

Findings of a Community Health Profile and Household Health Survey

Pompton Lakes, New Jersey

March 2014



The New Jersey Department of Health (NJDOH) and the federal Agency for Toxic Substances and Disease Registry (ATSDR) worked with members of the Pompton Lakes, New Jersey community since March 2010, when a Community Advisory Group for Health (Health CAG) was first convened. The Health CAG was an open forum to discuss and address health concerns.

Q: What did NJDOH and ATSDR do in response to questions raised in the Health CAG meetings?

NJDOH and ATSDR examined whether there are health outcomes that have occurred more frequently in the Pompton Lakes population (and in particular those living above an area of groundwater contamination) than would be expected by doing a Community Health Profile and a Household Health Survey.

Q: What is a *Community Health Profile*?

The *Community Health Profile* is based on existing public health and demographic data sets, including births, deaths, hospitalizations and emergency department usage, cancer registry, birth defects registry, and childhood lead exposure. Rates of many health conditions in Pompton Lakes as a whole and/or in the area of the town above the groundwater contamination plume were compared to rates in the State of New Jersey and in the six surrounding towns.

Q: What did the *Household Health Survey* include?

The *Household Health Survey* included current and former residents of current households above the groundwater plume, and gathered information on chronic diseases, demographic factors, and length of residence. Participants were asked whether they or members of their household were ever told by a health care provider that they had certain health conditions. Rates of surveyed health conditions were compared to national rates.

Q: How are these findings reported?

There are separate reports containing the detailed methods, findings and conclusions of the *Community Health Profile* and the *Household Health Survey*. In addition, there is a third *Synthesis Report* that draws overall conclusions from the findings of both reports, and also makes recommendations regarding the need and feasibility of conducting further investigations of health outcomes in relation to environmental and other factors.

Q: What were the findings of these reports?

Health Outcome	Findings
Adverse birth-related health outcomes	Low birth weight, prematurity, and a variety of birth defects have not occurred with unusual frequency in Pompton Lakes.
Mortality	The overall mortality rate and the leading causes of death were similar in Pompton Lakes compared to the State, with mortality due to heart disease and cancer being most frequent. Mortality rates among Pompton Lakes residents under age 80 years were also similar to the State, but mortality rates among those 80 years of age and over were somewhat higher than the State.
Heart and Cerebrovascular Disease	There was no evidence that heart disease or cerebrovascular disease occurred more frequently in Pompton Lakes or in the area of the town with contaminated groundwater.
Cancer	Cancer incidence (all types combined) in Pompton Lakes was elevated in females but not in males, though no specific cancer type was statistically high. In the groundwater contamination area, kidney cancer in females and non-Hodgkin lymphoma in males were elevated.

Health Outcome	Findings
Respiratory Diseases	The percentage of adult males reporting chronic bronchitis was higher among Household Health Survey participants when compared to national rates. This did not appear to be related to length of residence. The occurrence of asthma among adults was similar to national and State comparison figures, though asthma among children appeared elevated.
Nervous System Diseases	Hospitalizations for nervous system and sense organ diseases were generally similar among Pompton Lakes and comparison areas, but emergency department visits for these diseases were higher in Pompton Lakes; migraine headaches accounted for a relatively higher proportion of visits among Pompton Lakes females.
Liver Diseases	There was no evidence that liver diseases were more common in Pompton Lakes.
Kidney Diseases	Kidney diseases showed an inconsistent pattern of increased frequency in Pompton Lakes. Hospitalization due to chronic renal failure was elevated among females, based on small numbers.
Diabetes	Diabetes was less common in Pompton Lakes compared to the State.
Child Lead Exposure	Exposure to lead among children in Pompton Lakes was generally comparable to exposure among children in surrounding towns, and was lower than childhood lead exposure statewide.

Q: What would be the criteria for further epidemiological investigation?

There may be a need for further investigation if 1) there are health outcomes that are in excess, and 2) there is a suspected exposure that might explain it. Whether an investigation is feasible to conduct depends on whether there is a large enough number of cases to study and whether past exposures of interest can be estimated reliably.

Q: What are the conclusions of the reported findings?

Conclusion 1. While most health conditions in Pompton Lakes and the groundwater plume area appeared to occur at rates similar to other comparison areas, the following specific health outcomes showed evidence of being elevated in the groundwater contamination plume area:

- *kidney cancer in females*
- *non-Hodgkin lymphoma in males*
- *asthma in children.*

Of these outcomes, kidney cancer and non-Hodgkin lymphoma may be related to exposure pathways of concern in Pompton Lakes, in particular inhalation exposures to trichloroethylene (TCE) and perchloroethylene (PCE) in the groundwater contamination plume area. Therefore there is reason to consider the feasibility of an epidemiologic study to examine whether there is an association between these cancers and these exposures. TCE and PCE are not thought to trigger asthma.

Conclusion 2. It may be feasible to estimate past exposures of Pompton Lakes residents for an epidemiologic study. However, the number of cases of kidney cancer and non-Hodgkin lymphoma, as determined by data from the Community Health Profile and Household Health Survey, is not large enough for meaningful statistical analysis in an epidemiologic study. Therefore, NJDOH does not believe that a community-specific epidemiologic investigation is feasible in Pompton Lakes.

Q: What are the next steps?

NJDOH and ATSDR will provide the findings of the Community Health Profile, the Household Health Survey, and this synthesis report to the Health CAG and the public in Pompton Lakes. The health agencies will continue dialogue with the Health CAG as needed to address health questions and concerns of the community.

Copies of the Community Health Profile, Household Health Survey, and Synthesis reports may be obtained at <http://www.state.nj.us/health/eohs/dupontpomptonlakes.shtml> or by calling the NJDOH at (609) 826-4984.