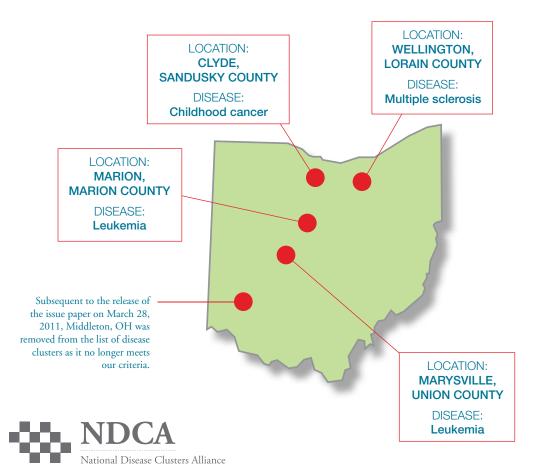
Stop disease clusters.
Protect people.
Control toxic chemicals.

# Disease Clusters in Ohio

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.

Ohio has suffered from at least four confirmed disease clusters, two of which afflicted children. 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: Clyde, Sandusky County

#### DISEASE: Childhood cancer

In 2009, the Ohio Department of Health (ODH) and Sandusky County Health Department confirmed a cancer cluster in the city of Clyde and Green Creek Township area. The analysis found brain and other central nervous system cancers to be the most common cancer types. State and local agencies are continuing to investigate the cause of the higher than expected number of childhood cancer diagnoses in the county.

### LOCATION: Wellington, Lorain County

### DISEASE: Multiple sclerosis

A 1998 study by state and local health departments found residents of Wellington were three times more likely to develop multiple sclerosis (MS) than the rest of the country. The Agency for Toxic Substances and Disease Registry found that there had been a release of chemical contaminants in the environment surrounding a former foundry, the LESCO facility, and the still operating Forest City Technologies plant. The LESCO facility was a distributor and formulator of fertilizer and Forest City Technologies manufactures seals and gaskets for the automotive industry. Although the causes of MS are unknown, the disease is believed to be caused by a combination of genetic and environmental factors.

## LOCATION: Marysville, Union County

#### **DISEASE:** Leukemia

The ODH has preliminarily concluded that there was a cluster of leukemia cases in this small town. Between 1992 and 2001, eight boys and young men were diagnosed with leukemia, a number that is significantly higher than expected when compared to national rates for a town this size.

## LOCATION: Marion, Marion County

#### **DISEASE:** Leukemia

In 1999, the ODH found a cluster of leukemia and esophageal cancer in Marion. River Valley High School was built in the early 1960's on top of an Army depot used for cleaning and repairs of vehicles and heavy machinery. The Ohio EPA discovered several carcinogenic substances at the site at dangerous levels. In 1997, the Army Corp of Engineers began investigating and cleaning up arsenic and lead at the former depot; they expect to complete all clean-up projects in June 2013.

Ohio Department of Health, Chronic Disease and Behavioral Epidemiology Section and Ohio Cancer Incidence Surveillance System and the Comprehensive Cancer Control Program, "BRAIN AND OTHER CENTRAL NERVOUS SYSTEM TUMORS AMONG RESIDENTS OF MIDDLETOWN, OHIO, 1996-2006", Final Report, January 26, 2010.