructure and lead bills address funding for school and child care facilities.
- States and tribes implement robust training, monitoring, and compliance.

### **BREAKOUT GROUP: ENCOURAGE OR PERSUADE THE PRIVATE SECTOR TO COMMIT TO LEAD-FREE SOLUTIONS**

Goal: To press companies, state procurement programs, and national accreditation associations to commit to a zero-lead strategy and production or sale of lead-free products.

#### **Key Strategies:**

- Provide incentives for innovative public and private partnerships.
- Target manufacturers and vendors that sell to educational institutions.
- Promote public nuisance suits against the lead industry.
- Identify lead-free alternative products and technologies.

#### **Current Reality and Gaps:**

In many low-income communities, there is an awareness that environment and health disparities are real and a rallying point. Current assets include existing anti-lead/toxics campaigns. These include Getting Ready for Baby, a campaign to reduce toxics in baby products, and efforts under way to educate child care professionals, such as the Eco-Healthy Child Care (EHCC) program. The Campaign for Healthier Solutions is targeting Dollar Tree stores as teachers and child care providers often use these low-cost and other big box stores to purchase supplies. Also included are current efforts such as the Coalition for Healthier Schools' National Collaborative Work Group on Chemical Policy Reform in Schools, which includes K-12 constituencies that have tested and won reforms on nontoxic purchasing for schools, many of which could be used by child care.

In addition, over a dozen states have green procurement policies and programs under which public and private schools can buy healthy products on state contracts. This includes promoting or requiring the use of green products and equipment and low-emission interior paints by state agencies or by PK-12 schools, a potentially large platform for embedding new lead-free procurement provisions.

Despite these efforts, the following gaps were apparent:

- There is a need to broaden perspectives and keep building pressure on the public and the private sectors.
- Progress needs to be made in answering questions such as: What is safe? What is the cost? Which entities reliably verify that products are in fact lead-free?
- There is a lack of both information and of training for professionals throughout the education sector, including non-educators, such as architects, facility managers, and contractors.
- More materials (building materials, for example) require clear recognition as healthy products.
- There is a need for better awareness and control of what causes exposures in schools and child care facilities, such as uncontrolled renovations that release lead-contaminated dust in occupied facilities.

Efforts to make school and child care environments healthier are made more difficult by a lack of facility funding and a lack of information about how to be lead-free and about which items may contain lead. NGOs in the school and child care sectors adopting and disseminating lead-free policies will help drive the demand for lead-free or lead-safe products.

#### **Year 1 Goals:**

- Identify and target public and private school and child care groups to secure commitments to a campaign for reducing lead exposures.
  - Develop preferred policies.
  - Create product priority purchasing lists for public agencies, schools, and child care facilities.
- Partner with national child care accreditation bodies (such as the National Association for the Education of Young Children, Child Care Aware of America, National Association for Family Child Care, or Association for Early Learning Leaders), as well as the prominent large child care product suppliers (Discount School Supply, Kaplan, Lakeshore Learning), on “lead-free pledge” model campaigns. Formulate a committee to create a voluntary yet long-lasting pledge structure that aims to omit lead-containing products from child care expos and conferences.
- Create “no buy” lists.
- Evaluate current product certification labels for addressing lead.
- Leverage attention from the Flint, MI, water crisis to increase public understanding of the harmful effects of lead, including through media outreach and public pressure. Target child care professionals and focus on products.
- Identify a champion company to eliminate lead from products often purchased by schools or child care facilities. Identify a champion corporate child care chain that aims to eliminate lead from all products used in their facilities and tests for lead in paint and water.
- Conduct a short-term study to review corporate donors to the annual conventions of school and child care associations and assess the “corporate lead profile.”
- Identify corporate targets and big box stores for back-to-school shopping.
- Target large, influential school districts and large-scale child care entities.

#### **Year 3 Goals:**

- Secure commitments from influential consumers (school districts or corporate child care programs) to give priority to purchasing lead-free products and to require full disclosure of toxic ingredients and contents.
- Partner with PK-12 leadership groups to support lead-free, green product policies.
- Educate state boards of education on lead-free policies and procurement (with the National Association of State Boards of Education).
- Work with private utilities to identify or inventory lead service lines and lead-contaminated infrastructure components in schools and child care facilities and develop replacement plans, including for funding.

#### **5 Year Indicators of Success:**

- Vendor knowledge grows at educational expos:

- Develop a vendor pledge campaign or other competitive process showing whether a vendor sells lead-free/unleaded products. Like the Healthy Hospital Challenge, Clean Med, Living Future, and Green Building Expo, give awards for best practices: platinum, gold, silver. Engage existing independent third-party certifiers of products and equipment to label lead-free.
- Establish a model organizational policy for a preference to purchase products that disclose ingredients and do not contain lead.
  - Internal purchasing system, inventory materials in some way.
- Secure commitments in targeted states to replace lead service lines and contaminated water fixtures in schools and child care facilities.
  - Target schools and child care systems that have lead service lines. Get a commitment to analyze and respond. Involve the private/public utility companies. Start with states and cities that have some funding, such as Cincinnati, and child care leaders that have engaged with Eco-Healthy Child Care program or Bright Horizon.
- Identify, create, and expand the priority list of products to share and leverage; work with manufacturers to begin eliminating toxic products.
  - Identify lead-free alternatives. Figure out the priority tactics. Target products where consumers can start. Create a list to hand to school and child care buyers. Work with manufacturers to create a lead-free alternative, when possible.
- Identify key states with model procurement; identify key districts.

## **BREAKOUT GROUP: IDENTIFY AND PRIORITIZE SOURCES OF LEAD IN SCHOOLS AND CHILD CARE FACILITIES**

Goal: To advance knowledge and understanding of the sources and pathways of lead exposures in schools and child care facilities.

### **Key Strategies:**

- Conduct a study of sample school and child care facilities to map possible sources and routes of lead exposure, including dust swipes in classrooms.
- Conduct dust swipes in storm-damaged educational settings re-occupied by children.
- Expand and enforce EPA's Lead Safe Renovation Rule.
- Identify and quantify all lead risks.
- Conduct more research on the variety of and the places of lead exposures.
- Monitor results of tests on school drinking water; look for disparate impacts.
- Assess the regulatory landscape for leverage points to address lead prevention in school and child care facilities.

### **Current Reality and Gaps:**

About half of child care is state licensed and inspected, while schools are not generally licensed or inspected—a key difference between these two settings occupied by over 65 million children. Accreditation bodies, quality ratings, improvement systems, and eco-healthy child care facilities exist. Science has developed perspectives on lead exposure and dosages in residential settings. Some general state requirements for environmental and lead hazard testing have been developed. Some states require child care facilities to test for lead before they are licensed. The New York test-at-the-tap law is the first in the nation for public schools, with some 20 states considering policies or bills on lead in water in school and child care facilities.

Gaps that exist include the lack of available resources for water testing in schools and child care facilities; on top of this, existing resources may not be targeted to correct the most persistent and important sources of lead exposure. There is a real need to develop policies for enforcement at school and child care facilities, which would be aided by developing simple model protocols to follow. One problem is that the standards for lead in water are too high, i.e., the 20 ppb voluntary action level for lead in water for schools or child care facilities promoted by EPA and the 15 ppb lead adopted by EPA for municipal and other regulated water

suppliers, or the 15ppb lead adopted by New York State, when the preferred level is 1 ppb (AAP).

In addition, a protocol is needed to guide local and state handling of test results, including development of a searchable database of test results. These results could then be calibrated with other metrics. For instance, a searchable state database of test-at-the-tap results could be merged with standardized test scores, building condition surveys, and absenteeism or teacher turnover to determine potential relationships between possible lead exposure and other identified threats to children's health and learning.

Another problem is the lack of funding for child-care-specific testing and remediation. Resources are also needed for schools on tribal lands. Finally, studies are needed to determine equity implications as research becomes more sophisticated. Specifically, are schools in low-income, people-of-color neighborhoods facing disproportionate impacts from lead exposures?

While the workshop organizers and speakers agreed that there is sufficient science to practice prevention (to eliminate lead in these settings before any more children are compromised), the workshop recognized that research may be needed, for example, on outdoor school and child care facility grounds. For example, educational facilities located near some municipal or regional airports may experience increased lead exposure from piston airplanes that still use lead gasoline. Or facilities may have indoor or outdoor rifle ranges or be located on sites with prior unexamined industrial uses or near smelters. Or they may have installed crumb rubber or fly ash site fill.

#### **Year 1 Goals:**

- Complete a 50-state baseline policy scan of lead actions and requirements in schools and child care facilities; document the landscape of lead actions in tribal schools and child care facilities.
- Design an epidemiological study of contributions of various sources of lead on blood lead levels in schools and child care centers.
- Complete a return-on-investment study of the costs and benefits of remediation of lead-impacted water and paint.
- Improve the protocol for school and child care centers, using EPA's 3Ts (lead testing, training, and telling voluntary toolkit for schools and child care) and HUD guidelines as reference.
- Develop a model template for how lead hazard testing data should be presented to the public, including a searchable database.

#### **5 Year Indicators of Success:**

- Knowledge developed of the status of lead sources in schools, child care facilities, and tribal communities
  - Start with 2001 HUD study: revise and expand.
  - Explore state and federal data.
- Improve knowledge of lead sources in educational settings
  - Completed policy scan (including all accreditation, licensing, rules, and requirements for schools and child care with an equity lens).
  - Completed economic analysis of lead removal and remediation in schools and child care facilities, including return-on-investment analysis for individual school, district, and state dollars.
  - Completed epidemiological study for schools and child care centers of source contribution on BLL across geography and socioeconomic strata.
  - Completed protocol for schools, child care facilities, and tribal communities to evaluate lead hazards.
- Enhanced public health capacity for assessment and remediation.

## **BREAKOUT GROUP: DEVELOP STRONG MESSAGE AND COMMUNICATIONS CAMPAIGN ABOUT LEAD FOR DIVERSE AUDIENCES**

Goal: To target education about lead exposure impacts on children to all audiences, to increase knowledge and willingness to prioritize prevention.

### **Key Strategies:**

- Target audiences including school and child care employees, caretakers, parents, health care providers, health and public health agencies, and the funding community.
  - Direct messaging to state and local foundations to fund efforts to eliminate risk.
- Develop messaging on array of benefits of eliminating lead hazards.
- Mobilize advocates and allies with solutions-focused approach.
- Include messaging on the importance of prevention by eliminating sources in the environment, not just messaging on the importance of testing children.
- Clearly communicate the lifelong impacts on brain function, behaviors, and socioeconomic standing.

### **Current Reality and Gaps:**

Information on lead impacts on children's health and on tools and strategies to eliminate or reduce children's exposure risks exist or could be developed for fact sheets, such as Healthy Schools Network's HealthySchools/HealthyKids fact sheets and guides for parents and others; CEHN's Eco-Healthy Child Care program (targeting child care professionals and families); the EPA's guidance documents on drinking water and paint in schools and child care facilities; and the Lead Service Line Replacement Collaborative's online toolkit. Various organizations conduct efforts to educate reporters and other media professionals; and, there is already a growing national awareness about lead in school drinking water.

Despite these efforts, society does not yet value primary prevention.

Further, at present, there does not seem to be an overall heightened awareness of lead exposure in child care or in school facilities. Other concerns include the need to develop more accessible tools for teachers, parents, and other education professionals and a failure to reach low-income families and those lacking access to the Internet. A strong, unified message and communications campaign is needed to avoid confusion and duplication of efforts and to emphasize reducing lead hazards.

### **Year 1 Goals:**

- Create a baseline survey of all identified audiences to assess their knowledge of lead poisoning and valuation of prevention.
- Secure funding for campaign development.
- Hire a marketing and communications firm to develop the campaign.
- Urge the release of a federal interagency joint statement on lead prevention.
- Develop an inventory of current guides and messaging materials and efforts.
- Secure funding for a national contest on a lead campaign with posters and graphics.

### **Year 3 Goals:**

- Launch a campaign with mixed media for large-scale distribution among all audiences.
  - Includes public service announcements and toolkits (with guidelines) for schools and child care settings
  - Includes online and social media outreach and engagement, as well as distribution strategies for reaching those without the Internet (for instance, via faith-based institutions, doctors' offices, schools, center-based and home-based child care programs, entities that provide wraparound services, etc.)

### **Year 5 Indicator of Success:**

- Increased knowledge and valuation of prevention (assessed from follow-up surveys).

**BREAKOUT GROUP:****PRESS FOR INCREASED GOVERNMENT FUNDING TO ELIMINATE LEAD EXPOSURES AT SCHOOL AND CHILD CARE FACILITIES**

and

**SEEK EXPANDED FOUNDATION AND OTHER SOURCES OF SUPPORT FOR NGO CAMPAIGNS AND ACTIONS TO ELIMINATE RISKS OF LEAD IN SCHOOL AND CHILD CARE FACILITIES**

Goal: For advocates to secure funding to build on the momentum of the workshop and to continue to collaborate across sectors to meet the identified near-term goals.

**Key Strategies:**

- Support federal and state appropriations to help eliminate lead risks in school and child care facilities; build broad bipartisan support for these actions.
- Secure outreach and education funding to identify and educate on the use of lead-free products and equipment in schools and child care facilities.
- Identify private-sector investment options for eliminating sources of lead.
- Identify sources and secure federal, state, private, and philanthropic funding sources that are critical to the success of this agenda and of promised federal efforts.

**Current Reality and Gaps:**

Public: There are no federal funds to address lead embedded in school and child care facilities as a legacy toxic. Lead in paint and water in these settings might be removed via phased-in and planned retrofits of plumbing systems or the renovation of facilities over time, an approach that will leave millions of children in lead-compromised facilities for years to come. Federal and state infrastructure funding is critical to reducing risks of lead to children.

Private: Funding is also critical to sustain the workshop momentum, beginning with key convenings and dissemination of this report. Funding is needed for NGO campaigns, for schools and child care to implement lead-free policies, and for testing and remediation in all settings. Funding is also needed for lead hazard control in small child care settings, which requires building bipartisan support for both federal and state funding.

**Year 1 Goals:**

- Funding sources to address lead in schools and child care facilities diversified and increased.
- Assess and improve federal and state appropriations to ensure that child care and school facilities are covered.
- State plans and funding strategies to identify and remediate lead in school and child care water and paint and to support lead-free campaigns in the public and private sectors.
- Inventories of lead service lines to quantify the extent of funding needed for replacement.

**Year 5 Indicator of Success:**

- Multiple examples of successful funding strategies implemented from the federal to community levels to secure critical funds for eliminating sources of lead in schools and child care facilities.

## APPENDIX F Resources Recommended By Workshop Attendees

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This list was voluntarily created by attendees. A listing does not mean that the resource has been endorsed by any NGO or agency attendee.

Resource Title	Date of resource	Brief description	Lead organization/agency	URL/web link
Key Federal Programs to Reduce Childhood Lead Exposures and Eliminate Associated Health Impacts	Nov 2016	This report brings together descriptions of the efforts (of 9 federal agencies) currently planned or underway to address all sources of lead exposure in children in the US.	President's Task Force on Environmental Health Risks and Safety Risks to Children	<a href="https://ptfceh.niehs.nih.gov/features/assets/files/key_federal_programs_to_reduce_childhood_lead_exposures_and_eliminate_associated_health_impactspresidents_508.pdf">https://ptfceh.niehs.nih.gov/features/assets/files/key_federal_programs_to_reduce_childhood_lead_exposures_and_eliminate_associated_health_impactspresidents_508.pdf</a>
Lead and Drinking Water: Information for Health Professionals Across the United States	June 2016	This fact sheet was developed to help health care professionals respond to concerns about potential exposures to lead in drinking water across the United States. Included are key messages to share with families, background information on potential sources of lead exposure and populations that are at high risk, and suggestions on how to counsel families on identifying lead in their drinking water. Additional recommendations and resources are included in the fact sheet on ways families can decrease lead in their drinking water, as well as ways health care professionals can address the health impacts of lead exposure.	Pediatric Environmental Health Specialty Unit (PEHSU)	<a href="http://www.pehsu.net/Lead_and_Drinking_Water.html">http://www.pehsu.net/Lead_and_Drinking_Water.html</a>
Healthy Spaces for Children: Schools & Water Quality	December 2017	Congressional briefing on common environmental health risks in schools, with focus on lead in drinking water. Reviews federal and state actions and school governance issues.	Healthy Schools Network	<a href="https://goo.gl/AP8EA9">https://goo.gl/AP8EA9</a>
Protecting the most vulnerable: Lead in drinking water testing requirements for child care centers	August 2017	This blog examines existing testing requirements for lead in drinking water in childcare.	Environmental Defense Fund	<a href="http://blogs.edf.org/health/2017/08/17/protecting-the-most-vulnerable-lead-in-drinking-water-testing-requirements-for-child-care-centers/">http://blogs.edf.org/health/2017/08/17/protecting-the-most-vulnerable-lead-in-drinking-water-testing-requirements-for-child-care-centers/</a>

Resource Title	Date of resource	Brief description	Lead organization/agency	URL/web link
Lead in food: A hidden health threat	June 2017	EDF analyzed 11 years of data from the Food and Drug Administration (FDA), and found that food, and baby food in particular, is a meaningful – and surprising - source of lead. This report discusses the findings.	Environmental Defense Fund	<a href="https://www.edf.org/health/lead-food-hidden-health-threat">https://www.edf.org/health/lead-food-hidden-health-threat</a>
Managing Lead in Drinking Water at Schools and Early Childhood Education Facilities	Feb 2016	This guide is a comprehensive source of best practices for lead sampling and analysis in schools and early childhood education facilities across the country.	W. K. Kellogg Foundation	<a href="https://www.wkkf.org/home/resource%20directory/resource/2016/02/Managing%20Lead%20in%20Drinking%20Water%20at%20Schools%20and%20Early%20Childhood%20Education%20Facilities">https://www.wkkf.org/home/resource%20directory/resource/2016/02/Managing%20Lead%20in%20Drinking%20Water%20at%20Schools%20and%20Early%20Childhood%20Education%20Facilities</a>
Eco-Healthy Child Care® (EHCC) Program		The EHCC Program provides training, technical assistance, and free resources for child care professionals on how to reduce children’s exposures to environmental hazards in and around child care facilities. EHCC also offers a child care endorsement program to recognize facilities that meet environmental health best practices.	Children’s Environmental Health Network (CEHN)	<a href="http://www.cehn.org/ehcc">www.cehn.org/ehcc</a>
EHCC Lead Fact Sheet	updated April 2016	Fact sheet on lead hazards and tips to reduce exposures in child care facilities	CEHN Eco-Healthy Child Care® Program	<a href="http://cehn.org/wp-content/uploads/2015/12/Lead_4_16.pdf">http://cehn.org/wp-content/uploads/2015/12/Lead_4_16.pdf</a>
EHCC Lead Fact Sheet (Spanish)	updated April 2016	Spanish-translated	CEHN Eco-Healthy Child Care® Program	<a href="http://cehn.org/wp-content/uploads/2017/07/Lead_4_16_SP.pdf">http://cehn.org/wp-content/uploads/2017/07/Lead_4_16_SP.pdf</a>
Drinking Water Safety in Schools	August 2017	Factsheet highlighting important steps to ensuring school tap water safety and resources for more information.	University of CA Nutrition Policy Institute with National Drinking Water Alliance	<a href="http://www.drinkingwateralliance.org/facts">http://www.drinkingwateralliance.org/facts</a>

Resource Title	Date of resource	Brief description	Lead organization/agency	URL/web link
Webinar series: "Why Are We Talking About It? Drinking Water and Lead Exposure;" "Planning for School Water Quality: Steps Schools Should Take;" "Solutions: Find it and Fix it - or Filter or Flush it."	November 2017	Webinar #1: the importance of water, not sugary beverages, to health; impact of lead on health, lead exposure in water. Webinar #2: an overview of steps to take to ensure school tap water safety and effective access to drinking water. Webinar #3: an overview of sources of lead in tap water and strategies for mitigation; in-depth look at Chicago Public Schools' lead testing and mitigation program.	University of CA Nutrition Policy Institute with National Drinking Water Alliance	<a href="http://www.drinkingwateralliance.org/single-post/2017/10/24/Upcoming-Webinar-Series-Let's-Tackle-School-Drinking-Water-Safety">http://www.drinkingwateralliance.org/single-post/2017/10/24/Upcoming-Webinar-Series-Let's-Tackle-School-Drinking-Water-Safety</a>
Webinar: "Ready, Set, Go!"	August 2017	USDA and NPI present on this webinar for childcare providers; covers CACFP water provisions and best practices including information on tap water safety and allowable costs	National Association of Family Child Care	<a href="http://www.drinkingwateralliance.org/single-post/2017/08/17/Are-you-Ready-to-Offer-Water-Upcoming-Webinar-for-CACFP-Providers">http://www.drinkingwateralliance.org/single-post/2017/08/17/Are-you-Ready-to-Offer-Water-Upcoming-Webinar-for-CACFP-Providers</a>
Lead in Drinking Water: What You Should Know	September 2016	State-by-state resources + basics on lead (aimed at householders but applicable to childcare sites)	W. K. Kellogg Foundation	<a href="http://www.drinkingwateralliance.org/lead">http://www.drinkingwateralliance.org/lead</a>
Webpages on drinking water safety: ECE, Schools, Community, Tracking Map, Policy	Ongoing	Webpages include more resources including our map tracking media reports and state legislation for school & c/c testing initiatives	UC Nutrition Policy Institute/National Drinking Water Alliance	<a href="http://www.drinkingwateralliance.org">http://www.drinkingwateralliance.org</a>

Resource Title	Date of resource	Brief description	Lead organization/agency	URL/web link
Project TENDR Consensus Statement	July 2016	Project TENDR is a collaboration of leading scientists, health professionals and children's and environmental advocates who published a scientific consensus statement identifying examples of toxic chemicals, including lead, that are contributing to increased risks for neurodevelopmental disorders in children. The statement calls for national action to significantly reduce exposures to these neurotoxic chemicals, especially for pregnant women and children.	Learning Disabilities Association of America and UC Davis Department of Public Health Sciences.	<a href="http://projecttendr.com/">http://projecttendr.com/</a>
Punishing Decade for School Funding	November 2017	Report on the declining investment in K-12 schools in a number of states over the past decade.	Center on Budget and Policy Priorities	<a href="https://www.cbpp.org/research/state-budget-and-tax/a-punishing-decade-for-school-funding">https://www.cbpp.org/research/state-budget-and-tax/a-punishing-decade-for-school-funding</a>
HealthySchools/HealthyKids Clearinghouse		The Clearinghouse houses fact sheets and guides and supports direct assistance to parents and others on school environmental concerns.	Healthy Schools Network	<a href="http://www.healthyschools.org/clearinghouse.html">http://www.healthyschools.org/clearinghouse.html</a>
Towards Healthy Schools: Reducing Risks to Children	2016	4th triennial state of the states' data and policy report	Healthy Schools Network	<a href="http://www.healthyschools.org/documents/TowardsHealthySchools-Risks.pdf">http://www.healthyschools.org/documents/TowardsHealthySchools-Risks.pdf</a>
Healthy Products for Schools Toolkit		Free, customizable training materials and handouts on finding and using green and healthy products in schools.	National Collaborative Work Group on Green Cleaning and Chemical Policy Reform in Schools, hosted by Healthy Schools Network	<a href="http://www.cleaningforhealthyschools.org/">http://www.cleaningforhealthyschools.org/</a>
Webinar on Lead in Drinking Water (video)	2016	Jerome A Paulson, MD, AAP, Medical Director, PEHSUs-East	hosted by Educational Facilities Clearinghouse	<a href="https://www.youtube.com/watch?v=LzE2SJHUUKE&amp;feature=youtu">https://www.youtube.com/watch?v=LzE2SJHUUKE&amp;feature=youtu</a>

Resource Title	Date of resource	Brief description	Lead organization/agency	URL/web link
SB 612: WIIN (Water Infrastructure Improvements for the Nation) Act	2016	SEE SECTIONS 2104-2108, 2201. Sec. 2104 authorizes \$60B for each year for "Assistance for small and disadvantaged communities" that either have no household drinking and wastewater services or have a service that exceeds a max contaminant level, an action level, or violates a treatment technique. Remediative projects can include testing, PWS investments, and assistance to communities with affected households. Sec 2105 specifically addresses lead in water. It authorizes another \$60B for each year (2017-2021) with similar definitions of who shall receive aid. Sec 2105 specifically addresses lead in water. It authorizes another \$60B for each year (2017-2021) with similar definitions of who shall receive aid. Sec 2106 deals with notice to affected persons and amends the Safe Drinking Water Act to be more specific about to whom and how quickly notice must be given if there's an exceedance: "be distributed as soon as practicable, but not later than 24 hours, after the public water system learns of the violation or exceedance" with more details including, within 180 days of signing, requiring development of plans to deal with lead situations at household level of water distribution. Sec 2107 relates to lead testing in schools and childcare. Amends SDWA to "Not later than 180 days after the date of enactment of the Water and Waste Act of 2016, the Administrator shall establish a voluntary school and child care program lead testing grant program to make grants available to States to assist local educational agencies in voluntary testing for lead contamination in drinking water at schools and child care programs under the jurisdiction of the local educational agencies. Subject to assorted requirements similar to other sections." Instructed to follow the 3Ts. Authorizes \$20B for each of 5 years. Sec 2108 looks for innovation in water technologies. Sec 2201 moves on to disaster relief and authorizes \$100B over 18 months and includes infrastructure work, lead exposure mitigation expertise. No specific mention of Flint — definitions of applicable communities. There are also sections with specifics for tribal lands including the Gold King Mine spill.	Congress. Sponsor: Senator Cornyn (R-TX)	<a href="https://www.govtrack.us/congress/bills/114/s612">https://www.govtrack.us/congress/bills/114/s612</a>

Resource Title	Date of resource	Brief description	Lead organization/agency	URL/web link
Reducing Environmental Exposures in Child Care Facilities: A Review of State Policy	Jan 2015	This report examines state policies across the U.S. that address environmental health in licensed child care facilities. The report focuses on several key indoor environmental exposures, including environmental tobacco smoke, radon, carbon monoxide, mold, ventilation, pesticides, lead-based paint, and asbestos. Each chapter provides an overview of state laws and regulations and highlights examples of notable programs and policies.	Environmental Law Institute	<a href="https://www.eli.org/research-report/reducing-environmental-exposures-child-care-facilities-review-state-policy">https://www.eli.org/research-report/reducing-environmental-exposures-child-care-facilities-review-state-policy</a>
Drinking Water Quality in Child Care Facilities: A Review of State Policy	Aug 2015	This paper describes how state laws and regulations across the U.S. address drinking water quality in child care facilities, which may be served by public water systems or by privately-owned water sources such as wells. The paper provides an overview of the drinking water quality provisions in four types of state policies that may apply to licensed child care facilities – drinking water regulations, food service codes, sanitation codes for child care facilities, and child care licensing laws and regulations.	Environmental Law Institute	<a href="https://www.eli.org/research-report/drinking-water-quality-child-care-facilities-review-state-policy">https://www.eli.org/research-report/drinking-water-quality-child-care-facilities-review-state-policy</a>
Addressing Indoor Air Quality in School Energy Efficiency Upgrades: Review of Selected State Policies	Jan 2016	This report describes state policy strategies that facilitate early consideration of IAQ best practices in school energy retrofits, to help schools avoid unintended, negative consequences and reap the twin benefits of energy savings and a healthier, more productive school environment.	Environmental Law Institute	<a href="https://www.eli.org/research-report/addressing-indoor-air-quality-school-energy-efficiency-upgrades-review-selected-state-policies">https://www.eli.org/research-report/addressing-indoor-air-quality-school-energy-efficiency-upgrades-review-selected-state-policies</a>

Resource Title	Date of resource	Brief description	Lead organization/agency	URL/web link
ASTHO Legislative Update on Lead Exposure Nationwide	May 2017	ASTHO is tracking 56 bills and resolutions from 20 states aimed at reducing and mitigating exposure to environmental lead hazards. The 2017 Legislative Update below breaks down the bills into separate topic areas. The majority of bills (34) focus on testing lead levels in drinking water in schools and day care centers. States are also exploring other approaches to reduce lead exposure, such as testing for lead in water and soil in private homes and disclosing the results, improving state-led childhood lead exposure prevention programs, and developing financing mechanisms for remediation efforts. Figure 2 identifies which states are considering bills in each of the topic areas.	ASTHO	<a href="http://www.astho.org/StatePublicHealth/ASTHO-Legislative-Update-on-Lead-Exposure-Nationwide/5-18-17/">http://www.astho.org/StatePublicHealth/ASTHO-Legislative-Update-on-Lead-Exposure-Nationwide/5-18-17/</a>
Lead Exposure in Children: Prevention, Detection, and Management	Oct 2005	AAP's Committee on Env. Health issued this Policy Statement. AAP Policy Statements provide organizational principles to guide and define the child health care system and/or improve the health of all children	AAP	<a href="http://pediatrics.aappublications.org/content/pediatrics/116/4/1036.full.pdf">http://pediatrics.aappublications.org/content/pediatrics/116/4/1036.full.pdf</a>
The Regulated Products Handbook	May 2013	This handbook has been developed to assist manufacturers, importers, retailers and others in the regulated community (firms) in understanding their responsibilities and what steps they should take when either the CPSC staff informs them, or they become aware of, a violation of CPSC statutes and regulations.	US CPSC	<a href="https://www.cpsc.gov/s3fs-public/RegulatedProductsHandbook.pdf">https://www.cpsc.gov/s3fs-public/RegulatedProductsHandbook.pdf</a>

Resource Title	Date of resource	Brief description	Lead organization/agency	URL/web link
Results from the School Health Policies and Practices Study	2016	The School Health Policies and Practices Study* (SHPPS) is a national survey periodically conducted to assess school health policies and practices at the state, district, school, and classroom levels.	CDC	<a href="https://www.cdc.gov/healthy-youth/data/shpps/pdf/shpps-results_2016.pdf">https://www.cdc.gov/healthy-youth/data/shpps/pdf/shpps-results_2016.pdf</a>
Eliminating Childhood Lead Poisoning: A Federal Strategy Targeting Lead Based Paint Hazards	February 2000	The report lists recommendations and possible actions by various federal government agencies to reduce lead based paint hazards in different children's environments such as homes, schools and childcare centers	The President's Task Force on Environmental Health Risks and Safety Risks to Children	<a href="https://www.cdc.gov/nceh/lead/about/fedstrategy2000.pdf">https://www.cdc.gov/nceh/lead/about/fedstrategy2000.pdf</a>
3Ts Toolkit	2005-2006; 2013	Provides various resources such as brochures and fact sheets to let schools and childcare centers to learn about and test for lead in drinking water	EPA	<a href="https://www.epa.gov/node/16045">https://www.epa.gov/node/16045</a>
Choose Safe Places for Early Care and Education (CSPECE) Guidance Manual	April 2017	Provides siting guidelines to help reduce environmental hazards such as lead in early care and education centers.	ATSDR	<a href="https://www.atsdr.cdc.gov/safeplacesforece/docs/Choose_Safe_Places_508_final.pdf">https://www.atsdr.cdc.gov/safeplacesforece/docs/Choose_Safe_Places_508_final.pdf</a>
AQUA Act, H.R. 1071	2017	Bill would increase federal investments in U.S. water systems to remove lead pipes, improve long-term resiliency and sustainability	Congress. Sponsors: Reps. Paul Tonko (D-NY) and Frank Pallone (D-NJ)	<a href="https://tonko.house.gov/uploads/attachedfiles/aqua_act_2017.pdf">https://tonko.house.gov/uploads/attachedfiles/aqua_act_2017.pdf</a>
Northeast-Midwest Institute Briefing	December 2017	Presentation on lead in water for Northeast-Midwest Institute Dec 5th, 2017 briefing.	Environmental Defense Fund	<a href="http://blogs.edf.org/health/files/2017/12/Neltner-NEMW-Institute-Briefing-12-3-17.pdf">http://blogs.edf.org/health/files/2017/12/Neltner-NEMW-Institute-Briefing-12-3-17.pdf</a>
"Establishing and Achieving National Goals for Eliminating Lead Toxicity and Exposure in Children"	May 2017	Article published in JAMA Pediatrics co-authored by Drs. David Bellinger, Bruce Lanphear and Aimin Chen, on behalf of Project TENDR.	Project TENDR	Abstract available at: <a href="http://projecttendr.com/a-national-strategy-to-eliminate-childhood-lead-poisoning/">http://projecttendr.com/a-national-strategy-to-eliminate-childhood-lead-poisoning/</a> Full article available upon request.

Resource Title	Date of resource	Brief description	Lead organization/agency	URL/web link
Get the Lead Out	February 2017	report documents widespread lead contamination at schools, makes the case for a prevention strategy of pro-actively removing lead-bearing materials, finds that state and federal policies are failing to protect children	Environment America, U.S. PIRG	<a href="#">Get the Lead Out (2017)</a>
Mass. Lead and Copper in School Drinking Water Sampling Results	Ongoing	One spreadsheet with 65,000+ lead test results (others for copper) from taps at schools in MA, showing ALL levels of lead, and (ostensibly) remediation. Voluntary testing program; spreadsheet is updated weekly.	Mass. Executive Office of Energy & Environmental Affairs	<a href="http://www.mass.gov/eea/agencies/massdep/water/drinking/lead-and-copper-in-school-drinking-water-sampling-results.html">http://www.mass.gov/eea/agencies/massdep/water/drinking/lead-and-copper-in-school-drinking-water-sampling-results.html</a>
Back to School Toolkit	September 2017	materials and links to resources for parents and teachers to take action locally on lead in schools' drinking water	Environment America, U.S. PIRG	<a href="#">Back to School Toolkit</a>
Toolkit for communities looking to accelerate full lead service line replacement	2016	This website contains a Roadmap and information on replacement approaches, state and local examples of funding arrangements, and info on special considerations for schools and child care facilities.	Lead Service Line Replacement Collaborative	<a href="https://www.lslr-collaborative.org/">https://www.lslr-collaborative.org/</a>
EHCC FAQ- Lead in Paint, Dust, and Soil	Feb 2016	Frequently asked questions on lead found in paint, dust, and soil. Provides information on how children can be exposed to lead through paint, dust, and soil, as well as ways to minimize their exposure.	CEHN Eco-Healthy Child Care® Program	<a href="http://www.cehn.org/wp-content/uploads/2016/02/LeadInPaint_Feb2016-1.pdf">http://www.cehn.org/wp-content/uploads/2016/02/LeadInPaint_Feb2016-1.pdf</a>
EHCC FAQ- Lead in Tap	July 2014	Frequently asked question on lead in tap water. Provides resources, information, and best practices on lead in tap water.	CEHN Eco-Healthy Child Care® Program	<a href="http://www.cehn.org/wp-content/uploads/2016/02/LeadInTapWater_Feb2016.pdf">http://www.cehn.org/wp-content/uploads/2016/02/LeadInTapWater_Feb2016.pdf</a>

Resource Title	Date of resource	Brief description	Lead organization/agency	URL/web link
Lead in the Water: Disclosure to Potential Homebuyers	Dec 2017	Webinar discussing state efforts on disclosing lead service line upon home sale	NCSL Environmental Health	<a href="http://www.ncsl.org/research/environment-and-natural-resources/lead-in-the-water-disclosing-lead-service-lines.aspx">http://www.ncsl.org/research/environment-and-natural-resources/lead-in-the-water-disclosing-lead-service-lines.aspx</a>
Lead in the Water: Financing Options	Nov 2017	Webinar presenting on financing options for states to replace lead service lines	NCSL Environmental Health	<a href="http://www.ncsl.org/research/environment-and-natural-resources/lead-in-the-water-financing-options-to-replacing-lead-service-lines.aspx">http://www.ncsl.org/research/environment-and-natural-resources/lead-in-the-water-financing-options-to-replacing-lead-service-lines.aspx</a>
Lead in the Water: Policy Options to Replacing Lead Service Lines	Oct 2017	Webinar introducing the issue of lead hazards and lead service lines for state legislators	NCSL Environmental Health	<a href="http://www.ncsl.org/research/environment-and-natural-resources/lead-in-the-water-policy-options-to-replacing-lead-service-lines.aspx">http://www.ncsl.org/research/environment-and-natural-resources/lead-in-the-water-policy-options-to-replacing-lead-service-lines.aspx</a>
State Legislation addressing Lead in Water in Schools	Dec 2017	37 Bills in 15 States: CA (2); IL (6); MA (1); ME (1); MI (2); MN (2); NC (1); NH (1); NJ (13); NY (2); PA (1); RI (1); VT (1); WA (2); WI (1) 5 Bills enacted in 5 states; two being Appropriations: CA A 746; IL S 1943; NY A 3004 (Appropriations); RI H 6035; WA S 5883 (Appropriations)	NCSL Environmental Health	<a href="http://www.ncsl.org">www.ncsl.org</a>
The Flint Water Crisis and Beyond: A three-part webinar series on lead and public health	2016	Webinar 1: Working Together to Address Lead Exposure in our Communities Webinar 2: Flint and Lead: The Water-Public Health Connection Webinar 3: Public Health's Legal Authority and Safe Drinking Water	APHA	<a href="https://apha.org/events-and-meetings/webinars/lead-and-public-health">https://apha.org/events-and-meetings/webinars/lead-and-public-health</a>

Resource Title	Date of resource	Brief description	Lead organization/agency	URL/web link
American Public Health Association Child Health Policy for the United States	2010	APHA, member-driven, policy statement on lead		<a href="https://apha.org/policies-and-advocacy/public-health-policy-statements/policy-database/2014/07/30/17/25/american-public-health-association-child-health-policy-for-the-united-states">https://apha.org/policies-and-advocacy/public-health-policy-statements/policy-database/2014/07/30/17/25/american-public-health-association-child-health-policy-for-the-united-states</a>
VIDEO: Little Things Matter: The Impact of Toxins on the Developing Brain	Nov 2014	We've been studying the impact of toxins on children for the past 30 years and reached the inescapable conclusion: little things matter. We've discovered that extremely low levels of toxins can impact brain development. We have also discovered that subtle shifts in the intellectual abilities of individual children have a big impact on the number of children in a population that are challenged or gifted. Steps should be taken to reduce children's exposure to toxins or suspected toxins.	Canadian Environmental Health Atlas	<a href="https://www.youtube.com/watch?v=E6KoMAbz1Bw">https://www.youtube.com/watch?v=E6KoMAbz1Bw</a>

This report is available at: [www.cehn.org](http://www.cehn.org) [www.healthyschools.org](http://www.healthyschools.org) [www.lidaamerica.org](http://www.lidaamerica.org)