

# CDC/ATSDR PFAS Exposure Assessment Community Level Results

Hampden County (MA) near Barnes Air National Guard Base

INFORMATION TO PROTECT OUR COMMUNITIES



In 2019, the Centers for Disease Control and Prevention (CDC) and the Agency for Toxic Substances and Disease Registry (ATSDR) started exposure assessments (EAs) in communities near current or former military bases known to have had per- and polyfluoroalkyl substances (PFAS) in their drinking water. Individuals who participated in the EAs provided blood and urine samples to CDC/ATSDR for analysis. We sent letters to participants that included their individual lab results.

We are also reviewing additional information, like age and location, to better understand the community's exposure. Once our full analysis is complete, we will host a community meeting to share our findings and recommendations.

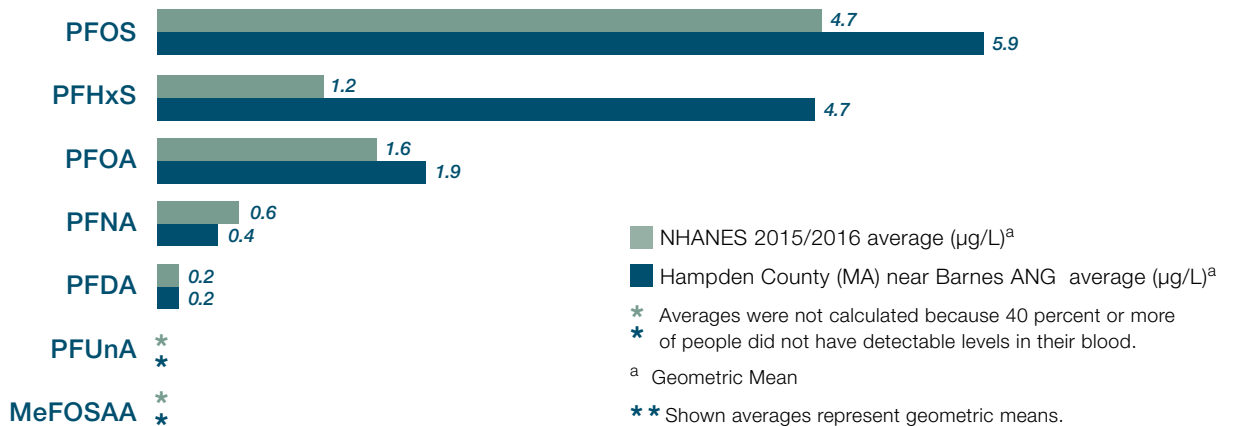
The Hampden County, MA site focused on an area near the Barnes Air National Guard Base (ANG). By randomly selecting participants we were able to estimate exposure for other community members in this area, even those who were not tested. A map of the sampling area can be found at: [www.atsdr.cdc.gov/pfas/communities/Hampden-County-MA.html](http://www.atsdr.cdc.gov/pfas/communities/Hampden-County-MA.html)

## PFAS Levels in Blood

The lab tested participants' blood for 7 different PFAS. PFAS levels are measured in micrograms per liter ( $\mu\text{g/L}$ ).

CDC/ATSDR compared the levels of PFAS in participant's blood across the community to the levels found in the U.S. population. Three PFAS (PFOA, PFOS, and PFHxS) were detected above national averages. The levels of MeFOSAA, PFUnA, PFNA, and PFDA were similar to or below national averages.

## PFAS Levels in Blood Compared to National Averages\*\*



The numbers below show the **percentage** of participants with PFAS levels above the national average.



## Hampden County (MA) near Barnes Air National Guard Base PFAS Exposure Assessment Participation

A total of  
**459**  
people



participated in the exposure assessment:

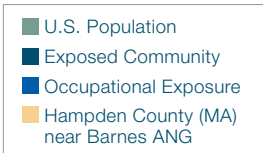
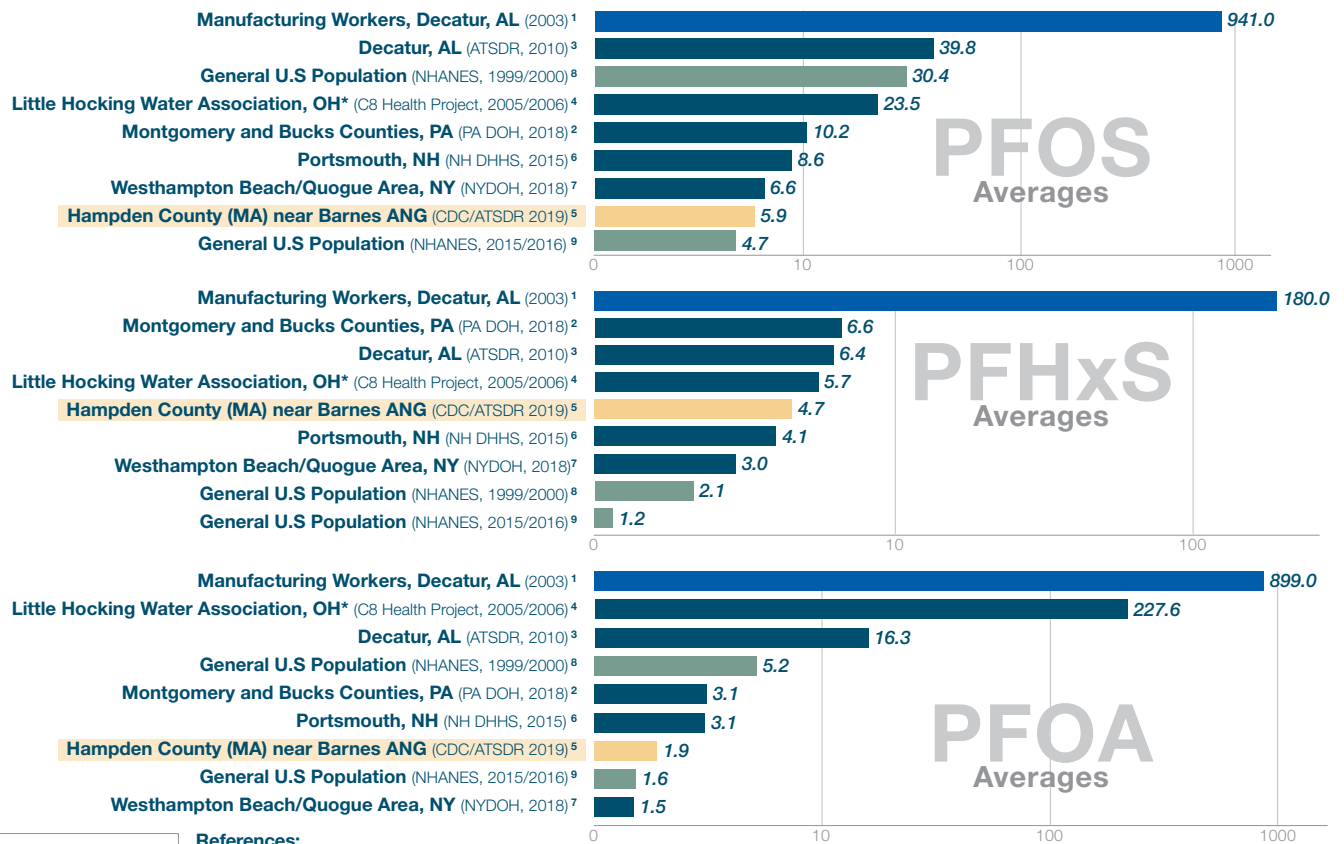
**410 adults**  
**49 children**

**247**  
households

Those people represented

Since 1999, the National Health and Nutrition Examination Survey (NHANES) has measured PFAS levels in blood in the U.S. population. Most people in the United States have been exposed to PFAS and have PFAS in their blood.

## PFAS Levels in Blood Compared to Other Studies\*\*



**References:**

- https://www.tandfonline.com/doi/pdf/10.1080/15428110308984859?needAccess=true
- https://www.health.pa.gov/topics/Documents/Environmental%20Health/PEATT%20Pilot%20Project%20Final%20Report%20April%202029%202019.pdf
- https://www.atsdr.cdc.gov/HAC/pha/Decatur/Perfluorochemical\_Serum%20Sampling.pdf
- https://ehp.niehs.nih.gov/doi/pdf/10.1289/ehp.0800379
- CDC/ATSDR 2019
- https://www.dhhs.nh.gov/dphs/documents/pease-pfc-blood-testing.pdf
- https://www.health.ny.gov/environmental/investigations/drinkingwaterresponse/docs/westhampton\_quogue\_group\_level\_blood\_testing
- https://www.cdc.gov/exposurereport/pdf/FourthReport\_UpdatedTables\_Volume1\_Jan2019-508.pdf
- https://www.cdc.gov/exposurereport/pdf/FourthReport\_UpdatedTables\_Volume1\_Jan2019-508.pdf

\* The study reported medians instead of averages. \*\* Shown averages represent geometric means.

### PFAS Levels in Urine:

All participants provided a urine sample, some of the samples were analyzed. Only one PFAS (PFBA) was detected at low concentrations in 60% of the samples collected. This rate is similar to the national average.

### PFAS Levels in Tap Water:

CDC/ATSDR collected and tested tap water samples from some participating households. PFAS levels for all 17 tap water samples were below all federal and applicable state guidelines for PFAS in drinking water.

Local authorities in Westfield have taken action to reduce levels of PFAS in drinking water. Based on the information ATSDR has reviewed, the public drinking water supply in Westfield currently meets all federal and state guidelines for PFAS. ATSDR does not recommend community members use alternative sources of water.

### PFAS Levels in Dust:

CDC/ATSDR collected and analyzed indoor dust samples from 17 participating households. CDC/ATSDR is evaluating the dust sample results and will have more information in the final report.

### About the Results:

CDC/ATSDR is evaluating data collected from the PFAS EA to better understand exposure in the community. The PFAS EA measures PFAS levels in people’s bodies but is not able to identify health effects associated with these levels of exposure. We are working to better understand health effects from PFAS exposure through the Multi-site Health Study. [www.atsdr.cdc.gov/pfas/Multi-Site-Health-Study.html](http://www.atsdr.cdc.gov/pfas/Multi-Site-Health-Study.html).

We are also reaching out to doctors, nurses, and other health care providers in your area to provide PFAS information. PFAS clinician guidance and continuing medical education can be found at [atsdr.cdc.gov/PFAS](http://atsdr.cdc.gov/PFAS).

### For More Information:

Visit [www.atsdr.cdc.gov/pfas](http://www.atsdr.cdc.gov/pfas) or contact Regional Representative Captain Tarah Somers RN, MSN/MPH 617-918-1493 | [tv4@cdc.gov](mailto:tv4@cdc.gov)



National Center for Environmental Health Agency for Toxic Substances and Disease Registry