

Protecting Our Mamaqs: Environmental Health Toolkit For Breast Cancer Prevention

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Dedication: Annie Alowa

Annie was a Community Health Aide and respected elder from Savoonga, Alaska on Sivuqaq (St. Lawrence Island).

It was her voice that first raised the alarm of the health risks tied to the military toxic waste site at Northeast Cape on Sivuqaq.

For decades, she advocated for cleanup and for health and justice for her people.

Because of Annie's work, Northeast Cape has undergone a multimillion-dollar cleanup - the most expensive cleanup of a formerly used defense site in Alaska history.

For Annie Alowa's full biography, visit the [Alaska Women's Hall of Fame](#)



“I will fight until I melt.”

Preventing Exposure to Toxics

- Alaskans may be exposed to chemicals from:
 - Hundreds of toxic waste sites scattered throughout Alaska
 - Industrial pollutants from global sources carried north by air and ocean currents
 - Other local sources, e.g., air pollution, contaminated food, pesticides, work environments, personal care & consumer products
- ACAT works to prevent harm and eliminate unnecessary exposure
- Raising awareness is one of the ways to reduce and prevent exposure



Student in ACAT's Environmental Health Field Sampling Institute, Nome, Alaska. Source: ACAT

Toolkit for Alaska's Community Health Aides & Practitioners (CHA/Ps)

- CHA/Ps are the front line of healthcare in their communities
- New toolkit on environmental links to breast cancer:
 - Designed to train CHA/Ps & other health care professionals (HCPs) about chemicals found in the North/Arctic region that are linked to breast cancer
 - Helps CHA/Ps & HCPs determine if a patient may have had an environmental exposure
 - Includes information to share with patients on how to reduce exposure to chemicals of concern

Partnership with Alaska Community Health Aide Program (CHAP)

- ACAT & CHAP have a history of working together on environmental health training programs tailored to Alaska communities
- Toolkit developed by ACAT in partnership with Alaska Community Health Aide Program (CHAP)
- Project goal is to reduce the risk of breast cancer in Alaska and to protect the health of people diagnosed with breast cancer



Norma Kavairlook (l) and Phyllis Farrell (r) were both long-time community health aides in the Norton Sound region. (Source: Anne Hillman/Alaska Public Media)

Toolkit includes:

- Data on breast cancer and environmental contaminants in Alaska
- Fact sheets on carcinogenic and hormone-disrupting chemicals found in:
 - Traditional foods, air, water and land of Alaska Native peoples
 - Household and personal care items
- Health effects of these chemicals linked to breast cancer
- Tips on how to reduce exposure
- Environmental health history tool to identify patients' exposures



Fact Sheets

Air Pollution

Flame Retardants

Food Packaging

Occupational Exposures



Per- and Polyfluoroalkyl Substances (PFAS) in Household Consumer Products

Persistent Organic Pollutants (POPs)

Personal Care Products and Cosmetics



Pesticides

Pinkwashing and Breast Cancer Prevention

Traditional Foods, Diet and Nutrition



Food Packaging & Breast Cancer

Food Preparation, Additives, and Packaging

Food additives and packaging are designed to keep food safe by preventing spoilage. Designed to hold and protect food, food packaging containers are a source of harmful chemicals. Food packaging, plastics, and food processing equipment can all introduce harmful contaminants into food products, which are then unknowingly ingested by consumers. Companies are not required to disclose chemical contaminants used in the production or packaging of food products, and limited regulatory oversight is employed in managing potential harmful health effects (1).

Chemicals Found in Food Packaging

Food processing equipment and packaging can contain a host of harmful chemicals. Often associated with plastics these harmful chemicals can leach into food and accumulate in the human body. These chemicals are known endocrine disrupting compounds (EDC) that can mimic hormones and adversely affect health. Some common chemicals found in food packaging are (2,3,4):

- Per and Poly-fluoroalkyl Substances (PFAS)
- Bisphenol A (BPA)
- Phthalates



Links to Breast Cancer

PFAS, BPA, and Phthalates found in food packaging have all been linked to breast cancer incidence in low doses (5).

- BPA has been shown to induce mammary gland tumors and alter DNA (genes) (6).
- Higher concentrations of phthalates are associated with higher breast cancer rates and lower breast cancer survival rates after diagnosis (7)
- Evidence suggests that PFAS exposure is a risk factor for breast cancer. PFOS concentrations were associated with "ER-positive" breast cancer, which are cancer cells that grow in response to estrogen (8).



Reducing Exposures

Food products and packaging in the United States are not required to disclose the presence of these chemical compounds; however, individuals can take the following steps to reduce exposures to chemicals associated with food preparation, additives, and packaging (9).

1. Reduce consumption of canned or moist food packaged in cardboard or plastic
2. Buy organic products or source food from community gardens whenever possible
3. Store food in glass, wax paper, or stainless steel instead of plastic
4. Use glass or stainless-steel water bottles instead of plastic
5. Eliminate non-stick pans from food preparation
6. Avoid microwaving any food in plastic
7. Avoid storing, prepping or cutting food in cardboard unless it is a safe food grade alternative



Additional information can also be accessed through The Silent Spring Institute's Detox Me App. This app can be accessed via mobile devices or the web.

More Information

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9. Silent Spring Institute. (2017). Detox Me App. Retrieved from <https://www.silent-spring.org>

Environmental Health History & Assessment Form

- Guides CHA/Ps in asking questions to determine if a patient has been exposed to a chemical of concern
- Includes questions about home environment, chemical use, food & water sources, occupations & hobbies
- References fact sheets for more information on health effects and reducing exposure

What is the main way that you heat the home or camp where you live now?

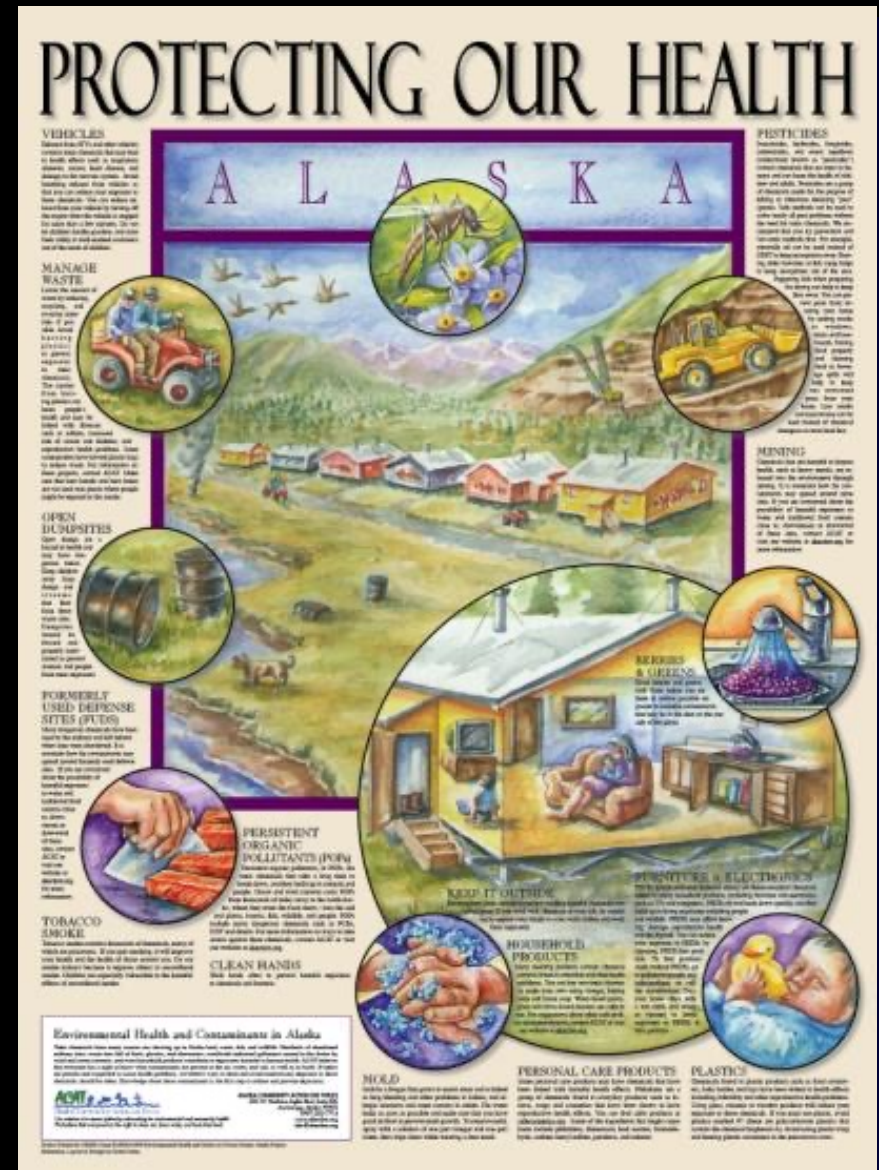
Do you use pesticides (including mosquito repellents, chemical bug traps, or lice and scabies treatments)?

Where do you keep household cleaners and other chemicals?



Key Resources for More Information

- “Protecting Our Health in Alaska” poster illustrates sources of contaminants found in rural Alaska and describes measures to reduce exposure
- Documentary: [I Will Fight Until I Melt](#) features an interview with Annie Alowa about the environmental health effects of the toxic waste site at Northeast Cape, and presents a call for others to respond to her concerns
- [Map of Villages and Federal Defense Facilities in the Norton Sound Region](#)
- Links to additional resources and organizations working on breast cancer care, research, advocacy, prevention and survivorship





Thank you!

For more information:

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