



Pink Power

Age: 10-13

How Race and Ethnicity Affect Breast Cancer

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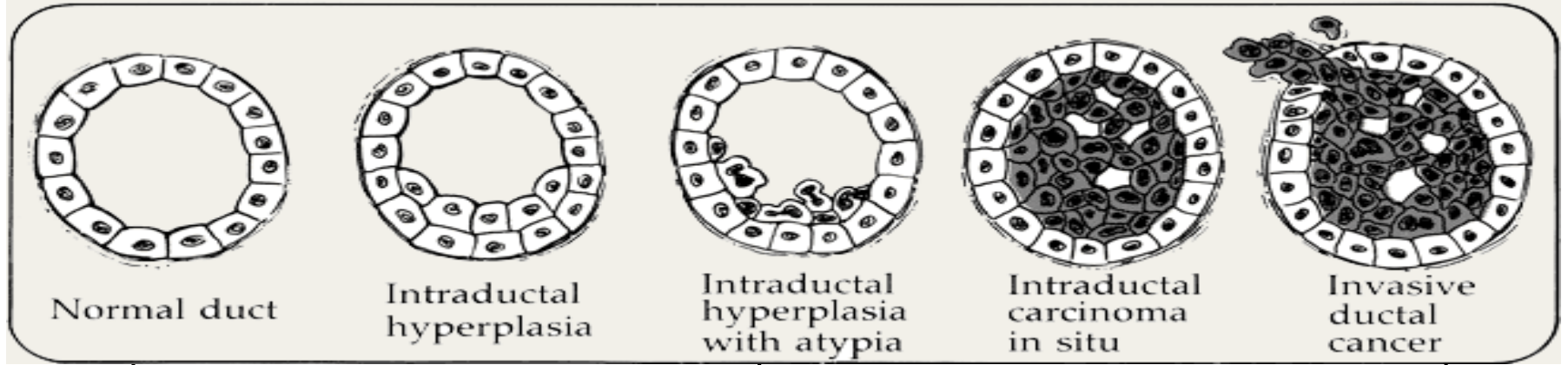
Abstract

Breast cancer is a disease that occurs when the body's cells start multiplying without stopping. People can have a higher or lower risk of getting breast cancer based on their race or ethnicity. Things like socioeconomic factors and religious beliefs about treatment can affect the level of breast cancer when discovered. The aim of this research overall is to help us understand how ethnicity and race can impact the likeliness of having breast cancer and to help determine additional risk factors of breast cancer. For our methods, we searched through databases from *Centers for Disease Control and Prevention*, *The Oxford University Press*, *PubMed*, and *The Journal of Community Health*. During our research, we noticed that the ethnic groups most vulnerable to cancer were generally poorer, less educated, and had unhealthy habits. We also noticed that religious and cultural beliefs, language and communication barriers affected the risk of breast cancer. Therefore, we believe that if we can reduce these risk factors and raise breast cancer awareness, we can make a significant difference in the number of people affected.

How Breast Cancer Works

- Breast Cancer is when a cell in the breast grows out of control or regenerates too fast in the process of mitosis.
- There are a couple of types of breast cancer. Breast cancer can happen in three parts of the breast: the ducts, the lobules or the tissues in between.
- Breast cancer can be invasive or non-invasive.
- One of the five types of breast cancer, Triple-negative/basal-like breast cancer is hormone-receptor negative and HER2 negative is more common in young women and African American women, although researchers are not sure why.
- Another type of breast cancer is inflammatory breast cancer. The average age for diagnosis for white women in USA is 57 and 52 for African-American women.
- Studies show that inflammatory breast cancer is more common and found in women, especially obese or overweight women. When breast cancer spreads to other parts of the body it is said that the cancer has metastasized.
- Some symptoms or signs of breast cancer are lumps forming in the breast or underarm, thickness or swelling of part of the breast, irritation and dimpling, redness or flaky area in the nipple area or breast, or pain in the breast area.

How Breast Cancer Works



Normal duct

Intraductal hyperplasia

Intraductal hyperplasia with atypia

Intraductal carcinoma in situ

Invasive ductal cancer

Regular cell before cancer cell evades.

The mitosis begins to get out of control at this point.

The stage where breast cancer gets evasive and starts to spread to the rest of the body.

Correlation of race and ethnicity with breast cancer

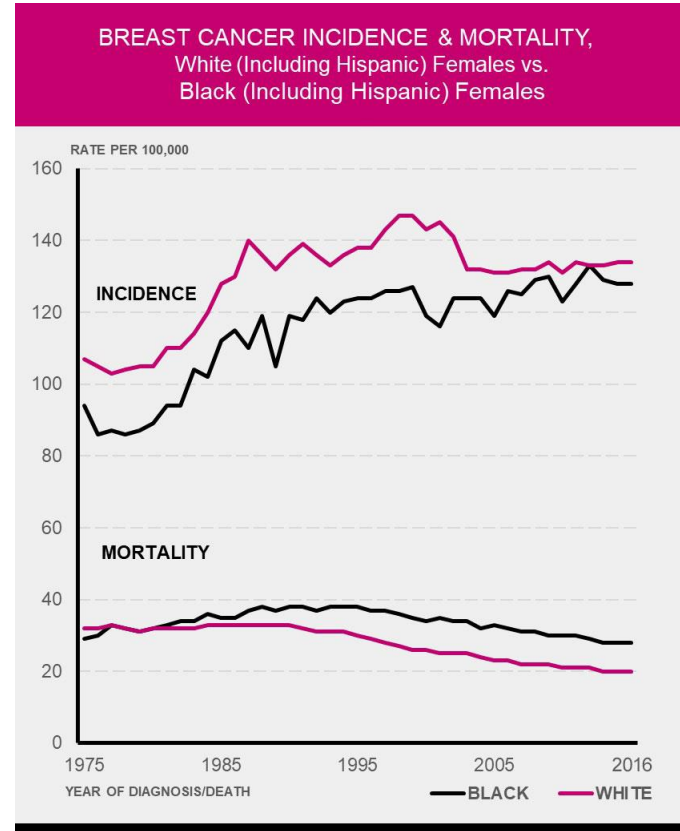
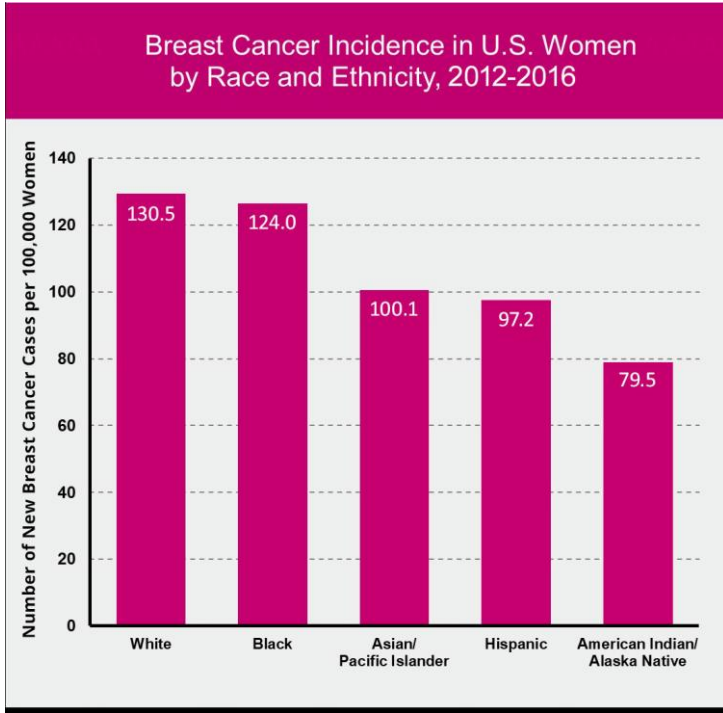
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- Socioeconomic factors - African-American women have the highest mortality rate from breast cancer. This is partly due to socioeconomic factors, where people would rather save money than go and get screened for a disease they might not even have.
- Lack of education about breast cancer - People in developing countries may not be educated about symptoms and risk factors for breast cancer and can go undetected for a long time, letting it get to a more advanced stage.
- Religious beliefs - Women in certain religions do not believe in medical treatment for breast cancer and due to their beliefs, they may not complain about it until it interferes with their work.
- Communication barriers - A common occurrence in the Spanish speaking population in United States is the inability to clearly communicate health problems to a doctor due to language barriers. This may lead to the doctor giving the wrong diagnosis and not helping the patient.
- Cultural values - women living in a community where the culture doesn't view breast cancer as a thing of importance will not get treatment until it is at a more advanced stage, whereas, otherwise, she will be treated at an earlier, more treatable stage.

Alcoholism and its effect on Breast Cancer ⁹

- Alcohol can increase a woman's chance of getting hormone-receptor-positive breast cancer.
- It can also increase levels of estrogen and other hormones linked with HRPBC.
- Alcohol can damage DNA in cells therefore allowing a higher likelihood for breast cancer to develop.
- Compared to women who don't drink at all, women who have three alcoholic drinks per week have a 15% higher risk of breast cancer.
- The risk of getting breast cancer goes up 10% with each drink a woman regularly has each day.

Statistics



Lack of Education about Breast Cancer

- Lack of education about breast cancer is one of the biggest reasons that women never get tested because they are unaware of breast cancer and how severe and fatal it can be.

-Under developed countries and developing countries have limited healthcare resources and use their beliefs and traditional remedies to diagnose breast cancer instead of learning more about it from credited resources.

-In under-developed countries, there is a lack of mammograms. In addition, the national protocols regarding the required age to take a mammogram are not available to women. Only very few women in underdeveloped countries have knowledge of what a mammogram is and how important it is for women that are 45 and older. A BSE or a breast self examination is a technique which allows women to examine her breast tissue for any physical or visual changes. According to PMC Clinics, in Nigeria, 75.6% of studied women had never performed a BSE, and only 58.2% had heard of BSEs. In Bangladesh, 41% of women did not know what breast cancer is, 71% did not know what screening is, and 96% did not know what a BSE is. Also according to PMC Clinics, when only invasive disease is evaluated, stage I tumor staging rates were below 5% in India, the Philippines, and Nigeria, but the rates exceeded 30% in South Korea and Taiwan. This shows and proves that South Koreans and women of Asian descent are much more educated about breast cancer and all of the risks that it carries. This also supports the fact that Korean-Americans have the lowest chance of getting breast cancer and that Chinese Americans have least mortality rates or death rates from breast cancer because they detect it in its early stages. This is also due to their excellent diet and the fact that they are healthy and extremely fit.

Socioeconomic Factors

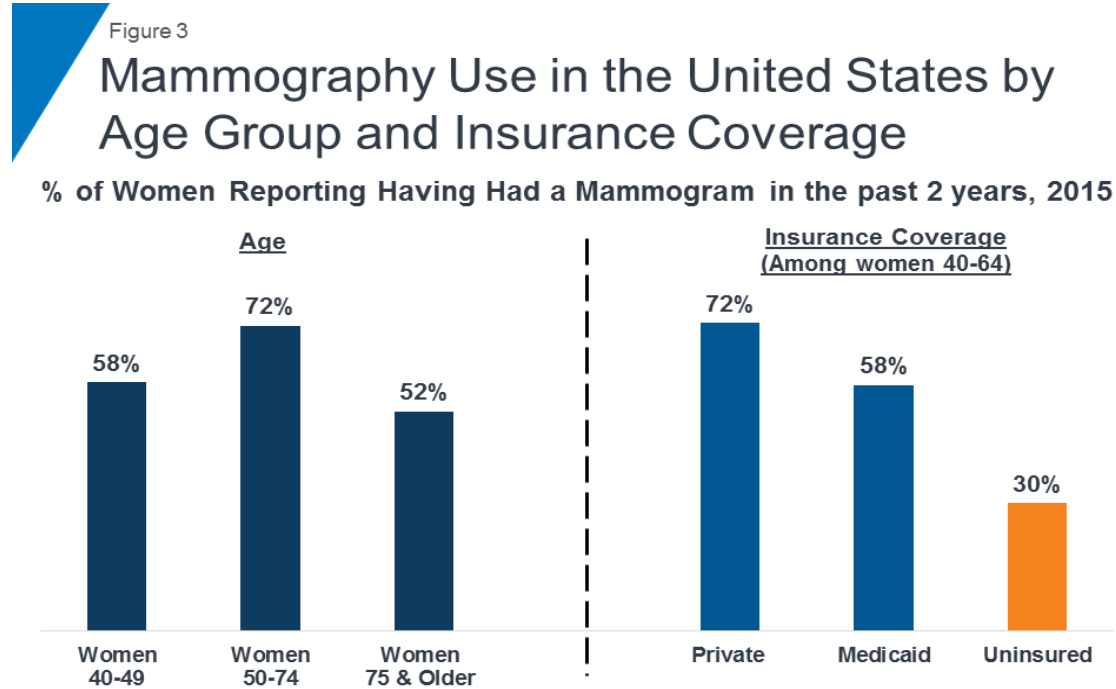
Not everyone has enough wealth or a proper place to get checked for breast cancer. This can lead to either late detection which will make the chances of survival less or no detection at all and just death.

According to Pubmed.gov, "Poor and near-poor women were were also less likely than near-poor or high SES women to receive any axillary surgery and adjuvant chemotherapy."

These treatments that could help them be cured yet many poor women cannot take under the possible reason that they do not have enough money. A mammogram which is basically a breast cancer screening can cost from 80 to 120 dollars for uninsured people.

Many people cannot afford this and would rather not take it at all to avoid money trouble, but in return can put their life on the line. This is shown in the 2017 diagram, where only 30% of the uninsured people had reported having mammogram in the years of 2016 or 2015.

Socioeconomic Factors



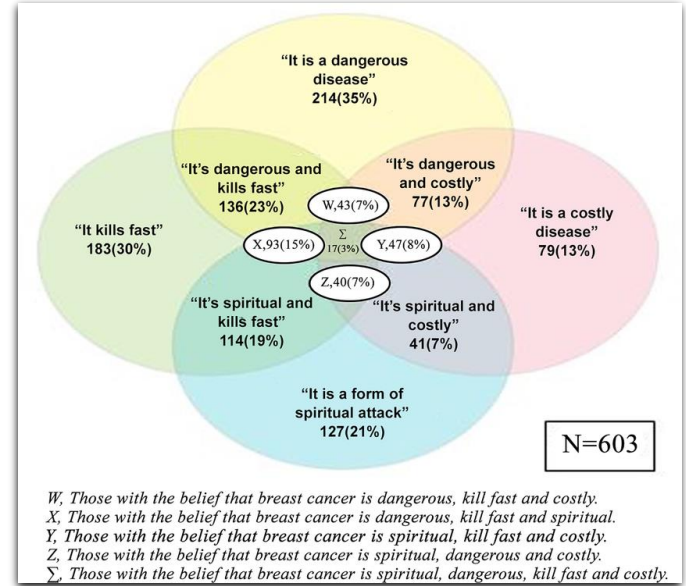
SOURCE: White A, Thompson TD, White MC, et al. [Cancer Screening Test Use—United States, 2015](#). MMWR Morb Mortal Wkly Rep 2017; 6: 201-206. National Center for Health Statistics. [Health, United States, 2016: With Chartbook on Long-Term Trends in Health](#). May 2017

Religious beliefs in health care

-There are some people who disagree with the modern world idea of health care due to religious beliefs. According to Pubmed.gov, during a test, "A minority believed that medical treatment was unnecessary because only God could cure breast cancer". This religious belief could prevent people from getting the proper care. Also, due to traditional beliefs women may not complain of the pain until it interferes with their daily work and even then may not get it treated or diagnosed.

-Those with lower confidence levels may not show care for themselves as those with higher confidence level .

- The amount of gender equality can depend on the religion and also change whether a woman will get herself tested or not. A community that treats woman well will most likely have more woman get screenings than a community where women are not treated as equal and are expected to do household chores.



Cultural Values

The diagram features a central title 'Cultural Values' at the top. Below it, a large blue rectangular box is divided into three vertical sections. From the top of this box, two blue arrows point upwards. From the bottom center of the box, a blue arrow points downwards.

A community's cultural values can lead to a woman not getting a breast cancer screening, not getting the proper treatment for her breast cancer, and possibly getting breast cancer in the first place.

Some communities don't value education of breast cancer. This can lead to late identification which would delay the process. At times woman may not be convinced to go to a local doctor, but just ask some friends about the pain.

Social status could be tarnished as well due to breast cancer which may lead to people scared to get a screening, "...women who suffer from breast cancer could be perceived as witches ... for instance, people can suspect that the woman has used her breast for ritual purposes or something like that".

Language And Communication Barriers

-The consistency of language concordance or interpretation have a major role in patient perception of patient-provider communication. In other words, how clearly the doctor is able to understand and interpret the patient will affect the treatment the patient gets, because if the patient is not clearly able to tell the doctor the pain they are feeling, the doctor might not be able to diagnose or help the patient.

- According to PMC National Library of Medicine, language barriers have been associated with low-income and non-english speaking women which present challenges for follow-up care and treatment. According to PMC National Library of Medicine, this is very common among the US-speaking Spanish population. “ The importance of employing culturally and linguistically appropriate tactics in patient-provider interactions, clinical care, and the health education of minority populations remains a strong focus in the health communication literature and in the national public health agenda, emphasizing the need for a patient-centered approach to health information exchange”.

-This shows that we need to have strong human translators who can understand all types of dialect so that the patients and victims of breast cancer can get the proper treatment that they need to survive.

Conclusion

In conclusion, lack of education about breast cancer, socioeconomic factors, religious beliefs of health care, cultural values, language and communication barriers and the race/ethnicity of the women have a major impact on the chances of a person getting breast cancer. It also affects if the person gets treatment and if so, at what stage and how serious the tumor is at that point. From our research we learned that many women in underdeveloped countries may not get screened until the breast cancer disrupts their everyday lives and disables them to work. Normally at that stage, the cancer has developed a lot and is a lot more dangerous and risky. Due to money shortage or economic factors, women don't get a mammogram to check if they have breast cancer, which leads to the fact that plenty of women in underdeveloped countries have a lack of knowledge on breast cancer and are not aware of the dangers and risks that it carries. In underdeveloped countries, there are often language barriers and the patient is not able to express their pain or the level of seriousness to the doctor. Overall, many of these previously mentioned factors have a huge impact on women who are victims of breast cancer.

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