



Lehigh County Authority

Lead in Drinking Water

Discussion of Next Steps for LCA

Presentation Overview



- Perceptions & Clarifications About Lead in Drinking Water
- What Other Utilities are Doing
- Review of Recommendations for LCA
- Moving Forward – Next Steps

Perceptions & Clarifications



Media Reports:

“Kids in Allentown have higher levels of lead in their blood than kids in Flint, MI”

Clarifications:

- Every state makes their own rules about who gets tested for lead.
- In Pennsylvania, blood testing for lead is driven by requirements for acceptance into medical assistance programs.
- According to the Pa. Department of Health, less than 14% of children under age 7 were tested for blood lead levels in Pennsylvania in 2014.
- No demographic studies have been conducted to attempt to normalize data between states to be able to make true comparisons.

Perceptions & Clarifications

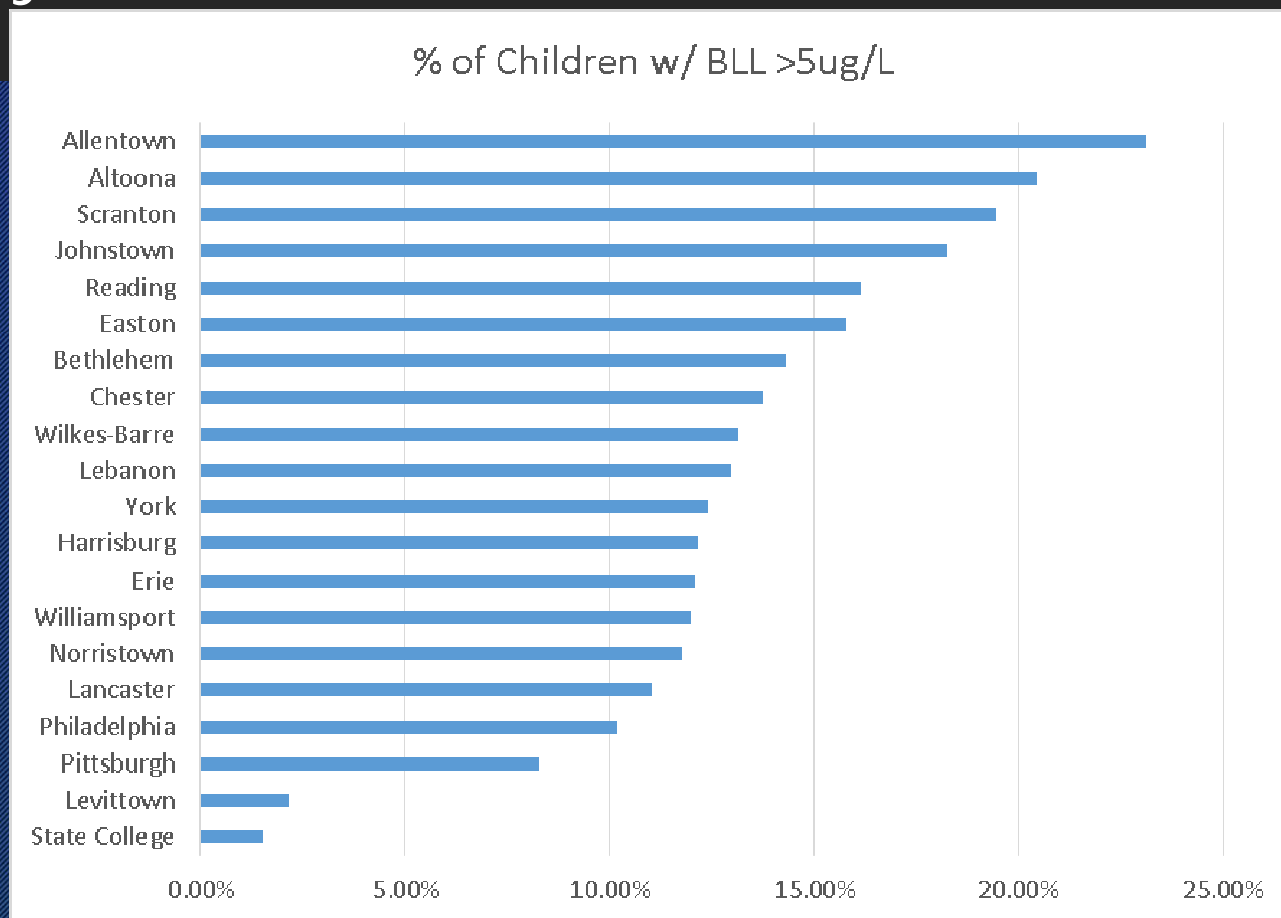


**Heavy Local Media Exposure Makes People Think:
“Lead exposure is coming mostly from the tap water”**

Clarifications:

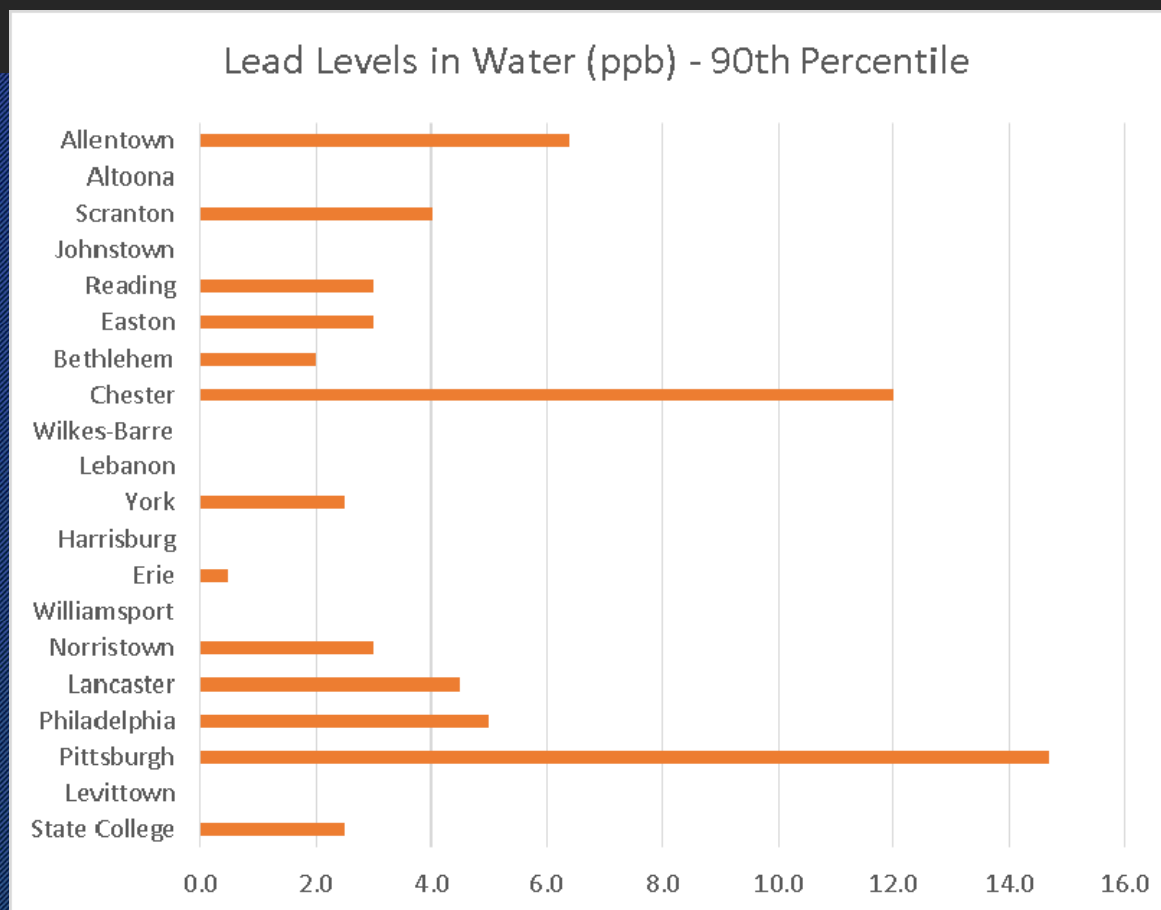
- Local media has focused primarily on tap water issues following the crisis in Flint.
- However, there is no evidence to suggest that tap water is the primary contributor to lead exposure.
- Public health experts continue to say lead-based paint in older homes is their primary concern.

Highly Publicized Public Health Data



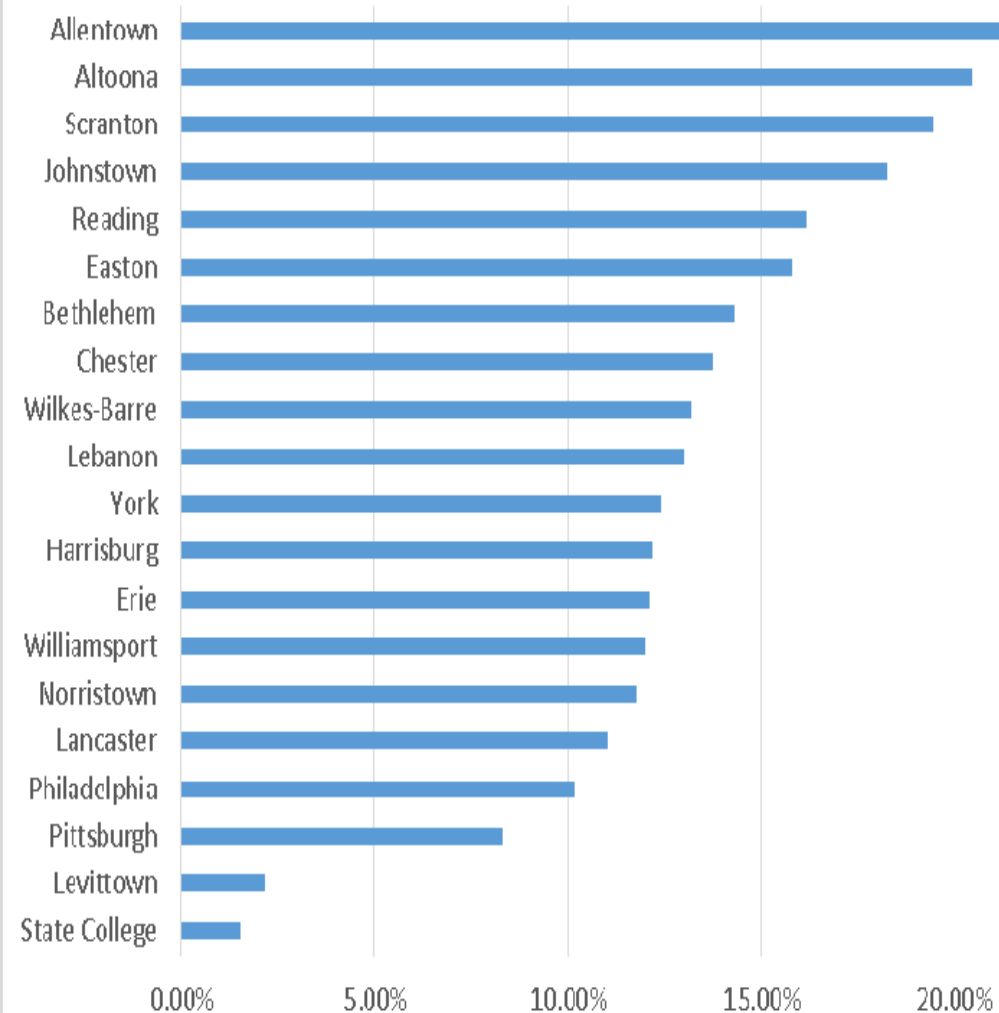
Source:
Pennsylvania
Department of
Health

BLL Not Clearly Linked to Lead in Water

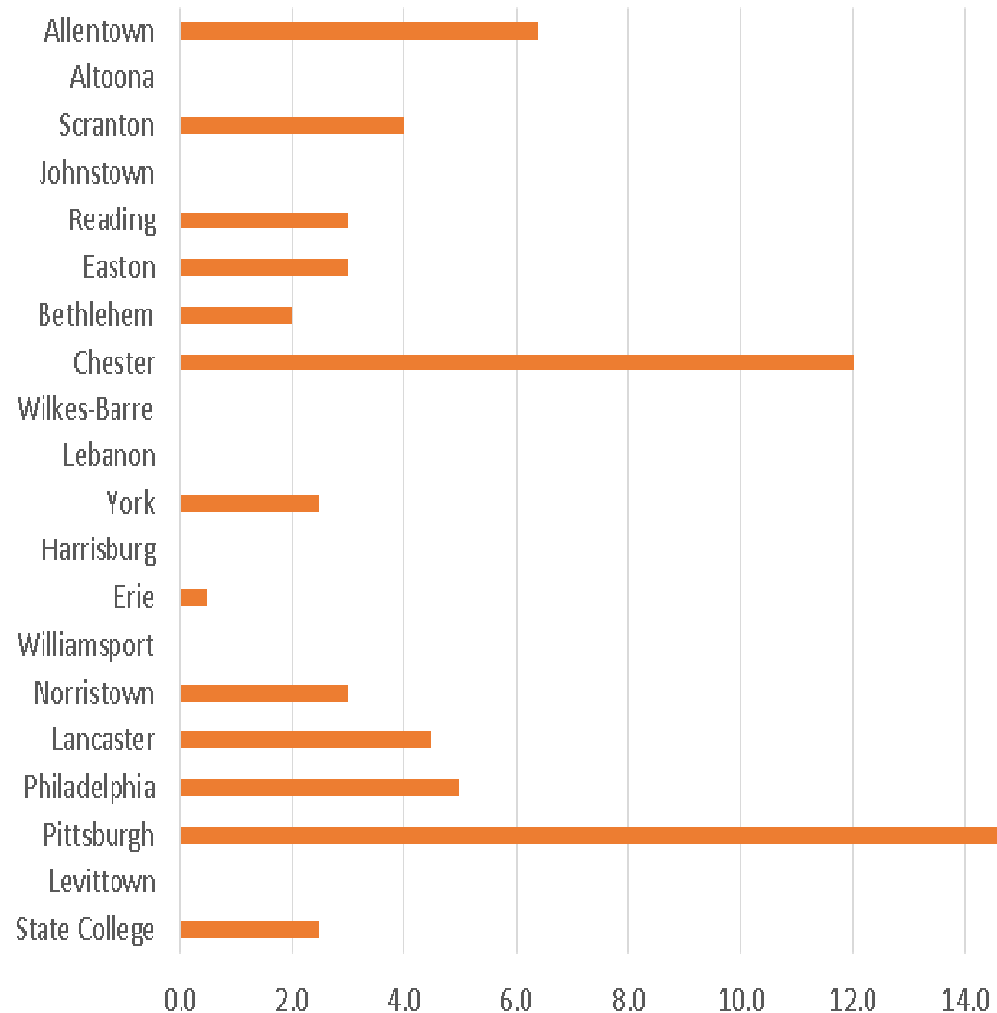


Source:
Water Utility
Annual Water
Quality Reports

% of Children w/ BLL >5ug/L



Lead Levels in Water (ppb) - 90th Percentile



Perceptions & Clarifications



Customers / Others Think:

“LCA should provide lead-free water!”

Clarifications:

- The water coming from LCA’s water sources IS lead-free!
- Since LCA’s water is already lead-free, our obligation under the Lead & Copper Rule is to provide water that is not corrosive, to minimize leaching of lead from customers’ plumbing systems and lead service lines.

Ensuring LCA's Water is Not Corrosive



Natural Properties of LCA Water

Lead & Copper Rule

- 3-Year Testing Cycles
- Tier 1 Sample Sites – “Worst Case”

Water Quality Parameters

- 24/7 monitoring
- pH & Alkalinity

Corrosion Control Treatment

- Installed & ready for use if needed!



Perceptions & Clarifications



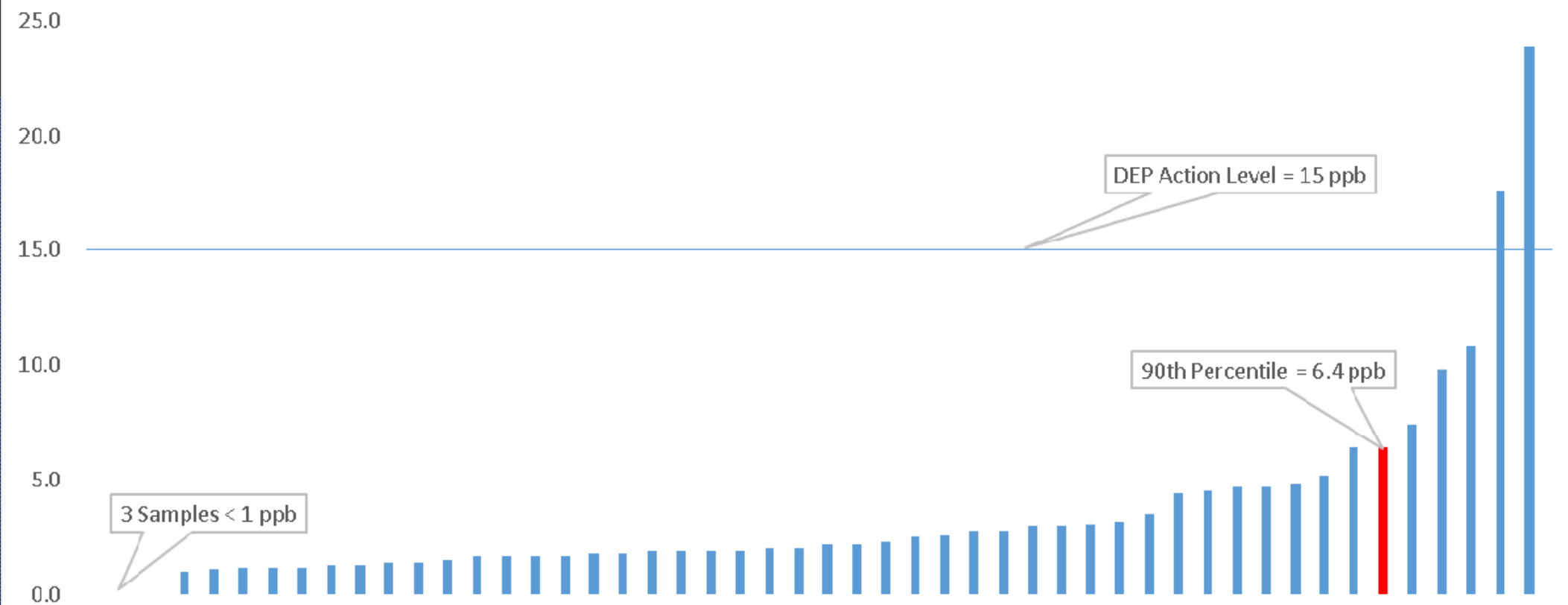
Some People Say:

“Lead service lines are the primary cause of high levels of lead in LCA’s drinking water.”

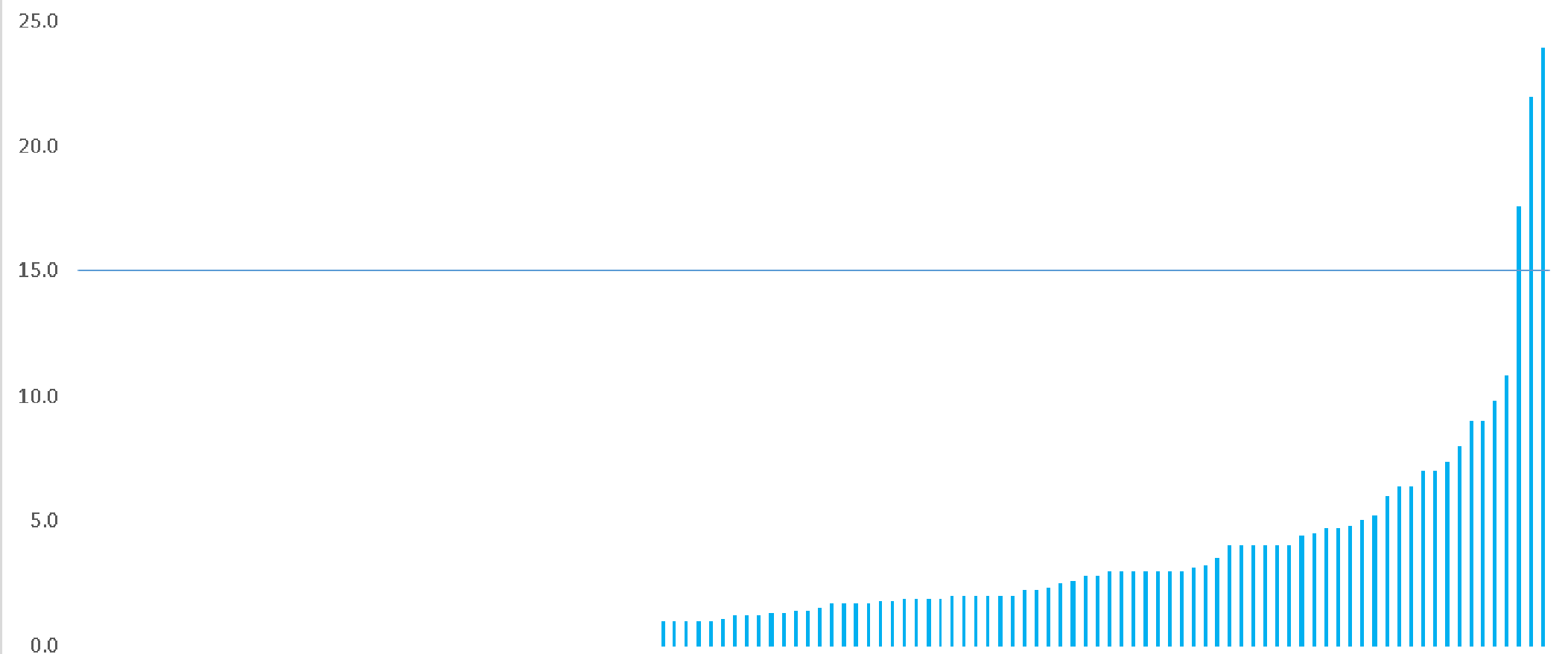
Clarifications:

- All water testing completed to date show generally low lead levels in LCA’s water at the tap, regardless of service line material.
- Some homes with copper service lines can have lead in their tap water due to other factors such as water softeners, lead solder inside the home, etc.
- Additional testing might help us understand more about why a small portion of homes do test higher for lead, and would help customers understand more about factors that impact lead in drinking water.
- EPA, AWWA, WRF, NDWAC and many other organizations are researching to learn more!

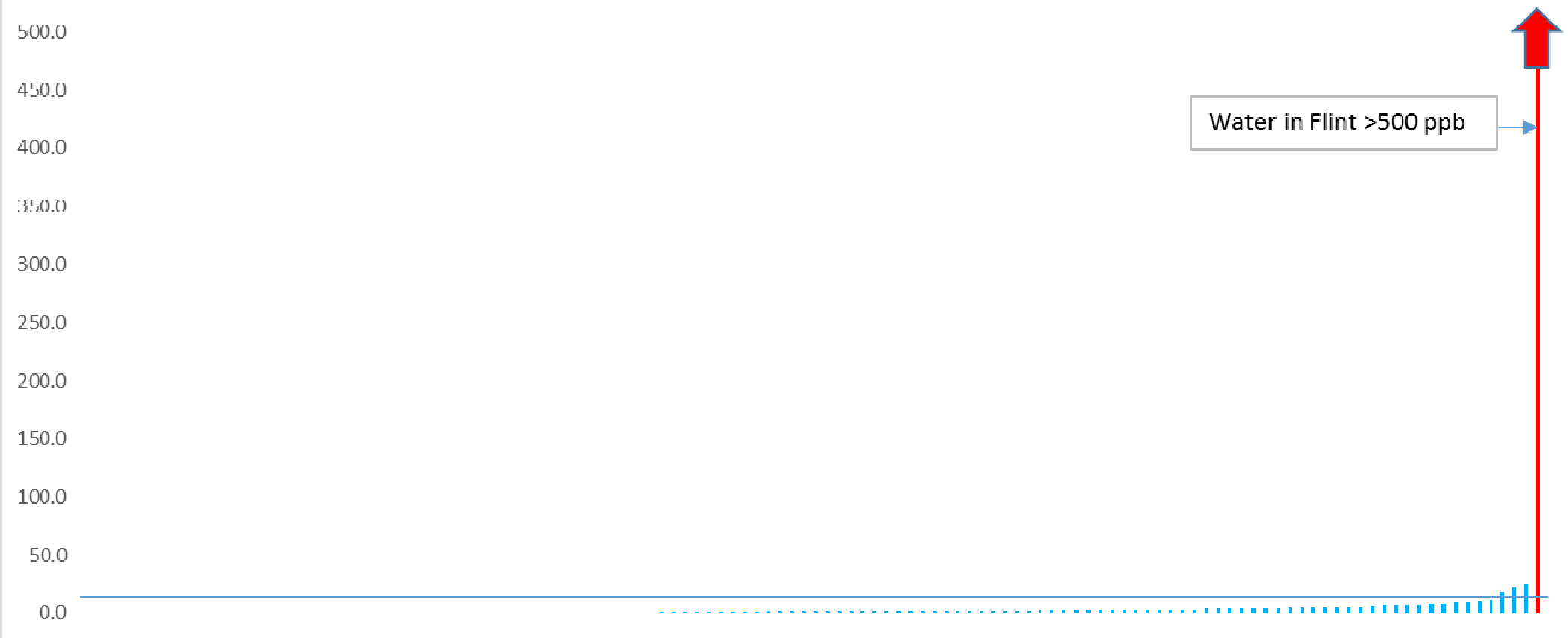
Lead In Drinking Water (ppb) - Allentown Water System - 2013 Results



Lead In Drinking Water (ppb) - All LCA Water Systems - 2013 Results



Lead In Drinking Water (ppb) - All LCA Water Systems - 2013 Results



Perceptions & Clarifications



The Solution Some Have Offered:

“LCA should remove all lead service lines and the problem will be solved.”

Clarifications:

- Water quality can also be impacted significantly by interior plumbing configurations such as lead plumbing, brass fixtures, lead solder, water softeners, filter systems, and more.
- Focusing only on lead service lines draws attention away from other real issues that customers must address to reduce risk of exposure.
- Replacing a lead service line has been proven to increase lead levels at the tap under certain conditions.
- EPA and AWWA are working on guidance and potential regulatory changes to address lead service lines, which will help with decision-making.

Many Unknowns Remain!



- The water utility must provide water that is not corrosive and meet an “Action Level” of less than 15 ppb in 90% of homes tested. So, what’s the actual “safe” level customers should try to achieve within the home?
- What is causing the high blood lead levels among some children in Allentown?
- If 100% of all lead plumbing were removed, would blood lead levels decrease?
- What’s the safest way to replace a lead service line without increasing lead levels in water?
- Who pays for replacement of a lead service line that the customer owns?
- Will drinking water regulations change?
- Is the current monitoring process adequate / accurate to determine risk of lead exposure through drinking water?
- Will other laws change to address universal blood testing, lead paint abatement, etc.?

Proceed Proactively & Cautiously

- With care & empathy for the customer
 - With best practices based on knowledge we have today
 - With an eye out for data that may help make decisions in the future
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- Avoid public health risk & financial risk of acting too quickly before questions are answered



What Are Other Utilities Doing?



Website Review (Pittsburgh, Harrisburg, Wilkinsburg Penn, others)

Other Conversations:

Chester Water Authority

Easton Suburban Water Authority

Erie Water Works

North Penn Water Authority

York Water Company

Philadelphia

Recommendations for LCA



Regulatory Review, Monitoring & Participation
Industry Research Review, Monitoring & Participation

Build Our Network
Public Education
Lead Service Line (LSL) Inventory
Water Sampling / Testing

Conversation on Lead Requires a Network

- Local & State Health Departments
- School Districts
- Centers for Disease Control
- Municipalities - Building Codes & Enforcement
- Housing & Urban Development
- Plumbers, Title Companies, Home Inspectors
- EPA, DEP, AWWA, WRF



Public Education



- Website Enhancements
- Testing Data Posted Online
- Fact Sheets
 - Scratch Test
 - Flushing Instructions
 - Aerator Cleaning Instructions
 - Tips for Water Softeners, Filters, Hot Water Usage, etc.
- Customer Billing Inserts / Newsletters
- Special Mailings
- CAUTION: Research on lead service lines is evolving! Must take care to ensure public message is clear and encourages the right actions.

Lead Service Line (LSL) Inventory



- Allentown Division – 10,000 service lines w/ unknown material (public portion - main to curb)
- Suburban Division – No lead service lines (public portion), but database not populated
- All Divisions – customer portion of service line (curb to house) unknown, but some data may exist in service records and other paper files
- Geographic Information System (GIS) – use the tool we already have!
- How to get data from other sources into GIS? (e.g. service orders, meter replacement work orders, etc.)
- Data can be used to plan future main replacement programs, public outreach, and assess costs associated with potential future LSL replacement programs
- How to capture information on unknown service lines?
- Customer participation could help.
- Program Cost? Depends on how quickly inventory data is needed.

Water Testing for Customers - Costs



Lab Cost - \$25 per sample tested

LCA administrative costs

How to predict volume of requests?

Water Testing Program – Risks/Limitations



- LCA staff fully committed between June and September for DEP monitoring program
- Local labs are also fully committed between June and September – under contract with water utilities across the state!
- Lab results won't tell us where the lead is coming from
- Customer follow-up actions necessary to reduce lead if the results are high – LCA cannot mandate LSL replacement, removal of lead plumbing, etc.!

Water Testing Program – DEP Feedback



- Samples cannot be included in regular monitoring program for lead unless they meet specific parameters:
 - materials surveys
 - timing of sample collection
 - must be approved as a “tier 1” site
- All other results will be reported to DEP as “Special” samples.
- If any of the “special” sample results are high, DEP may request additional information or recommend additional actions to investigate source of lead in the water.

LCA Water Testing - Recommendations



Offer to all LCA customers (Allentown & Suburban)

Follow standard process for customer first-draw sample collection, 30-day process, provide results and educational information to all participants

Track results & post online (remove customer data)

Collect information from the customer about service line material & other details

Initial Testing Period: May 2-31, 2016

Ongoing Program Period: October 2016 - ??

Charge to customer?

- \$30 Fee would generally cover LCA costs
- If testing for “free” – what program / operating expense do we cut?

Moving Forward – Next Steps



- Need to act quickly to put testing program details in place by May 2nd
- Board decision on cost / fee structure for testing
- Public education / outreach can begin immediately
- Efforts already under way to build network for more comprehensive discussions about lead
- Forward-looking initiatives:
 - Lead service line inventory program
 - Regulatory / industry research monitoring & participation

Discussion / Questions?

