

Subject: Long Island Study - Breast Cancer - Pesticides or Affluence?

Date: Fri, 09 Dec 2005 21:14:13 -0800

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The original articles on which the CP article below is based can be found at:

<http://www.nature.com/nrc/journal/v5/n12/pdf/nrc1755.pdf>

<http://www.nature.com/nrc/journal/v5/n12/extref/nrc1755-s1.pdf>

Yours truly,

Corrie Kost

Affluence, not pollutants, likely behind U.S. breast cancer clusters: study

Provided by: Canadian Press

Written by: SHERYL UBELACKER

Dec. 1, 2005

TORONTO (CP) - An affluent lifestyle - not exposure to common environmental toxins - is likely behind high rates of breast cancer clustered in certain areas of the United States, a series of long-term studies has found.

Breast cancer is, of course, diagnosed throughout the United States. But some regions have pockets of higher than expected cases, most scattered across the industrially developed U.S. northeast around the Great Lakes, as well as in the San Francisco Bay area of California.

Researchers at the National Cancer Institute (NCI) investigated possible links to breast cancer among women living in three of the so-called hot spots - Long Island, N.Y., Cape Cod, Mass., and Marin County, Calif. - all of which are associated with above-average income and where incidence of the disease is far greater than nearby areas or the country as a whole.

olk County on Long Island, for instance, has breast cancer rates 12 per cent greater than New York State's average and seven per cent above the national average.

"The main reason why the National Cancer Institute was asked to fund and make sure these studies happened was because of the concern about the environment - specifically pesticides and organochlorines," said Deborah Winn, chief of clinical and genetic epidemiology at the NCI and lead author of the Long Island Breast Cancer Study Project.

But the research project found no definitive association between women's exposure to toxic chemicals like organochlorines, which include PCBs and DDT; polycyclic aromatic hydrocarbons (PAHs), which are found in burned fossil fuels; and electromagnetic fields.

"I think that the body of evidence from this collection of studies is that these factors do not account for any excess incidence of breast cancer on Long Island and that there's no evidence that breast cancer was linked to those exposures," Winn said from Rockville, Md., near Washington.

Reproductive factors are more likely to contribute to the high rates of breast cancer in these well-to-do pockets of the country, she hypothesized.

"In areas of affluence, women are more likely to have a late age at first birth, fewer children," said Winn, noting that giving birth at an earlier age and having many children are known to help protect women from developing breast cancer, the second most deadly malignancy for U.S. and Canadian women after lung cancer.

Other behavioural factors were also identified by researchers as possibly underlying elevated breast cancer rates in more upscale areas: in California's tony Marin County, the risk for breast cancer rose among women with above-average alcohol consumption (more than two drinks daily) and those on hormone replacement therapy.

The Long Island Breast Cancer Study Project included 10 separate investigations of women in that area of New York as well as Marin County and Cape Cod. The studies enrolled about 2,600 women newly diagnosed with breast cancer and about 2,800 without the disease between 1994 and 1997.

Overall, researchers looked at a number of factors, including exposure to environmental toxins, testing of blood and breast tissue for levels of pollutants and questionnaires about lifestyle issues.

Heather Logan, a spokeswoman for the National Cancer Institute of Canada, cautioned that the studies focus on specific parts of the United States, where residents may not be representative of all women in either the U.S. or Canada.

"So you cannot automatically translate the findings in this study to the general population," Logan said Thursday, noting that age (over 50), a family history and a genetic predisposition are known risk factors for breast cancer.

Still, the NCI project is valuable, she said. "It certainly provides important information about some questions that we've had for a long time about environmental factors and breast cancer. But certainly additional research is needed."

Canada also has breast cancer hot spots strewn across the country, an online Health Canada publication shows.

Despite their findings, NCI researchers haven't shut the door on environment as a possible factor in breast cancer, said Winn, whose paper appears Friday in the December issue of Nature Reviews Cancer.

"In some ways, you almost can't rule out an environmental factor," she said. "It just maybe means that we haven't found it. So it has not allayed the concerns of many people in the advocacy community (groups that include breast cancer survivors in the high-incidence areas).

"It's such a hot-button issue that several of us at NCI have received calls over the years from people who are thinking about moving to Long Island and they ask us, 'Should they?' It's that level of concern."

While these studies looked at women who already had breast cancer, future research on the possible role of toxins in breast cancer will include taking another tack, Winn said. Scientists will enrol prepubescent girls and record their environmental exposures and lifestyle behaviours for the duration of puberty, a period when at least some of the seeds for breast cancer may be sown.

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