

# COLLABORATING TO REPLACE LEAD SERVICE LINES



Partnering to Protect Public Health

# AGENDA



- Background on the Collaborative
- Philadelphia partnership case study
- Denver partnership case study
- Q & A



**LEAD SERVICE LINE REPLACEMENT COLLABORATIVE**

[WWW.LSLR-COLLABORATIVE.ORG](http://WWW.LSLR-COLLABORATIVE.ORG)

# Current Members

\* Steering Committee Members

- American Public Health Association
- American Water Works Association\*
- Association of Metropolitan Water Agencies\*
- Association of State Drinking Water Administrators
- Blue Green Alliance
- Children's Environmental Health Network\*
- Clean Water Action\*
- Environmental Defense Fund\*
- Green and Healthy Homes Initiative
- Justice and Sustainability Associates
- Learning Disabilities Association of America
- National Center for Health Housing
- National Association of County and City Health Officials
- National Association of State Utility Consumer Advocates
- National Association of Water Companies
- National Conference of State Legislatures
- National Environmental Health Association
- National League of Cities
- National Rural Water Association
- Natural Resources Defense Council
- North East Midwest Institute
- RESOLVE\*
- Rural Community Assistance Partnership
- Trust for America's Health
- United Parents Against Lead
- Water Research Foundation



# Funding Sources

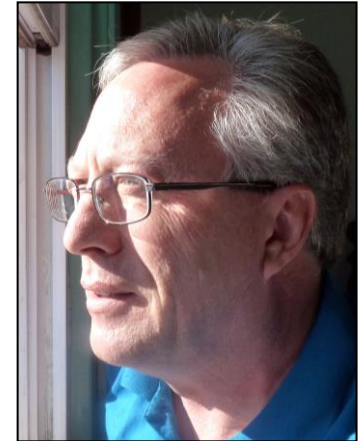
- How is the Collaborative funded?
  - ▣ Funding has been provided by the W.K. Kellogg Foundation and the Pisces Foundation.
  - ▣ The Collaborative is currently and will continue to be funded by in-kind contributions from its members.



# SPEAKER INTRODUCTIONS

- Gary Burlingame

- Director of Bureau of Laboratory Services, Philadelphia Water Department



- Dr. Caroline Johnson

- Acting Deputy Commission, Philadelphia Department of Public Health



# Partnering to Protect Public Health in Philadelphia

*Gary A. Burlingame*



**PHILADELPHIA**  
**WATER**  
— DEPARTMENT —

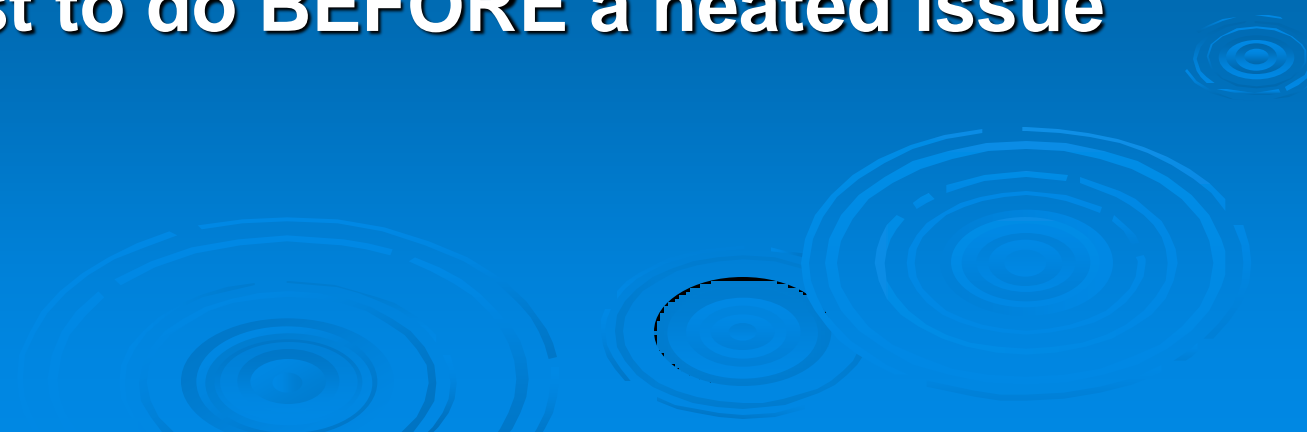
September 26, 2018

# Perspective


## *Water*



# **Why do Water and Health maintain close connections?**

- **Water and Health are both departments within the City of Philadelphia**
  - **Our business is public health protection**
  - **Developing a good relationship and building trust is best to do BEFORE a heated issue arises**
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# **Some of our Responsibilities do Overlap**

- **Response to backflow incidents through cross connections in premise plumbing**
  - **Customer complaints of sickness**
  - **Public education and communication**
  - **Questions from the news media**
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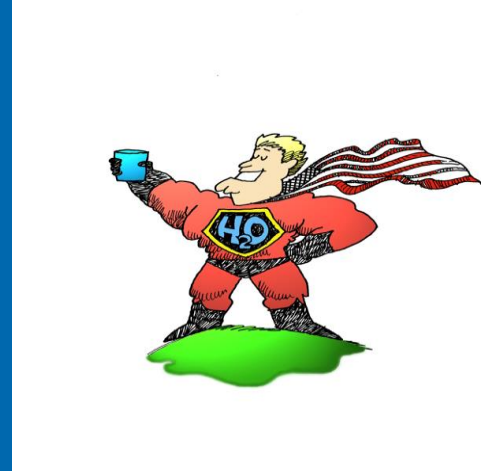


# Working Together for Decades

- 1980s and again today: *Legionella* in water
- Late 1980s: *Giardia*
- 1990s: *Cryptosporidium*
- 1990s: EPA's requirement for annual Consumer Confidence Reports
- 1990s – 2000s: Risk communication on emerging issues such as pharmaceuticals in water
- 2000s: water security and the development of a contamination warning system, and practice exercises

# Two key ways in which we stay connected

Water funds an epidemiologist in Health to be our liaison and to assist in water-related issues that arise



- Health attends and participates in monthly Water Quality Committee meetings where current issues are presented and discussed

# When did lead in water bring us together?

- **Late 1980s -1990s: Lead Contamination Control Act (school water fountains)**
- **Early 1990s: Implementation of compliance with the EPA's Lead and Copper Rule**
- **Early 2000s: Testing of all public schools' drinking water for lead**
- **2016 onward: Outcry over lead in water and retesting of schools**



# The Lead and Copper Rule required public education and community engagement during the early 1990s

**Everybunny needs to know about the risks from lead...**

**Because even small amounts of lead can do great harm.**



Infants, small children and pregnant women are at special risk. There are many sources of lead, and any of them can cause problems. You can find it in old lead-based paint, battery casings, dust in the air, contaminated soil, food and -- to a lesser extent -- water.

Although the Water Department has successfully met the requirements of the Lead Rule, we want our customers to know what they can do to reduce the risks associated with lead.

To get more information, call us at 685-6300, and ask for free copies of "Lead-Free Kids, Lead-Free Homes."

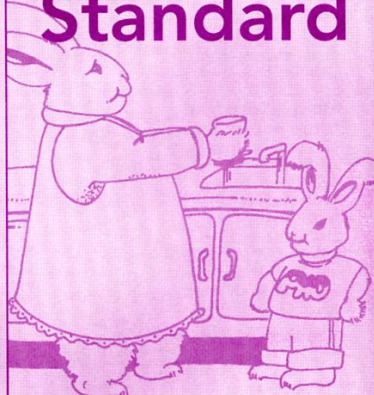


**For a copy of this information in Braille or large type, call 685-6300.**

*Para recibir una copia de este folleto en español llame al 685-6300.*

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## Meeting the Lead Standard



Philadelphia's water quality continues to meet all state and federal standards. This past year, the Philadelphia Water Department successfully passed its third and fourth rounds of water quality testing for lead at customers' taps. To date, the Department's Bureau of Laboratory Services experts have tested for lead levels during four periods in accordance with the requirements of the federal Lead Rule issued in June 1991.

Poorly maintained houses built before 1979 are more likely to contain lead. But any home improvement or repair that calls for sanding painted surfaces or taking down old wallpaper -- especially stripping old paint -- can expose everyone to lead chips, lead dust and dirt. It's a good idea to hire a professional to remove paint, if you can afford it. If not, try to stay with relatives or friends when you are doing renovations to the interior of your home or when removing paint.

Should you have to live in your home while removing lead paint, take extreme care. Seal your food, clothing and utensils in plastic bags. Take the furniture out of the room you're working on. Cover the floors with plastic to catch particles. Seal air ducts to prevent particles from getting into the ventilation system. When you're finished for the day, seal up the room with plastic.

### Lead in the air

Cars still using leaded gasoline send lead fumes into the air, as do some industrial activities and lead smelters. Those fumes can combine with street dust and the dirt around homes and playgrounds. This source of lead can be harmful to children who play outside and then put their dirty hands (or objects) in their mouths. If you think your soil may be contaminated from lead in the air:

Remove or cover the soil from a clean area or garden center.

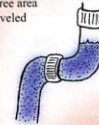
Set up play areas (especially sandboxes) away from major streets and highways so children may play safe.

Plant your vegetable garden in a safe, lead-free area away from painted buildings and heavily traveled roads.

### Lead in drinking water

Drinking water that enters homes and businesses from the Philadelphia water system is mostly lead-free. Philadelphia's water distribution system does not have lead pipes, but the line that runs from the water main to your home (the service line) may be made of lead. As water stands in your plumbing, lead from soldered joints and old lead pipes can dissolve into the water. The longer the water stands in your pipes, the more lead can dissolve into the water.

Old homes and very new homes are most likely to have higher lead levels in the water. Homes built around the turn of the century had lead pipes for plumbing, and lead service lines were commonly installed



## Lead-Free Kids, Lead-Free Homes



**Lead, pregnant women, and parents with small children**

Lead poisoning is a growing health problem, which may not show any signs in its early stages. It can slow a child's development, damage red blood cell formation and cause learning and behavioral problems. If not treated, lead poisoning can harm the nervous system, the kidneys, the reproductive system, and mental development.

# Lead in Schools

- **Water assisted Health by providing technical assistance as the public schools were being sampled during the early 2000's**



# **Roles, today, for Water**

- **If Health finds a child with elevated BLL and, in doing a follow-up investigation, wants the water tested and LSL checked, Water provides assistance**
- **Water provides technical support as needed on water-related aspects of lead**
- **Water oversees compliance with the Lead and Copper Rule**



# Water develops educational materials on lead in water and provides testing of water for customers

IMPORTANT  
HEALTH  
INFORMATION  
FOR:  
**HOMEOWNERS  
WITH LEAD &  
STEEL  
PLUMBING**



## Daily cleaning tips

to clean your home's drinking water pipes



If your home is connected to the City water main by a water service line that has sections made from lead (a toxic metal) or galvanized steel (which may contain lead) it can impact your health. Follow the steps below to clean out your home plumbing until lead plumbing is replaced. **Lead is harmful to everyone. Pregnant women, infants, children under the age of six and adults with high blood pressure and kidney problems are at the most risk.** Also use these tips if you have a galvanized steel service line.



### Instructions for daily cleaning

Run cold water from your tap for at least three minutes. This will give you fresh water from the City water main that is safe for drinking, cooking, making baby formula, feeding your pets, making ice, or watering vegetable gardens.

**TIP:** You can also bring in fresh water from the City water main by taking a shower, washing dishes, using the clothes washer, or flushing the toilets first.

Best time of day?	How often?	For how long?	When to stop?
<ul style="list-style-type: none"> <li>First thing in the morning</li> <li>After you come home from work, if no one has used the water all day</li> </ul>	<ul style="list-style-type: none"> <li>Before using water for any cooking or drinking</li> <li>If no one has used the water for 6 hours or more</li> </ul>	At least 3–5 minutes	This ongoing maintenance is good to do regularly, but especially important in homes that still have lead or steel pipes.

1/23/2018



## Cleaning faucet aerators

Don't let poorly maintained home plumbing prevent you from getting the best water available!

Lead from pipes, fixtures and soldered or epoxy-connected joints can get into your water.

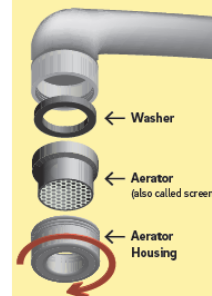


As water stands in your home's plumbing, lead from soldered joints, lead epoxy and old lead pipes can get into your water. Other debris can build up on the aerator, too. It's important to clean faucet aerators and screens to remove any debris from them.

### How often should I clean aerators?

It's recommended you replace the aerator annually, and then clean the aerator twice a year. If the aerator appears to need frequent cleaning or becomes worn, the aerator may need to be replaced more often.

### What is a faucet aerator?



It's a device attached to the tip of a faucet. It saves water, filters out debris, and prevents water from splashing. As water flows through the screen, it mixes with air and flows more evenly.

### Instructions for cleaning aerators

**You will need:** If your faucet has an aerator that you can take off, follow these easy steps:

- Rag
  - ☐ Place a rag in the sink drain in case you drop any pieces.
- Masking tape
  - ☐ If you need to use a wrench or pliers, wrap masking tape around the tips of the wrench or pliers, or on the aerator. Using tape will keep you from scratching the aerator.
- Wrench or Pliers
  - ☐ Unscrew the aerator.
- Old toothbrush
  - ☐ Separate each part—aerator housing, aerator and rubber washer.
- White vinegar
  - ☐ Remove small bits on the screen and other parts.
  - ☐ Soak the parts in white vinegar for a few minutes.
- Small plastic tub
  - ☐ Scrub them with a brush.
- Extra aerators
  - ☐ If the aerator and rubber washer are in poor condition, replace them.
- Extra washers
  - ☐ Put the aerator parts back together.
  - ☐ Screw the aerator back onto the faucet.
  - ☐ Repeat these steps for all faucets.

### Troubleshooting

**Can't find the aerator?**  
Some faucets have hidden aerators. If you have a hidden aerator, follow the manufacturer's instructions.



If you have a water filter attached to a faucet, the faucet will not have an aerator.

1/23/2018

## How to check your water service line material

The City's water mains are not made of lead. However, the water service line running from the water main to your home may be made of lead or steel, which may break.

Lead can also be found in older brass fixtures and valves and in old solder or epoxy, where pipes are joined.



You can test the water service line where it connects to the water meter in the basement.



**Water Service Line**  
May be made of lead, copper, galvanized steel or plastic.

**!** For any questions about lead in your water:

Call our hotline at 215.685.6300. Our staff will provide information on water testing, safety tips and replacement options.

### Possible Pipe Materials



### Follow these steps:

#### You will need:

- Key or a coin
- Strong refrigerator magnet

1. Find the water meter in your basement. Look at the pipe that comes through the outside wall of your home and connects to your meter.
2. Carefully scratch the pipe (like you would a lottery ticket) with a key or a coin. Do not use a knife or other sharp tool. Take care not to make a hole in the pipe. If the scratch turns a shiny silver color, it could be lead or steel.  
**NOTE: If pipe is painted, use sandpaper to expose the metal first.**
3. Place the magnet on the pipe. If a magnet sticks, it is a steel pipe.



#### Other ways you can check for lead:

- Lead test kits can be purchased at your local hardware or home improvement store. These kits are used to test what the pipe is made from—not the water inside. Look for an EPA recognized kit.
- A licensed and insured plumber can inspect your pipes and other plumbing for lead or steel. Replacing an older brass faucet or valve may be a simple way to reduce the lead in water.

1/23/2018

# Water takes care of the LSL replacement programs

- 1) **HELP Loan** – Financial assistance so that a homeowner can replace a LSL at any time
- 2) **Full LSL replacement at no cost**, when we are digging up a street to replace a water main and find that a home has a LSL

# Constant Communication

- Actions being taken at the Federal level
  - Actions being taken at the State level
  - Updates from around the country
  - Latest research findings
  - LCR compliance updates
  - News media requests
- 

# Staying Connected Always Made Good Sense





# Partnering to Protect Public Health in Philadelphia

*Caroline C. Johnson, MD*



Department of  
**Public Health**  
CITY OF PHILADELPHIA  
LIFE • LIBERTY • AND YOU™

# Perspective

## *Public Health*

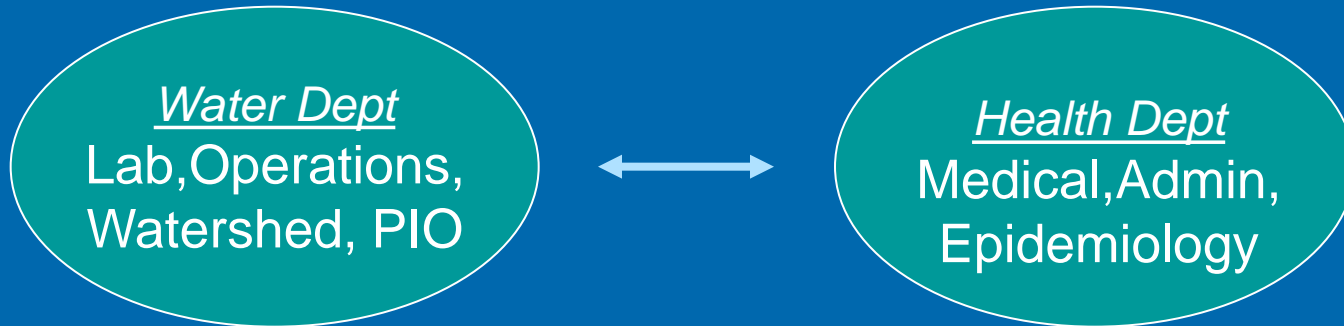




# Water-Public Health Collaboration: What are the fundamental components?

- Standing Water Quality Committee
- Microbial Communication Plan
- Consistent public messaging
- Established points of contact (liaisons)  
for each Department

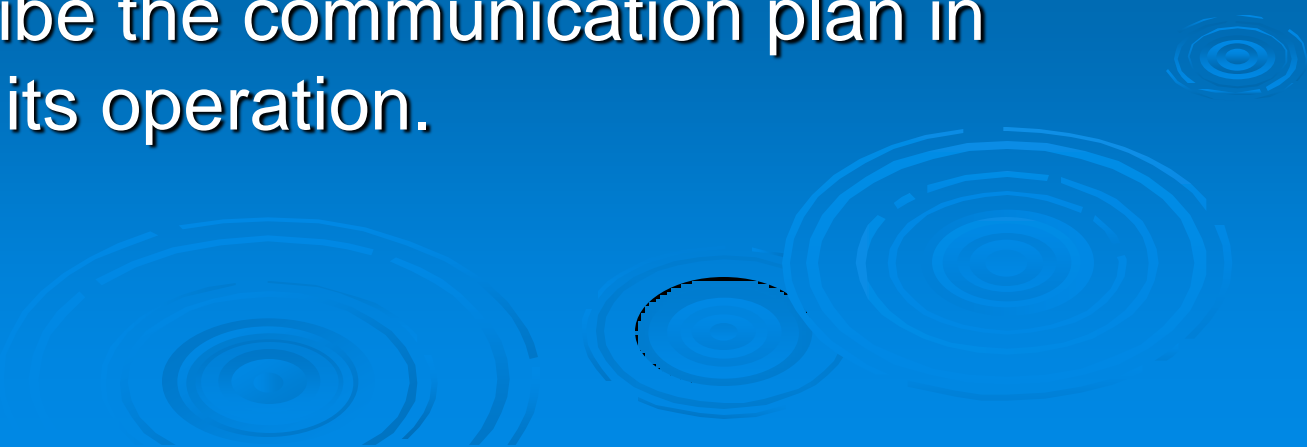
# Water Quality Committee



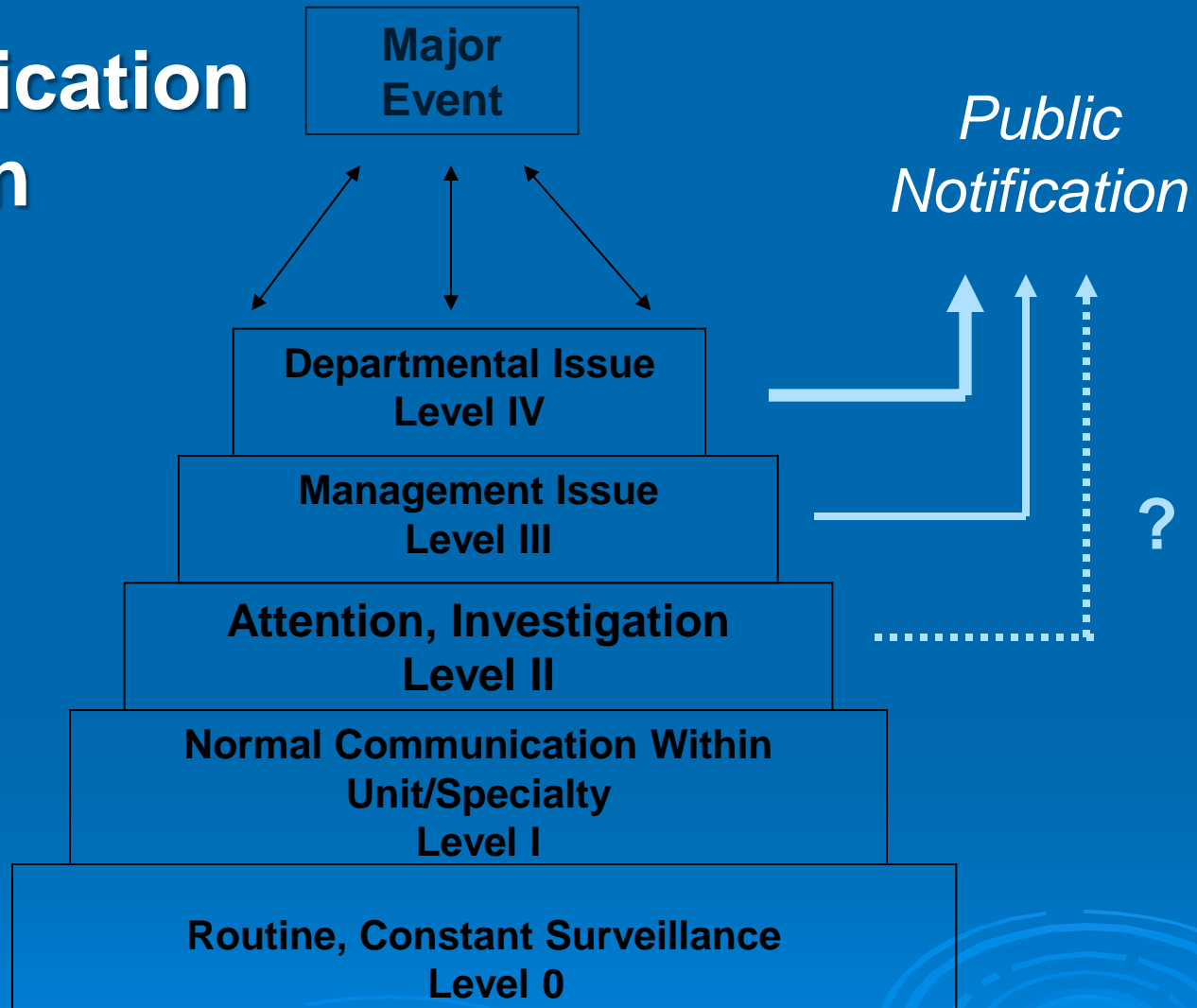
## *Issues Discussed*

- Review or advise on water quality data
- Review or advise on disease surveillance data
- Make technical decisions
- Harmonize public messages
- Plan for emerging issues (e.g., terrorism)

# Microbial Communication Plan Objectives

- To describe parameters and standard surveillance procedures for water quality and waterborne diseases.
  - To establish threshold levels for communication triggers.
  - To describe the communication plan in terms of its operation.
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# Communication Plan



# Consistent Public Messaging

- Clearly identified spokespeople (PIOs) for each Department
- PIOs discuss messaging to assure harmonization and synchronization
- *Stay in your lane* approach to messaging
- Many messages developed in advance of crisis



# Water-Public Health Collaboration: What makes it sustainable?

*Mutually beneficial*





# Benefits

## To Water Dept.

- Provides medical expertise
- Access to disease surveillance data to validate operations
- Authoritative presence on public health issues
- Provides access to HAN for distributing info to medical providers

## To Health Dept.

- Provides technical expertise on water issues
- Assists with sample collection and lab issues
- Financial investment by supporting staff
- Implements prevention activities (fluoride, mosquito control, etc.)

# Water-Public Health Collaboration: How do we work together on lead?

- Harmonize public messages -- posted identical info on Departmental websites
- Share information on childhood lead surveillance data, eg risks, locations, etc.
- Have lead inspectors check premise plumbing
- Attempt to refocus the conversation to risks of lead from old paint, not water

# City Lead Laws for Primary Prevention

- Mandatory screening and disclosure for lead in (*implied intent for paint*):
  - Daycares
  - Rental properties with child <6 years of age
  - K-12 schools, *proposed*
  - All rental properties, *proposed*
  
- Mandatory screening for lead in water:
  - K-12 schools

# Landlord Disclosure of Lead



## CITY OF PHILADELPHIA DEPARTMENT OF LICENSES AND INSPECTIONS

Please note that if you were not required to submit a Lead Safe or Lead Free certificate at the time you obtained your rental license because no occupant was aged 6 or younger, you must do so should a child in that age range become an occupant later in the year. (And of course, refusing to rent to families with young children is unlawful.)

If you need to come into compliance with the Lead Disclosure Law, you should take steps to do so **immediately**. The Health Department is identifying and issuing violations to landlords who are out of compliance with the law. As of next year, L&I will automatically refuse rental license applications when notified electronically by the Health Department that the owner-applicants have not complied. And as you know, you cannot lawfully rent a unit without a rental license.

In 2016, City Council reviewed the Lead Disclosure Law and determined that additional changes were needed to ensure children in rental units are protected against lead poisoning not only from lead paint but also lead in water. In March 2017, the Lead Disclosure Law was amended (Bill No. 160687-AAA) to address the potential lead hazards in water service lines and plumbing components. The changes require landlords to:

- 1) Notify tenants of how to best protect themselves from the potential risks posed by lead in service lines and plumbing components. The City has created a [supplementary page](#) to the *Partners for Good Housing* handbook – which, as you know, landlords are required to give to every new tenant – that contains the Philadelphia Water Department’s recommendations for keeping lead out of household water. The page is now available from the [home page of the L&I website](#). Pursuant to the new law, please print out this [page](#) and include it with [Partners in Good Housing](#) when you distribute copies of the handbook to tenants.
- 2) Disclose to tenants if they know that the property has a lead water service line.
- 3) Amend the required “Lead Warning Statement” on rental agreements to contain language specific to lead water service lines or lead plumbing components. The new language can be found in Section 6-805 of the Lead Disclosure Law.

For more information and guidance, copies of the law, and more, please visit the Health Department’s website at [www.phila.gov/health/leadlaw](http://www.phila.gov/health/leadlaw). You may also want to sign up for L&I’s Licensing and Permitting Update newsletter at <http://www.phila.gov/li/aboutus/Pages/Appointments.aspx>.

**New requirement  
on landlords to  
educate & disclose  
lead service line**

# SPEAKER INTRODUCTIONS

- Alexis Woodrow

- ▣ Community Relations Specialist,  
Denver Water



- Brendan Doyle

- ▣ Environmental Public Health  
Analyst, Denver Department of  
Health and Environment





# LEAD REDUCTION COLLABORATION



**PUBLIC HEALTH  
INSPECTIONS**  
DENVER PUBLIC HEALTH  
& ENVIRONMENT



**DENVER WATER**

*Webinar  
September 26, 2018*





# Agenda

- Denver Water's lead reduction program
- Denver's Childhood Lead Poisoning Prevention Program
- Colorado Lead Coalition
- Collaborative efforts

# Denver Water Lead Reduction Program

- Corrosion Control Treatment
- Lead Service Line Replacement
- Customer outreach and education



# Lead Service Line Replacement



## Denver Water Improvements

- Full Replacement, Denver Water pays



## Active Replacement

- Full replacement, Customer pays



## Service Line Leaks

- Partial replacement, Denver Water pays
- Customer can pay for other portion



## Non-Denver Water Projects

- Full Replacement, Customer pays



## City of Denver Projects

- Full replacement, City pays
- Full replacement, Denver Water pays

# Customer Outreach and Education



## Water Quality Testing

- Available online and by phone
- School testing



## Traditional and Social Media

- News media
- TAP stories
- Website



## Consumer Outreach

- Water Trailer
- Using partnerships
- Legislation

# Water quality testing



- Denver Water provides a free lead test for residents
  - Any resident can get a water quality test
  - Over 3,000 requests (2,000 of which have been returned to date)
  - Data show that lead is more prevalent in drinking water for homes built before 1951
- Denver Water is providing free testing for all schools within the Denver Public Schools and Littleton Public Schools



# City & County of Denver Childhood Lead Poisoning Prevention Program (CLPPP)



*Denver's Nationally Accredited Public Health Department*



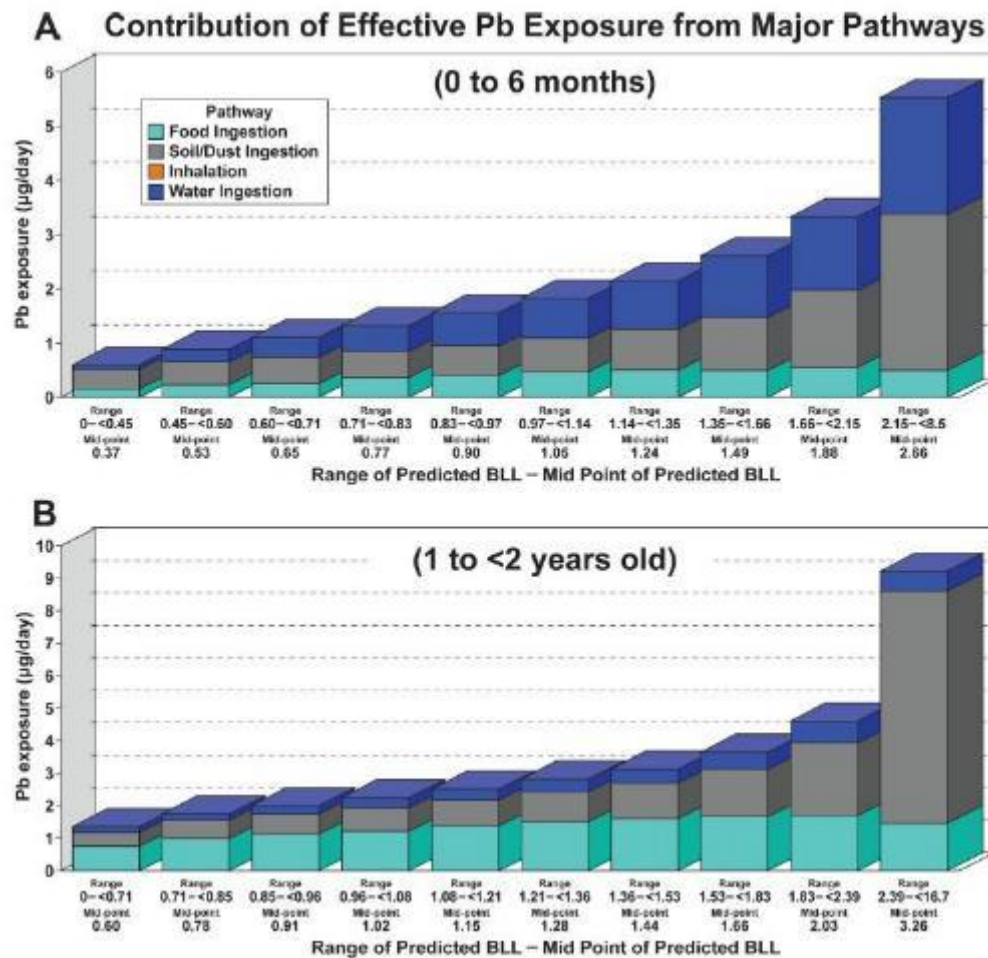
**CONNECT WITH US 311 | [POCKETGOV](#) | [DENVERGOV.ORG](#) | [DENVER 8 TV](#)**

# Denver's CLPPP

- Education & Outreach activities
- Provide lead paint inspections to qualifying families
- Investigate childhood lead poisoning cases
- Enforce housing regulations that pertain to lead paint hazards
- Member of the CO Lead Coalition
- HUD LBPHC Grantee 2018-2021



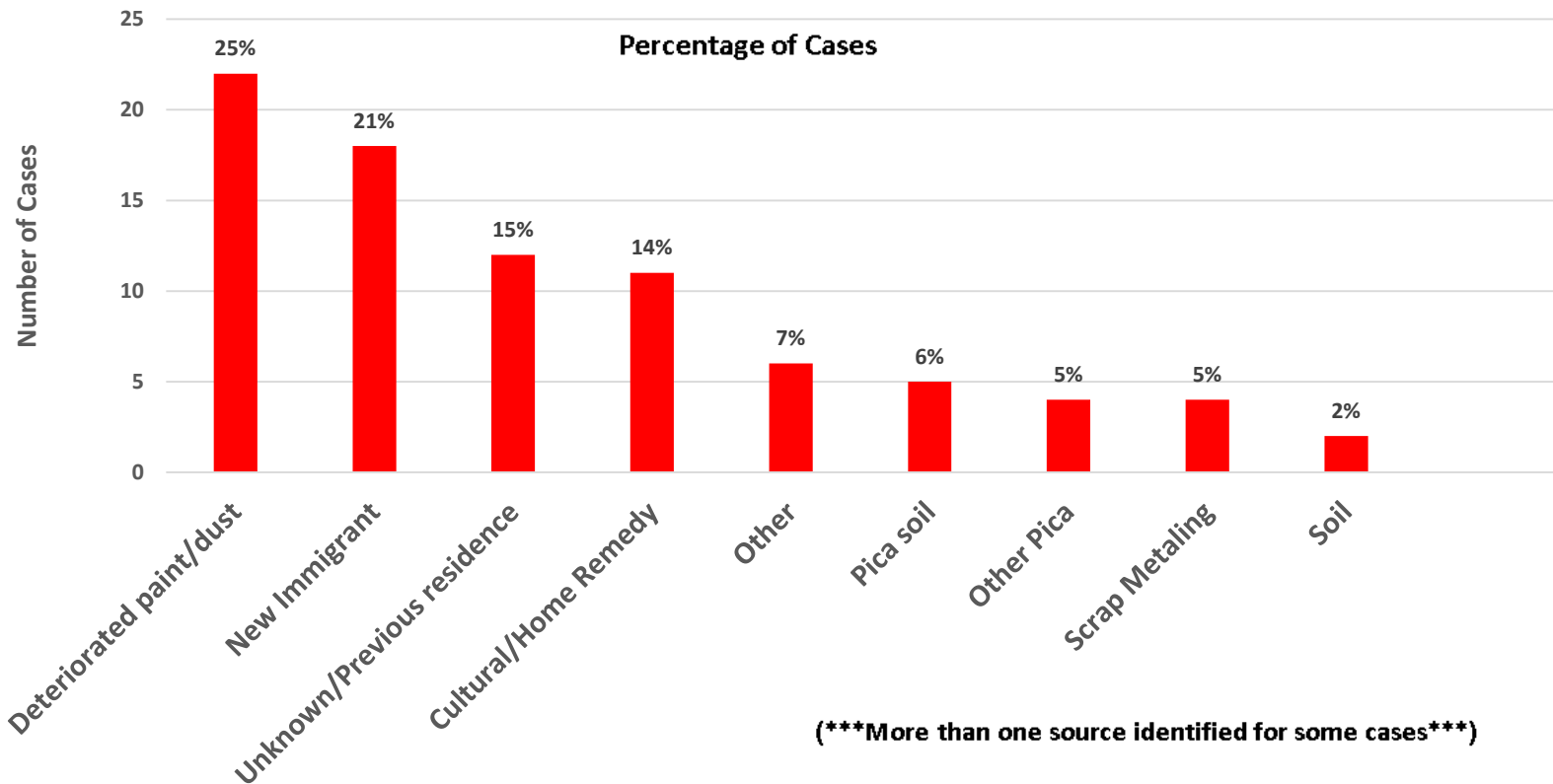
# Lead Sources for young children



Source: EPA, <http://blogs.edf.org/health/2017/09/14/new-epa-model-lead/>

# Denver CLPPP

## *Sources of Investigated Childhood Lead Poisoning Cases Denver County, 2014-Present*



# Colorado Lead Coalition

- Works to reduce childhood lead poisoning in Colorado.
- The coalition is made up of federal, state and local organizations, both public and private.
- Finalizing Strategic Plan, which will include more language and focus on lead in drinking water.



# Collaborative Efforts between Denver Water and DDPHE

- Home investigation water testing
- Referrals



# Outreach Activities





QUESTIONS?



# Our next webinar



**Where are lead service lines and how many are there?**

Register for this webinar to learn how to develop and communicate this information.



- ❑ October 10<sup>th</sup> 3-4 pm eastern
- ❑ Register at Collaborative's website: [www.slr-collaborative.org](http://www.slr-collaborative.org)