

Community Meeting

PEATT Pilot Project
PFAS TESTING
in the
Warrington, Warminster, Horsham areas
Pennsylvania Department of Health

September 13, 2018

Sharon Watkins, Ph.D.
Director, Bureau of Epidemiology
State Epidemiologist



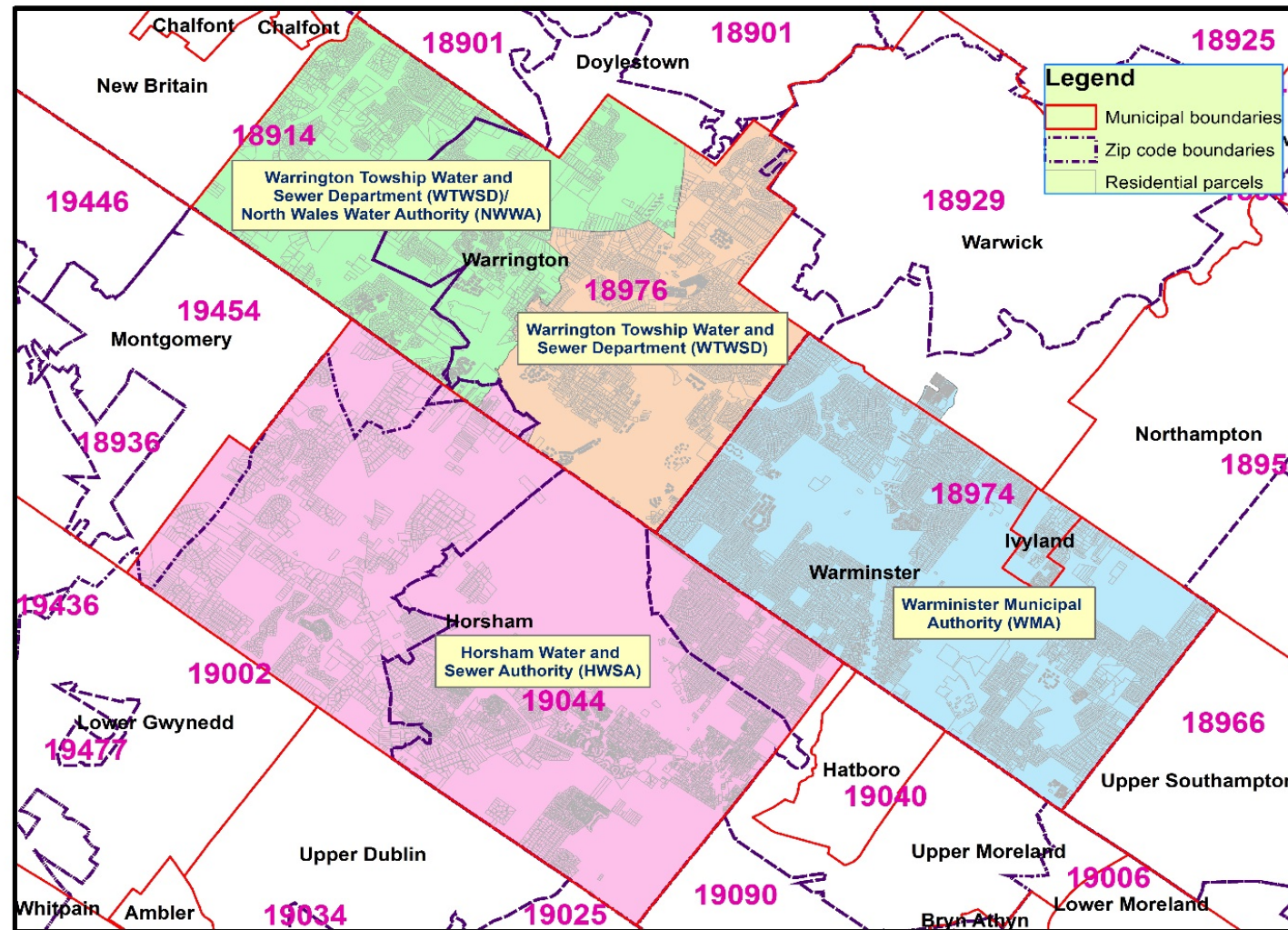
Project Information

- CDC/ATSDR has developed a toolkit to conduct biomonitoring for PFAS
- Pennsylvania was chosen for the pilot program to evaluate the toolkit
- Feedback from this project-
 - ▣ Used to improve the toolkit
 - ▣ Will support a larger, national study

Project Information

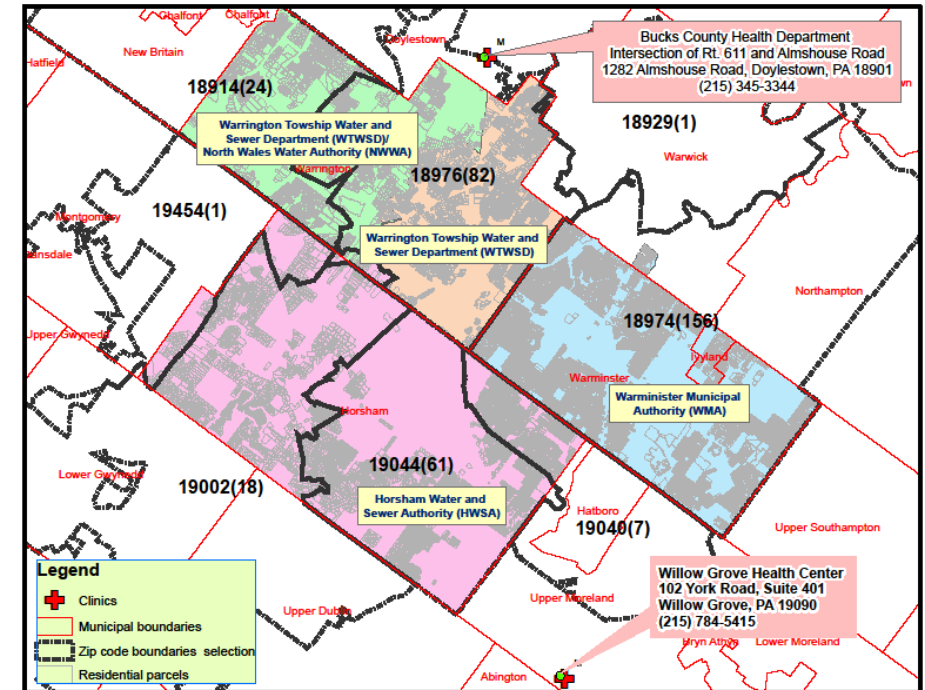
- We are testing residents exposed through drinking water
- We can only test **500** people
- People must have lived in affected area prior to **July 1, 2016**

Map of Study Area (Public Water Service Area)



▶ 600 Households selected for the project

- Randomly selected
- Two rounds-
 - ▣ During month of May
 - ▣ Invitation letters sent to 350 households
 - ▣ Given a reminder letter
 - ▣ Invitation letters then sent to 250 households
 - ▣ 600 total households
 - ▣ 276 returned forms expressing interest
 - ▣ 584 eligible participants in project



Project information

- Why not test EVERYONE in the community?
 - ▣ Can only do 500 per the pilot grant funding
 - ▣ We need a sample of respondents representing the entire community
 - ▣ This gives a “snapshot” of the community
- Why not accept volunteers?
 - ▣ Likely to bias the study findings

▶ Progress so far...

- As of September 11th...
 - ▣ Received consent forms from 302 participants
 - ▣ 213 participants have given blood samples
 - ▣ 80 participants still need to provide blood samples
 - ▣ NO questionnaires or informed consents will be accepted after September 15th
 - ▣ Testing will END on September 30th
 - ▣ ALL CLINIC APPOINTMENTS must be scheduled prior to September 30th

▶ Laboratory Analysis

- Serum samples being analyzed by New York State Public Health Department Laboratory
 - ▣ Check each sample reading for accuracy
 - ▣ Sometimes run samples twice
- Results sent to PA DOH

▶ Laboratory Analysis

- We communicate individual results by U.S. mail
- Participants receive a packet- results and PFAS information
 - ▣ Parents receive results for children under age 17
 - ▣ Teenagers age 18 and 19 receive own results
- We help to interpret the results and compare them to the national readings

▶ Reading Your Results

- Results Table in Letter
- Will show individual levels
 - ▣ Can compare to national average in age category
 - ▣ Individual result **BOLD** if higher than 95th percentile for age category nationally

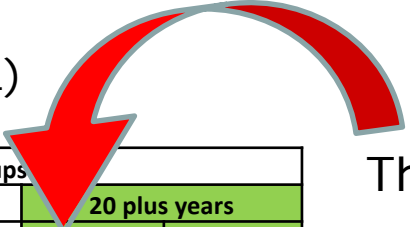
▶ Reading Your Results

For an ADULT age 20 or older (unit: microgram/L)

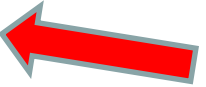
Match the colored columns

Your number will be in ***italicized bold*** if you exceed the 95th percentile

PFAS chemicals measured in your blood	Concentration found in your blood	US Population - Age groups					
		3-11 years		12-19 years		20 plus years	
		Geometric mean	95th percentile	Geometric mean	95th percentile	Geometric mean	95th percentile
Perfluorooctanoic acid (PFOA)	3.52	1.92	4.19	1.66	3.47	1.98	5.60
Perfluorooctanesulfonic acid (PFOS)	9.60	3.88	11.00	3.54	9.30	5.22	19.50
Perfluorohexane sulfonic acid (PFHxS)	<i>8.37</i>	0.84	3.12	1.27	6.30	1.36	<i>5.50</i>
Perfluorononanoic acid (PFNA)	0.80	0.79	3.26	0.60	2.00	0.69	2.00
Perfluorobutanesulfonic acid (PFBuS)	ND	*	<0.10**	*	<0.10**	*	<0.10**
Perfluorodecanoic acid (PFDeA)	ND	*	0.37	0.14	0.40	0.19	0.80
Perfluorododecanoic acid (PFDoA)	ND	*	<0.10**	*	0.20	*	0.20
Perfluoroheptanoic acid (PFHpA)	ND	*	0.21	*	0.20	*	0.10
Perfluorooctane sulfonamide (PFOSA)	ND	*	<0.10**	*	<0.10**	*	<0.10**
2-(N-Methyl-perfluorooctane sulfonamido) acetic acid (MeFOSAA)	ND	*	1.02	*	0.60	*	0.60
Perfluoroundecanoic acid (PFUA)	<i>0.95</i>	*	0.28	*	0.20	*	<i>0.50</i>



This is the national average



95% of population is below this number

ND or * means "non detect" - levels are so tiny they cannot be detected (<0.01)

PFAS Health Risks

- Studies are inconsistent in determining health effects from PFAS exposure.
- Most studies involve animals.
- Human population studies show evidence of association between PFAS and:
 - Altered serum cholesterol (i.e. increased cholesterol levels)
 - Developmental defects and low birth weights
 - Liver damage
 - Endocrine disruptions
 - Cancer
- Our studies in the area did not show a consistent pattern for cancers.

Summary of prior cancer studies in the area

Zip code based (18974, 18976, & 19044) cancer data review (1985-2013) provided an inconclusive picture

- Increases in some cancer types and decreases in others
- Results were not consistent across time periods, genders, or zip codes
- Estimates were based on small numbers – low reliability

Summary of prior cancer studies in the area

A refined, water service area based review (1995-2014) using geocoded cancer incidence data also did not provide any consistent result.

- Results did not indicate consistently higher incidence rates in all water service areas for any cancer type.
- No consistently higher incidence rates for a given cancer in both sexes.

- www.health.pa.gov/My%20Health/Environmental%20Health/Pages/default.aspx

[PFAS Exposure Assessment Technical Tools Pilot Program](#)

[Cancer Data Review \(1985-2013\)](#)

[Addendum 1 to Cancer Data Review \(1985-2013\)](#)

[Addendum 2 to Cancer Data Review](#)

[Peruoroalkyl and Polyfluoroalkyl Substances\(PFAS\) Fact Sheet](#)

[Family Tree of perfluoroalkyl and polyfluoroalkyl substances \(PFAS\)](#)

Contact Information

Should you have any questions or concerns, feel free to contact us at env.health.concern@pa.gov or by phone at 717-787-3550 (ask for Susan Schrack Wood)

▶ PEATT Pilot Project Team

- Dr. Sharon Watkins
- Dr. Anil Nair
- Dr. Farhad Ahmed
- Dr. Marshal Ma
- Susan Schrack Wood

Questions?