



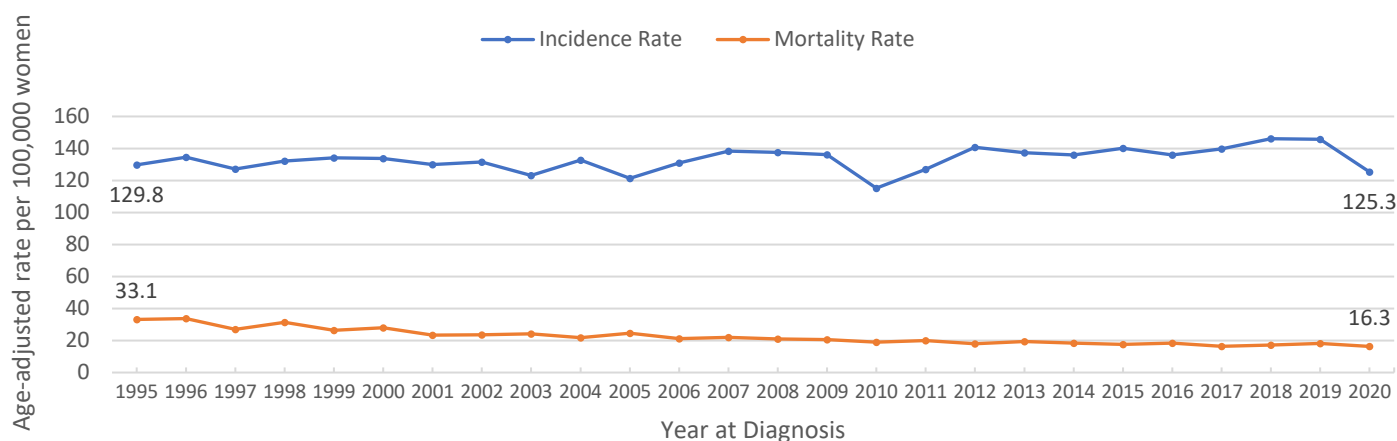
The Burden of Breast Cancer in Rhode Island

Prepared by the Rhode Island Cancer Registry (RICR), May 2024

Breast Cancer Overview

Breast cancer is one of the most commonly diagnosed cancers in Rhode Island, accounting for approximately 13% of new cancer cases annually and 7% of cancer deaths.^{1,2} From 1995 through 2020, yearly incidence (newly diagnosed cases) of breast cancer (by age-adjusted rate) among Rhode Island women remained relatively stable, on average. Mortality rate (age-adjusted deaths caused by breast cancer) has steadily decreased since 1995 (**Figure 1**). In 2020, among Rhode Island residents, the age-adjusted rate for new breast cancer cases was 125.3 cases per 100,000 women and the age-adjusted rate for breast cancer deaths was 16.3 deaths per 100,000 women. A decline in incidence rate in 2020 may be the result of disrupted health services that reduced cancer screening and diagnosis during the COVID-19 pandemic.³

Figure 1. Trends of Breast Cancer Incidence and Mortality, RICR 1995-2020



Rates are per 100,000 and age-adjusted to the 2000 US Standard Population (19 age groups - Census P25-1130).

Invasive malignant breast cancers among females are included. Figure includes breast cancer rates among Rhode Island women. Source: Rhode Island Cancer Registry (RICR).

Breast Cancer Incidence and Mortality in Rhode Island Women by Race and Ethnicity

In Rhode Island, breast cancer cases are most frequently diagnosed among non-Hispanic White women (the largest population in the state). From 2000-2010 to 2011-2020, the number of newly diagnosed breast cancer cases decreased among non-Hispanic White women but increased slightly among other racial and ethnic subgroups (**Table 1.1**).

The number of deaths from breast cancer among non-Hispanic White women declined from 2000-2010 to 2011-2020; deaths from breast cancer among non-Hispanic Black, non-Hispanic Asian or Pacific Islander, and Hispanic women slightly increased during these years (**Table 1.2**). Further study is needed to establish factors that may contribute to these differences in incidence and mortality among racial and ethnic groups.

Table 1.1 Breast Cancer Incidence (Newly Diagnosed Cases) by Race/Ethnicity, RICR 2000-2020¹

Years	Non-Hispanic White	Non-Hispanic Black	Non-Hispanic American Indian or Alaska Native	Non-Hispanic Asian or Pacific Islander	Hispanic	Total*
2000-2010	8,525 (92%)	279 (3%)	20 (<1%)	67 (1%)	374 (4%)	9,300
2011-2020	8,268 (87%)	353 (4%)	35 (<1%)	153 (2%)	597 (6%)	9,502

*All cell values do not add up to the totals, due to missing or unknown information on race and ethnicity. The totals include incident cases with missing or unknown information on race/ethnicity. There were 35 incident cases in 2000-2010 and 96 incident cases in 2011-2020 that had unknown information on race/ethnicity. Table includes breast cancer cases among Rhode Island women. Source: Rhode Island Cancer Registry (RICR).

Table 1.2 Breast Cancer Mortality (Deaths) by Race/Ethnicity, RICR 2000-2020²

Years	Non-Hispanic White	Non-Hispanic Black	Non-Hispanic American Indian or Alaska Native	Non-Hispanic Asian or Pacific Islander	Hispanic	Total*
2000-2010	1,649 (95%)	55 (3%)	<20	<20	34 (2%)	1,738
2011-2020	1,215 (90%)	71 (5%)	<20	<20	47 (3%)	1,346

*Due to data unavailable for counts less than 20, the totals exclude deaths from breast cancer with missing or unknown information on race/ethnicity and exclude cells with a count less than 20. Table includes deaths from breast cancer among Rhode Island women. Source: Rhode Island Cancer Registry (RICR).

The Importance of Age and Staging of Breast Cancer Diagnosis in Survival

The National Cancer Institute’s Surveillance, Epidemiology, and End Results (SEER) Program collects and tracks cancer incidence, mortality, survival, and diagnosis stage data in the United States. SEER reports that the national median age at diagnosis for female breast cancer is age 63 (2017-2021).⁴ In Rhode Island, breast cancer was most frequently diagnosed among women ages 50-64 (2016-2020) (**Figure 2**).

According to SEER 2014-2020 data, 91.2% of women who were diagnosed with breast cancer for the first time lived for at least 5 years after their diagnosis.⁴ As stage at diagnosis can impact survival, earlier stage breast cancer diagnosis (such as a localized stage) generally has greater likelihood for favorable prognosis than late-stage disease (such as the distant stage). Notably, within each age group, most women (≥59%) received early diagnosis at the localized stage, from 2016-2020 (**Figure 3**). By age group, Rhode Island women ages 65-74 were most likely to have cancer diagnosed at the localized stage (78%) compared to women ages 75 and older (74%), women ages 50-64 (70%), and women ages 20-49 (59%).

Additionally, Rhode Island 2016-2020 data by racial and ethnic group demonstrated a lower percentage of localized stage diagnoses among non-Hispanic Black (60%), non-Hispanic American Indian or Alaska Native (55%), and Hispanic women (66%) compared with non-Hispanic White women (73%)—an indication that these women were more likely to receive later-stage diagnoses (**Figure 4**). Women identifying as Non-Hispanic Asian or Pacific Islander had the same percentage of localized stage diagnoses (73%) compared with non-Hispanic White women (73%), though the overall case count (n=92) and relative population total was lower. More studies are necessary to determine how to eliminate differences in stage at breast cancer diagnosis among racial and ethnic groups.

Figure 2. Age at Breast Cancer Diagnosis, RICR 2016-2020 (n=4,875)

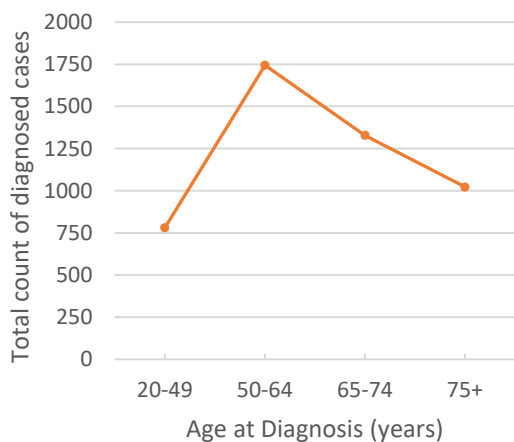
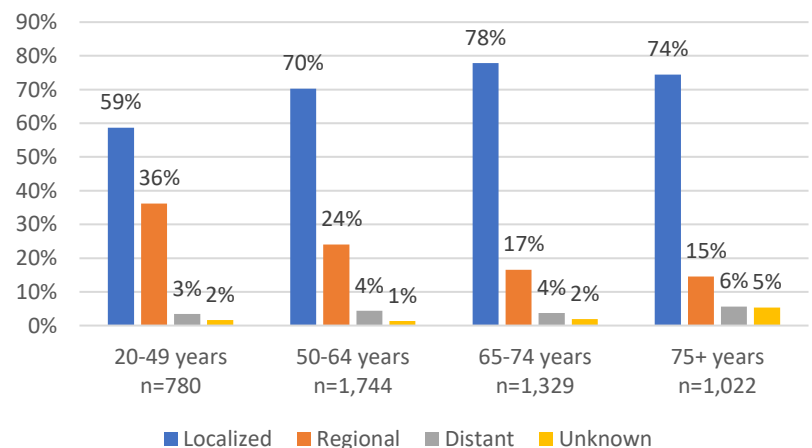


Figure 3. Stage at Breast Cancer Diagnosis by Age Group, RICR 2016-2020



Figures include breast cancer cases among Rhode Island women. Source: Rhode Island Cancer Registry (RICR).

Cancer staging terminology: At localized stage, the cancer is confined to a primary site; in the regional stage the cancer has spread to regional lymph nodes; in the distant stage, cancer has metastasized.

Figure 4. Stage at Breast Cancer Diagnosis by Race/Ethnicity, RICR 2016-2020

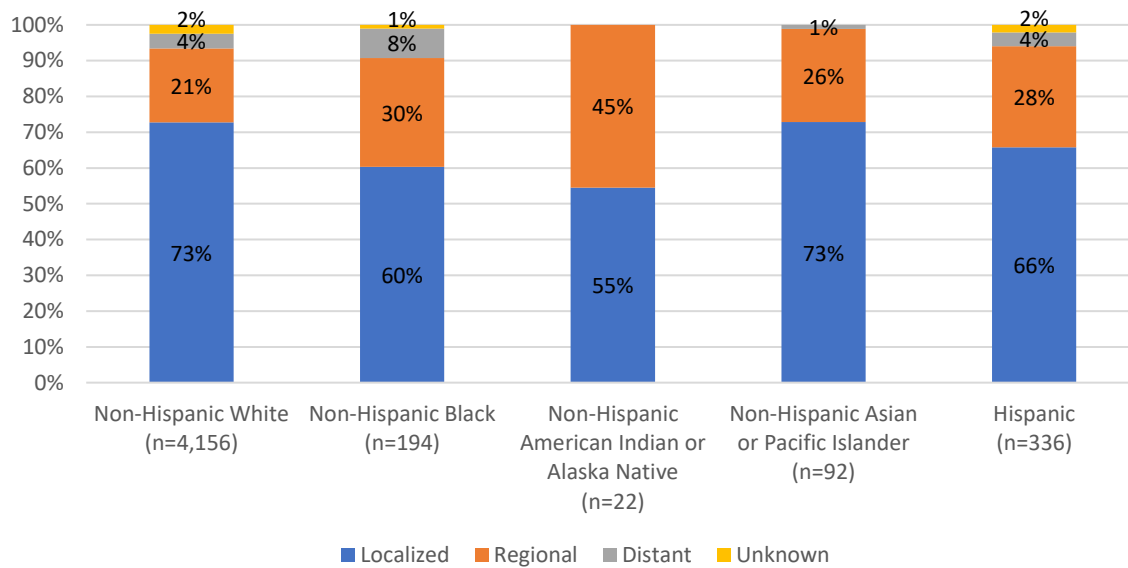


Figure 4 excludes 75 cases that have an unknown race (non-Hispanic). Figure includes breast cancer cases among Rhode Island women. Source: Rhode Island Cancer Registry (RICR). Cancer staging terminology: At localized stage, the cancer is confined to a primary site; in the regional stage, the cancer has spread to regional lymph nodes; in the distant stage, cancer has metastasized.

References

1. Rhode Island Cancer Data (extracted February 2022). Rhode Island Cancer Registry.
2. Rhode Island Vital Records & CDC National Center for Health Statistics. (extracted and analyzed using SEER*Stat software v8.4.0, February 2022).
3. Centers for Disease Control and Prevention. *U.S. Cancer Statistics: Highlights from 2020 Mortality and Incidence with Comparison to 2019 Incidence to Assess the Effect of the COVID-19 Pandemic*. USCS Data Brief, no. 35. Atlanta, GA: Centers for Disease Control and Prevention, US Department of Health and Human Services; 2023.
4. NIH SEER Program. Cancer Stat Facts: Female Breast Cancer. <https://seer.cancer.gov/statfacts/html/breast.html>

Acknowledgment

This report was supported by Cooperative Agreement Number NU58DP007118, funded by the Centers for Disease Control and Prevention.