

**LEAD DATA IN FLINT
JULY 1, 2016 -
DECEMBER 31, 2016**

Michigan Department of Environmental Quality

5 Prongs of Testing

- ▣ Residential
- ▣ Schools
- ▣ Food Services
- ▣ EBL Investigations
- ▣ Sentinel Sites

Additional Efforts

- ▣ High Lead Visits
- ▣ CORE

Residential Testing

- ▣ Moved to a new 2 Bottle Test in the Fall
 - One 250ml and One 750ml
 - 477 Total Sets
 - ▣ 250 ml Bottles: 25 > 15 PPB (5.2%) Range 18-673 PPB
 - ▣ 750 ml Bottles: 14 > 15 PPB (2.9%) Range 16-479 PPB
 - ▣ Calc'd Value: 19 > 15 PPB (4.0%) Range 18-389 PPB
 - Follows Parallel Pattern in Schools
 - Fixtures Appear to be a Significant Contributor
 - Only 4 cases where the 750 ml was the cause for the calc'd sample to exceed 15 PPB

Issues in the Schools

- ▣ Excessive Stagnation
- ▣ Particulate

- ▣ Flushing Protocol Implemented

Food Establishments

- ▣ Headed up by MDARD
- ▣ Inspections to ensure good practices such as Flushing, Filtration and Testing
- ▣ Documentation of all Practices

EBL Investigations

- ▣ Coordinated by DHHS
- ▣ Individuals with an EBL are offered the Evaluation
- ▣ Water has been incorporated as an exposure pathway
- ▣ Each point of use sampled for a P1 and P2 after minimum 6 hour stagnation
- ▣ Kitchen 10 Sequential 1 Liter Samples
- ▣ Correlation has not been strong so far

Sentinel Sites

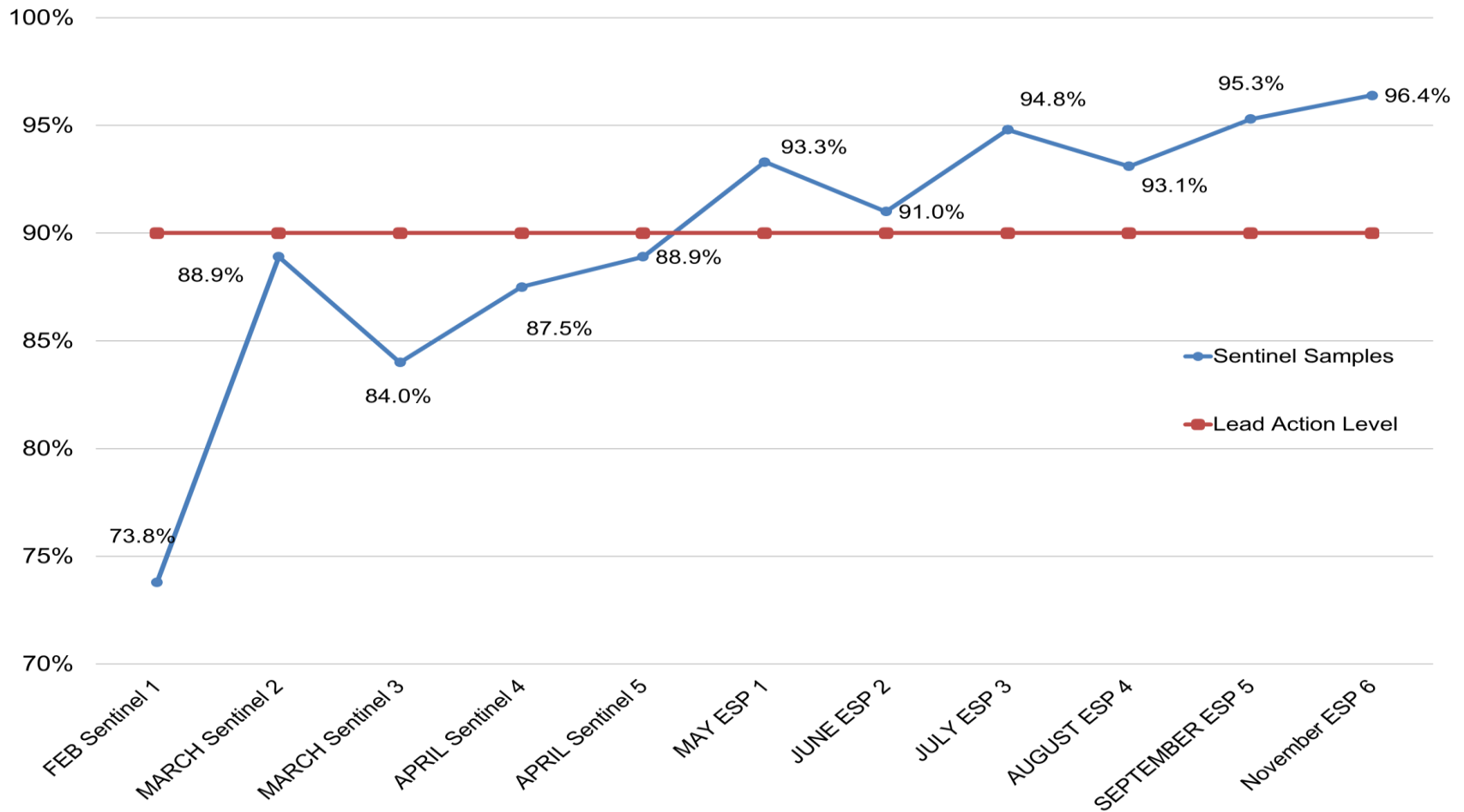
- ▣ Approximately 600 + Homes
- ▣ Initial Study was 5 Rounds of Testing
- ▣ Frequency of every 2 weeks
- ▣ Sites coming in and out for various reasons

Extended Sentinel Sites

- ▣ Subset of Sentinel Program
- ▣ Approximately 175 Sites
- ▣ Includes all Tier 1 sites
- ▣ Also includes the most sites with Copper and Galvanized Service Lines that had elevated lead results
- ▣ Six Rounds conducted so far

Tier 1 Sites in ESP

Percent of Tier 1 Sentinel Samples at or Below 15 PPB



LCR Data

- ▣ 4 Rounds of Sentinel Data
- ▣ One Liter Samples from Residential Program from known Tier 1 Sites
- ▣ Coordination with LSL Replacement Program
- ▣ Coordination with Hydrovacating Efforts
- ▣ Documentation of Excluded Data
 - Non Tier 1 Sentinel
 - Non Tier 1 Residential
 - Post LSL Replacement Data

LCR Data Results

- ▣ 368 Total Tier 1 Data Points
- ▣ 24 Samples > 15 PPB Lead or 6.5%
- ▣ 81 Samples = Not Detected (<1 PPB) or 22.0%
- ▣ 275 Samples < or = to 5PPB or 74.7%
- ▣ 321 Samples < or = to 10 PPB or 87.2%

90th Percentile Values

- ▣ Lead =12 PPB (Down from 20 PPB)
- ▣ Buffer of 13 Samples

- ▣ Copper = 120 PPB (Down from 170 PPB)
- ▣ Only 6 Samples > 1300 PPB

CORE Program

- ▣ Community Outreach and Resident Education
- ▣ Flint Residents Helping Flint Residents
- ▣ Door to Door Canvassing of the Entire City
- ▣ Curriculum
 - Filter Installation, Use and Maintenance
 - Aerator Cleaning
 - Importance of Water Use and Flow
 - Where to Obtain Resources
 - NEW Health and Nutrition

CORE Efforts to Date

- ▣ Pilot in August
- ▣ Original Goal of 36 Program Educators
- ▣ New Goal 160 Program Educators
- ▣ > 34,000 Door Knocks
- ▣ > 9,600 Conversations

Questions?