THE FACTS AND NOTHING BUT THE FACTS

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For far too long, breast cancer awareness has been the dominant message of the breast cancer movement. Breast Cancer Action (BCAction) feels this message oversimplifies the issue and deflects attention from breast cancer prevention. This factsheet provides clarification about the incidence and mortality rates of breast cancer, as well as serving to correct some common misperceptions on topics that BCAction sees as the most pressing. In order for real change to happen, issues such as environmental exposures to toxins, eliminating inequalities in treatment and outcomes, and better screening need to be addressed.

NUMBER OF BREAST CANCER CASES IN THE U.S.

Breast cancer is the most common cancer among people assigned female at birth, excluding cancers of the skin. There are currently more than 3.8 million people assigned female at birth that have been diagnosed or are living with breast cancer.[1]

Nearly 300,000 people are diagnosed with invasive breast cancer each year.

The American Cancer Society estimates that an additional 51,400 new cases of ductal carcinoma in situ (DCIS) will have been diagnosed in 2022.[2] DCIS may be a precursor to breast cancer, but because the cells have not spread, the prognosis is positive – some proportion of the people will never develop breast cancer.

BREAST CANCER RISK

People assigned female sex at birth in the U.S. have a 1 in 8 chance of developing breast cancer during their lifetime.[3] On the other hand, 7 out of 8 will not get breast cancer during their lifetime.

This means that if every person assigned female sex at birth lived to age 85, 1 in 8 in the U.S. would be diagnosed with breast cancer – a lifetime risk that has been on the rise post-World War II, when her chances were 1 in 20 in 1940.[4] It is notable that in the first half of the 20th century, chemicals developed for World War II started making their way into everyday use.

Known breast cancer risk factors include family history (which only accounts for at most 10% of cases), early menstruation or late menopause, late first childbirth or no childbirth, use of hormone replacement, alcohol consumption, and ionizing radiation. These risks, however, only account for 30-50% of the disease, leaving us with a lot we have yet to understand about breast cancer.[5] Despite decades of intensive research, the biology and cause of a majority of breast cancer diagnoses remain largely unexplained.

ENVIRONMENTAL CONTRIBUTORS TO INCREASED RISK

As we see a rise in unexplained breast cancer cases in the last few decades, there is increasing scientific evidence that involuntary environmental exposures may play a role in the increased incidence of breast cancer.

In simple analysis, of the more than 84,000 chemicals in commercial use in the U.S. today, more than 90% have never been tested for human health effects. More than 3,000 new chemicals are submitted to the U.S. Environmental Protection Agency each year for approval.[6]

Industrial chemical products and emissions historically have not routinely been screened for health effects despite widespread exposures.

Non-industrialized countries have lower breast cancer incidence rates than industrialized countries. Migrant people assigned female sex at birth from countries with low incidence rates who move to industrialized nations soon acquire the higher breast cancer risk of the new country. While low-to-middle-

income countries have slightly lower breast cancer incidence rates, their mortality rate is on the rise, as those countries lack screening and treatment options for those diagnosed with the disease.

BREAST CANCER INEQUALITIES

Incidence and mortality rates of breast cancer differ by race and ethnicity. Asian American/Pacific Islander and American Indian/Alaska Native people assigned female sex at birth have the lowest incidence and mortality rates of all. These classifications are not homogenous groups and we see examples in subpopulations, such as in Southeast Asian and Samoan people assigned female sex at birth, as they suffer from higher rates of breast cancer.

While the incidence rates for breast cancer in Black people assigned female sex at birth were once lower than those of white people, in recent years Black people's incidence rate (127.3) is similar to white people (131.6). Not far behind are Asian-Pacific Islanders (95.6), and Hispanics (94.8).[7]

Poorer survival rates among African American and Hispanic people assigned female sex at birth may be attributed to later stage at diagnosis and barriers to receiving timely and appropriate treatment such as racism, discrimination, language barriers, and mistrust of medical professionals due to a long history of medical mistreatment. Researchers have been studying biological, environmental, and socioeconomic factors, but the underlying causes of this inequity remain largely unexplained.

POVERTY & INCOME

For most diseases, risk is inversely related to socioeconomic status in that higher income populations have lower disease risk. With breast cancer, we see that higher income populations are more likely to be diagnosed with breast cancer, while lower income populations, who have lower rates of breast cancer, are more likely to die from the disease. As an example, research shows that 8.2% of whites compared to 19.5% of Black people live below the federal poverty threshold. In addition, 12% of Black people lack health insurance compared to 9% of whites. These differences may be tied to the racial inequities in breast cancer morbidity.

Income and survival are strongly related. People assigned female at birth living in a low poverty area have a 5-year survival rate of 74%.[9]

MAMMOGRAPHY & SCREENING

Mammograms do not prevent breast cancer. They detect tumors, but they do not prevent tumors from forming. Mammograms miss more than 25% of all breast cancers, known as "false negatives." Additionally, "false positive" results can occur when a mammogram finds something in the breast that, on biopsy, proves not to be cancer. Research has shown that as many as 55-85% of all post-mammogram biopsy results turn out to be benign lesions.[10]

Mammography screening initiated in the 1980s accounted for much of the increase in breast cancer diagnosis in the immediate years following. But what we now know is that early detection does not guarantee protection, and over-identifying problems that don't need to be treated can lead to unnecessary biopsies and other invasive procedures.

Mammography is also not as effective in detecting breast cancer in younger, pre-menopausal people assigned female sex at birth. Their breast tissue tends to be denser than that of post-menopausal people and makes their mammography results more difficult to read.

It is important to understand what mammography can and cannot do and to have a discussion with your health care provider to come up with a plan that is best for you.

In conclusion, breast cancer is not a single disease and has complex causes. The majority of risk factors for the disease are largely unknown. For more information, please see BCAction's additional factsheets:
https://www.bcaction.org/category/fact-sheets-and-toolkits/

References available upon request.