

Stop disease clusters.
Protect people.
Control toxic chemicals.

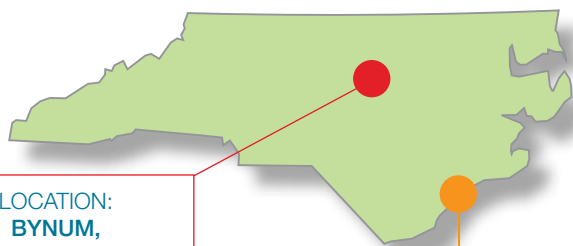
Disease Clusters in North Carolina

Ongoing investigations are occurring in the state

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.

North Carolina has suffered from at least one confirmed disease cluster and another is under investigation. 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:
BYNUM,
CHATHAM COUNTY

DISEASE:
Various cancers

LOCATION:
CAMP LEJEUNE,
ONSWLOW COUNTY

DISEASE UNDER INVESTIGATION:
Birth defects, childhood cancer,
and male breast cancer

LOCATION: **Bynum, Chatham County**
DISEASE: **Various cancers**

In 1986, researchers at The University of North Carolina, Chapel Hill, found that residents of Bynum, a small cotton mill village, had a disproportionately high death rate due to cancer, compared to the overall NC rate. Results indicated that the percentage of deaths involving cancer increased steadily to a high of 58 percent from 1980 to 1985. From 1947 to 1976, about two-thirds of the residents drank water from the river which was later found to contain a variety of pollutants, including carcinogens. Bynum is downstream from significant sources of industrial and agricultural contaminants. The community now receives treated drinking water from the county water supply.

LOCATION: **Camp Lejeune, Onslow County**

DISEASE UNDER INVESTIGATION:
**Birth defects, childhood cancer,
and male breast cancer**

For nearly 40 years, the groundwater at Camp Lejeune was contaminated with perchloroethylene from an off-base dry cleaner; with trichloroethylene from industrial solvents used on base; and with benzene from fuel tank leaks on the Marine Corps Base. The Agency for Toxic Substances and Disease Registry (ATSDR) is currently conducting a study on various birth defects, childhood leukemia and non-Hodgkin's lymphoma in children born to mothers who lived on base at Camp Lejeune any time during their pregnancies. Newspapers also reported that about 60 men who had lived on the base have been diagnosed with male breast cancer. ATSDR will also be conducting a health survey that will investigate the incidence of cancer and other diseases, including breast cancer, which is expected to begin in the spring of 2011.



www.nrdc.org

Printed on recycled paper



NDCA

National Disease Clusters Alliance

www.clusteralliance.org

© Natural Resources Defense Council March 2011

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