Midwest Interprofessional Practice, Education, and Research Center
Creating Teams for Patient Centered Care

Impact of Access to Cancer Prevention Information and Annual Cancer Screenings

Caleb Story, Katelyn Pham, Sydney Beck, Amalia Chowanic, and Lynda Le

Figure 2: Survival Rates Based on Cancer Stage Diagnosis

Background

In 2019, cancer was the second leading cause of death in the United States (CDC, 2021).

Insured individuals according to the Affordable Care Act have free cancer screenings. Depending on the state one resides in, there are different rules for frequency and types of screenings (Simmons, 2020.

Uninsured individuals have opportunities to get free cancer screenings. This is through the National Breast and Cervical Cancer Early Detection Program (NBCCEDP) ("All Patients", 2021).

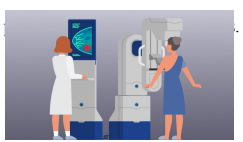
Median age of people diagnosed with cancer is 66 years ("Risk Factors", 2021).

IPE and Breast Cancer

Good interprofessional collaboration can result in a decrease of adverse effects in patient care. Interprofessional collaboration is "becoming increasingly important in the specialty of oncology… oncology patients can benefit from interprofessional collaboration" (Knoop et al., 2017, p. 459). When it comes to the early detection of breast cancer, "the contribution of breast imaging and the diagnosis of breast cancer is crucial and for early detection and improving the survival rate" (Strom et al., 2018, p. 170). Many different members on a interprofessional team can contribute to the early detection of breast cancer. According to Strom et al. (2018), there are many ways an interprofessional team can collaborate when it comes to the early detection of breast cancer:

- Radiographers, nurses, and midwives can work together explain awareness, risks, and benefits of breast cancer screenings.
- Nurses and radiographers can work together to determine patients are risk of breast cancer
- A radiographer can perform mammograms or ultrasounds to detect cancer and support any suspicious findings from the imaging.

an


.

Effects of Annual Cancer Screenings

As routine screening shows the benefits of decreasing the risks of breast cancer, the goal of these screenings are there to catch cancers early. The majority of screening for breast cancer is with a **mammogram**.

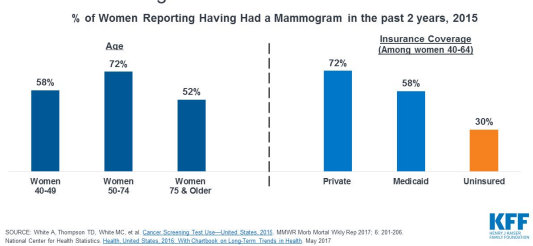
- **Mammogram**: a series of x-rays taken of the breast to look for abnormal areas or small white spots "micro/microcalcification" (calcium) on the breast (American Cancer Society, 2020).

This screening process can look for signs of breast cancer on the tissue before the physical check for lumps on the breasts (American Cancer Society, 2019). Studies have shown that women who have routine mammograms have a **10%** to **25%** less chance of dying from breast cancer than women who do not have routine mammograms (Jin, 2014). In the United States, the U.S Preventive Services Task Force recommends that women ages 50 to 74 years get a screening every 2 years (Jin, 2014).

PICO Question

How does access to cancer prevention information and annual cancer screenings in adults aged forty and older, impact cancer diagnosis outcomes?

Figure 1:
Mammography Use in the United States by Age Group and Insurance Coverage



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.

Outcomes of Cancer Screenings

- National Breast Cancer and Cervical Cancer Early Detection program (NBCCEDP)- provides breast and cervical cancer screening to low-income
  - Among 1.8 million women, the program saved 100,800 life-years compared with no program and 369,000 life-years compared with no screening
  - Per women screened the program saved 0.056 life years compared with no program and 0.206 life-years compared with no screening
- Study investigating the effect of mammographic screening on the individual level. Looking at association of screening history with breast cancer death
  - Found a breast cancer mortality reduction of 70% in screened women compared to unscreened women

Summary

Cancer can be easily detected by screenings. Annual screenings are extremely important in order to detect cancer early. Yearly mammograms for women can detect breast cancer early. Early detection can save the life years of women. The mortality rate of of those who are annually screened can be decreased by up to 70% compared to those who are not screened.

References

- *All Patients, regardless of Insurance, Must Have Access to Cancer Screening. ONS Voice. (2021).* https://voice.ons.org/news-and-views/all-patients-regardless-of-insurance-must-have-access-to-cancer-screening
- *American Cancer Society. (2019, October 3). What Does the Doctor Look for on a Mammogram?*
- *American Cancer Society. (2020, March 5). Mammogram Basics.*
- Centers for Disease Control and Prevention (2021). *Leading cause of death.*
- Hoerger, T. J., Ekwueme, D. U., Miller, J. W., Uzunangelov, V., Hall, I. J., Segel, J., Royalty, J., Gardner, J. G., Smith, J. L., & Li, C. (2011). Estimated effects of the National Breast and Cervical Cancer Early Detection Program on breast cancer mortality. *American journal of preventive medicine*, *40*(4), 397–404. https://doi.org/10.1016/j.amepre.2010.12.017
- Jin, J. (2014). Breast Cancer Screening: Benefits and Harms. *JAMA*. 312(23):2585. doi:10.1001/jama.2014.13195
- Knoop, T., Wujcik, D., & Wujcik, K. (2017). Emerging models of interprofessional collaboration in cancer care. *Seminars in Oncology Nursing*, *33*(4), 459-463. https://doi.org/10.1016/j.soncn.2017.08.009
- Paap, E., Holland, R., Den Heeten, G., Van Schoor, G., Botterweck, A., Verbeek, A., & Broeders, M. (2010). A remarkable reduction of breast cancer deaths in screened versus unscreened women: A case-referent study. *Cancer Causes & Control*, *21*(10), 1569-1573. Retrieved March 19, 2021, from http://www.istor.org/stable/40864265
- *Risk Factors: Age.* National Cancer Institute. (2021). https://www.cancer.gov/about-cancer/causes-prevention/risk/age#:~:text=According%20to%20the%20most%20recent,in%20people%20above%20this%20age.
- Simmons, M. A. F. and K. (2020). *The ACA's Effect on Access to Cancer Screening and Care - The First 10 Years*. American Cancer Society. https://www.cancer.org/latest-news/aca-effect-on-access-to-cancer-screening-care.html.
- Strøm, B., Jorge J. A. P., Meystre, N. R., Kukkes, T., Metsälä, E., & Hafslund, B. N. (2018). Interprofessional work in early detection of breast cancer: An integrative review. *Radiography*, *25*(2), 170-177. https://doi.org/10.1016/j.radi.2018.11.005