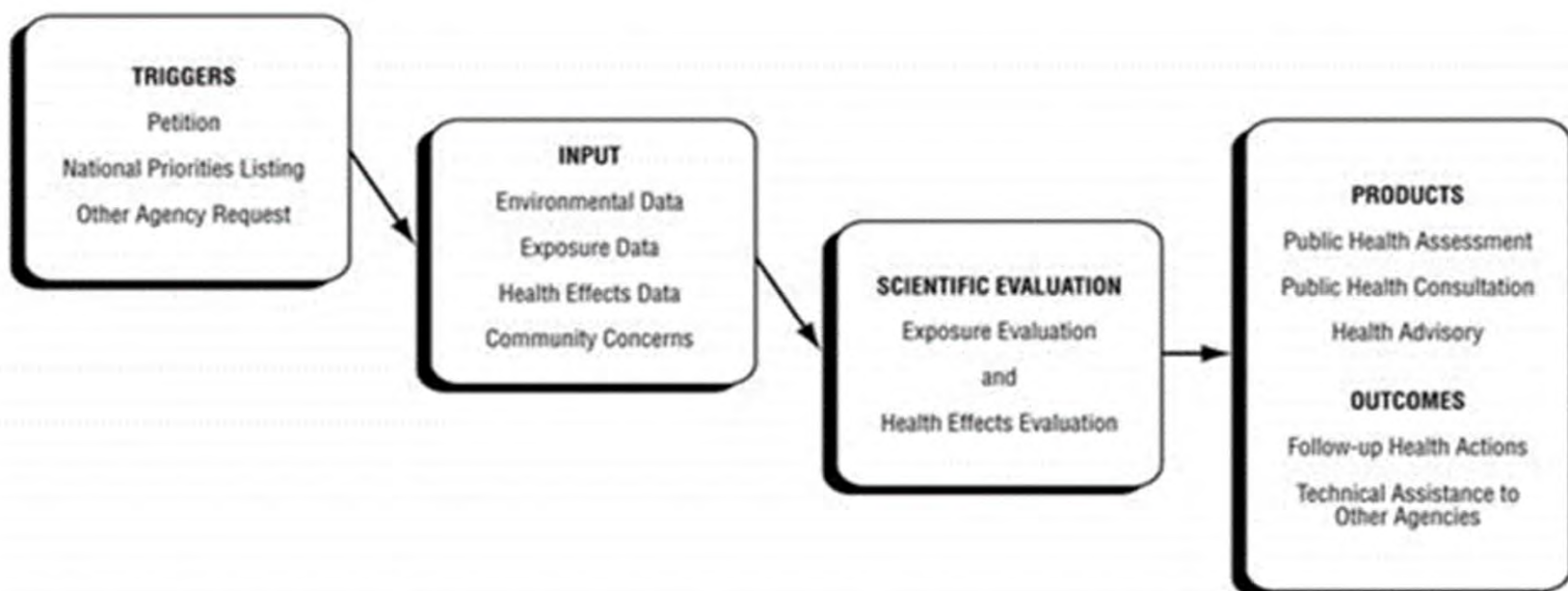


Basic Components of the Health Assessment Process



▶ How ATSDR/PADOH Gets Involved

- **ATSDR is an advisory (non regulatory) federal public health agency created under CERCLA (Superfund).**
 - ATSDR is within the CDC under HHS
 - ATSDR regional offices are embedded inside EPA
- **ATSDR has funded PADOH as a cooperative agreement partner for environmental public health evaluations in Pa since 1989.**

▶ How ATSDR/PADOH Gets Involved

- **A site is on or proposed for the U.S. Environmental Protection Agency's Superfund National Priorities list (EPA's NPL)**
 - Required public health evaluation
- **Agency (federal, state or local) requests help**
- **Someone petitions ATSDR to conduct an assessment of a site**

Evaluation Tools

- First we start with environmental data.
 - Are people being exposed? When? Where? How often and for how long? Are the levels high enough to cause illness?
 - Do we have enough environmental data to answer these questions?
- We prefer environmental data over health outcome data, because most illnesses/symptoms are not specific to a chemical exposure.

Evaluation Tools

- However, we may evaluate health outcome data for a community, e.g:
 - Cancer cases and deaths reported to the state cancer registry
 - Childhood blood lead data

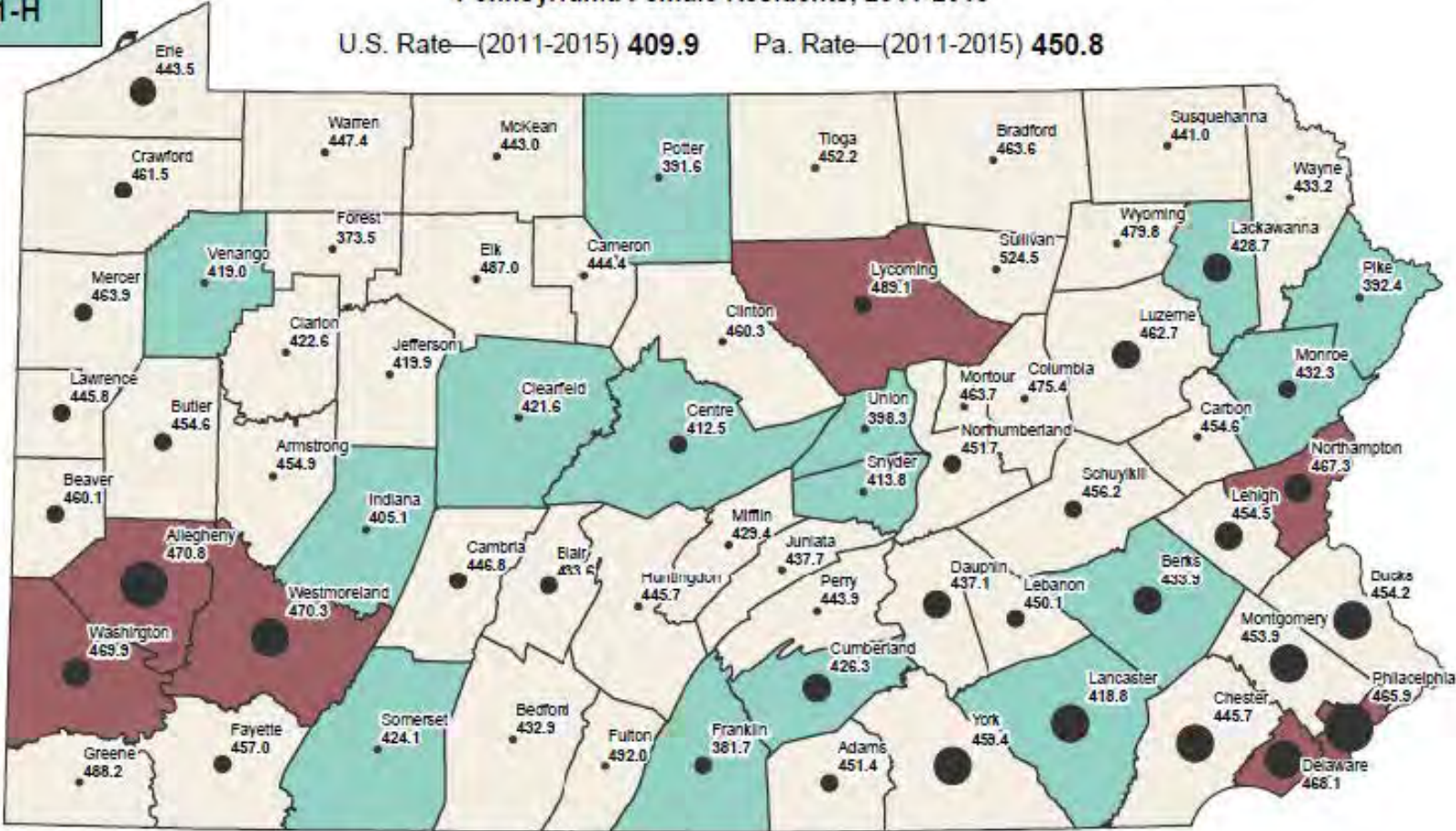
PADOH: cancer statistics & lead surveillance data

- [https://www.health.pa.gov/topics/HealthStatistics/CancerStatistics/AnnualCancerReport/Documents/Cancer Incidence and Mortality 2015.pdf](https://www.health.pa.gov/topics/HealthStatistics/CancerStatistics/AnnualCancerReport/Documents/Cancer%20Incidence%20and%20Mortality%202015.pdf)
- <https://www.health.pa.gov/topics/disease/Lead%20Poisoning/Pages/Lead-Surveillance.aspx>

**MAP
1-H**

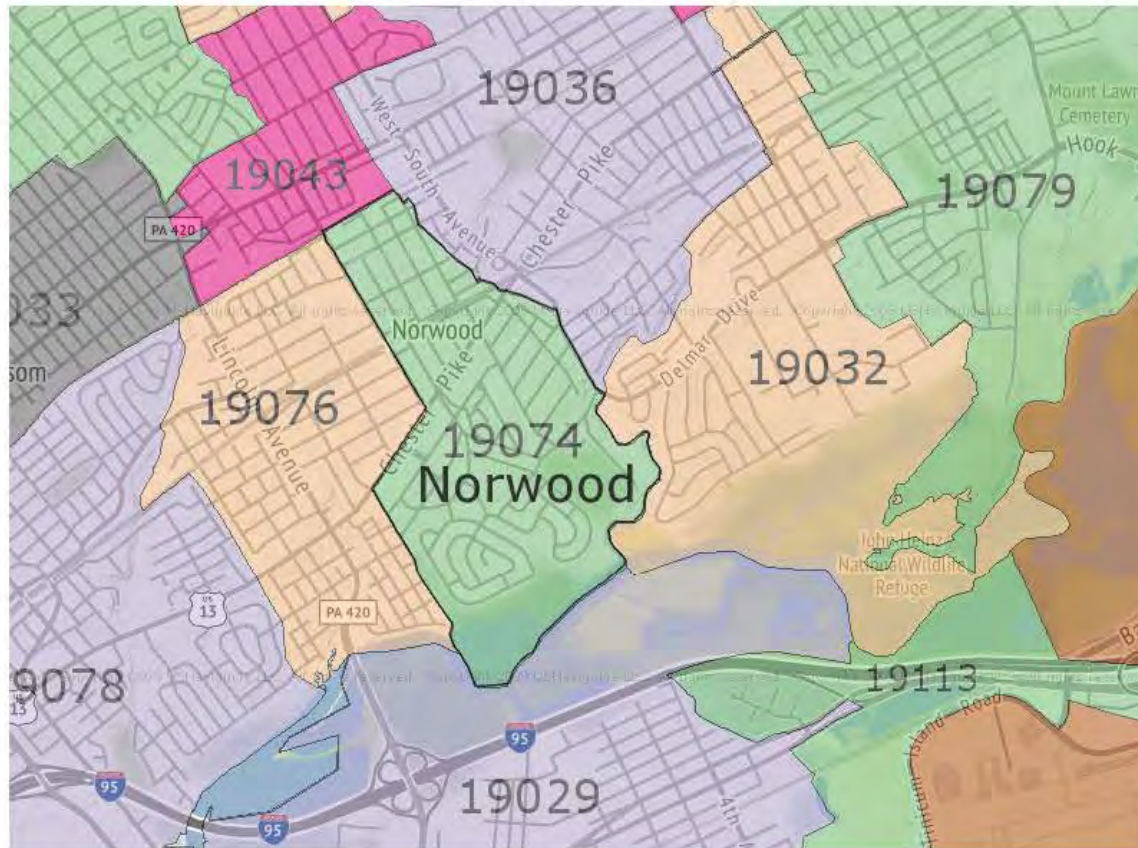
**Significant Differences Between Pennsylvania County and State Age-adjusted Incidence Rates
Pennsylvania Female Residents, 2011-2015**

U.S. Rate—(2011-2015) **409.9** Pa. Rate—(2011-2015) **450.8**



The symbol, ●, represents the number of invasive cancers. A larger circle indicates a larger amount of cases.
 SOURCES: Pennsylvania Cancer Registry, SEER 18 areas
 NOTE: Age-adjusted rates are per 100,000 and computed by the direct method using the 2000 U.S. standard population. Rates based on less than 20 events are considered statistically unreliable.

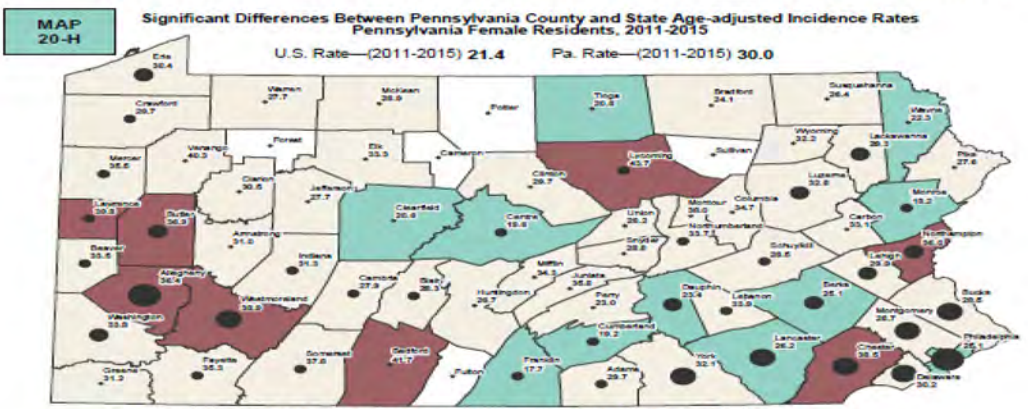
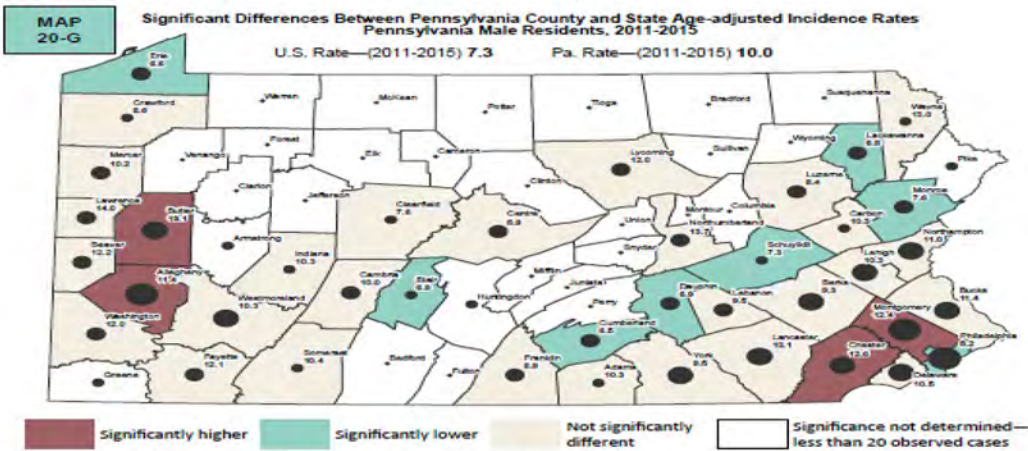
PADOH Cancer Incidence Data Review 1985-2017



PADOH Norwood Borough Cancer Incidence 1985-2017

- Higher:
 - Lung
 - Melanoma
- Lower:
 - Ovarian
 - Thyroid

Cancer of the Thyroid: INCIDENCE (Invasive)



The symbol, •, represents the number of invasive cancers. A larger circle indicates a larger amount of cases.
 SOURCES: Pennsylvania Cancer Registry, SEER 18 areas
 NOTE: Age-adjusted rates are per 100,000 and computed by the direct method using the 2000 U.S. standard population. Rates based on less than 20 events are considered statistically unreliable.

PADOH and ATSDR contacts

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▶ Exposure Pathway

- An exposure pathway is defined as the process by which people are exposed to or come into contact with chemical substances. An exposure pathway has five parts:
 - A source of contamination;
 - An environmental medium and transport mechanism;
 - A point of exposure;
 - A route of exposure; and
 - A receptor population.