

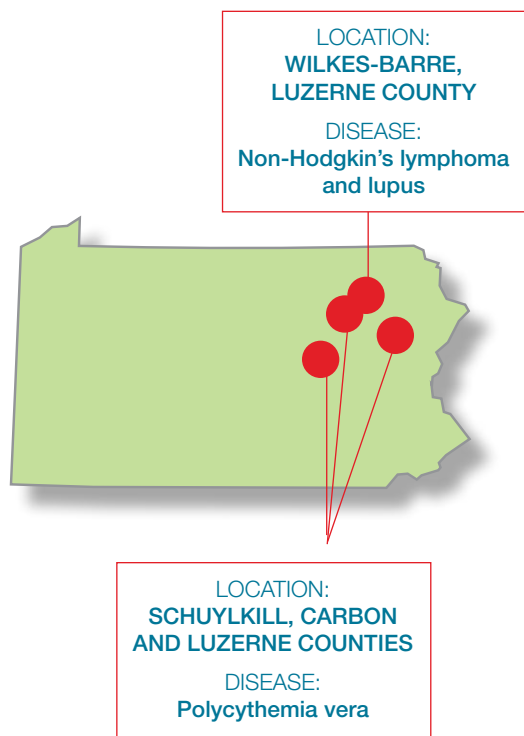
Stop disease clusters.
Protect people.
Control toxic chemicals.

Disease Clusters in Pennsylvania

An unusually large number of people sickened by a disease in a certain place and time is known as a 'disease cluster'. Clusters of cancer, birth defects, and other chronic illnesses have sometimes been linked to chemicals or other toxic pollutants in local communities, although these links can be controversial. There is a need for better documentation and investigation of disease clusters to identify and address possible causes. Meanwhile, toxic chemicals should be identified and controlled through reform of the Toxic Substances Control Act, so these chemicals don't pollute communities and sicken people.

Investigations of disease clusters are complex, expensive, and often inconclusive, partly due to limitations in scientific tools for investigating cause-and-effect in small populations. Preventing pollution is the best way to avoid creating additional disease clusters. Strategies for prevention include: (1) Directing and funding federal agencies to swiftly assist state and local officials, and investigate community concerns about potential disease clusters and their causes; (2) Reducing or eliminating toxic releases into air, water, soil and food through stronger environmental controls and tough enforcement of those requirements; and (3) Requiring chemical manufacturers to ensure the safety of their products.

Pennsylvania has suffered from at least two confirmed disease clusters spanning several different counties. Although environmental contaminants are implicated, experts have been unable to pinpoint an exact cause. Regardless of the cause, disease clusters can devastate communities with anxiety and emotional and financial difficulties, including high medical costs and lowered property values, as well as the tremendous burden of the disease itself.



LOCATION: Wilkes-Barre, Luzerne County
DISEASE: Non-Hodgkin's lymphoma and lupus

In 2004, researchers at Pennsylvania State University found health hazards associated with workplace exposure to trichloroethylene (TCE) at a Wilkes-Barre special education school in the school district's main administrative building. Twelve employees have been diagnosed with non-Hodgkin's lymphoma and lupus. The researchers found TCE exposures were 10,000 times higher than what the Environmental Protection Agency considers an acceptable cancer risk for someone working in the building for at least 10 years. TCE, a probable human carcinogen, was used by the staff to clean the two printing presses.

LOCATION: Schuylkill, Carbon and Luzerne Counties
DISEASE: Polycythemia vera

In 2008, the Agency for Toxic Substances and Disease Registry confirmed a cluster of polycythemia vera (PV) cases in Schuylkill, Luzerne, and Carbon counties. PV is a rare blood disorder in which the bone marrow makes too many red blood cells. Some residents blame their illness on a nearby coal-fired power plant and a recycling facility that accepted thousands of gallons of paint, sludge, waste oils, used solvents, PCBs, cyanide, pesticides, and many other known or suspected carcinogens.



www.nrdc.org

Printed on recycled paper



www.clusteralliance.org

© Natural Resources Defense Council March 2011

Sources are available at www.nrdc.org/health/diseaseclusters