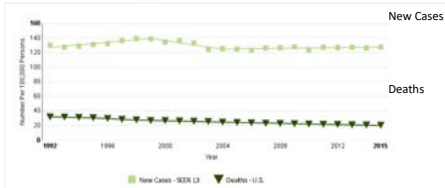


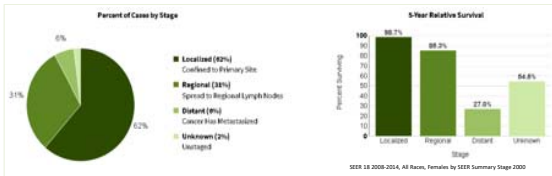
Breast Cancer

Breast Cancer in the United States:

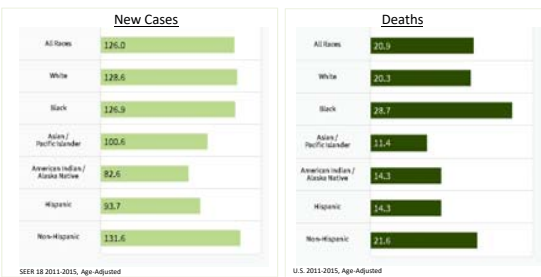
Breast cancer incidence and mortality trends (1992-2015)



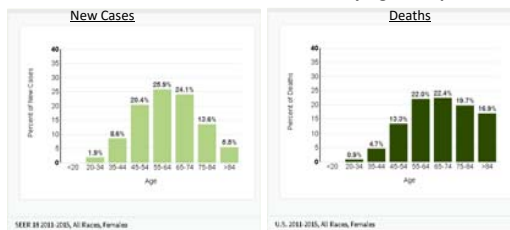
Percent of Cases and 5-year Relative Survival by Stage at Diagnosis



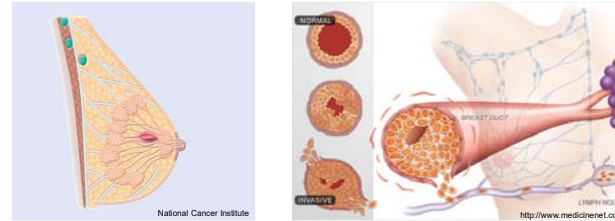
Number of New Cases and Deaths per 100,000 Persons by Race/Ethnicity



Percent of New Cases and Deaths by Age Group

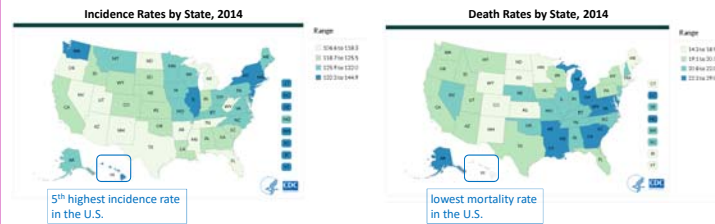


<https://seer.cancer.gov/statfacts/html/breast.html>

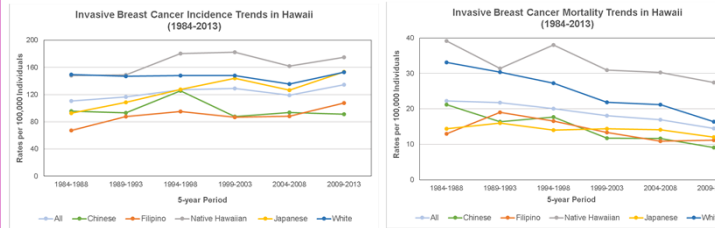


- Changes or mutations in the genome (DNA) can cause normal breast cells to become cancer cells.
- Breast cancers can start from different tissue in the breast.
- The most common form of breast cancer originate from the cells that line the ducts that normally function to carry milk to the nipple.
- Breast cancer cells can go into the blood or lymph system and spread to different parts of the body.

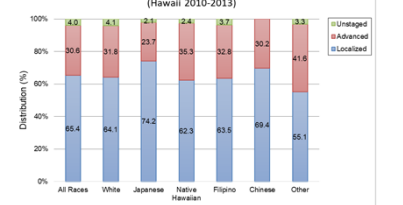
Breast Cancer in Hawaii:



Racial/Ethnic Differences in Incidence, Mortality, and Stage at Diagnosis



Breast Cancer Racial/Ethnic Stage Distribution (Hawaii 2010-2013)



Breast Cancer Risk Factors:

- A breast cancer risk factor is anything that contributes to developing breast cancer. There are risk factors that you can change and others that you cannot.
- **Risk factors that you can change:**
 - Diet
 - Drinking alcohol
 - Being overweight or obese
 - Physical activity
 - Having children; Breast feeding
 - Oral contraceptives; Hormone replacement therapy
- **Risk factors that you cannot change:**
 - Gender – being a women
 - Aging – getting older
 - Genetics – gene mutations

Highlights of Breast Cancer Research from the Multiethnic Cohort:

- There was a total of 3111 [Native Hawaiian (n=626), Japanese (n=1503), and White (n=982)] invasive breast cancer cases diagnosed between 1993-2013 in the Hawaii component of the Multiethnic Cohort.
- Native Hawaiian and Japanese have a higher proportion of hormone receptor (ER and PR) positive breast cancer compared to White, African American, and Latina women. African American women have a higher proportion of hormone receptor negative breast cancer compared to White women. *American Journal of Epidemiology* 2009
- High BMI and adult weight gain increase risk of developing postmenopausal breast cancer. Native Hawaiians and Japanese have greater risk. *International Journal of Cancer* 2012
- Dietary fat intake did not increase risk of developing postmenopausal breast cancer. *Cancer Prevention Research* 2012
- Mammographic screening participation in the Multiethnic Cohort was similar across racial/ethnic groups (~84%); White (89%) and Japanese (88%) women reported the highest screening participation. *Cancer Epidemiology* 2014
- Women who smoked more than 5 years before their first pregnancy had a higher risk of developing breast cancer compared to women who did not smoke. *American Journal of Epidemiology* 2015