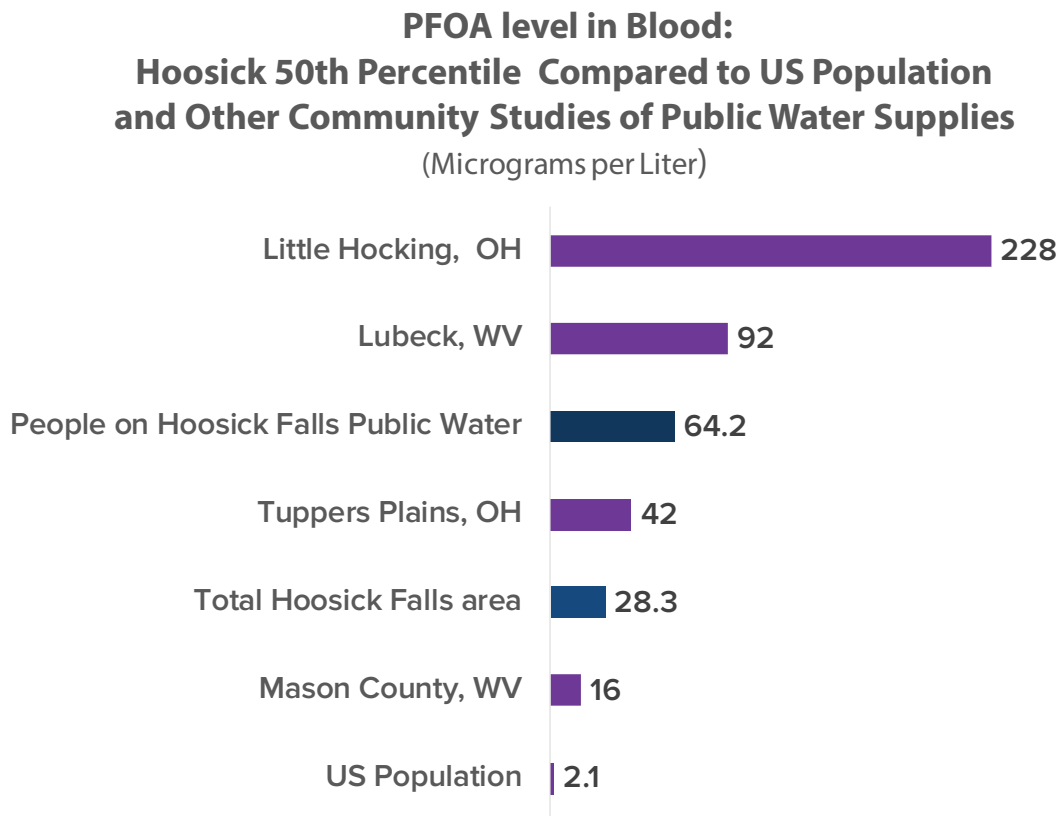


# PFOA Blood Levels of Hoosick Residents Compared to Residents from Other Communities



## Take Away Messages:

- The other communities are good comparisons because they were exposed to PFOA in drinking water.
- Other community levels are reported as averages. Hoosick Falls levels are reported as 50th percentile meaning half the people had a result below and half had a result above 64.2 and 28.3 micrograms per liter of PFOA.
- The levels of PFOA in Hoosick Falls public water users' blood is within the range seen in other communities with drinking water exposures.
- The levels of PFOA in blood of residents of communities with drinking water exposures are significantly higher than the U.S. level of PFOA in people's blood.
- The U.S. population is included to compare levels between exposed communities to national PFOA levels in blood.

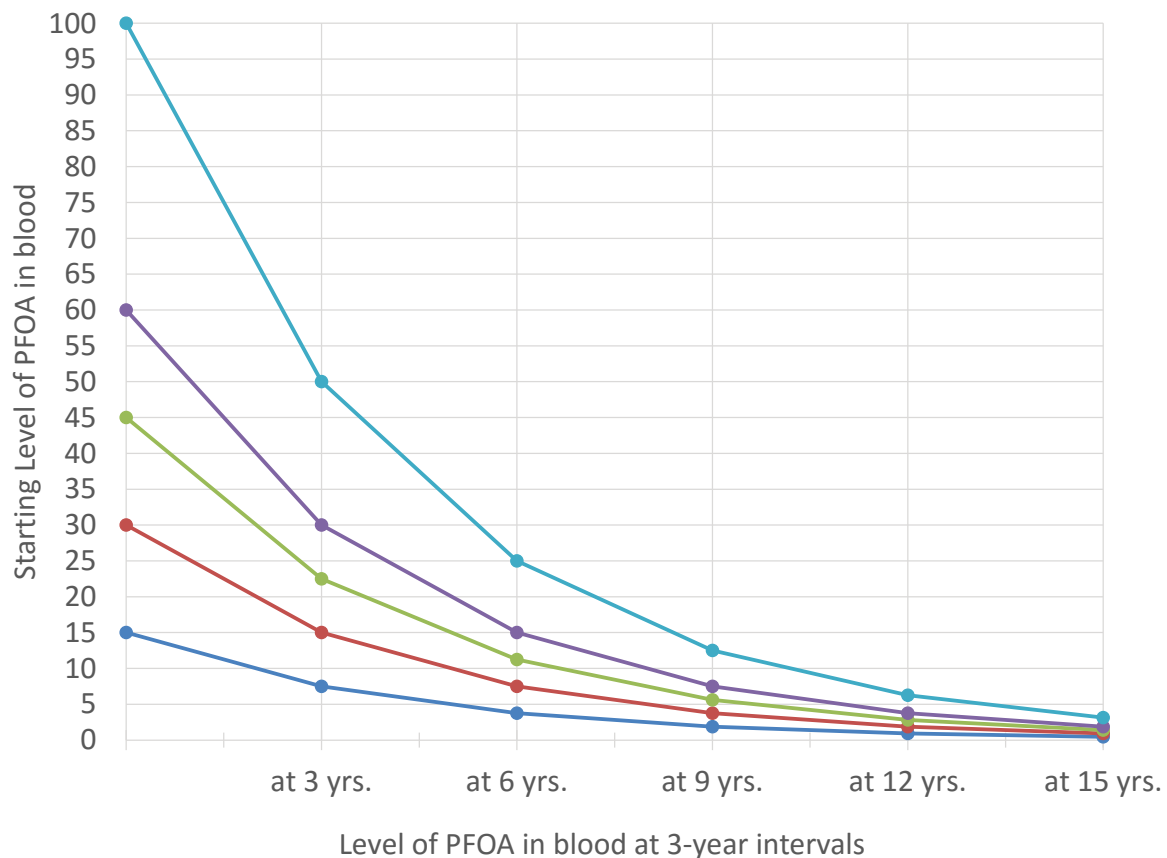
### Sources:

- *Selected Ohio/West Virginia water districts: Paustenbach DJ, Panko JM, Scott PK et al (2007). A methodology for estimating human exposure to perfluorooctanoic acid (PFOA): a retrospective exposure assessment of a community (1951-2003). J Toxicol Environ Health 70:28-57.*
- *U.S. Average: The US Average data is from National Report on Human Exposure to Environmental Chemicals, U.S. Centers for Disease Control and Prevention (CDC), 2011-12.218.*

## How Long Does PFOA Stay in the Body?

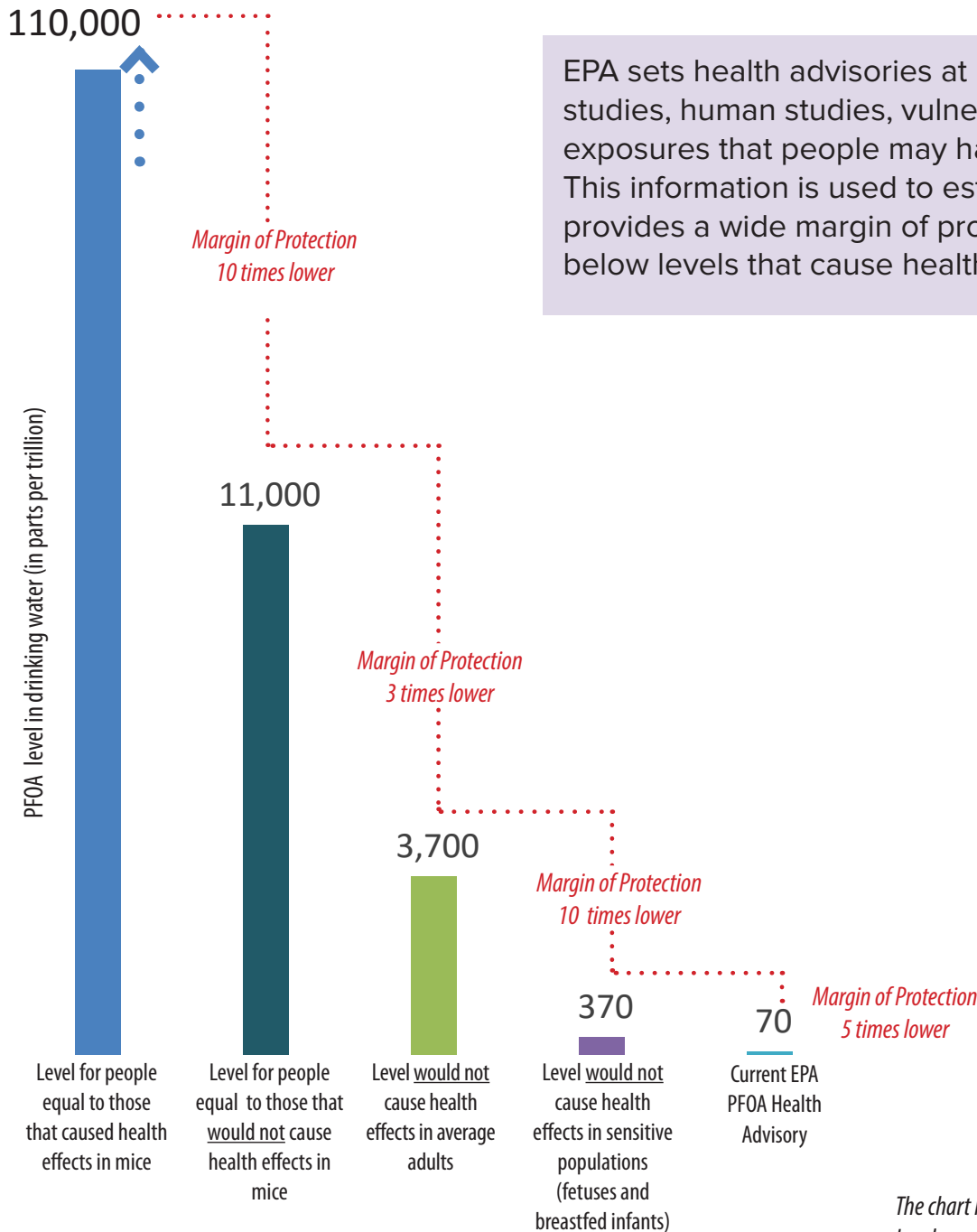
- Studies of other communities show that PFOA levels in blood go down after carbon filtration systems are installed.
  - In a Minnesota study, blood levels continued to decrease after filtration systems were installed for public and private wells.
  - In a Lubeck, West Virginia study, average PFOA blood levels were reduced by 26% after one year of drinking filtered water.
- The figure below estimates a 3-year half-life of PFOA levels in blood at different starting levels of exposure. Actual rates of decline could be faster or slower than the 3-year projection shown. A **half-life** is the amount of time it takes for PFOA levels in blood to be reduced by half.

**How Long it Might Take for PFOA Blood Levels to Decline**  
Assumes a 3-year half-life (Micrograms per Liter)

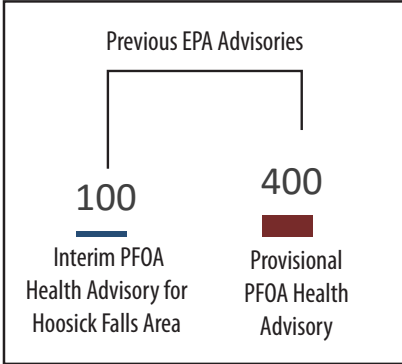


Bartell SM, Calafat AM, Lyu C, et al. 2010. Rate of decline in serum PFOA concentrations after granular activated carbon filtration at two public water systems in Ohio and West Virginia. *Environ Health Perspect.* 118(2):222-8

# PFOA Drinking Water Health Advisories are Protective of Public Health



EPA sets health advisories at levels that consider animal studies, human studies, vulnerable populations, and other exposures that people may have in their environment. This information is used to establish an advisory level that provides a wide margin of protection because it is set far below levels that cause health effects.



The chart information is based on daily consumption of drinking water. Levels are rounded for illustration purposes.

## February–April 2016 PFOA Blood Testing: All Participant Group Level Results

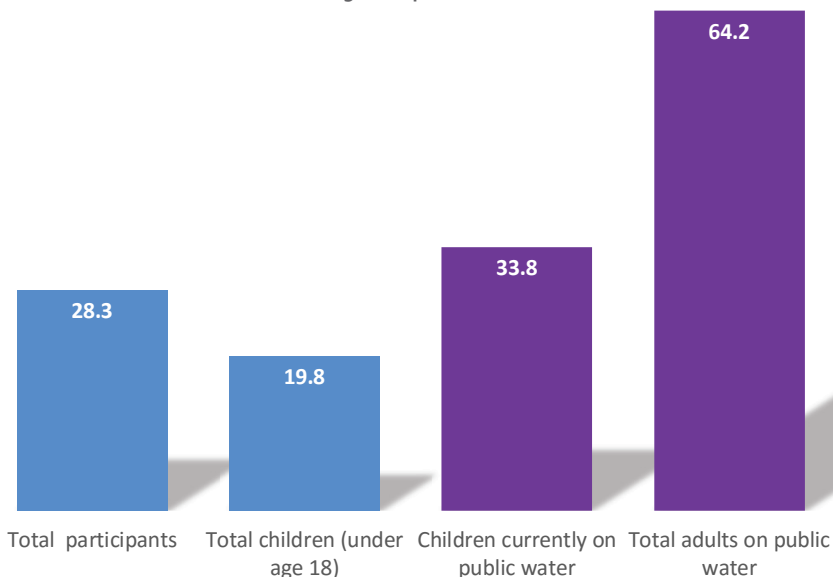
Group level results help people compare their results with those of other participants, while keeping individual results confidential. These visual aids show results for adults tested from February through April 2016. Individual participant results are being sent to people who were blood tested and to their health care providers. A full report will be prepared when the project is complete.

### Data Summary of Blood Test Results for People Tested February–April 2016

# of Participants	
Total (including children)	2,081
Total adults (age 18 and over)	1,728
Adults who drank Village water	960
Totals by gender	
Females	1,146
Males	935
Totals by age group	
0-17	353
18-39	458
40-59	700
60 and older	570

- The data show results for all people tested on February–April 2016, with a focus on adults who used Village of Hoosick Falls public water (see poster, **February–April 2016 PFOA Blood Testing Participant Results: In-depth Look at Adults Using Public Water**)
- Group level results for children is presented separately.
- People on private wells and people who formerly lived in the Village of Hoosick Falls will be presented in future updates.

### PFOA Blood Test Results for All Participants Tested Compared to Those Who Used Village Water (Micrograms per Liter)



- This bar chart shows the middle PFOA level in blood (50th Percentile) of participants, meaning that half of the people tested had a blood level below and half of the people tested had a blood level above the level shown.
- Results show that people who drank public water have higher levels of PFOA in their blood than the total results of all tested.

# February–April 2016 PFOA Blood Testing Participant Results

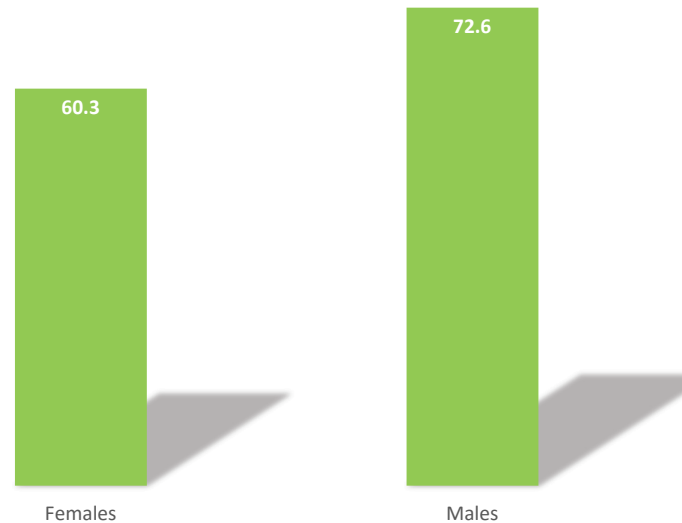
## In-depth Look at Adults using Public Water

- These data focus on adults whose main exposure to PFOA was from drinking Village public water.
- Separating out blood test results of the adults who drank Village public water from all adult blood test results can help us better understand PFOA exposures from public drinking water.
- These data include February–April 2016 adult participants only. Results may change when all blood test results are analyzed.
- All bar charts show the middle PFOA level (50th Percentile) of adult participants, meaning that half of the adults tested had a blood level below and half of the people tested had a blood level above the level shown.

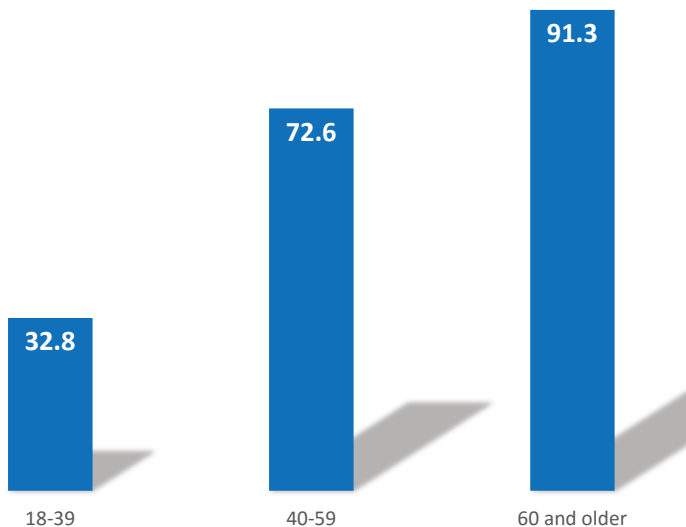
### Data Summary for Adults on Village of Hoosick Water Supply

# of Participants	
Adults on Village water	960
Adults by Gender	
Females	536
Males	424
Adults by Age Groups	
18-39	257
40-59	381
60 and older	322
Adults by Length of Residence in the Village	
Less than 10 years	264
10 to 24 years	325
25 to 40 years	198
Greater than 40 years	173

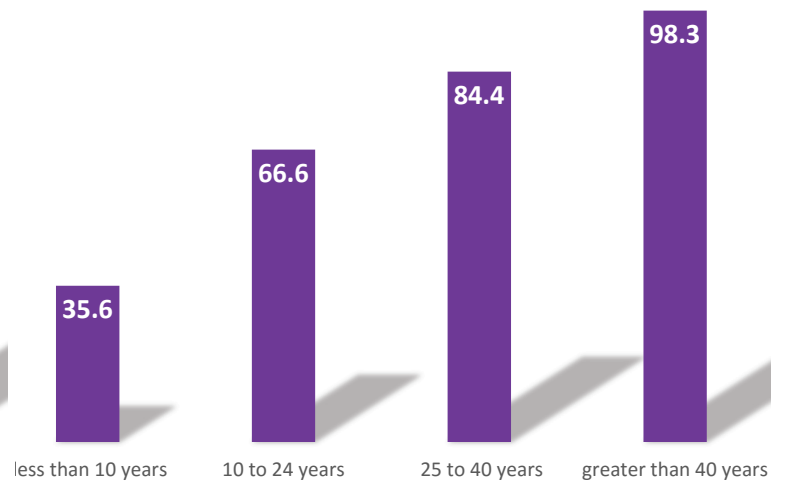
### PFOA Blood Test Results for Adults on Village Water By Gender (Micrograms per Liter)



### PFOA Blood Test Results for Adults on Village Water Supply by Age (Micrograms per Liter)



### PFOA Blood Test Results for Adults on Village Water Supply by Length of Residence (Micrograms per Liter)



# PFOA Blood Testing Participant Results for Children (under age 18)

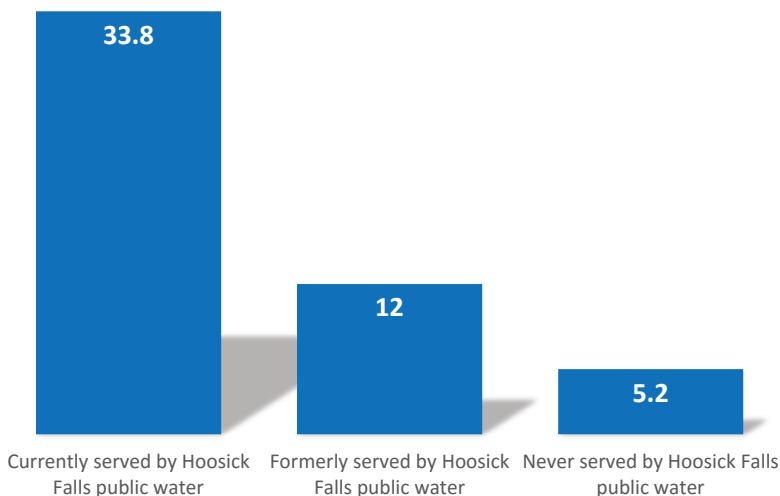
## In-depth Look at Children Tested February–April 2016

### Data Summary for Children on By Age Group and Drinking Water Source

# of Participants	
<b>All children</b>	<b>353</b>
By Age Groups	
Younger than age 12	199
Ages 12-17	154
By Drinking Water Source	
<b>Currently served by Village public water</b>	<b>212</b>
Formerly served by Village public water	55
Never served by Village public water	86
Currently Served by Village Public Water by Age Group	
Younger than age 6	38
Ages 6 to 10	64
Ages 11 to 17	110

- These data focus on children in the Village of Hoosick Falls and Town of Hoosick tested from February through April 2016.
- Data are presented by age group and drinking water source.
- All bar charts show the middle PFOA level in blood (50th Percentile) of children participants, meaning that half of the adults tested had a blood level below and half of the people tested had a blood level above the level shown.
- Comparing the PFOA levels among groups of children with different drinking water sources show that children currently served by Village water have higher PFOA levels in blood than children who are no longer served or who were never served by Village water.
- For children served by Village water, the PFOA levels are highest for the youngest children, under age six. This finding fits with other studies of communities with PFOA in drinking water.
- PFOA is thought to build up or concentrate more in the youngest children from exposures occurring before birth and from breastfeeding or formula feeding if tap water is used. Other possible reasons for the higher levels in the youngest children are that small children may consume more water for their body size and may excrete PFOA more slowly than adults.
- More in-depth information for children will be available in the final report.

### PFOA Blood Test Results for All Children by Drinking Water Source (Micrograms per Liter)



### PFOA Blood Test Results for Children on Village Water by Age Group (Micrograms per Liter)

