We’d like to share what we’ve learned about lead in Iowans’ Drinking Water.

We are **talking with Iowans about lead in drinking water.**
And, we are **measuring lead** in Iowans’ drinking water in their homes.

1 in 5 Iowa newborns are born with EBLL.

Rural populations are at as great of risk of EBLL as are urban populations.

Carrel, 2017
We can address lead in Iowans’ drinking water.

1. Promote **home testing** of high risk homes.

2. Digitally map **LSLs** and make them available.

3. Make lead water testing eligible for **Grants to Counties** funding.

4. Intervene at blood lead level of **5 ug/dL (CDC)** and test home water.

5. Promote **Filter First** legislation.

Let’s start with public drinking water, which is regulated by the LCR.

There are 1,075 community water systems in Iowa serving **2.8 million** people.
Community water systems in Iowa annually sample about 0.5% of the 1.15 million households on public water as part of LCR compliance.

So, we have 166,607 LCR lead measurements in Iowa from the last 29 years.

We used the LCR data to assess lead in Iowans' water.

BUT,
There are many lead guidelines/regulations.

This is a Problem.
From the LCR data, we know Iowans are drinking water with lead above lead guidelines/regulations.

**% of taps tested by LCR**

- **3%** > EPA’s LCR action level of 15 ppb.
- **5%** > WHO’s 10 ppb guideline.
- **12%** > FDA & Canada regulation of 5 ppb.
- **32%** > AAP guideline for schools of 1 ppb.
- **48%** < 1 ppb.

Over the last 29 years in Iowa, 166,607 tap water samples were collected for LCR compliance.

Estimated Iowans at risk from drinking elevated lead concentrations per year:

- **AAP > 1 ppb**: 738k (26%)
- **FDA > 5 ppb**: 261k (9%)
- **WHO > 10 ppb**: 113k (4%)
- **EPA LCR > 15 ppb**: 65k (2%)
There is limited data on lead in **private wells** in Iowa.

**Private wells** are not regulated and are at **higher risk** for lead.

<table>
<thead>
<tr>
<th>Source</th>
<th>AAP</th>
<th>FDA</th>
<th>WHO</th>
<th>EPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Wells</td>
<td>38.4</td>
<td>18.8</td>
<td>12</td>
<td>8.8</td>
</tr>
<tr>
<td>CWSs</td>
<td>32</td>
<td>12</td>
<td>5.2</td>
<td>3.1</td>
</tr>
</tbody>
</table>

**Public CWSs**

~ 2.8 M people

**Private Wells**

~ 300 k people
Out of every 100 homes . . .

Public CWSs
3 exceed EPA action level

Private Wells
9 exceed EPA action level

Water contributes ~20% to blood Pb levels

13th most LSLs in Nation (~160,000)

We can address lead in Iowans’ drinking water.

1. Promote **home testing** of high risk homes.

2. Digitally map **LSLs** and make them available.

3. Make lead water testing eligible for **Grants to Counties** funding.

4. Intervene at blood lead level of **5 ug/dL** (CDC) and test home water.

5. Promote **Filter First** legislation.
Drinking water is a significant source of lead exposure. How much is in yours?

Researchers at the University of Iowa are providing FREE water sampling kits starting the week of January 4th, 2021. Request your water sampling kit by emailing get-the-lead-out@uiowa.edu.

Your participation will help us understand whether commercially available lead tests can provide an alternative to lab testing. You will be provided two test strips to test your tap water and additional guidance will be sent. Our research is independently funded by the Environmental Protection Agency and the University of Iowa.

Priority will be given to participants with older homes, young children, or known lead plumbing or severe soils.

The only way to know if you have lead in your water is to test.

get-the-lead-out@uiowa.edu

Michelle Scherer
michelle-scherer@uiowa.edu
319.335.5654