

Progress Report on the Federal Action Plan to Reduce Childhood Lead Exposures and Associated Health Impacts

OCTOBER 2019

## TABLE OF CONTENTS

VISION
LETTER FROM THE ADMINISTRATOR
INTRODUCTION
GOAL 1: REDUCE CHILDREN'S EXPOSURE TO LEAD SOURCES
Objective 1.1. Reduce Children's Exposure in Homes and Child-Occupied Facilities with Lead-Based Paint Hazards
Objective 1.2. Reduce Exposure to Lead from Drinking Water
Objective 1.3. Reduce Exposure to Lead in Soil
Objective 1.4. Reduce Exposure to Lead Associated with Emissions to Ambient Air
GOAL 2: IDENTIFY LEAD-EXPOSED CHILDREN AND IMPROVE THEIR HEALTH OUTCOMES
GOAL 3: COMMUNICATE MORE EFFECTIVELY WITH STAKEHOLDERS
Objective 3.1. Consolidate and Streamline Federal Lead-Related Communication and Messaging 34
Objective 3.2. Improve Awareness of Lead Hazards, Prevention and Remediation among Diverse Populations, Especially Those Most at Risk
GOAL 4: SUPPORT AND CONDUCT CLINICAL RESEARCH TO INFORM EFFORTS TO REDUCE LEAD EXPOSURES AND RELATED HEALTH RISKS
Enhance and apply data and tools (e.g., models or approaches) and determine the key drivers of blood lead levels from multimedia exposures to inform lead regulatory decisions and site assessments 40
Generate data, maps and mapping tools to identify high exposure communities or locations and disparities for prioritization efforts to reduce children's blood lead levels
Generate data to address critical gaps for reducing uncertainty in lead modeling and mapping for exposure/ risk analyses and for estimating population-wide health benefits of actions to reduce lead exposures41
Identify approaches to prevent, mitigate and communicate about lead exposures and risks in exposed communities
Evaluate the effectiveness of actions (e.g., interventions, programs, policies, enforcement) to prevent lead exposure, mitigate health effects and communicate on lead exposures/risks
ACRONYMS
APPENDIX
Appendix 1: References
Appendix 2: EPA Regional Offices
2



# VISION

The United States will be a place where children, especially those in vulnerable communities, live, learn and play protected from the harmful effects of lead exposure.

## LETTER FROM THE ADMINISTRATOR

The first, and most fundamental, responsibility of government is to protect the people, especially the most vulnerable among us. All Americans, regardless of their age, race, income or home address, deserve an opportunity to live in safe and healthy environments. We know that children are especially vulnerable to the potential health effects of many hazards, including lead, which can severely and permanently impact their health and development.

As co-chair of the President's Task Force on Environmental Health Risks and Safety Risks to Children – the central body for federal collaboration – alongside the U.S. Health and Human Services Secretary Alex Azar, we continue to lead the coordinated federal effort to improve the identification and treatment of children that may be exposed to lead. The government-wide collaborations among 17 federal departments and offices demonstrate the importance the Trump Administration has placed on coordinating interagency efforts to better understand and prevent negative health impacts from childhood lead exposure.



As we approach the one-year milestone of the unveiling of the Federal Action Plan to Reduce Childhood Lead Exposures and Associated Health Impacts (December 2018), a product of the President's Task Force, we are releasing this summative report on how we have approached EPA-specific goals, objectives and actions. We've made substantial progress to date, including finalizing stronger dust-lead hazard standards and proposing the first major update to the Lead and Copper Rule in over two decades.

I want to thank the talented and dedicated staff at the agency who work hard every day to protect the health and future of our nation's children. Without their support and our partnerships with a range of stakeholders – states, tribes, local communities, businesses, property owners and parents – we would not have been able to accomplish the actions detailed in this booklet.

Sincerely,

Anhu Ruhal

Andrew Wheeler Administrator

PROGRESS REPORT ON THE FEDERAL ACTION PLAN TO REDUCE CHILDHOOD LEAD EXPOSURES AND ASSOCIATED HEALTH IMPACTS

## INTRODUCTION

Since the 1970s, the U.S. Environmental Protection Agency (EPA) and its federal, state, tribal and local governmental partners have made tremendous progress in reducing children's lead exposures and lead-related health risks. EPA efforts to reduce lead exposures and prevent lead poisoning include a wide range of activities such as funding community interventions and outreach, education and training, surveillance regulation and enforcement.

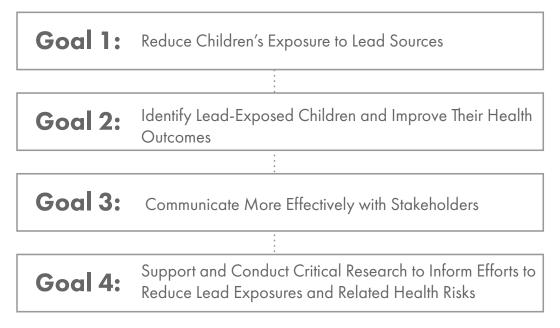
Lead is particularly dangerous to children because their developing brains and nervous systems are more sensitive to the damaging affects of lead, which can impact learning, behavior and health. Babies and young children can also be more highly exposed to lead from household dust and soil because they often put their hands and other objects into their mouths.

Lead exposure in children is measured by the concentration of lead in the blood. The Centers for Disease Control and Prevention (CDC) uses a population-based reference value (BLRV) to identify children with blood lead levels (BLL) greater than 97.5% of the children aged 1 to 5. The current CDC BLRV is 5  $\mu$ g/dL (Action Plan, 2018).

BLLs have fallen dramatically in the U.S. due to the promulgation, implementation and enforcement of laws and regulations aimed at reducing lead exposure. The largest declines in BLLs occurred from the 1970s to the 1990s following the elimination of lead in motor-vehicle gasoline, the ban on lead paint for residential use, removal of lead from solder in food cans and bans on the use of lead pipes and plumbing fixtures. Despite the overall decline of BLLs over time, lead exposure remains a significant public health concern for some children because of persistent lead hazards in their environment.

CDC indicates no safe blood lead level has been identified and even low levels of lead exposure presents a concern for young children. Therefore, the federal government identified actions to further reduce exposures to lead and associated health impacts (Action Plan, 2018).

The Action Plan focuses on reducing sources of lead exposures, expanding efforts to identify children in high risk communities for targeting intervention and services, enhancing risk communication efforts and advancing the scientific understanding of multi-media lead exposures and their relationship to BLLs. The four interconnected goals below support the priority actions in the Action Plan:



EPA is committed to reducing lead exposures from multiple sources including lead-based paint, water, soil contamination and ambient air, identifying lead-exposed children and communities faster, communicating more effectively with stakeholders and supporting and conducting clinical research to reduce lead exposures and related health risks. Examples of key EPA actions to address these commitments are described within this booklet.

To learn more about lead and find resources, visit <u>www.epa.gov/lead</u>.

- Basic information about lead
- Lead in drinking water
- Lead and air pollution
- Lead and Superfund sites
- Resources to protect your family
- Resources on the Renovation, Repair, and Painting Program for Contractors and Trainers
- Science and technology

- Laws and regulations
- Policy and guidance
- Outreach, partnerships and grants
- Enforcement
- International activities
- Children's Environmental Health
- Healthy School Environments
- EPA Regional Lead Contacts
- Other information

#### Available at: <u>www.epa.gov/lead</u>

## GOAL 1: REDUCE CHILDREN'S EXPOSURE TO LEAD SOURCES

EPA is the principal agency for multiple Goal 1 actions and will continue to coordinate with federal, state, tribal and community partners to amplify the impact of these actions. The Action Plan details specific actions to target lead-based paint, lead in drinking water and lead in contaminated soil, among other sources. By focusing on the source of the problem, EPA can address the contamination before it impacts the health of children. Focusing EPA's work on the most impacted areas of the country first is a philosophy we are working to instill across the agency. We want to ensure we are reaching and helping those most in need.



#### **REGION 10: Idaho**

New EPA informational signs continue to be posted in recreational areas around the Silver Valley in northern Idaho. The signs provide a visual reminder to take steps to reduce exposure to lead and other harmful metals while enjoying the outdoors. Some signs also include information on local history. This area is part of the Bunker Hill Superfund Site and was home to historical mining operations. Already, EPA and its partners have posted more than 30 signs, with more planned.



PROGRESS REPORT ON THE FEDERAL ACTION PLAN TO REDUCE CHILDHOOD LEAD EXPOSURES AND ASSOCIATED HEALTH IMPACTS

### EPA Enforcement Actions Help Protect Vulnerable Communities from Lead-Based Paint Health Hazards

EPA takes enforcement actions including civil administrative settlements, civil complaints and default orders by EPA; and civil judicial settlements and criminal prosecutions by with the U.S. Department of Justice.

Settlements require alleged violators to come into compliance with the law and, in most cases, to pay civil or criminal penalties. For Example:

**Mohammad Sikder and District Properties, LLC** (DC) pleaded guilty to violating requirements for lead disclosure and lead-safe renovation work practices. Sentencing is set for November 2019. Also, Sikder's company, District Properties LLC, pleaded guilty to making false statements in building permit applications which understated the age of properties. The charges against Mr. Sikder carry up to twelve months in prison and potential fines. He and the government will jointly recommend a \$50,000 fine in addition to any prison time. The company has agreed to pay a \$150,000 criminal fine, and to put another \$25,000 towards funding lead-based paint compliance trainings in the area.

www.justice.gov/opa/pr/district-columbia-development-company-and-owner-pleadguilty-crimes-related-lead-based-paint

**High Rise Build & Design Inc. and Somattie Surujnarine** (NY) received final judgments against them, at \$48,000 each plus interest, handed down by the U.S. District Court for the Eastern District of New York. The Court issued the final judgment based on sanctions the defendants had incurred for failure to comply with an earlier Contempt Order stemming from the defendants' failure to comply with an EPA subpoend that sought information about their RRP Rule compliance.

www.epa.gov/enforcement/final-judgment-contempt-against-high-rise-build-design-inc

www.epa.gov/enforcement/final-judgment-contempt-against-somattie-surujnarine

PROGRESS REPORT ON THE FEDERAL ACTION PLAN TO REDUCE CHILDHOOD LEAD EXPOSURES AND ASSOCIATED HEALTH IMPACTS

### Objective 1.1. Reduce Children's Exposure in Homes and Child-Occupied Facilities with Lead-Based Paint Hazards

Reducing exposure to lead paint in old housing continues to offer the potential to significantly decrease BLLs in the largest number of children. It is important that a focus on structures include homes and locations outside the home where young children spend significant amounts of time, such as child care settings and schools (Action Plan, 2018).

> » Consider revisions, as appropriate, to the dust-lead hazard standards to address childhood exposures to leadcontaminated dust generated from leadbased paint.



- As a part of EPA's efforts to reduce childhood lead exposure, EPA finalized a revision to the Dust-Lead Hazard Standards (DLHS) in July 2019. These standards strengthen the dust lead hazard standards for floors and window sills. Standards apply to most pre-1978 housing and child-occupied facilities, such as daycare centers and schools. The final rule revised the DLHS from 40 µg/ft<sup>2</sup> and 250 µg/ft<sup>2</sup> to 10 µg/ft<sup>2</sup> and 100 µg/ft<sup>2</sup> on floors and window sills, respectively.
- During the DLHS rulemaking process, EPA indicated it would review the dust-lead clearance levels at a later date. EPA is now considering changes to the post-abatement clearance levels consistent with the final revisions to the dust-lead hazard standards. To update the dust-lead clearance levels, EPA must take several steps such as conducting health, exposure and economic analyses.



## EPA Takes Important Step to Further Protect Children from Exposure to Lead-Contaminated Dust

#### 06/21/2019

https://www.epa.gov/newsreleases/epa-takes-important-step-further-protect-children-exposure-lead-contaminated-dust-0

Today, U.S. Environmental Protection Agency (EPA) Administrator Andrew Wheeler, along with Housing and Urban Development Secretary Ben Carson, announced new, tighter standards for lead in dust on floors and window sills to protect children from the harmful effects of lead exposure.

"EPA is delivering on our commitment in the Trump Administration's Federal Lead Action Plan to take important steps to reduce childhood lead exposure," said EPA Administrator Andrew Wheeler. "Today's final rule is the first time in nearly two decades EPA is issuing a stronger, more protective standard for lead dust in homes and child care facilities across the country."

"EPA's updating its standards for lead dust on floors and windowsills in pre-1978 homes and child-occupied facilities is an important advance," said Secretary Carson. "We will use this new rule in updating the lead safety requirements for the pre-1978 housing we assist."

Since the 1970s, the United States has made tremendous progress in lowering children's blood lead levels. In 2001, EPA set standards for lead in dust for floors and window sills in housing, however since that time, the best available science has evolved to indicate human health effects at lower blood lead levels than previously analyzed.

To protect children's health and to continue making progress on this important issue, EPA is lowering the dust-lead hazard standards from 40 micrograms of lead per square foot ( $\mu$ g/ft<sup>2</sup>) to 10  $\mu$ g/ft<sup>2</sup> on floors and from 250  $\mu$ g/ft<sup>2</sup> to 100  $\mu$ g/ft<sup>2</sup> on window sills. The more protective dust-lead hazard standards will apply to inspections, risk assessments, and abatement activities in pre-1978 housing and certain schools, child care facilities and hospitals across the country.

Lead-contaminated dust from chipped or peeling lead-based paint is one of the most common causes of elevated blood lead levels in children. Infants and children are especially vulnerable to lead paint exposure because their growing bodies absorb more lead than adults, and their brains and nervous systems are more sensitive to the damaging effects of lead. They can be exposed from multiple sources, which can cause irreversible and life-long health effects. Lead dust can be generated when lead-based paint deteriorates or is disturbed.

#### **REGION 1: Vermont**

During 2019, EPA's Region 1 office in coordination with the Vermont Department of Health (DOH), undertook a lead-based paint initiative to pro-actively improve compliance with laws that protect children from lead paint poisoning in Vermont. In 2018, 420 Vermont children under age six had an elevated blood lead level. EPA's efforts were focused in the Vermont communities of Bennington, Rutland and Windham counties because they were identified as areas with a higher risk of lead-based paint exposure due to older housing stock, high rates of renter occupied housing and mapped data showing elevated BLLs. EPA reached out directly to the local regulated community, including construction and property management firms, and distributed compliance information to over 500 contractors and property managers in these communities. EPA worked to raise awareness and provide training on the lead-based paint rules, including online presentations. This place-based initiative in Vermont allowed EPA New England to work with state and local counterparts to increase awareness and improve compliance with lead-based paint renovation laws, therefore, reducing the risk of childhood lead exposure.

» Continue to implement regulations and other relevant authorities that require individuals and firms conducting leadbased paint abatement, risk assessment or inspection to be properly trained and certified, training programs to be accredited and these activities to be conducted according to reliable, effective and safe work practice standards.

11

- Provided support to EPA, states, tribes, federal agencies and the public for implementation of these regulations.
- Conducted 993 compliance assistance and 1002 outreach activities that supported the abatement, risk assessment and inspection components of the Lead-Based Paint Program during the third and fourth quarter of FY2019. Examples of activities include: outreach, education, oversight and processing accreditation applications.
- EPA continued to provide annual funding to authorized states and tribal programs that administer training and certification programs for lead professionals and renovation contractors. Examples of activities include: outreach, education, oversight and processing accreditation applications.

## EPA Secures Agreement for over \$21 Million Cleanup of Lead and Arsenic at the United States Avenue Burn Superfund Site in Gibbsboro, New Jersey

04/29/2019

https://www.epa.gov/newsreleases/epa-secures-agreement-over-21-million-cleanup-lead-and-arsenic-united-states-avenue

The U.S. Environmental Protection Agency (EPA) and the Department of Justice today announced a finalized consent decree with The Sherwin-Williams Company to remove lead and arsenic contaminated soil and sediment at the United States Avenue Burn Superfund site in Gibbsboro, New Jersey. The site is one of three Superfund sites in Gibbsboro and Voorhees, New Jersey where Sherwin-Williams is doing cleanup work. It is located near a former paint manufacturing plant and was used as a paint waste dump. Sherwin-Williams will pay an estimated \$21 million to clean up the site and pay nearly \$1.5 million towards reimbursement of EPA's past response costs related to the three sites. Additionally, the agreement calls for the company to pay future response costs in overseeing the work to be performed under the consent decree, which was entered by the court on April 16, 2019.

"This important agreement builds on years of previous work performed at the site and will result in the removal of approximately 60,000 cubic yards of contaminated soil out of the community," said EPA Regional Administrator Pete Lopez. "EPA is engaging the responsible party constructively to make this community whole and protect people's health."

Reports indicate that paint wastes and solvents were dumped or poured onto the ground at the United States Avenue Burn site and often burned. These activities contaminated soil, sediment, groundwater and surface water with hazardous chemicals. Work has already been conducted to address the immediate risks posed by the site, including some excavation and disposal of contaminated soil from a portion of the site and the installation of fencing. The restricted and fenced portion of the United States Avenue Burn site is 13 acres in size. The site also includes portions of White Sand Branch, Honey Run Brook, and the railroad track area near Bridgewood Lake.

#### **REGION 1: Providence, Rhode Island**

EPA Region 1 awarded a \$25,000 Healthy Communities Grant to the Childhood Lead Action Project, "Providence Lead Compliance Project," to provide lead poisoning education, training and community building efforts. The initiative will generate expanded supply of lead-safe rental housing, reduction in rate of lead poisoning among children in Providence, greater level of compliance with lead-safe work practices requirements and more thorough awareness of safe housing options, resources and legal rights.

#### **REGION 4: South Carolina**

Region 4 worked with the South Carolina Department of Health and Environmental Control to offer lead and asbestos regulatory workshops. Targeted communities included areas with high concentrations of older housing stock and densely populated areas of children under age 6 living in poverty. Workshops provided individuals seeking certification an overview of lead-based paint and asbestos regulations as well as health impacts associated with potential exposures. One hundred fifty workshop attendees received Continuing Education Units (CEUs) in Charleston, Columbia, Myrtle Beach and Spartanburg areas. This community-based effort is ongoing in several communities throughout South Carolina.

#### **REGION 9: Region-wide**

Over the past year, Region 9 worked with more than 950 public libraries in every state throughout the region to display information about lead-based paint hazards in the home and other child-occupied facilities. This effort is a part of our EPA's outreach strategy to focus on families and those who work with children about to protecting children's health where they live, learn and play. The outreach effort information included recommendations for getting children screened for lead poisoning, ways to reduce lead hazards, and the importance of hiring a lead-safe certified contractor when conducting renovation activities.

» Increase the number (or percentage) of certified renovation firms capable of providing lead-safe renovation, repair and painting services through targeted outreach campaigns to contractors; continue to provide a nationwide list of certified renovation firms on EPA's website.

- EPA completed a pilot project in six cities to increase the number of Lead Renovation, Repair and Painting Rule (RRP) certified firms and trained contractors. During the project, EPA conducted outreach and educational events for 88 contractors. Events targeted contactors by working with building code officials, hardware stores and industry trade associations.
- The agency conducted 1204 compliance assistance activities to increase the number of RRP certified firms during the third and fourth quarter of FY2019.
- A total of 3717 new RRP firms were certified and 17,513 contractors received RRP training within the third and fourth quarters of FY2019.
- EPA frequently publishes an updated list of certified renovation firms.

#### **REGION 4: Miami, Florida**

Region 4 worked with the Florida Department of Health (DOH) in the fall of 2018 on lead-based paint program implementation activities. Miami-Dade County ranked highest among counties in a recent regional screening of pre-1978 housing where children under age 6 are living in poverty. In response, the Miami-Dade County Lead Initiative was developed to promote awareness of lead regulations and potential health impacts from exposure.

As a part of the Initiative, Region 4 has held various potential stakeholder meetings and informational sessions. Similarly, regulatory workshop to local contractors were offered.

Regional staff coordinated with the DOH to host a lead awareness booth at a recent health fair where DOH nurses performed blood-lead tests during the fair and provided follow-up information to respective families.

Region 4 continues to coordinate with the Miami Children's Initiative on a lead awareness workshop to the Liberty City community and hosted the workshop in the fall. Additional partnership activities with the Florida Chapter of the American Academy of Pediatrics, Florida International University, and the DOH are in progress.



#### **Miami Health Fair**

## • Objective 1.2. Reduce Exposure to Lead from Drinking Water

In 1991, the EPA promulgated the Lead and Copper Rule (LCR) under the Safe Drinking Water Act (SDWA), to minimize lead and copper levels in drinking water. Recognizing that no safe level of lead in drinking water has been identified, the LCR set a non-enforceable health-based maximum contaminant level goal of zero for lead and requires a treatment technique to reduce lead levels to the extent feasible.

Under the LCR, water systems must work with their customers to collect tap samples from locations with lead service lines and/or leaded plumbing materials. The LCR requires water systems that are not able to limit lead levels below EPA's action level for lead in water of 15  $\mu$ g/liter by optimizing corrosion treatment to replace service lines that are made of lead and conduct public education. Progress in reducing lead exposures has resulted, in part, from improving implementation of and compliance with the current LCR (Action Plan, 2018).

» Revise the Lead and Copper Rule (LCR) based on input EPA recently received from state, tribal and local partners, as well as the best available peer reviewed science, to ensure the rule reflects the best ways to improve public health protection and reduce levels of lead in drinking water.

- October 2019: Earlier this month, EPA announced its proposal for the first major overhaul of the LCR since 1991. We know a lot more now than we did in the 90s about the impact of lead in drinking water, especially on children. That is why our proposal takes a proactive and holistic approach, including a suite of new actions to identify and address the areas most impacted by lead exposure. For example:
  - Proposing that all water systems prepare and update a publicly-available lead service line inventory and collect tap samples from homes with lead service lines. This will provide a valuable catalogue of where problems exist and where they are the worst.
  - If lead levels are found to exceed 15 parts per billion, our proposal would require water systems to find and fix the sources of these elevated levels.
  - Proposing measures to strengthen treatment requirements, improve sampling reliability, and enhance our communication with the public.
  - Taking concrete actions to protect those most vulnerable to the harms of lead exposure children. We are proposing that community water systems sample drinking water outlets at each school and each child care facility served by the system. This information would be publicly available as well. This is a major new step to protect the health and future of our nation's children.
  - One of the most significant improvements to the current rule addresses the requirements for lead service line replacement. The existing rule's 7% replacement rate is rarely occurring due to weaknesses in the current rule.
  - Through the proposal's set of interrelated actions that work together combined with its transparency and outreach requirements, it will increase the current rate of lead service line replacements and better protect America's families and children.

### **EPA Proposes Updates to Lead and Copper Rule to Better Protect Children and At-Risk Communities**

10/10/2019

https://www.epa.gov/newsreleases/epa-proposes-updates-lead-and-copper-rule-better-protect-children-and-risk-0

**GREEN BAY, Wisc.** (October 10, 2019) — As part of Children's Health Month, the U.S. Environmental Protection Agency (EPA) announced a proposed rule that significantly improves the actions that water systems must take to reduce lead in the nation's drinking water. EPA Administrator Andrew Wheeler announced the proposal at an event in Green Bay. This action represents the first major overhaul of the Lead and Copper Rule since 1991 and marks a critical step in advancing the Trump Administration's Federal Action Plan to Reduce Childhood Lead Exposures.

"Today, the Trump Administration is delivering on its commitment to ensure all Americans have access to clean drinking water by proposing the first major overhaul of the Lead and Copper Rule in over two decades," **said EPA Administrator Andrew Wheeler.** "By improving protocols for identifying lead, expanding sampling, and strengthening treatment requirements, our proposal would ensure that more water systems proactively take actions to prevent lead exposure, especially in schools, child care facilities, and the most at-risk communities. We are also working with the Department of Housing and Urban Development to encourage states and cities to make full use of the many funding and financing options provided by the federal government."

In conjunction with today's announcement, EPA and the Department of Housing and Urban Development (HUD) have launched a new website that summarizes available federal programs that help finance or fund lead service line (LSL) replacement. The new resource also includes case studies demonstrating how cities and states have successfully leveraged federal resources to support LSL replacement projects.

"During my time as a physician, I saw firsthand the devastating impacts lead exposure can have on children," **said HUD Secretary Ben Carson.** "I applaud the EPA for taking action to reduce lead exposure in drinking water, particularly in our most vulnerable communities."

The agency's proposal takes a proactive and holistic approach to improving the current rule—from testing to treatment to telling the public about the levels and risks of lead in drinking water. When finalized, this proposal will:

- Require more water systems to act sooner to reduce lead levels and protect public health.
- Improve transparency and communication.
- Better protect children and the most at-risk communities.

The proposal focuses on six key areas. Under the proposal, a community water system would be required to take new actions, including, but not limited to:

- 1. Identifying the most impacted areas by requiring water systems to prepare and update a publicly-available inventory of lead service lines and requiring water systems to "find-and-fix" sources of lead when a sample in a home exceeds 15 parts per billion (ppb).
- 2. Strengthening drinking water treatment by requiring corrosion control treatment based on tap sampling results and establishing a new trigger level of 10 ppb (e.g. trigger level outlined below).
- **3. Replacing lead service lines** by requiring water systems to replace the water system-owned portion of an LSL when a customer chooses to replace their portion of the line. Additionally, depending on their level above the trigger level, systems would be required take LSL replacement actions, as described below.
- **4.** Increasing drinking water sampling reliability by requiring water systems to follow new, improved sampling procedures and adjust sampling sites to better target locations with higher lead levels.
- Improving risk communication to customers by requiring water systems to notify customers within 24 hours if a sample collected in their home is above 15 ppb.
   Water systems will also be required to conduct regular outreach to the homeowners with LSLs.
- 6. Better protecting children in schools and child care facilities by requiring water systems to take drinking water samples from the schools and child care facilities served by the system.

EPA's proposal does not change the existing action level of 15 ppb. EPA is proposing for the first time a new lead trigger level of 10 ppb, which would compel water systems to identify actions that would reduce lead levels in drinking water. EPA's new 10 ppb trigger level will enable systems to react more quickly should they exceed the 15 ppb action level in the future. These actions could include reevaluating current treatment or conducting a corrosion control study. Systems above 10 ppb but below 15 ppb would be required to set an annual goal for conducting replacements and conduct outreach to encourage resident

17

participation in replacement programs. Water systems above 15 ppb would be required to annually replace a minimum of three percent of the number of known or potential LSLs in the inventory at the time the action level exceedance occurs.

Additionally, small systems that exceed the trigger and action levels will have flexibility with respect to treatment and LSL replacement actions. This will allow smaller systems to protect public health by taking the action that makes sense for their community.

EPA's Lead and Copper Proposed Rule reflects input received from the agency's state, local and tribal partners, the Science Advisory Board, the National Drinking Water Advisory Council, and best available peer-reviewed science. EPA is taking public comment on this proposal for 60 days after publication in the Federal Register via <u>http://www.regulations.gov</u> [Docket ID No. EPA-HQ-OW-2017-0300].

#### Background

Under Administrator Wheeler's leadership, in December 2018 EPA with its federal partners announced the <u>Federal Action Plan to Reduce Childhood Lead Exposures and Associated</u> <u>Health Impacts</u>. As part of the Plan, EPA is working to address lead in water systems across the country, including undertaking the first major overhaul of the Lead and Copper Rule since 1991. In addition, EPA is working with states to ensure that the existing Lead and Copper Rule is being properly implemented.



» Enhance implementation of the LCR by engaging with state, tribal, local and other stakeholders to identify implementation challenges, best practices and tools to address these challenges.

- Hosted the first in a series of webinars on lead service line replacement. This series showcases best practices for states and utilities implementing a voluntary lead service line replacement program.
  - March 2019: Webinar included speakers from Washington State, Department of Health and D.C. Water.
  - July 2019: The EPA and the U.S. Department of Education (ED) partnered to host a webinar on Reducing Lead in Drinking Water. The Office of Safe and Supportive Schools (OSSS) within U.S. ED and its Readiness and Emergency Management for Schools Technical Assistance (REMS TA) Center highlighted the impacts of lead exposure on the learning environment and steps other agencies can take to integrate lead testing and reduction programs into school emergency management planning and emergency operations plans. EPA discussed the tools available to support states and localities with

lead testing and reduction.

- September 2019: Focused on large utility programs. The webinar featured a presentation from EPA Office of Research Development seeking participants for a new research project focused on lead service lines as well as presentations from Central Arkansas Water and Louisville Water describing their lead service line replacement programs.
- EPA HQ and all 10 EPA regions met regularly to discuss LCR challenges and strengthen implementation nationwide. This effort includes quarterly reviews of lead exceedance data and system violations reported to the Safe Drinking Water Information System (SDWIS).
- Released an updated version of the Optimal Corrosion Control Treatment Manual which incorporates technical updates and feedback provided by states regarding the previous version.
- EPA's SDWIS Data Management Advisory Committee sponsored a Best Practices Webinar on the LCR for the SDWIS community in September 2019. The 2-hour webinar, which covered data entry and best practices for LCR management, was attended by over 100 participants from state drinking water programs.
- Partnering with U.S. Department of Housing and Urban Development (HUD) to aid with the
  potential cost associated with lead service line replacement by supporting states and cities
  to fully utilize the suite of funding and financing options provided by the federal government.
  These options include the EPA's Drinking Water State Revolving Fund (DWSRF), the Water
  Infrastructure Improvements for the Nation (WIIN) Act grant programs and the Water
  Infrastructure Finance and Innovation Act (WIFIA) financing programs as well as HUD's
  Community Development Block Grants.
- To assist entities as they consider using these funding mechanisms, EPA and HUD will develop a comprehensive website that provides information on how to use, apply for and meet the requirements of each program.
- Continued to update the Leaders in Reducing Lead story map by adding best practices that showcase how communities nationwide are removing lead service lines voluntarily.
  - Users will find detailed case studies and will learn how the DWSRF and EPA's revision of the LCR support the efforts of communities in replacing their lead service lines.
  - Users will also find resources to test for and reduce lead in drinking water in schools and child care facilities, including the recently announced the WIIN grant and new 3Ts Toolkit.



## Trump Administration Unveils Federal Action Plan to Reduce Childhood Lead Exposure

#### 12/20/2018

www.epa.gov/newsreleases/trump-administration-unveils-federal-action-plan-reduce-childhood-lead-exposure-4

EPA Region 2 aggressively implements the "3Ts" (Training, Testing, Telling) guidance to reduce lead in drinking water in schools throughout New York, New Jersey and tribal nations within New York State. R2 has worked with more than 35 public school districts and child care centers to implement the guidance, sample water outlets for lead, and address outlets having elevated lead levels. In response to the results that EPA R2 has achieved over the years, both the New York State Department of Health and the New Jersey Department of Education enacted new state laws requiring public schools to test for lead in drinking water, becoming two of the first states in the nation to develop regulations.

» Assist schools and child care centers with the 3Ts approach (Training, Testing and Taking Action) to reduce lead in drinking water and increase the number of schools and child care centers that test and provide parents with information on how to minimize children's exposure to lead in drinking water.

- October 2018: Released revised 3Ts toolkit to assist those implementing lead monitoring in schools and child care facilities. The revised version is available in an interactive web-format and includes modules and customizable templates.
- EPA recognizes that communicating early and often about testing plans, results and next steps will build confidence in a school's ability to provide a safe environment. To improve communication with community members and parents, EPA has added an additional 3Ts communication tool in 27 languages.
- Worked with states, utilities and local organizations to showcase efforts across the country to reduce lead in drinking water within schools and child care centers and added additional case studies to the Leaders in Reducing Lead in Drinking Water map.
  - Continue to add case studies to the Leaders in Reducing Lead in Drinking Water map.

- **May and June 2019:** Conducted 3Ts webinars and provided technical assistance to regions, states, utilities and the school community to encourage lead testing in schools and provide information regarding remediation actions.
- Updated existing Memorandum of Understanding (MOU), Reducing Lead Levels in Drinking Water in Schools and Child Care Facilities. The updated MOU includes current and new partners aimed to provide a more meaningful coordinated approach to help schools and child care programs which will be done in conjunction with the revised 3Ts toolkit and the newly announced Lead Testing in Schools and Child Care Programs Drinking Water grant authorized by the WIIN Act.
- Updating a resource guide to help schools and child care facilities implement programs and policies to reduce children's exposure to lead in drinking water. This document will include approximately 200 funding sources from federal programs, state programs and foundations/companies.

#### EPA Region 2: Region-wide

EPA Region 2 aggressively implements the "3Ts" (Training, Testing, Telling) guidance to reduce lead in drinking water in schools throughout New York, New Jersey and tribal nations within New York State. Region 2 has worked with more than 35 public school districts and child care centers to implement the guidance, sample water outlets for lead, and address outlets having elevated lead levels. In response to the results that EPA Region 2 has achieved over the years, both the New York State Department of Health and the New Jersey Department of Education enacted new state laws requiring public schools to test for lead in drinking water, becoming two of the first states in the nation to develop regulations.

Region 2 has a robust lead-based paint enforcement program. On average, Region 2 conducts over 100 inspections and processes between 1,200 and 1,300 individual certifications annually. The work ensures that entities like renovation and lead abatement contractors, landlords, property managers, realtors and others comply with rules that protect the public from exposure to lead from lead-based paint.

### EPA Announces Partnership to Reduce Childhood Lead Exposure at Schools and Childcare Facilities

#### 10/03/2019

https://www.epa.gov/newsreleases/epa-announces-partnership-reduce-childhood-lead-exposure-schools-and-childcare

"In accordance with Children's Health Month, the Trump Administration is forging an important new partnership to reduce childhood lead exposure in schools and childcare facilities," **said EPA Administrator Andrew Wheeler.** "This MOU supports the Lead Action Plan and brings together more than a dozen partners across the government and

PROGRESS REPORT ON THE FEDERAL ACTION PLAN TO REDUCE CHILDHOOD LEAD EXPOSURES AND ASSOCIATED HEALTH IMPACTS

21

private sector to enhance our efforts to test for and address harmful lead exposure."

This new MOU provides a framework for a coordinated approach between more than a dozen critical partners across the federal government, tribes, water utilities and the public health community. The commitments of the MOU support <u>the Lead Action Plan</u>, which provides a blueprint for reducing lead exposure and associated harms by working with a range of stakeholders, including states, tribes and local communities, along with businesses, property owners and parents. One existing effort that is further supported by this MOU is EPA's 3Ts—training, testing and taking action—for Reducing Lead in Drinking Water in School and Child Care Facilities.

The MOU:

Highlights each partner's commitment to work to help ensure that children in schools and childcare facilities are provided with safe drinking water.

Encourages supporting activities that provide education on health concerns associated with lead in drinking water; assists in the development of a lead testing program utilizing the EPA's 3Ts for Reducing Lead in Drinking Water in School and Child Care Facilities; and helps schools and child care facilities establish a sustainable and effective lead in drinking water testing program.

Promotes collaboration in the development of materials, training and tools to assist schools and child care facilities in reducing lead in drinking water.

Allows for better identification of appropriate networks, associations and organizations to partner with to develop communication materials for schools and child care facilities.

To read the MOU and related information visit: <u>https://www.epa.gov/safewater/3Ts</u>

## REGION 8: Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming

In 2019, the Region 8 Lead, Drinking Water and Children's Environmental Health Programs collaborated to plan and deliver training webinars on the topic of reducing lead in schools for stakeholders in Region 8. The first webinar titled "Why is Lead a Concern" was presented in March. The second webinar titled "Testing School Drinking Water for Lead" was presented in July. Representatives from the Town of Pinedale, WY drinking water system; Sublette County School District No. 1; and the Thompson School District, CO shared their lessons learned from voluntary lead testing programs completed in both school districts. The third webinar titled "WIIN Grants and the Revised 3Ts" was presented to an audience of 33 attendees on October 8 during Children's Health Month. The webinars are open to the public and attendees have included state and local environmental and health departments, school districts, and technical service providers. This webinar series is part of the Region 8 Lead Action Plan Priority Area 1 to promote protection of vulnerable populations. » Finalize regulatory changes to the definition of lead-free plumbing products and make other conforming changes to implement the Reduction of Lead in Drinking Water Act and the Community Fire Safety Act enacted by Congress. The final regulation is expected to result in fewer sources of lead in drinking water by implementing new standards for lead content in plumbing materials used in new installations and repairs.

#### ACCOMPLISHMENTS:

- Considered comments on the proposed rule to inform final and conduct additional analysis to support preparation of a final rule.
- Preparing final regulation and supporting technical documentation for the final rule to be published in winter 2020.

DWSRF Case Studies: Lead in Drinking Water Region 5: ASHLAND, WI

The City of Ashland, Wisconsin, received \$600,000 in DWSRF assistance between 2017 and 2018 as 100% principal forgiveness. The City is using these funds to replace an estimated 200 private galvanized and lead service lines (LSL) at residences, schools, or daycare facilities. Ashland, with approximately 8,000 residents, was designated as a disadvantaged community under the Wisconsin DWSRF program. This project prioritizes LSL replacement for the following situations:

- Households with children under 6 years old;
- Households below the federal poverty level; and
- High-risk minority groups.

To date, the City has requested reimbursement for the replacement of 51 LSLs.

» Collaborate with state and tribes to provide opportunities for low-interest loans and grants through the Drinking Water State Revolving Fund and the Water Infrastructure Finance and Innovation Act loan program for updating and replacing drinking water infrastructure.

- April 2019: Published a new factsheet on Addressing Lead in Drinking Water with the DWSRF and case studies.
- Continued to work with selected borrowers invited to apply for WIFIA financing in FY18.
  - Twelve (12) of the selected projects address the reduction of lead or other drinking water contaminants.
  - Closed four (4) loans in FY 2018, two of which addressed the reduction of lead or other drinking water contaminants.
- In response to the third Notice of Funding Availability (FY19 round), the agency received 51 letters of interest (LOI), collectively requesting \$6.6 billion in WIFIA funding. This exceeds the \$6 billion that EPA is offering, demonstrating the critical need for investment in our nation's water infrastructure and strong interest in the WIFIA program.
  - Thirteen (13) of the LOIs received proposed reducing exposure to lead in the nation's drinking water systems or ensures continuous compliance with contaminant limits.
  - Selected borrowers invited to apply for WIFIA financing in FY19 will be notified in October 2019.





» Implement three newly authorized grant programs under the Water Infrastructure Improvements for the Nation Act, for which Congress appropriated \$50 million in FY 2018, to fund grants to small and disadvantaged communities for developing and maintaining infrastructure, for lead reduction projects and to support the voluntary testing of drinking water in schools and child care centers. These programs decrease exposure to lead in drinking water by providing financial incentives to test, educate and replace infrastructure.

- Sent letters to state governors announcing the Lead Testing in Schools and Child Care Programs Drinking Water Grant authorized by the WIIN Act.
  - Received letters from all 50 States and the District of Columbia confirming their commitment to reducing lead in drinking water in schools and to participate in this new grant.
  - Reviewed state workplans for the Lead Testing in Schools and Child Care Programs Drinking Water Grant authorized by the WIIN Act and begin awarding grants to states. All states and DC submitted applications for grant funding.
  - April 2019: Notified states and DC of funding allotments for the Lead Testing in School and Child Care Programs Drinking Water Grant.
  - May and June 2019: Hosted webinars for states on the new grant guidance.

- Awarded the first grants to states under the WIIN Lead Testing in School and Child Care Program Drinking Water Grant Program.
- Completed the tribal consultation for the Lead in Drinking Water Grant authorized by the WIIN Act through March 2019.
  - Plan to continue to develop and release relevant grant implementation materials.
- Opened the Catalogue of Federal Domestic Assistance for state applications for the WIIN Small and Disadvantaged Grant. States are expected to award funding this Fall and throughout FY20 as state applications come in.



## EPA Healthy Community Grants Will Help Protect Health in Maine

#### 10/31/2018

#### www.epa.gov/newsreleases/epa-healthy-community-grants-will-help-protect-health-maine

The Environmental Health Strategy Center is the only statewide organization in Maine entirely focused on the link between human health and toxic chemicals in the environment. Although little public data exists on the prevalence of lead in Maine well water, minor modifications to existing efforts to address arsenic can be expanded to include lead contamination. The project will develop a roadmap for expanding arsenic detection and prevention efforts to include lead and to raise awareness of other lead exposure pathways.

The project will bring together public health professionals, community organizations, water safety business leaders and individuals whose health is affected. This group and other key stakeholders will consider how to address lead contamination of drinking water and other sources in rural Maine. Research will summarize potential solutions from case studies in other states and will determine the potential for treatment options to address both lead and arsenic. Project partners include: Town halls, libraries, health centers, food pantries, and service providers.

### **Objective 1.3. Reduce Exposure to Lead in Soil**

As a result of human activity or uses (i.e., lead paint deposited in surface soil) and natural occurrences (ATSDR, 2017; EPA, 2017), lead can be a relatively common soil contaminant. Young children often have higher rates of soil ingestion because of their unique behaviors such as crawling and hand/object-tomouth contact (Task Force, 2016). Children who play in areas near former mining and smelting sites, manufacturing facilities, processing plants, landfills and buildings with exterior lead-based paint may be exposed to lead through incidental ingestion of small amounts of soil (ATSDR, 2017). Soil, near roadways (Mielke et al, 2013) and in yards, playgrounds, gardens and elsewhere in the community may also be a source of exposure.



» Manage lead contamination at Superfund, Resource Conservation

and Recovery Act (RCRA) Corrective Action and other sites to reduce exposure to community residents; continue to reduce childhood exposures to lead in soils through removal, remedial and corrective actions at contaminated sites and reduce lead soil exposures to the most sensitive community residents; and continue to support the evaluation of lead exposure at contaminated sites and identify ways to protect the public's health.

- Conducted research to improve the agency's understanding of the degree to which Superfund cleanups may lower BLLs at a wider range of lead contaminated sites.
  - EPA's National Center for Environmental Economics and Office of Land and Emergency Management have compiled a dataset that links two decades of BLL measurements from children in six states with EPA data on the location and characteristics of Superfund sites, as well as other determinants of lead exposure. The investigation uses advanced statistical methods to identify the relationship between proximity to Superfund cleanups and rates of elevated BLLs.
  - Research indicates that Superfund cleanup lowered the risk of elevated BLLs by roughly 8 to 18% for children living within 2 kilometers (1.24 miles) of a Superfund National Priorities List (NPL) site where lead is a contaminant of concern.
- There are almost 900 National Priorities List and Superfund Alternative Approach sites where lead has been identified as a contaminant of concern. A site may have multiple cleanup actions. This work is important as the cleanup of lead-contaminated sites has been shown to reduce BLLs in children living on or near these sites.

- The Superfund Remedial Program (not including federal facilities) completed 16 remedial actions between FY19 Q2-Q4. EPA is continuing work on 167 remediation actions where lead is identified as a contaminant of concern.
- The Superfund Removal Program completed 22 removal actions (including emergency, time critical and non-time critical actions) during FY19 Q2-Q4 and is continuing work on 23 removal actions for sites where lead is a contaminant of concern.

## EPA and Kansas Department of Health and the Environment (KDHE) Announce Cleanup Completion at 309 Lead-Contaminated Residential Yards in Caney, Kansas

10/1/2018

www.epa.gov/newsreleases/epa-and-kdhe-announce-cleanup-completion-309-lead-contaminated-residential-yards-caney

EPA and KDHE sampled 975 properties in Caney. Of the 975 properties sampled, 319 qualified for cleanup, with EPA and KDHE cleaning up lead-contaminated residential yards at 309 properties. Ten properties either declined cleanup or were inaccessible because the owner could not be located or contacted.

Lead contamination of residential yards at the site is the result of local smelting operations that date back to about a century ago. In the early 1900s, the discovery of natural gas in the area spurred the development of zinc and lead smelting in Caney and elsewhere in southeast Kansas, with the smelters using natural gas as fuel. Over time, airborne lead particles from smelters and related operations settled onto area properties. The use of waste from the smelters as driveway paving, construction backfill, and landscaping material also likely contributed to residential contamination.

PROGRESS REPORT ON THE FEDERAL ACTION PLAN TO REDUCE CHILDHOOD LEAD EXPOSURES AND ASSOCIATED HEALTH IMPACTS

## EPA Releases Final Tar Creek Strategic Plan to Improve Cleanup Progress

#### 9/17/2019

#### www.epa.gov/newsreleases/epa-releases-final-tar-creek-strategic-plan-improve-cleanup-progress

Today, the U.S. Environmental Protection Agency (EPA), in cooperation with the state of Oklahoma and the Quapaw Nation, released the Final Tar Creek Strategic Plan to advance the cleanup of the Tar Creek Superfund site. The strategic plan provides an update on the cleanup progress and outlines how EPA, the Oklahoma Department of Environmental Quality, the Quapaw Nation, and the Tar Creek community will work to improve progress in addressing mining waste and contamination at the site. The release of the strategic plan was announced by the EPA Regional Administrator, joined by the Quapaw Chairman and the Oklahoma Secretary of Energy and Environment, at the annual Tar Creek Conference, hosted by Local Environmental Action Demanded, Inc. (the L.E.A.D. Agency).

"This strategic plan is a commitment to the communities near the Tar Creek site by EPA and our state and tribal partners to work together to accelerate the cleanup of the site and build a better future for those who call this area home," said EPA Regional Administrator Ken McQueen.

"Great progress has been made at the Tar Creek Superfund site, but much work is yet to be done. Through the objectives outlined in the strategic plan, and with the ongoing efforts of our partners, we will continue to build on our previous accomplishments and create a better home for Tar Creek area residents," said Oklahoma Department of Environmental Quality Executive Director Scott Thompson.



29

## EPA Administrator Wheeler Recognizes Progress at Madison County Mines Superfund Site

#### 04/01/2019

#### www.epa.gov/newsreleases/epa-administrator-wheeler-recognizes-progress-madison-county-mines-superfund-site

"Removing Madison County Anschutz Mine and Tar Creek, and adding Olin Chemical to the Administrator's Emphasis List, demonstrates EPA's dedication to accelerating cleanup activities that protect human health and the environment and improve local communities," said EPA Administrator Andrew Wheeler. "The cleanups at these sites further the commitment EPA made in the Federal Lead Action Plan by managing lead contamination at Superfund sites, thereby reducing exposure to community residents."

"Reopening the mine represents a tremendous economic opportunity for the Fredericktown community," said EPA Region 7 Administrator Jim Gulliford. "The property owners' efforts to restore mining operations and clean up the mine demonstrate how economic and environmental revitalization go hand-in-hand."

Since the cleanup began at the Madison County Mines Site, EPA has completed the remediation of over 626,000 cubic yards of soil at more than 1,900 residential properties in and around Fredericktown, in addition to cleaning up approximately 87 acres of mine waste. EPA's response actions have resulted in a significant reduction of elevated blood lead in children tested throughout Madison County, where the percentage has dropped from around 27 percent in 1996 to less than 2 percent today.

and the state

### Objective 1.4. Reduce Exposure to Lead Associated with Emissions to Ambient Air

As a result of several regulatory actions over the past two decades, lead emissions in air have substantially declined.

» Continue to work with state and tribal air agencies to implement the National Ambient Air Quality Standard (NAAQS) for lead and aim to reduce the number of areas violating the lead NAAQS.

#### **ACCOMPLISHMENT:**

Eleven of the 22 initial areas designated nonattainment for the 2008 Lead NAAQS are attaining. For the majority of the remaining nonattainment areas, lead emissions and monitored concentrations are declining due to implemented control measures and all nonattainment areas have fulfilled air quality implementation plan requirements.

» Evaluate the impacts of lead emissions from aircraft using leaded aviation fuel under the Clean Air Act.

#### ACCOMPLISHMENT:

• Completing two technical reports: Model-extrapolated Estimates of Airborne Lead Concentrations at U.S. Airports and National Analysis of Populations Residing Near or Attending School Near U.S. Airports.



## GOAL 2: IDENTIFY LEAD-EXPOSED CHILDREN AND IMPROVE THEIR HEALTH OUTCOMES

EPA's federal partners lead the actions under Goal 2. These actions are focused on improving the identification of children exposed to lead through surveillance of BLL data and improving access to services and support designed to improve children's physical, developmental and mental health. Please visit <a href="https://ptfceh.niehs.nih.gov/">https://ptfceh.niehs.nih.gov/</a> for future updates on Goal 2 of the Action Plan.

#### **REGION 7: St. Joseph, Missouri**

St. Joseph, Missouri – or St. Joe as it's called by the locals – has a lead problem. Between 16-20 percent of children tested from 2014 to 2017 in zip code 64501 showed elevated blood lead levels (CDC). Lead from paint, including lead-contaminated dust, is one of the leading causes of lead poisoning. Lead-based paint is the most widespread and dangerous high-dose source of lead exposure for young children in this community.

To combat this critical public health problem, in late 2018, EPA Region 7 formed a crossprogram lead team to raise awareness about lead-based paint hazards in the home. EPA Region 7 also worked closely with EPA's Office of Environmental Justice in the coordination of this effort. This effort comprised of three different areas of focus: child care providers, renovators and do-it-yourselfers and the general public.

The following are activities and outcomes from this very active team:

- Developed a Continuing Education Unit-approved course with the city health department to educate child care providers about the hazard lead poses and how they can protect the kids in their care.
- Attended health fairs, community events, the children's fair and the annual Tiny Tot Town – an annual event attended by 700 children and care-givers.
- Provided free renovation, repair and painting rule (RRP Rule) training. This training increased the number of RRP-certified firms in St. Joe by fifty percent.
- Partnered with the Missouri Department of Health and Senior Services to have an event at a local home improvement store to educate the public about safe renovation techniques.

- Met with community leaders in schools, religious organizations and nonprofits to share information about lead poisoning prevention as well as gain insight regarding the level of knowledge within the community and how best to reach community members.
- Participated in the St. Joe Fall Festival, the Mayor's Christmas Party and the annual Juneteenth celebration.
- Partnered with a local elementary school to host a lead awareness poster contest. The students learned about lead and used that information to produce their own lead poisoning prevention posters.
- As part of the general outreach, Dr. Cynthia Brownfield, a St. Joe pediatrician, filmed a TV ad about the dangers of lead. This PSA aired on three different TV stations and in local movie theaters. Dr. Brownfield also recorded a radio spot which aired on two local radio stations.

The Team's effort culminated in a Lead Education Summit, where federal, state and local agencies, local nonprofits and health providers came together to discuss the next steps for preventing lead poisoning in St. Joe. Partnership activities continue with an emphasis on capacity building and sustainability of lead poisoning prevention efforts with focus on zip code 64501. While the fight against lead poisoning is on-going, Region 7 is proud of the great strides St. Joe has made over the past year.



PROGRESS REPORT ON THE FEDERAL ACTION PLAN TO REDUCE CHILDHOOD LEAD EXPOSURES AND ASSOCIATED HEALTH IMPACTS

33

## GOAL 3: COMMUNICATE MORE EFFECTIVELY WITH STAKEHOLDERS

The Action Plan identifies ways to streamline and improve federal messaging on the dangers of lead exposure. Over the past year, EPA has launched a larger effort to improve risk communication across the agency. We owe it to the American public to be able to communicate to them in clear and simple terms what risks they may face in their daily lives.

### Objective 3.1. Consolidate and Streamline Federal Lead-Related Communication and Messaging

» Create an online portal to enhance, consolidate and streamline federal-wide communication to the public. Links will direct the public to agency-specific information. (Not everyone affected by lead exposures has access to the internet and therefore, agencies will continue to provide access to printed materials).

#### **ACCOMPLISHMENTS:**

- Developed outreach materials related to reducing lead exposures as part of EPA's celebration of Children's Health Month and Lead Poisoning Prevention Week.
- Continued to refresh links, connect links, and add new content as EPA makes progress on its actions to increase transparency.
- Developed and updated content related to reducing leading lead exposures for materials for Children's Health Month and Lead Poisoning Prevention Week.
  - » Provide periodic updates on the progress of implementing the Action Plan on the online portal.

#### **ACCOMPLISHMENT:**

• Updated the Implementation Status for EPA Actions Under the 2018 Federal Action Plan to Reduce Childhood Lead Exposures and Associated Health Impacts web page with FY19 quarterly status reports. <u>https://www.epa.gov/leadactionplanimplementation</u>

### Objective 3.2. Improve Awareness of Lead Hazards, Prevention and Remediation among Diverse Populations, Especially Those Most at Risk

» Utilize Pediatric Environmental Health Specialty Units (PEHSUs) to develop appropriate, evidence-based lead exposure prevention and intervention communication materials and disseminate them through the PEHSUs established community networks..

- PEHSUs are a 20-year-old network of experts uniquely qualified to train health care providers on the prevention, diagnosis, management and treatment of lead exposure in children. There are 11 units around the country, several of which were originally lead clinics. EPA provides support to the PEHSU program that ATSDR designs, funds and manages.
- Provided \$1,128,425 to support the PEHSU network for FY19.
- Continued to play a partnership role in the PEHSU program, making recommendations to ATSDR on program design, management and direction and by annually providing 35 to 40% of the funding support.
- Children's environmental health coordinators in EPA regional offices work regularly with PEHSU counterparts to plan and implement children's environmental health outreach and education efforts in communities across the region.
- In collaboration with the Pediatric Associates clinic at Mount Sinai, the Region 2 PEHSU implemented a screening program to identify harmful environmental exposures such as lead, mold, pests, tobacco smoke, as well as questions about food insecurity, healthcare access, housing and education/development.
  - Screened 4821 families and referred 1092 to environmental health resources.
- The Region 3 PEHSU developed videos and fact sheets on lead in soil in English and Spanish to inform families of potential risks and how to minimize exposures to children from lead in soil. Materials are shared with families near current and former superfund sites where lead is a contaminant of concern and throughout the region for lead outreach efforts.
  - The PEHSU also trained community health workers, health educators and others on how to conduct an environmental assessment in the home to help families reduce exposures to children.
  - Two in-person trainings were provided in English and Spanish in communities with high incidence of childhood lead and asthma.
  - Webinars planned in English and Spanish will allow for other communities to be reached throughout the region.
  - October 1-2, 2019: Held the Mid-Atlantic Lead Forum in Hunt Valley, Maryland.

- In New Orleans, EPA's Region 6 PEHSU held a Children's Environmental Health Symposium with extensive training on lead poisoning in children.
   80 public health practitioners from across the Gulf Coast attended.
  - Trained pediatric health professionals in lead testing, how to increase testing rates, and how to improve treatment and follow up care for children exposed to lead.
  - Working with the American Academy of Pediatrics, PEHSU trained 65 professionals in CA, MD, NH, NY, UT, and WA with the ability to reach over 10,000 patients.



- The Rocky Mountain Region 8 PEHSU developed and disseminated materials, such as brochures and posters relevant to protecting children from exposure to lead and made available to region-wide partners such as departments of environmental health and/or public health and clinicians.
  - Exhibited at the Utah and Colorado annual public health meetings to spread messages about lead in children.
  - Attended the National Association of School Nurses annual meeting and displayed many of the newly-developed lead-specific materials for that audience of 1,500 attendees. Attendance at public and environmental health meetings dovetails nicely with PEHSU activities; attendees are like-minded individuals already advocating for children and the PEHSU program's resources add significantly to these efforts.
  - The PEHSU network created outreach materials to alert public health officials about lead and inform them of the PEHSU resources, building on presentations and panels delivered in previous years at the annual meeting of the American Public Health Association.
- The Region 9 PEHSU noticed an increase in lead poisoning among immigrant children from use of lead-containing imported makeup. In response, the Western States PEHSU developed a set of fact sheets on the risks of using these products on children. At the behest of state public health officials, the PEHSU stepped in to provide clear and concise advice and translated their fact sheet into seven languages to provide direct reach to the communities. The fact sheets are available in Dari, Pashto, Urdu, Hindi, Arabic and Somali, each with an English translation.



• The Region 10 PEHSU educated over 550 Washington and Oregon clinicians, including those working with refugees, on the importance of pediatric lead screening.

### REGION 8: Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming

Region 8 Children's Environmental Health (CEH) Program provided funding to the R8 PEHSU to conduct outreach and education on reducing and preventing childhood lead exposure. They disseminated materials relevant to protecting children from exposure to lead to region-wide partners such as state and local departments of environmental health and/or public health and clinicians. They engaged in a process of lead mapping with Denver Health. A database with over 17,000 lead test results over the last 3 years has been assembled and will be used to do some geo-mapping. The maps will concentrate on the Denver metropolitan area but will likely cover other areas of Colorado. The PEHSU has plans to continue the regional outreach and education efforts on childhood exposure to lead and has already been invited to present on this topic at the Frontiers of Medicine Conference in Casper, WY and the Wyoming Medical Society's Annual Meeting in 2020.

#### **Region 7: Kansas City**

On Thursday, September 5, EPA Region 7 in collaboration with HUD's Region 7 office and the University of Kansas Health System held a Pediatric Lead Poisoning Prevention Summit. The Summit was an 8-hour training (approved by the State of Missouri for CEU credits) attended by more than 100 pediatricians; community health workers; academics; and local, state, and federal staff. There were speakers and participants from all four region 7 states: lowa, Kansas, Missouri, and Nebraska.

Participants received information regarding:

- Federal Resources and programs to address lead poisoning prevention and how to apply,
- Emerging decision-making geospatial approaches using health, demographics and local land use data to identify priority areas down to the census block level,
- Effective community engagement and partnership,
- Program highlights from successful urban and rural lead programs, and
- Creative approaches to increasing lead awareness, testing, and other lead poisoning prevention activities.

Speakers included Lead Hazard Control experts from EPA and HUD; Children's Mercy Hospital (PEHSU); University of Missouri and Nebraska Methodist College; Sedgewick County, KS; Wyandotte County, KS; Madison County, MO; and Kansas City, MO health departments; and community leaders from Kansas City, MO and Kansas City, KS. The goal of the Summit was to increase knowledge and awareness regarding current regulations, resources, trends and best practices in pediatric lead poisoning prevention. This was the third year for this annual event. Participation this year more than doubled that of previous years.

» Enhance partnerships with state, tribal and local governments and key stakeholders (e.g., media, community groups, faith-based groups, advocacy groups, departments of health, departments of environmental quality, medical providers, philanthropies, federal grantees and others) that represent or serve communities at risk for childhood lead exposure.

#### **ACCOMPLISHMENTS:**

- EPA collaborated with over 200 tribal representatives and partners to develop and evaluate a new educational curriculum for tribes Lead Awareness in Indian Country: Keeping our Children Healthy! The evaluation process reviewed the feasibility, understanding, and design of the curriculum to ensure the product best serves tribes. The purpose of the education material is to raise awareness about childhood lead exposures; potential impacts on children's health and cultural practices; and encourage actions that can be taken to reduce and/or prevent lead exposures.
- Pilot tests were conducted in partnership with the Oneida Nation, the Shoshone-Bannock Tribes, the Eight Northern Indian Pueblo Council, the National Tribal Toxics Council, the National-EPA Tribal Science Council, EPA Region 5, and EPA Region 6. Seven pilot tests identified how the curriculum can be best executed and gathered feedback to make modifications for ensuring the product is ready for dissemination and use.
- The unique aspect of this curriculum is the design it is created in a manner to balance diverse community backgrounds, technical information, and localized knowledge by allowing community leaders an opportunity to plan and deliver their own messages. The format allows users the ability to adapt information to meet various needs and consists of four modules:
  - Module 1: Understanding Lead Understanding Lead provides an overview of lead, its impacts, and actions that can be taken to reduce potential lead exposures and lead poisoning;
  - **Module 2:** Effective Cleaning Techniques explains and demonstrates recommended cleaning techniques for reducing household lead dust;
  - **Module 3:** Personal Hygiene and Nutrition focuses on the connection between personal hygiene and nutrition for children and potential exposures to lead; and
  - **Module 4:** Hiring Certified Lead Professionals emphasizes the importance of hiring a certified lead professional to follow lead-safe work practices to reduce exposures to lead.

The agency anticipates publishing the curriculum in early 2020.

The Supporting Healthy Houses of Worship booklet is designed to identify some of the most common types of environmental health concerns (including exposures to lead) found in older facilities and contains voluntary recommendations that maintenance staff may use to limit risks to congregations. It also provides one-stop access to learn some facts about these issues and existing low-cost or no-cost measures to prevent, reduce, and resolve each of the highlighted environmental issues.



Supporting Healthy Houses of Worship



https://www.epa.gov/sites/production/files/2019-10/documents/ healthyhousesofworship2019\_booklet-v7s.pdf

#### **Region 8: West Denver**

The objective of the EPA Region 8 West Denver Lead Place-based Initiative is to protect vulnerable populations from exposure to lead-based paint hazards created when paint is disturbed during renovation, maintenance and repair activities in older housing and child-occupied facilities. This initiative took place in a localized and targeted geographic area and is designed to utilize outreach tools to increase public awareness of EPA's Lead Renovation, Repair and Painting (RRP) Rule and demand for lead-safe renovations. These outreach efforts are then followed by compliance assistance, work site inspections and enforcement efforts which aim to assure renovators work in a lead-safe manner when disturbing lead-based paint in homes and child-occupied facilities built before 1978.

- 1. Outreach and education activities consisted of:
  - Distributing newspaper and newsletter ads to over 39,000 households and businesses
  - Airing public service announcements (PSAs) that consist of three different 15-second videos on lead poisoning prevention – Get Your Child Tested, Get Your Home Tested and Renovate Lead-Safe. The video PSAs aired over 200 times with over 2.5 million household impressions on television stations KMGH (English) and KZCO (Spanish)
  - Releasing online digital ads that had over 1,000,000 impressions (viewings) with over 5,000 'clicks' for further information directing viewers to the EPA's Lead website
- 2. Compliance assistance and enforcement activities consisted of:
  - Conducting 62 lead inspections and investigations in the West Denver Place-based Initiative area that resulted in 15 enforcement actions, including 3 penalty orders totaling over \$8,500 in fines. Many of these inspections are still under review and may result in additional enforcement actions.
  - Initiating compliance assistance activities in this Environmental Justice area that focuses on ensuring owners and operators of child care centers are aware of the potential lead hazards and understand relevant lead regulations.

39

### GOAL 4: SUPPORT AND CONDUCT CLINICAL RESEARCH TO INFORM EFFORTS TO REDUCE LEAD EXPOSURES AND RELATED HEALTH RISKS

Key priorities under this goal are prioritizing and addressing the critical research and data needs to inform lead policy and guide decisions. The majority of the research to address the actions identified under Goal 4 is expected to be implemented by EPA, HHS and HUD; other agencies will also conduct lead-focused research, as needed, to support their missions.

» Enhance and apply data and tools (e.g., models or approaches) and determine the key drivers of blood lead levels from multimedia exposures to inform lead regulatory decisions and site assessments.

#### ACCOMPLISHMENTS:

- Application of lead multimedia exposure and biokinetic models in support of the final dustlead hazard standards.
- Application of lead multimedia exposure and biokinetic models, expertise in water sampling and premise plumbing and expertise in health impacts estimation in support of the Lead and Copper Rule revisions.
- External peer review of the All-Ages Lead Model (AALM) by the Science Advisory Board to potentially expand Agency's capacity to incorporate intermittent and adult lead exposures to regulatory and risk assessment decisions.
- Continued to co-lead the development of a cross-agency research workshop with HHS/ NIEHS/CDC and HUD planned for December 2019 in Bethesda, MD.
  - » Generate data, maps and mapping tools to identify high exposure communities or locations and disparities for prioritization efforts to reduce children's blood lead levels.

#### **ACCOMPLISHMENTS:**

- Continued to co-lead the development of a cross agency research workshop with NIEHS, CDC and HUD.
- Held EPA internal workshop on lead mapping efforts to initiate development of a coordinated agency-wide approach to fit-for-purpose lead exposure risk targeting and mapping.
- Provided technical assistance to EPA Regions 5 and 7 in support of their efforts to identify

high exposure location and presented draft results in interagency meetings with state and federal partners.

- Continued receipt and analysis of incoming drinking water samples from the HUD sponsored American Healthy Homes Survey II.
- Research on bioaccessibility that links soil chemistry, Pb levels, and microbiology at contaminated sites.
  - » Generate data to address critical gaps for reducing uncertainty in lead modeling and mapping for exposure/risk analyses and for estimating population-wide health benefits of actions to reduce lead exposures.

#### **ACCOMPLISHMENTS:**

- Co-lead the development of a cross agency research workshop with NIEHS, CDC and HUD.
- Progress in collaboration with Douglas County Health Department and the City of Omaha to determine the effectiveness of the actions to address lead contamination in residential soil, dust and paint at the Omaha Lead Superfund Site in reducing elevated blood-lead levels in young children.
- Conducting analysis of incoming multimedia samples from the HUD sponsored American Healthy Homes Survey II.
- Sponsored public webinar on small drinking water systems, "Actual vs. Predicted: Lead Scale Observations from the Field" and "Destabilization of Lead Pipe Scales in a Long-Term Vacant Home in Cincinnati".
  - » Identify approaches to prevent, mitigate and communicate about lead exposures and risks in exposed communities.

#### ACCOMPLISHMENTS:

- **May 21-22, 2019:** Office of Research and Development and Region 6, in partnership with Region 6 states and the Association of State Drinking Water Administrators, held a workshop to provide information and training relevant to small drinking water systems. This meeting was an extension of EPA's Annual Drinking Water Workshop, and the first designed to bring together EPA and regional experts to focus on small systems challenges that states in the region are facing. Objectives were:
  - Understand compliance issues faced by small drinking water systems in Region 6 states;
  - Address these technical challenges through ideas and information exchange; and
  - Provide a forum for networking. Region 6 has been receiving positive feedback from their respective States on the meeting content and the information that was brought back with the attendees.
  - Continued to co-lead the development of a cross agency research workshop with NIEHS, CDC and HUD.

- Created tool for identifying point of use filters certified to reduce lead.
- Provided ongoing technical support to assess effectiveness of corrosion control treatment in multiple cities applying innovative lead mitigation methods for addressing lead in drinking water, including field and lab technical support for agency and NJ state and municipal efforts in Newark NJ.
- September 24-25, 2019: Conducted EPA's Office of Research and Development 16th Annual Drinking Water Workshop: Small Systems Challenges and Solutions, held in Cincinnati with more than 500 participants. Included session on lead corrosion, a keynote on lead, and breakout sessions on corrosion and lead in schools.

#### A Consumer Tool for Identifying Point of Use (POU) Drinking Water Filters Certified to Reduce Lead



www.epa.gov/sites/production/files/2018-12/documents/consumer\_tool\_for\_ identifying\_drinking\_water\_filters\_certified\_to\_reduce\_lead.pdf

» Evaluate the effectiveness of actions (e.g., interventions, programs, policies, enforcement) to prevent lead exposure, mitigate health effects and communicate on lead exposures/risks.

#### ACCOMPLISHMENT:

- Continued to co-lead the development of a cross-agency research workshop with HHS/ NIEHS/CDC and HUD.
- Progress in collaboration with Douglas County Health Department and the City of Omaha to determine the effectiveness of the actions to address lead contamination in residential soil, dust and paint at the Omaha Lead Superfund Site in reducing elevated blood-lead levels in young children.

# CONCLUSION

This booklet has highlights examples of EPA's commitment to reducing lead exposures from multiple sources including paint, water, soil contamination, and ambient air; identifying lead-exposed children and communities faster; communicating more effectively with stakeholders; and supporting and conducting clinical research to reduce lead exposures and related health risks. EPA will continue to provide regular updates on agency actions as part of its commitment to: inform the public of its progress in meeting the goals under the Action Plan. Status reports for past quarters (FY 2019 Q2, Q3 and Q4) and other updates are available on the Status of Implementation of EPA Actions website, https://www.epa.gov/leadactionplanimplementation.

# ACRONYMS

All-Ages Lead Model (AALM) Federal Action Plan to Reduce Childhood Lead Exposures and Associated Health Impacts (Action Plan) Agency for Toxic Substances and Disease Registry (ATSDR) Blood Lead Levels (BLL) Population Based Reference Value (BLRV) Center for Disease Control and Prevention (CDC) Children's Environmental Health (CEH) Continuing Education Units (CEU) Florida Department of Health (DOH) Drinking Water State Revolving Fund (DWSRF) U.S. Department of Education (ED) Environmental Protection Agency (EPA) Emergency Planning and Community Right-to-Know Act (EPCRA) Department of Health and Human Services (HHS) U.S. Department of Housing and Urban Development (HUD) Kansas Department of Health and the Environment (KDHE) Lead and Copper Rule (LCR) Lead-based Paint Hazard Reduction Act (LHRA) Letters of Interest (LOI) Lead Service Line (LSL) Memorandum of Understanding (MOU) National Ambient Air Quality Standard (NAAQS) National Institute of Environmental Health Sciences (NIEHS) National Priorities List (NPL) New York City Housing Authority (NYCHA) Office of Safe and Supportive Schools (OSSS) Pediatric Environmental Health Specialty Units (PEHSU) Point of Use (POU) Parts Per Billion (PPB) Public Service Announcement (PSA) Readiness and Emergency Management for Schools Technical Assistance (REMS TA) Lead Renovation, Repair and Painting Rule (RRP) Safe Drinking Water Act (SDWA) Safe Drinking Water Information System (SDWIS) President's Task Force on Environmental Health Risks and Safety Risks to Children (Task Force) Toxic Substances Control Act (TSCA) Water Infrastructure Finance and Innovation Act (WIFIA) Water Infrastructure Improvements for the Nation (WIIN) Training, Testing and Taking Action (3Ts)

44

## **APPENDIX 1: REFERENCES**

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U.S. Environmental Protection Agency (EPA). (2019). Implementation Status Report for EPA Actions under the December 2018 Federal Action Plan to Reduce Childhood Lead Exposures and Associated Health Impacts. PN: 100-R-19-003. <a href="https://www.epa.gov/sites/production/files/2019-04/documents/leadimplementationbooklet\_april2019.pdf">www.epa.gov/sites/production/files/2019-04/documents/leadimplementationbooklet\_april2019.pdf</a>.

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PROGRESS REPORT ON THE FEDERAL ACTION PLAN TO REDUCE CHILDHOOD LEAD EXPOSURES AND ASSOCIATED HEALTH IMPACTS

### **APPENDIX 2: EPA REGIONAL OFFICES**

REGION 1 (CT, MA, ME, NH, RI, VT) Environmental Protection Agency 5 Post Office Square - Suite 100 Boston, MA 02109-3912 Phone: (617) 918-1111 Fax: (617) 918-1809 Toll free within Region 1: (888) 372-7341

REGION 2 (NJ, NY, PR, VI) Environmental Protection Agency 290 Broadway New York, NY 10007-1866 Phone: (212) 637-3000 Fax: (212) 637-3526

REGION 3 (DC, DE, MD, PA, VA, WV) Environmental Protection Agency 1650 Arch Street Philadelphia, PA 19103-2029 Phone: (215) 814-5000 Fax: (215) 814-5103 Toll free: (800) 438-2474

REGION 4 (AL, FL, GA, KY, MS, NC, SC, TN) Environmental Protection Agency Atlanta Federal Center 61 Forsyth Street, SW Atlanta, GA 30303-3104 Phone: (404) 562-9900 Fax: (404) 562-8174 Toll free: (800) 241-1754

REGION 5 (IL, IN, MI, MN, OH, WI) Environmental Protection Agency 77 West Jackson Boulevard Chicago, IL 60604-3507 Phone: (312) 353-2000 Fax: (312) 353-4135 Toll free within Region 5: (800) 621-8431 REGION 6 (AR, LA, NM, OK, TX) Environmental Protection Agency 1201 Elm Street, Suite 500 Dallas, TX 75270 Phone: (214) 665-2200 Toll free within Region 6: (800) 887-6063

REGION 7 (IA, KS, MO, NE) Environmental Protection Agency 11201 Renner Blvd. Lenexa, KS 66219 Phone: (913) 551-7003 Toll free: (800) 223-0425

REGION 8 (CO, MT, ND, SD, UT, WY) Environmental Protection Agency 1595 Wynkoop St. Denver, CO 80202-1129 Phone: (303) 312-6312 Fax: (303) 312-6339 Toll free: (800) 227-8917 Email: <u>r8eisc@epa.gov</u>

REGION 9 (AZ, CA, HI, NV) Environmental Protection Agency 75 Hawthorne Street San Francisco, CA 94105 Phone: (415) 947-8000 (866) EPA-WEST (toll free in Region 9) Fax: (415) 947-3553 Email: <u>r9.info@epa.gov</u>

REGION 10 (AK, ID, OR, WA) Environmental Protection Agency 1200 Sixth Avenue, Suite 155 Seattle, WA 98101 Phone: (206) 553-1200 Fax: (206) 553-2955 Toll free: (800) 424-4372

PROGRESS REPORT ON THE FEDERAL ACTION PLAN TO REDUCE CHILDHOOD LEAD EXPOSURES AND ASSOCIATED HEALTH IMPACTS

46





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