



Lead Exposure

Three things to remember about lead

1

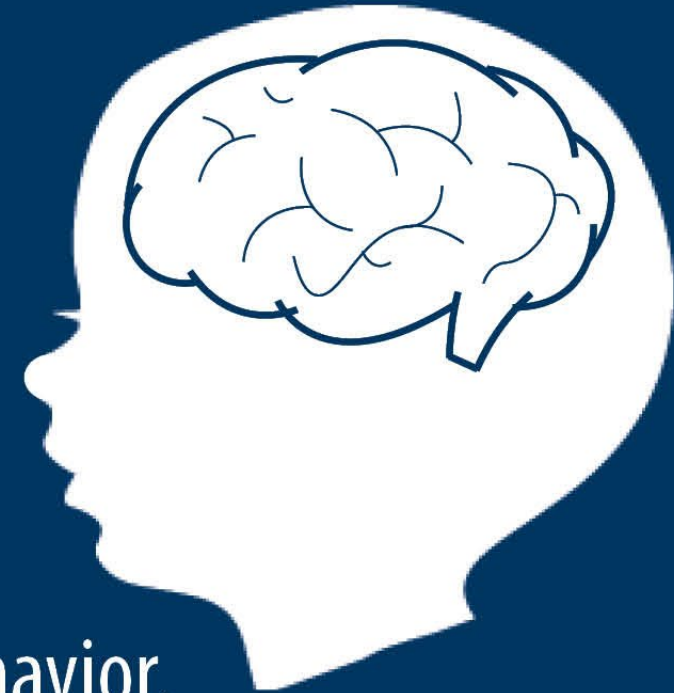
Children are most at risk.

2

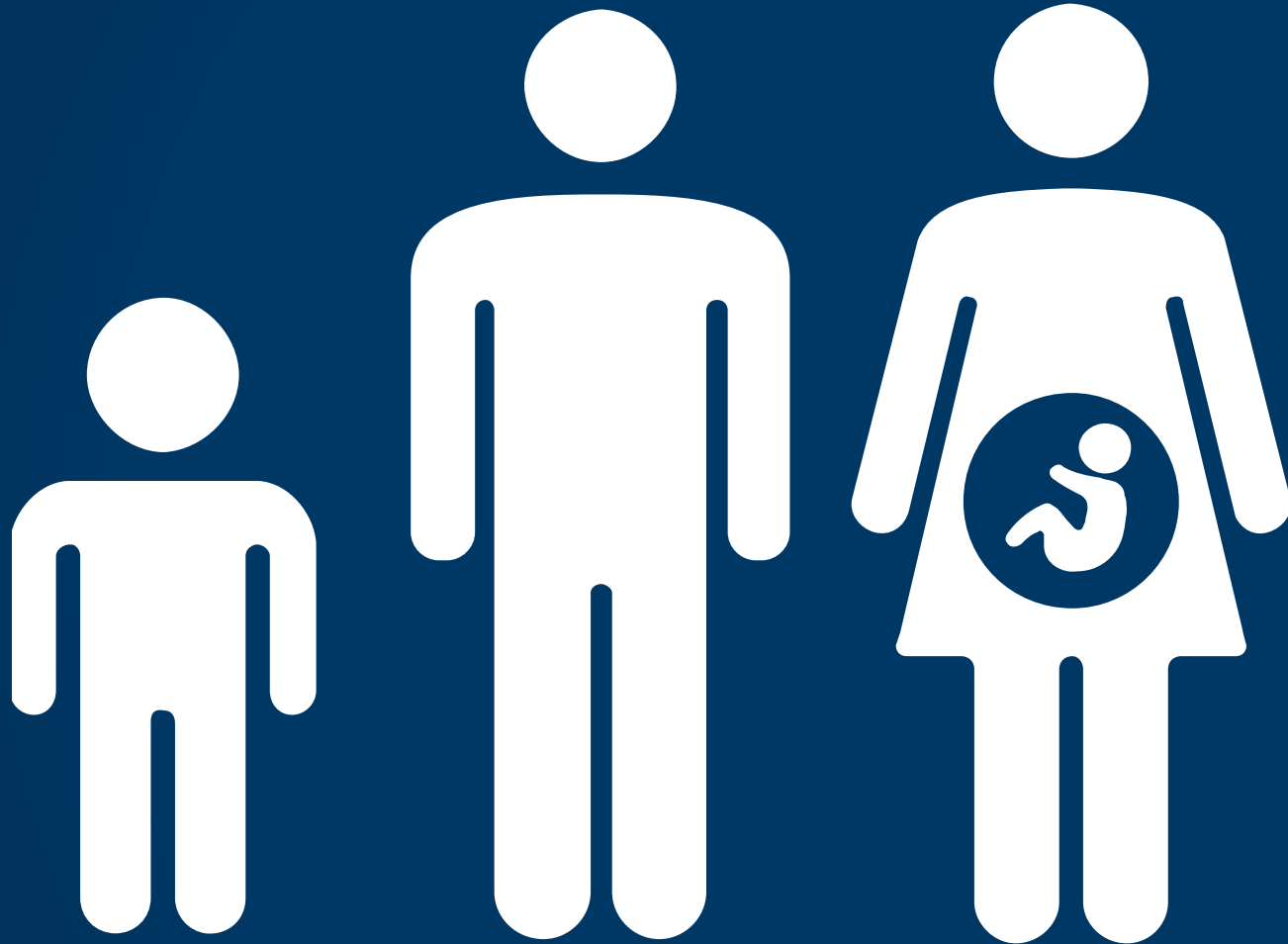
No level of lead is safe.

3

Lead impacts learning and behavior.



Health Effects of Lead



- Memory loss
- Lower IQ
- Behavior Problems
- Headaches
- Fatigue
- Muscle Pain
- Decreased Kidney Function
- High Blood Pressure
- Anemia
- Decreased Fertility
- Increased Risk of Miscarriage

Many individuals with elevated blood lead levels have no apparent signs or symptoms

Lead Decreases IQ



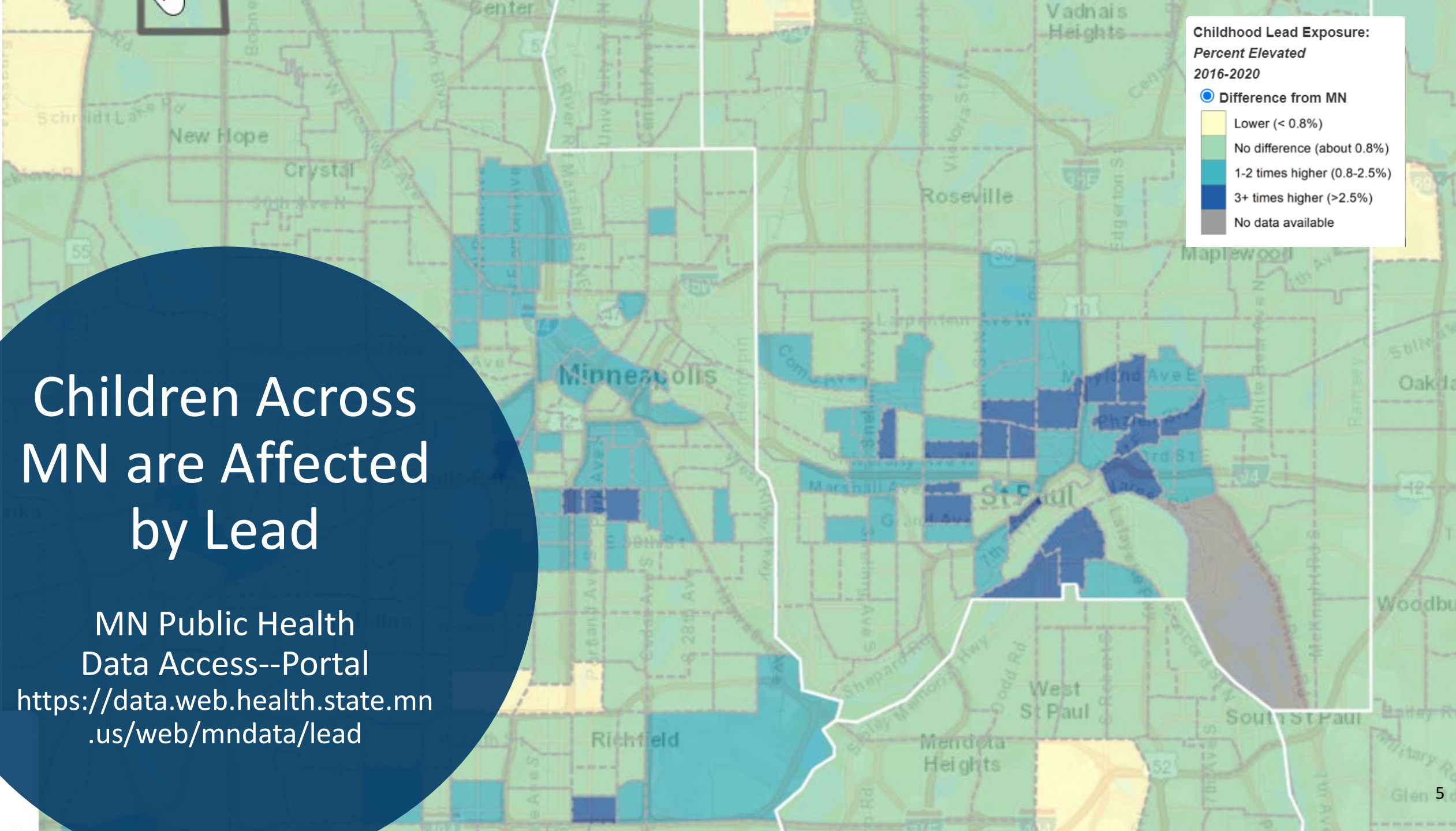
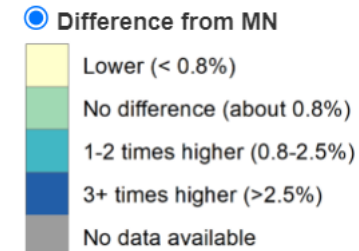
- No threshold detected for lead to begin decreasing IQ
- Magnitude of IQ loss
 - 4–8 IQ points lost as blood lead levels (BLLs) increase up to 10 mcg/dL
 - Additional 2–4 IQ points lost for BLLs 20–25
- IQ point loss most detrimental for children near thresholds for needing additional help because of low IQ

Children Across MN are Affected by Lead

MN Public Health
Data Access--Portal

<https://data.web.health.state.mn.us/web/mndata/lead>

Childhood Lead Exposure:
Percent Elevated
2016-2020



Common Sources of Lead for Children



Chipped or peeling lead paint



Spices, pottery, imported food products, cultural or traditional medication and cosmetics



Jewelry, keys and toys



Lead dust from jobs and/or hobbies that work with lead (Take-home lead)

No safe level of lead exposure

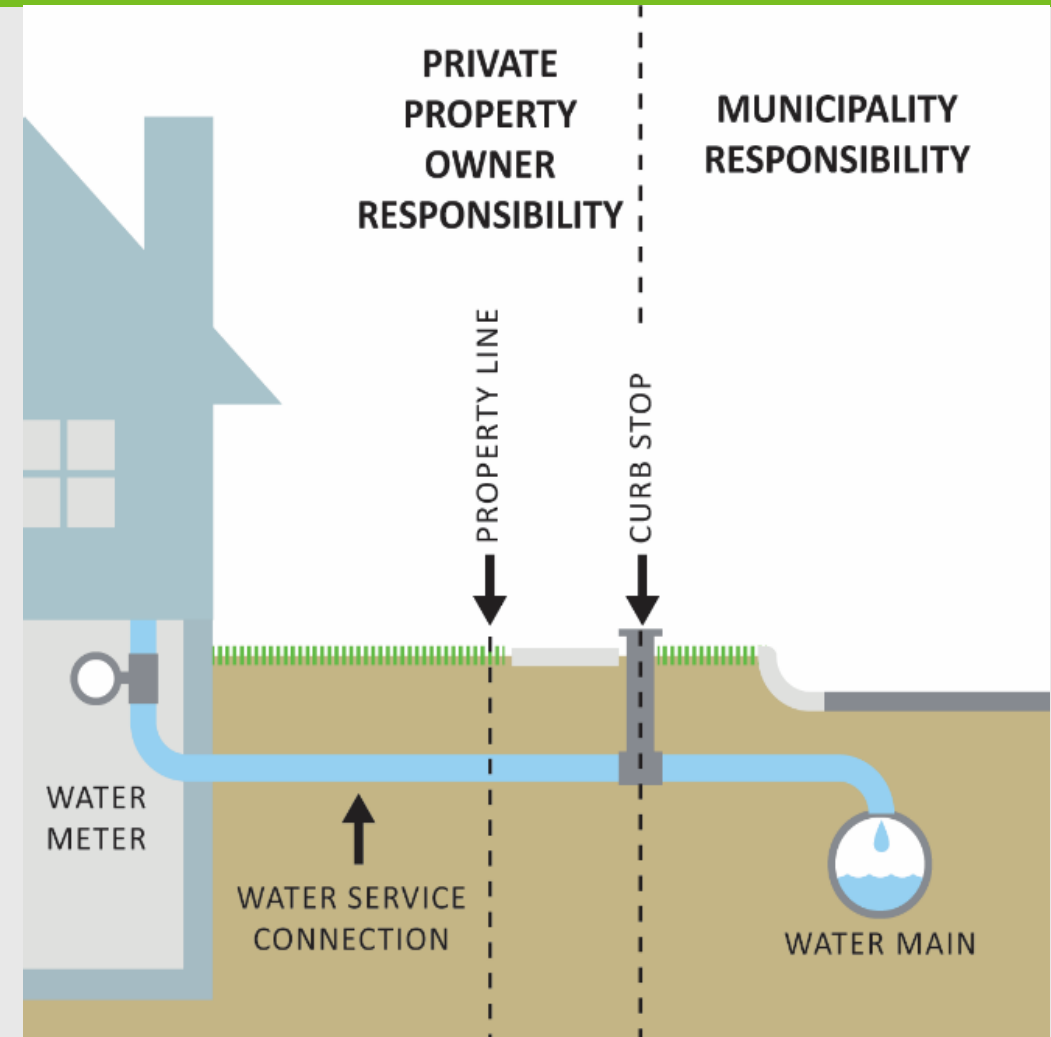
Two main sources of lead in water:

1. Lead service Lines

- ✓ Adds ~50% of lead in drinking water when present
- ✓ Estimate 100,000 in MN
- ✓ Public/private ownership

2. Premise plumbing

- ✓ Lead pipes, solder, and fixtures
- ✓ Brass fixtures
- ✓ Homes with wells: well packers, pre-1995 submersible pumps
- ✓ After plumbing materials 1986 could be 8%; after 2014 no more than 0.25%



There are many **sources** of & **sinks** for lead inside buildings

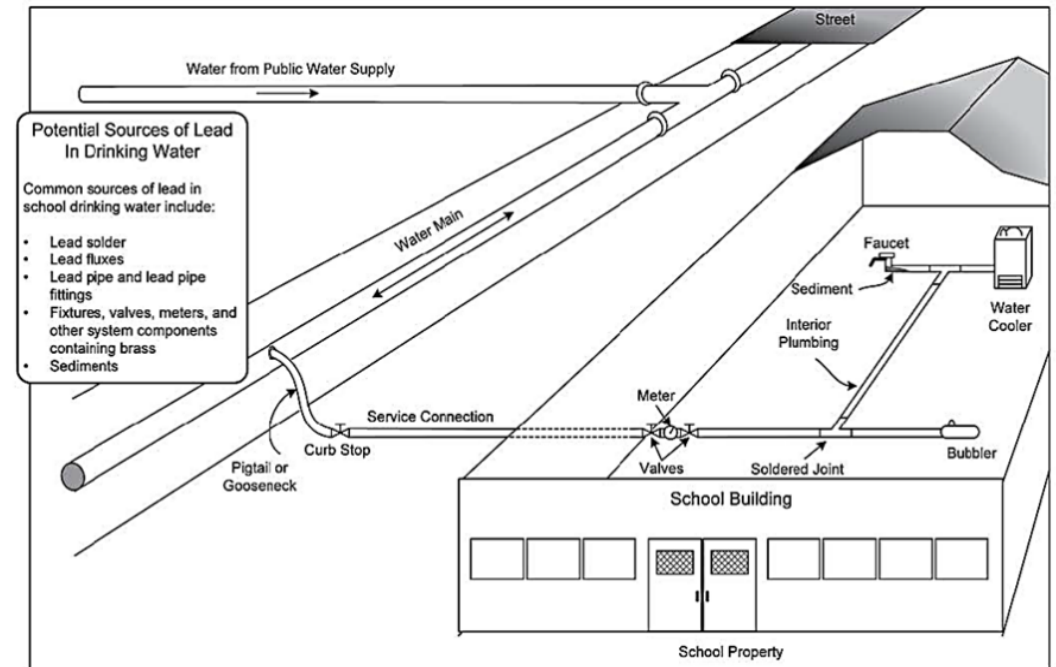
Possible Source

- Lead solder
- Brass parts
- Galvanized steel
- Lead service lines (more likely residential childcare homes)

Possible Sinks (where lead can be caught and accumulate)

- Faucet aerators
- Water cooler strainers
- Valves

Exhibit 1. Potential Sources of Lead in Schools



Source: Environmental Protection Agency

Where can lead be found in schools & childcare facilities?

Thank you!

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