







ARTICLE

Breast cancer statistics 2024

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Abstract

This is the American Cancer Society's biennial update of statistics on breast cancer among women based on high-quality incidence and mortality data from the National Cancer Institute and the Centers for Disease Control and Prevention. Breast cancer incidence continued an upward trend, rising by 1% annually during 2012–2021, largely confined to localized-stage and hormone receptor-positive disease. A steeper increase in women younger than 50 years (1.4% annually) versus 50 years and older (0.7%) overall was only significant among White women. Asian American/Pacific Islander women had the fastest increase in both age groups (2.7% and 2.5% per year, respectively); consequently, young Asian American/Pacific Islander women had the second lowest rate in 2000 (57.4 per 100,000) but the highest rate in 2021 (86.3 per 100,000) alongside White women (86.4 per 100,000), surpassing Black women (81.5 per 100,000). In contrast, the overall breast cancer death rate continuously declined during 1989–2022 by 44% overall, translating to 517,900 fewer breast cancer deaths during this time. However, not all women have experienced this progress; mortality remained unchanged since 1990 in American Indian/Alaska Native women, and Black women have 38% higher mortality than White women despite 5% lower incidence. Although the Black-White disparity partly reflects more triple-negative cancers, Black women have the lowest survival for every breast cancer subtype and stage except localized disease, with which they are 10% less likely to be diagnosed than White women (58% vs. 68%), highlighting disadvantages in social determinants of health. Progress against breast cancer could be accelerated by mitigating racial, ethnic, and social disparities through improved clinical trial representation and access to high-quality screening and treatment.

KEYWORDS

breast neoplasms, breast cancer, epidemiology, health disparities, incidence, mortality, molecular subtype

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INTRODUCTION

Despite decades of declining mortality through earlier detection and advancements in treatment, breast cancer remains the second leading cause of cancer death among women overall and the leading cause of cancer death in Black and Hispanic women. Continued progress may be thwarted by rising breast cancer incidence and long-term consequences of the coronavirus disease 2019 (COVID-19) pandemic, such as delayed diagnosis because of interruptions in routine care. For example, breast cancer screening prevalence in the United States and Canada declined by an estimated 45% overall during January through October 2020 according to one review,¹ and past-year mammography had not returned to prepandemic levels in 2021.² Disturbances in care were greater and recovery slower in minoritized populations,³ which may further widen racial and ethnic disparities in breast cancer mortality. However, the impact of these disruptions on population-level breast cancer occurrence and outcomes will play out slowly over time.

Herein, the American Cancer Society provides its biennial update of breast cancer statistics among women in the United States, including the estimated numbers of new cases and deaths in 2024 by age; incidence and mortality rates and trends by age, race and ethnicity, stage, molecular subtype, and state; 5-year breast cancer survival by stage at diagnosis and breast cancer subtype; and self-reported mammography prevalence nationally and by state.

MATERIALS AND METHODS

Data source

Population-based cancer incidence data in the United States are collected by the National Cancer Institute's (NCI's) Surveillance, Epidemiology, and End Results (SEER) program and the Centers for Disease Control and Prevention's National Program of Cancer Registries. Combined data from the SEER program and the National Program of Cancer Registries data provided by the North American Association of Central Cancer Registries^{4,5} were the source for short-term incidence trends (1998–2021) and contemporary incidence rates (2017–2021) by race and ethnicity, age, molecular subtype, state, and stage (SEER summary). Information on breast cancer molecular subtypes has been collected by all cancer registries since 2004. Cases diagnosed during the periods 1998–2021 and 2017–2021 both reflect 99% population coverage.

Long-term incidence trends (1975–2021) for ductal carcinoma in situ (DCIS) and invasive breast cancer by age were based on previously published data from 1975 through 2018 from the nine oldest SEER registries, covering 9% of the US population, while rates from 2018 through 2021 are from eight registries (excluding Detroit).^{6,7} Data from all 22 SEER registries, covering 48% of the US population, were used for the lifetime and age-specific probability of developing breast cancer.⁸ Data from all SEER registries except Illinois and Massachusetts were used in analyses of breast cancer survival by

SEER summary stage, race and ethnicity, and molecular subtype for cases diagnosed during 2014–2020 and following through 2021.⁹

Mortality data from 1975 to 2022 are based on the underlying cause of death on death certificates reported by the National Center for Health Statistics (NCHS) covering all 50 states and the District of Columbia and were obtained by using the NCI's SEER*Stat software.^{10,11} Information on death certificates regarding Hispanic origin has been available since 1990 from every state except Louisiana (1991), New Hampshire (1993), and Oklahoma (1997).

Prevalence data on self-reported mammography use by demographics were obtained from the 2021 National Health Interview Survey,¹² which is designed to provide national estimates of health behaviors based on in-person surveys and is conducted by the NCHS. Self-reported mammography use by state was obtained from the 2022 Behavioral Risk Factor Surveillance System, which is an ongoing system of telephone surveys designed to provide state-level information on health behaviors and is conducted by state health departments in cooperation with the Centers for Disease Control and Prevention.¹³ Mammography prevalence estimates do not distinguish between examinations for screening and diagnosis.

Statistical analysis

The information provided herein applies to breast cancer in women unless otherwise specified. The overall estimated numbers of new invasive breast cancer and DCIS cases in 2024 were published elsewhere, and the methodology was described previously.¹⁴ The number of age-specific invasive cases and deaths from breast cancer were estimated by first applying the age-specific proportions of observed invasive breast cancer cases diagnosed nationally (2016–2020) and deaths (2017–2021) to the total estimated counts and then adjusting to previously published, modeled age-group estimates. The number of age-specific DCIS cases was estimated by applying the age-specific proportions of observed DCIS cases diagnosed nationally during 2016–2020 applied to the total number of estimated cases of DCIS in 2024.

All incidence and death rates were age-standardized to the 2000 US standard population (19 age groups) and are expressed per 100,000 women, as calculated by using the NCI's SEER*Stat software (version 8.4.3).¹⁵ Incidence rates are also adjusted for delays in case reporting based on composite national delay factors, with the exception of those presented by state. Trends in incidence and mortality rates were quantified using the NCI's Joinpoint Regression Program to calculate the annual percent change (APC) and the average annual percent change (AAPC) during a defined time period.¹⁶ All incidence trends were adjusted for delays in reporting to account for the additional time required for the complete registration of cases unless otherwise specified. The age-specific probability of developing or dying from breast cancer was calculated using the NCI's DevCan software (version 6.7.5) and used data years 2018–2019 and 2021.¹⁷ To avoid potential bias from the abrupt reduction in cancer incidence rates during the first year of the

COVID-19 pandemic, we excluded data from 2020 in modeling analyses that quantified incidence trends and the probability of developing or dying from breast cancer (for more information, see Mariotto et al.).¹⁸

Incidence and mortality rates for White, Black, American Indian/Alaska Native (AIAN), and Asian American/Pacific Islander (AAPI) women are exclusive of individuals with Hispanic ethnicity, except for long-term trends to reduce racial misclassification. Incidence rates for AIAN women are restricted to Purchased/Referred Care Delivery Areas, whereas mortality rates are for the entire United States and are adjusted for racial misclassification using the ratios reported by Arias et al.¹⁹

Missing data on estrogen receptor (ER), progesterone receptor (PR), and human epidermal growth factor receptor 2 (HER2) status were imputed using the approach of Anderson et al.,²⁰ which assumes that this information is missing at random, conditional on year of diagnosis, age, and race and ethnicity. Specifically, two-step imputation was performed based on the joint distribution of ER (positive, negative, and missing or borderline) and PR (positive, negative, and missing or borderline) status. In the first step, those cases with missing ER or PR (not both) status were allocated to either negative or positive receptor status according to the distribution of known joint ER/PR status in each diagnosis year, age, and race and ethnicity. In the second step, those cases missing both ER and PR status were allocated to a hormone receptor (HR)-positive group (defined as either ER-positive or PR-positive) and an HR-negative group (defined as both ER-negative and PR-negative), according to the updated distribution of HR status obtained in the first step. Similarly, for joint categories of HR and HER2, we first imputed HR status among cases with known HER2 status, then imputed and allocated those with unknown HER2 status to either HER2-negative or HER2-positive. Finally, we allocated cases with both unknown HR and HER2 status to the four subtypes according to their updated distributions obtained in the previous steps. Standard errors used for Joinpoint analysis were calculated using the delta method.

The estimated number of deaths from breast cancer averted in women because of the reduction in breast cancer death rates since 1989 was estimated by summing the differences between the expected and observed numbers of deaths for each consecutive year through 2022. The expected number of deaths was based on the assumption that breast cancer death rates remained at their peak 1989 level and were estimated by applying 5-year age-specific cancer death rates in 1989 to the corresponding age-specific female populations from 1990 to 2022.

SELECTED FINDINGS

Estimated number of breast cancer cases and deaths in 2024

In 2024, approximately 310,720 new cases of invasive breast cancer and 56,500 cases of DCIS will be diagnosed among US

TABLE 1 Estimated new ductal carcinoma in situ and invasive breast cancer cases and breast cancer deaths among women by age, United States, 2024.

Age, years	DCIS cases		Invasive cases		Deaths	
	No.	%	No.	%	No.	%
<40	1360	2	13,180	4	990	2
40–49	8750	15	37,650	12	2620	6
50–59	13,760	24	67,310	22	6800	16
60–69	17,660	31	89,540	29	10,010	24
70–79	11,890	21	69,130	22	10,140	24
≥80	3080	5	33,910	11	11,690	28
All ages	56,500	100	310,720	100	42,250	100

Note: Estimates are rounded to the nearest 10. Percentages may not sum to 100% because of rounding.

Abbreviation: DCIS, ductal carcinoma in situ.

women, and 42,250 women will die from breast cancer. The majority of invasive breast cancer cases (84%) and deaths (91%) occur among women aged 50 years and older, with about one half (52%) of all deaths in women aged 70 years or older (Table 1). The median age at diagnosis for breast cancer in women is 62 years overall, but it is younger for Hispanic (57 years), AAPI (57 years), Black (60 years), and AIAN (60 years) women compared with White women (64 years),⁸ partly because these populations are younger. The median age at breast cancer death is 69 years overall, ranging from 63 to 64 years for Hispanic, AAPI, and Black women to 70 years among White women.²¹ Although breast cancer predominantly affects women, 2790 cases and 530 deaths (approximately 1% of all breast cancer cases and deaths) are expected in men in 2024.

Probability of developing or dying from invasive breast cancer

Approximately one in eight women in the United States, or 13%, will be diagnosed with invasive breast cancer, and one in 43, or 2%, will die from the disease (Table 2). These lifetime risks are for women at average risk of the disease and account for deaths from other causes that may preempt a breast cancer diagnosis. The risk of being diagnosed with breast cancer peaks in women aged 70–79 years (4.2%), whereas the risk of dying from the disease continues to increase throughout life.

Breast cancer characteristics by race and ethnicity

Breast cancer tumor characteristics, such as subtype, size, and stage at diagnosis, differ substantially by race and ethnicity in the United States (Table 3). Most women are diagnosed with localized-stage

TABLE 2 Age-specific 10-year probability of breast cancer diagnosis (2018–2019, 2021) or death (2020–2022) for women, United States.

Current age, years	Diagnosed with invasive breast cancer		Dying from breast cancer	
	Percentage	1 in	Percentage	1 in
20	0.1%	1 in 1344	<0.1%	1 in 19,247
30	0.5%	1 in 198	<0.1%	1 in 2192
40	1.6%	1 in 62	0.1%	1 in 723
50	2.5%	1 in 41	0.3%	1 in 348
60	3.6%	1 in 28	0.5%	1 in 217
70	4.2%	1 in 24	0.7%	1 in 141
80	3.1%	1 in 32	1.0%	1 in 103
Lifetime risk	13.1%	1 in 8	2.3%	1 in 43

Note: The probability is among those who have not been previously diagnosed with cancer and reflects the likelihood of diagnosis/death within 10 years of current age. Percentages and “1 in” numbers may not be numerically equivalent due to rounding.

disease, although the proportion ranges from 58% among Black women to 68% among White women. Notably, a recent study estimated that 61% of women living with metastatic breast cancer were originally diagnosed with stage I–III disease.²² Black women are also most likely to be diagnosed with tumors that are ≥ 5 cm (12% vs. 7% among White women) and high grade (38% vs. 24% among White women).

The most common molecular subtype in each racial and ethnic group is HR-positive/HER2-negative, with the largest proportion in White women. In contrast, Black women have twice the proportion of HR-negative/HER2-negative (triple-negative) breast cancer (19%) compared with every other group (9%–11%). Although the reasons for this variation are not well understood, studies have demonstrated that some differences correlate with nativity and ancestry among both Black women²³ and AAPI women.^{24,25} Variations in tumor characteristics likely also reflect social determinants of health, such as poverty and residential racial segregation.²⁶

Contemporary breast cancer occurrence

Incidence

The average annual age-standardized incidence rate for breast cancer in women was 131.8 per 100,000 women during 2017–2021, ranging from 104.1 per 100,000 in Hispanic women to 137.9 per 100,000 in White women (Figure 1). Incidence increases with age until the seventh decade of life and declines rapidly thereafter (Figure 2), reflecting less screening and under-ascertainment of cancers among older women. Racial and ethnic differences in incidence vary somewhat by age. For example, Black

women have the highest rate before age 40 years and at ages 55–59 years but the second highest rate in other age groups, whereas Hispanic women have rates similar to those of White women before age 40 years but have the second lowest rates at age 60 years and older.

Importantly, incidence rates across the five broadly defined racial and ethnic groups mask wide heterogeneity within these populations by nativity, geography, and socioeconomic status. For example, despite 21% lower breast cancer incidence in AAPI women compared with White women nationally, a recent study reported an 11% higher incidence among Native Hawaiian women.²⁷ Another study found that Hispanic women born in the United States have 38% higher breast cancer incidence than those born outside of the United States.²⁸ Currently, there are few nationally representative cancer registries that capture information on ancestral identity beyond the five Office of Management and Budget minimum categories, despite the growing need for disaggregated data, that becomes more evident as the Hispanic and AAPI populations grow.²⁹

Variation by molecular subtype

Figure 3 illustrates incidence rates by breast cancer subtype, age, and race and ethnicity. The widest racial and ethnic variation is for HER2-negative cancers. These and age-related differences likely reflect the prevalence of breast cancer risk factors^{30–32} and mammography use,³³ as well as genetic variation and family history.^{34,35} The incidence of HR-positive/HER2-negative cancer, which typically has the best prognosis, follows the same racial and ethnic pattern as breast cancer overall among women aged 20 years and older, with the highest rate in White women and the lowest in Hispanic women.

Black women have incidence rates of triple-negative breast cancer (HR-negative/HER2-negative)—approximately two to three times those in all other women among both younger and older age groups. As noted previously, reasons remain unclear but may partly reflect genetic factors, particularly those associated with West African ancestry.^{23,36} However, accumulating evidence points to the importance of factors associated with the social determinants of health and structural racism, such as less breastfeeding (which lowers risk),^{37,38} neighborhood segregation, and socioeconomic status.^{39–41} For example, an unfavorable neighborhood environment—measured by healthy food availability, alcohol prevalence, hazardous environment, and breastfeeding indicators—has been associated with increased risk of triple-negative breast cancer after controlling for race and age.⁴²

Survival

Breast cancer survival varies widely by stage at diagnosis, molecular subtype, and other clinicopathologic features. Stage at diagnosis is the strongest prognostic indicator, with the 5-year relative

TABLE 3 Breast cancer patient and tumor characteristics by race and ethnicity, United States, 2017–2021.

Characteristic	Prevalence (%)					
	All races	White	Black	Hispanic	AAPI	AIAN
Mammography^a						
Past year	49	51	55	44	44 ^b	31
Past 2 years	67	68	73	65	62 ^b	51
Age at diagnosis						
20–29 years	1	<1	1	1	1	1
30–39 years	4	3	5	7	6	5
40–49 years	13	11	15	20	22	15
50–59 years	21	20	24	25	25	23
60–69 years	28	29	28	25	25	30
70–79 years	23	25	18	15	15	19
≥80 years	11	12	8	7	6	7
SEER summary stage						
Local	66	68	58	60	65	60
Regional	25	24	31	31	27	29
Distant	6	5	8	6	5	7
Unstaged	3	3	3	4	2	4
Tumor size, cm						
<2.0	55	58	46	48	51	47
2.0–4.9	31	29	34	34	34	34
≥5	8	7	12	10	9	10
Unknown	6	6	8	8	5	9
Grade^c						
Low	20	22	12	16	17	22
Intermediate	43	45	37	41	44	41
High	27	24	38	31	29	28
Unknown	10	9	12	12	10	10
ER status						
Positive	80	83	69	77	81	78
Negative	16	14	27	18	16	17
Unknown	4	4	4	5	4	5
Subtype						
HR+/HER2–	70	73	59	65	68	68
HR+/HER2+	9	9	10	10	11	10
HR–/HER2+	4	3	5	5	6	4
HR–/HER2–	10	9	19	11	9	11
Unknown	7	6	7	8	6	7

Note: Percentages may not sum to 100% due to rounding. Race is exclusive of Hispanic ethnicity.

Abbreviations: – indicates negative; +, positive; AAPI, Asian American/Pacific Islander; AIAN, American Indian/Alaska Native; ER, estrogen receptor; HER2, human epidermal growth factor 2; HR, hormone receptor; SEER, Surveillance, Epidemiology, and End Results.

^aMammography prevalence estimates are for women 40 years and older and age adjusted to the 2000 US standard population using three age groups: 40–49, 50–64, and 65+ years.

^bMammography estimate does not include Pacific Islander women.

^cData by grade were limited to cases diagnosed from the SEER 22 registries because of a high portion of missing data in the North American Association of Central Cancer Registries.

survival rate ranging from >99% for localized stage disease to 87% for regional stage and 32% for distant stage disease. Black women have the lowest survival for regional and distant stage disease,

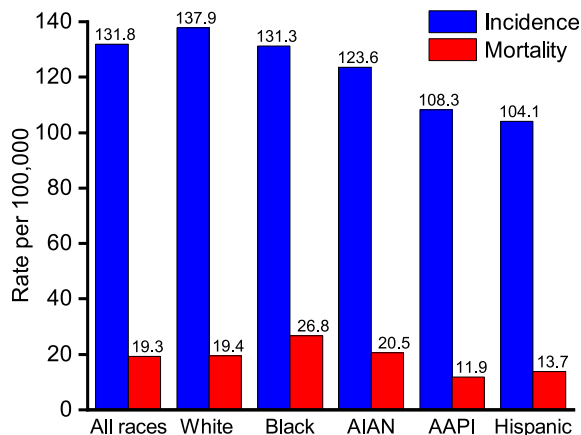


FIGURE 1 Female breast cancer incidence (2017–2021) and mortality (2018–2022) rates by race/ethnicity, United States. Rates are age adjusted to the 2000 US standard population, and incidence rates are adjusted for delays in reporting. Race is exclusive of Hispanic origin. Incidence data for AIAN women are confined to Purchased/Referred Care Delivery Area counties, whereas mortality data are for the entire United States with adjustments for racial misclassification on death certificates. AAPI indicates Asian American/Pacific Islander; AIAN, American Indian/Alaska Native.

with the largest deficit compared with White women for regional stage (79% vs. 89%; Figure 4). Although breast cancer survival rates for AAPI and Hispanic women are largely comparable to those for White women, this metric is known to be overestimated for populations with a substantial proportion of foreign-born individuals because of incomplete follow-up of vital status.⁴³ For example, patients who are lost to follow-up because they leave the United States to return to their country after diagnosis are presumed alive. Survival also varies widely within these broadly-defined heterogeneous groups. For example, the 5-year relative breast cancer survival rate among AAPI women ranges from 94% in those who are Japanese to 72% in those who are Tongan,⁴⁴ and Caribbean-born Black women have higher survival than their US-born counterparts.⁴⁵

Survival rates are highest for HR-positive/HER2-negative (luminal A surrogate) tumors and lowest for HR-negative/HER2-negative (triple-negative) tumors in women of every racial and ethnic group (Figure 5). Compared with other subtypes, people with triple-negative breast cancers are more likely to be diagnosed at an advanced stage and have fewer effective treatment options.^{46,47} Still, Black women have the lowest 5-year relative survival (73%) compared with other racial and ethnic groups (76%–81%) for this subtype. Differences in neighborhood characteristics and receipt of chemotherapy and surgery are contributors to this disparity, but do not fully explain the differences.^{48,49}

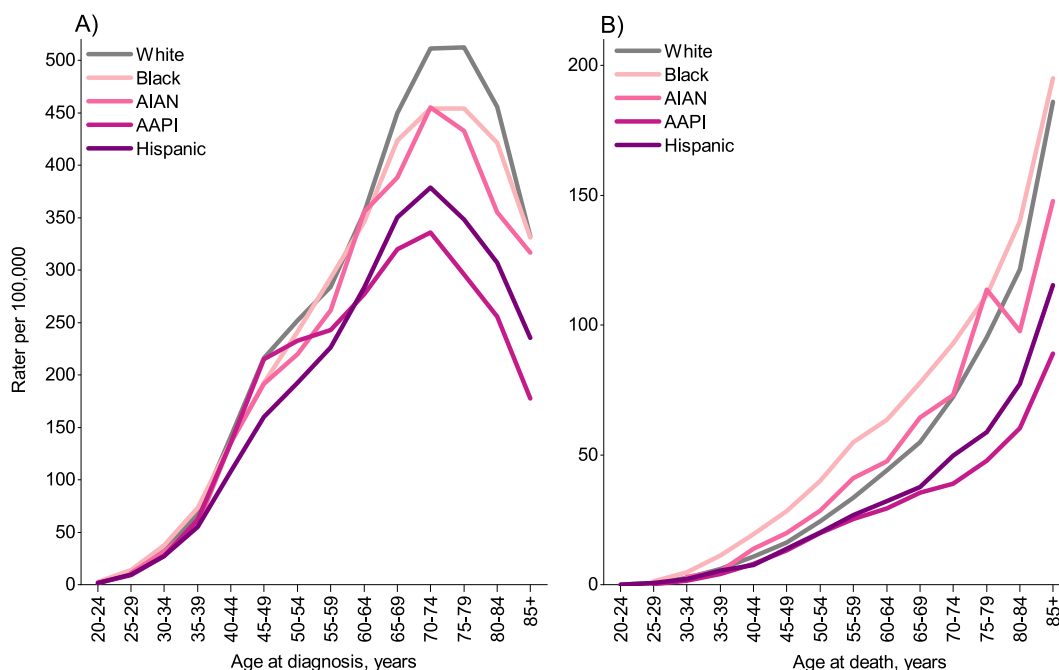


FIGURE 2 Age-specific female breast cancer (A) incidence (2017–2021) and (B) mortality (2018–2022) rates by race/ethnicity, United States. Rates are age adjusted to the 2000 US standard population, and incidence rates are adjusted for delays in reporting. Race is exclusive of Hispanic origin. Incidence data for AIAN women are confined to Purchased/Referred Care Delivery Area counties, whereas mortality data are for the entire United States with adjustments for racial misclassification on death certificates. AAPI indicates Asian American/Pacific Islander; AIAN, American Indian/Alaska Native.

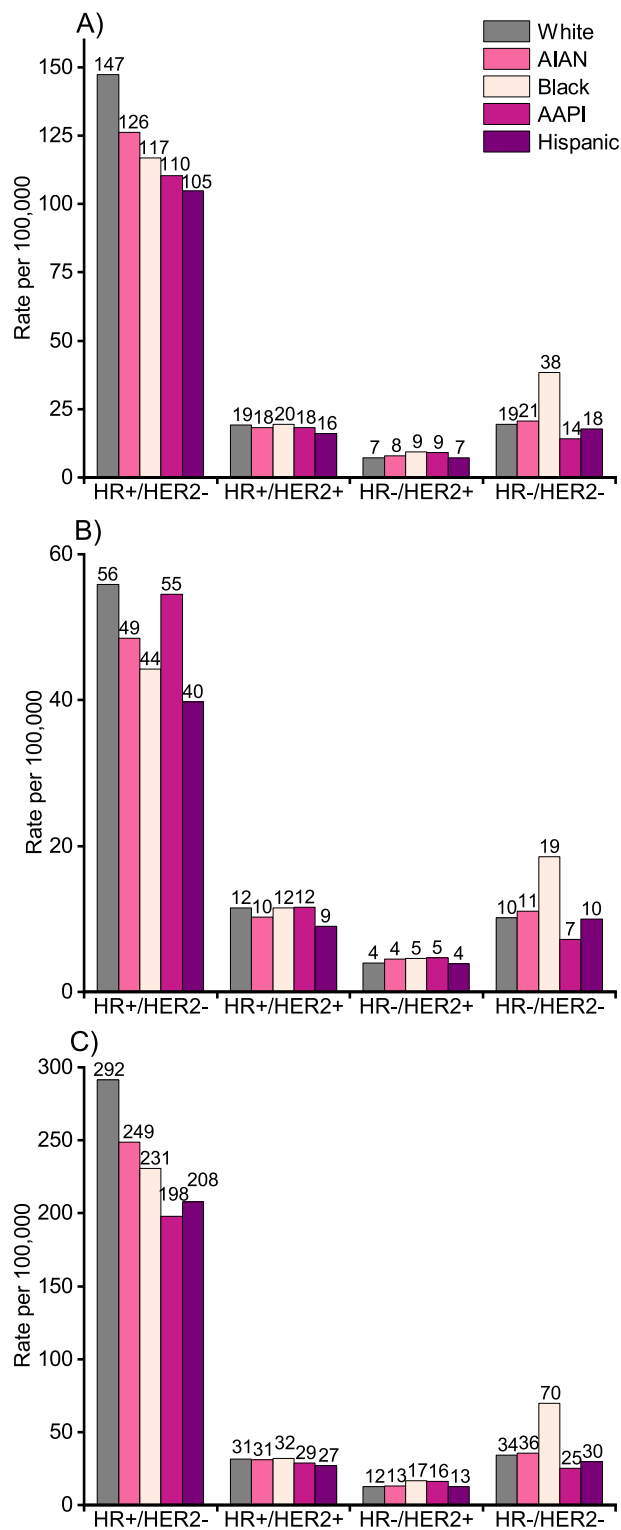


FIGURE 3 Female breast cancer incidence rates by subtype and race and ethnicity for ages (A) older than 20 years, (B) 20–49 years, and (C) older than 50 years, United States, 2017–2021. Rates are age adjusted to the 2000 US standard population and adjusted for reporting delays. Breast cancer subtype status was imputed for cases with missing information. Y-axis have different scales. – indicates negative; +, positive; AAPI, Asian American/Pacific Islander; AIAN, American Indian/Alaska Native; HER2, human epidermal growth factor 2; HR, hormone (estrogen and progesterone) receptor.

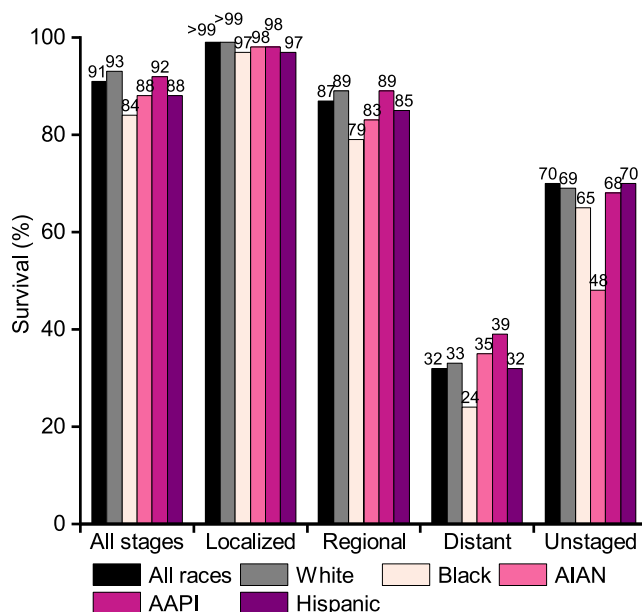


FIGURE 4 Five-year relative female breast cancer survival rates (%) by stage at diagnosis and race/ethnicity, United States, 2014–2020. Survival rates are based on patients who were diagnosed during 2014–2020 and followed through 2021, survival for AIAN women is confined to cases diagnosed in Purchased/Referred Care Delivery Area Counties. Race is exclusive of Hispanic origin. The standard error for AIAN survival is greater than 3 percentage points for distant and unstaged disease. AAPI indicates Asian American/Pacific Islander; AIAN, American Indian/Alaska Native.

Mortality

The breast cancer death rate is 19.3 per 100,000 women overall but ranges from 11.9 per 100,000 in AAPI women to 26.8 per 100,000 in Black women; Black women experience the highest mortality in every age group except the group aged 75–79 years (Figure 2). Overall, the death rate in Black women is 38% higher than in White women and is more than double that in AAPI women. The Black–White mortality disparity is largest for women aged 20–29 years and narrows with age (Figure 6); for example, the death rate is nearly twice as high in Black women younger than 50 years compared with only 10%–20% higher in women aged 70 years and older. For more information, see the section on the Black–White mortality disparity.

Temporal trends in incidence and mortality

Incidence

Invasive breast cancer incidence rose steeply during the 1980s and 1990s (Figure 7), with an overall increase of approximately 40% among women 50 years and older from 1980 to 2000 (from 275 to 380 cases per 100,000). This trend also occurred in other high-income countries⁵⁰ and coincided with the widespread adoption of mammography screening, which increased in the United States from

29% in 1987 to 70% in 2000 among women aged 50 years and older.⁵¹ Incidence rates for DCIS, which is diagnosed almost exclusively through screening, more than doubled during this period, from

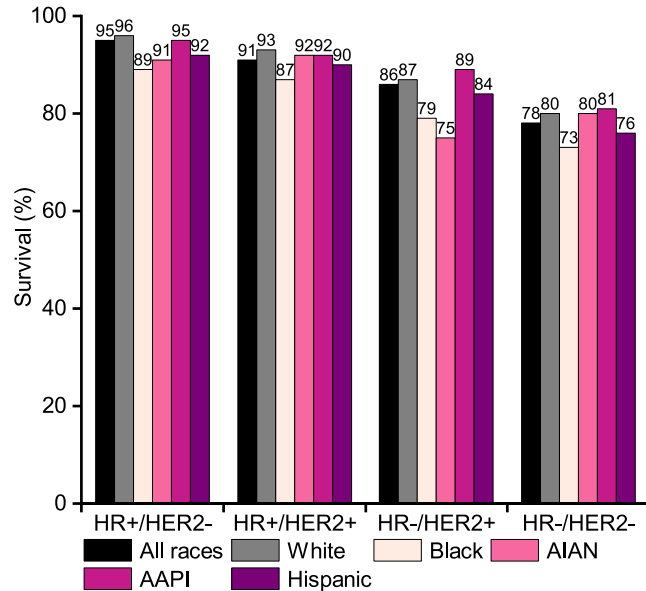


FIGURE 5 Five-year relative female breast cancer survival rates (%) by subtype and race/ethnicity, United States, 2014–2020. Survival rates are based on patients who were diagnosed during 2014–2020 and were followed through 2021; survival for AIAN women is confined to cases diagnosed in purchased/referred care delivery area counties. Race is exclusive of Hispanic origin. The standard error for AIAN survival is greater than 3 percentage points for HR-negative/HR-positive and HR-negative/HER2-negative disease. -, negative; +, positive; AAPI indicates Asian American/Pacific Islander; AIAN, American Indian/Alaska Native; HER2, human epidermal growth factor receptor; HR hormone (estrogen and progesterone) receptor.

33 to 74 cases per 100,000 women aged 50 years and older (Figure 7). DCIS is currently considered a cancer precursor as opposed to a true cancer because not all lesions progress to invasive disease.^{52,53} DCIS incidence continued to increase until the late 2000s but has since stabilized in all age groups.

Invasive breast cancer incidence declined sharply in the early 2000s, in part attributed to decreased use of menopausal hormone therapy after the Women's Health Initiative randomized trial reported increased risk of breast cancer and heart disease associated with combined estrogen plus progesterone therapy.^{54,55} Since the mid-2000s, however, incidence has steadily increased. During the past decade (2012–2021), the rate rose by 1% per year overall, but at a steeper pace in Hispanic (1.6% per year) and AAPI (2.6% per year) women (Table 4). The rising trend is mostly confined to HR-positive disease (Figure 8) and is attributed to associated risk factors, such as increased excess body weight and continued declines in the fertility rate.^{56–58} The fertility rate declined from 69.4 births per 1000 women in 2007 to an all-time low of 54.4 births per 1000 women in 2023.⁵⁹ There has also been a shift toward later age at first birth, which is associated with an increased risk of HR-positive breast cancer.⁶⁰ The incidence of HR-negative tumors has generally declined or remained stable in all racial and ethnic groups except AAPI women, among whom rates increased by 1.6% per year (Figure 8).

Figure 9 shows breast cancer incidence trends by race and ethnicity in younger (20–49 years) versus older (50 years and older) women. During the most recent decade (2012–2021), the increase in incidence in younger women was faster than the increase among older women (1.4% vs. 0.7% per year, respectively), although this pattern only occurred significantly in White and Hispanic women and was not statistically significant in the latter group (Table 4). Black women had the highest incidence rate among younger women during

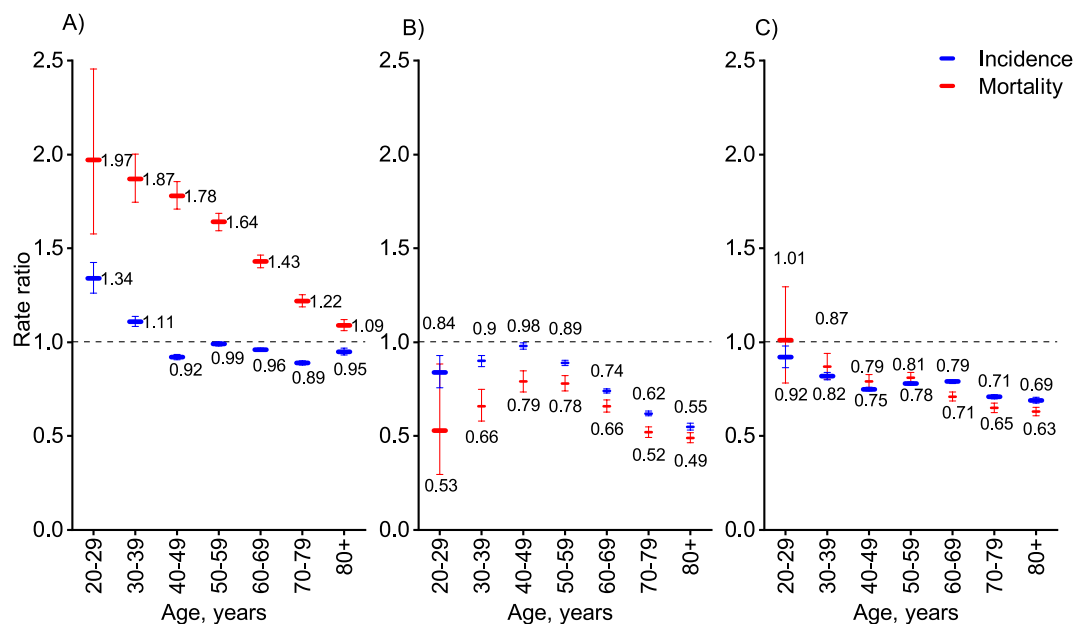


FIGURE 6 Breast cancer incidence (2017–2021) and mortality (2018–2022) rate ratios by age group comparing White women to (A) Black, (B) Asian American/Pacific Islander, and (C) Hispanic women. Rate ratios are based on unrounded rates. Error bars indicate 95% confidence intervals. Race is exclusive of Hispanic ethnicity.

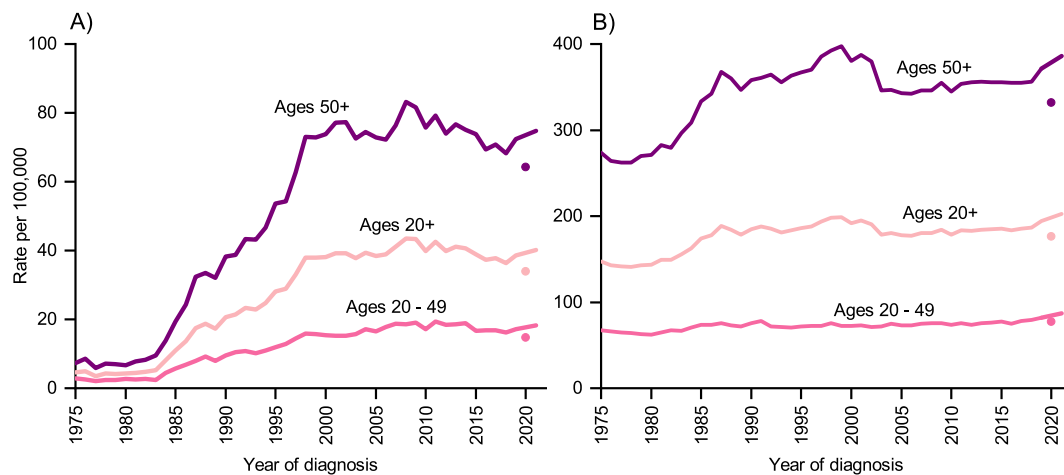


FIGURE 7 Trends in incidence rates of (A) ductal carcinoma in situ and (B) invasive female breast cancer by age, United States, 1975–2021. Rates are age adjusted to the 2000 US standard population, and invasive disease is adjusted for delays in reporting. The y-axis has different scales. Incidence for the year 2020 is shown separate from the trend line.

most of the past 2 decades, but steeper increases in White and AAPI women resulted in crossovers in 2017 and 2021, respectively. Young AAPI women had the second lowest rate (57.4 per 100,000) in 2000 but had the highest rate (86.3 per 100,000) in 2021 alongside White women (86.4 per 100,000). AAPI women had the most rapid increase in incidence among both younger (2.7% per year) and older (2.5% per year) women, followed by Hispanic women (2.4% and 1.6% per year, respectively). Steep increases among AAPI women may be related in part to the influx of new immigrants, who have elevated breast cancer risk. One study found that foreign-born Asian women had two to three times higher breast cancer incidence compared with their US-born counterparts.⁶¹ In part because of the rise in younger onset breast cancer, the US Preventive Services Task Force lowered the recommended age to begin biennial mammography screening from 50 to 40 years in 2024,⁶² similar to American Cancer Society guidelines (Table 5),⁶³ which are also under review.

The increase in breast cancer incidence is largely confined to localized-stage diagnosis (Figure 10), which increased by 1.4% per year from 2012 to 2021 in contrast to stable rates for regional-stage disease. Although distant-stage disease rates also increased by 1.1% per year, this likely reflects improved staging because the rate of unstaged disease decreased by a similar magnitude (1.4% per year). The increase in distant stage may also reflect upstaging (from regional to distant) as the growing prevalence of advanced imaging has resulted in increased detection of micrometastases.^{64,65}

Mortality

The breast cancer mortality rate has decreased by 44% from approximately 33 deaths per 100,000 women in 1989 to 19 deaths per 100,000 in 2022, translating to approximately 517,900 fewer breast cancer deaths among US women during that period than would have occurred if the peak rate had persisted. A recent

modeling study estimated that most of the reduction in mortality is attributable to advances in the treatment of stage I–III disease (47%) and metastatic disease (29%), with an additional 25% associated with earlier detection through screening.⁶⁶ The slowing pace of the decline, from 1.9% per year during 1998–2010 to 1.2% per year during 2013–2022, likely reflects increasing breast cancer incidence as well as the saturation of screening uptake; from 2000 to 2018, mammography prevalence remained stable at 64%–66% among women aged 40 years and older.⁵¹

Importantly, not all women have experienced progress equally. Compared with a 43% reduction in the breast cancer death rate among White women since 1990, decreases were only 31%–32% among Hispanic and Black women, 13% among AAPI women, and the rate remained unchanged among AIAN women (Figure 11). Similarly, during the most recent decade, the rate declined annually by 1%–1.4% in White and Black women and by 0.7% in Hispanic women, but was stable in AAPI and AIAN women (Table 6). Notably, AAPI and AIAN women also have the lowest screening prevalence, with 62% and 51%, respectively, reporting a mammogram in the past 2 years in 2021 (Table 3).

Black–White mortality disparity

The Black–White disparity in breast cancer mortality reflects differences in incidence rates, subtype and stage distribution, and receipt of treatment. In the 1970s, when breast cancer was diagnosed because of symptoms and commonly treated with radical mastectomy, death rates were similar in Black and White women (Figure 11). However, the unequal dissemination of two major interventions in the 1980s—earlier detection through mammography screening and improved treatment for hormone-responsive tumors with adjuvant endocrine therapy—created a racial disparity that has mostly widened over the past 4 decades. The mortality gap peaked in 2011, with 44% higher rates in Black versus White women, and persists at 36% in 2022. The advent of endocrine therapy unmasked

TABLE 4 Average annual percent change in breast cancer incidence rates from 2012 to 2021 by race, age, and stage at diagnosis.

Stage	Race	All ages	20–49 years	≥50 years
All stages	All races	1.0 ^a	1.4 ^a	0.7 ^a
	White	1.0 ^a	1.4 ^a	0.7 ^a
	Black	0.8 ^a	0.4 ^a	0.7 ^a
	AIAN	1.2 ^a	1.4 ^a	1.2 ^a
	AAPI	2.6 ^a	2.7 ^a	2.5 ^a
	Hispanic	1.6 ^a	2.4 ^a	1.6 ^a
Localized	All races	1.4 ^a	1.8 ^a	1.4 ^a
	White	1.4 ^a	2.0 ^a	1.4 ^a
	Black	1.4 ^a	0.9 ^a	1.8 ^a
	AIAN	1.6 ^a	1.7 ^a	1.6 ^a
	AAPI	2.9 ^a	3.0 ^a	2.5 ^a
	Hispanic	2.2 ^a	3.1 ^a	2.1 ^a
Regional	All races	−0.1	0.7 ^a	−0.8 ^a
	White	−0.6 ^a	0.5 ^a	−1.0 ^a
	Black	−0.3	−0.4 ^a	−0.7 ^a
	AIAN	0.7 ^a	0.9 ^a	0.5
	AAPI	2.0 ^a	2.4 ^a	1.9 ^a
	Hispanic	0.8 ^a	1.5 ^a	0.4 ^a
Distant	All races	1.1 ^a	2.1 ^a	0.9 ^a
	White	0.9 ^a	1.3 ^a	0.5 ^a
	Black	0.7 ^a	1.7 ^a	0.5 ^a
	AIAN	3.3 ^a	4.7 ^a	2.7 ^a
	AAPI	3.1 ^a	3.6 ^a	2.8 ^a
	Hispanic	2.7 ^a	2.0 ^a	2.3 ^a
Unstaged	All races	−1.4 ^a	−0.5	−1.6 ^a
	White	−2.0 ^a	−1.1	−2.1 ^a
	Black	−2.6 ^a	−1.5	−2.6 ^a
	AIAN	−2.0 ^a	−2.8	−1.8 ^a
	AAPI	−0.3	−2.7 ^a	0.2
	Hispanic	−0.2	0.2	−1.8

Note: Incidence data for the year 2020 were not included in calculating trend; trend uses data from 1998–2021. Average annual percent change (AAPC) is annual percent per year. Race is exclusive of Hispanic origin.

Abbreviations: AAPI, Asian American/Pacific Islander; AIAN, American Indian/Alaska Native.

^aThe AAPC is significantly different from zero ($p < .05$).

racial differences in breast tumor biology; although the incidence of HR-positive tumors is 22% lower in Black women than in White women, the mortality rate for these tumors is still 19% higher in Black women.⁶⁷ The incidence of less treatable HR-negative tumors is 65% higher in Black women, but the death rate is 2.2 times higher. Black women have lower survival rates than women of every other racial and ethnic group for every breast cancer subtype and stage of diagnosis except localized-stage disease, with which they

are least likely to be diagnosed (58% vs. 68% in White women; Table 3).

Ongoing advances in breast cancer treatment continue to shed light on differences in breast tumor biology between Black and White women. For example, high-level evidence from prospective randomized clinical trials, such as the TAILORx and RxPonder trials (ClinicalTrials.gov identifiers NCT00310180 and NCT01272037, respectively) demonstrate that, even after accounting for gene

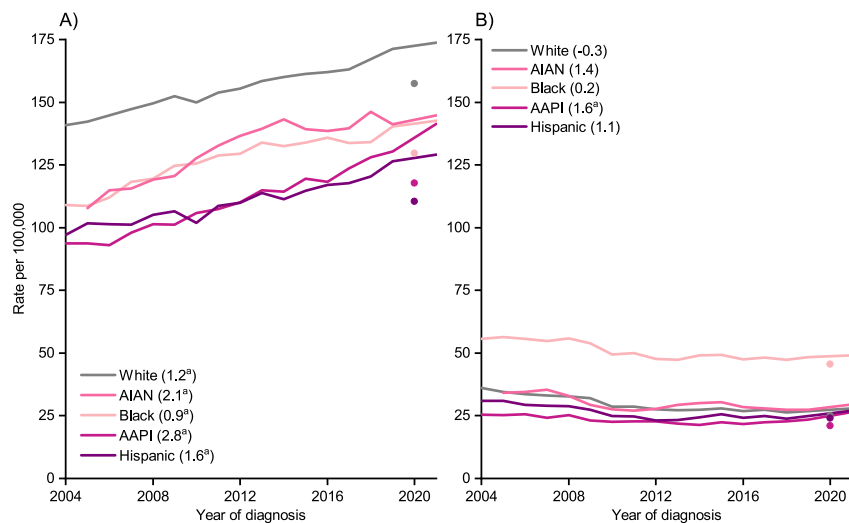


FIGURE 8 Trends in female breast cancer for (A) hormone receptor-positive disease and (B) hormone receptor-negative disease by race/ethnicity, among women aged 20 years and older, United States, 2004–2021. Rates are age adjusted to the 2000 US standard population and adjusted for delays in reporting. Race is exclusive of Hispanic origin. Missing hormone receptor status was imputed (for more information, see Materials and Methods). Trend for AIAN shown is a 3-year moving average due to sparse data. The AAPC during 2012–2021 is shown in parentheses. ^aThe trend (as measured by the AAPC) was significantly different from zero ($p < .05$). AAPC indicates average annual percent change; AAPI, Asian American/Pacific Islander; AIAN, American Indian/Alaska Native.

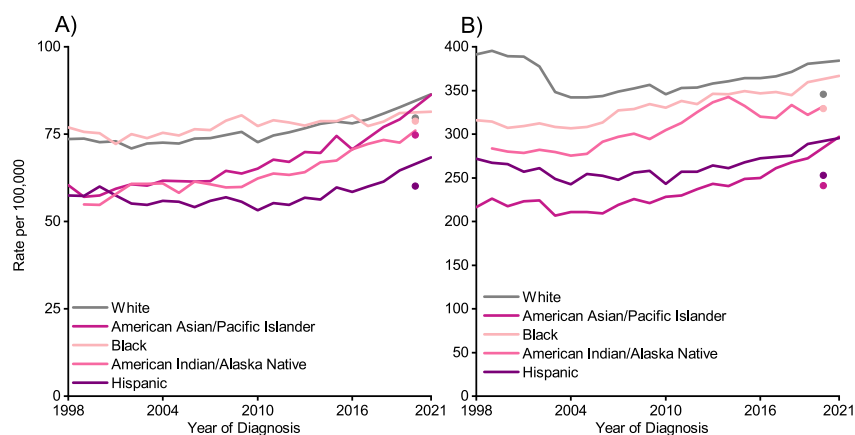


FIGURE 9 Trends in female breast cancer incidence rates by race/ethnicity among women aged (A) 20–49 years and (B) 50 years and older, United States, 1998–2021. Rates are age adjusted to the 2000 US standard population and adjusted for delays in reporting. Race is exclusive of Hispanic origin. The trend shown for American Indian/Alaska Native women is a 3-year moving average due to sparse data.

expression profiles, Black women with HR-positive/HER2-negative breast cancer have worse outcomes compared with White women.^{68,69} Other advances threaten to widen disparities because of unequal delivery of care. For example, PARP inhibitors are now approved for use in women with pathogenic *BRCA*-mutation-associated breast cancer, but lower genetic testing prevalence among Black women will limit eligibility.

The persistent Black–White mortality disparity can be explained in part by the result of disproportionate opportunity and wealth in the Black community that ultimately stems from longstanding

systemic racism and has translated to less access to quality care across the cancer continuum.⁷⁰ For example, although Black women self-report similar or higher mammography prevalence as White women, they are more likely to have screening at lower resourced facilities and/or those that are not accredited by the American College of Radiology⁷¹; to have longer intervals between mammograms; and to have delays in the follow-up of abnormal findings.^{72,73} Insurance status is known to contribute because Black women are more likely than White women to be underinsured or uninsured,⁷⁴ which is associated with later stage diagnosis, as well as reduced access to

TABLE 5 American Cancer Society breast cancer screening guideline for women at average risk^a.

Age	Recommendation
40–44 years	Optional annual mammography screening
45–54 years	Annual mammography screening
≥55 years	Transition to biennial mammography or continue annual screening as long as overall health is good and life expectancy is 10 years or more

^aWomen without a personal history of breast cancer, a suspected or confirmed genetic variant known to increase risk of breast cancer [i.e., *BRCA1/2*], a strong family history, or a history of previous radiotherapy to the chest at a young age.

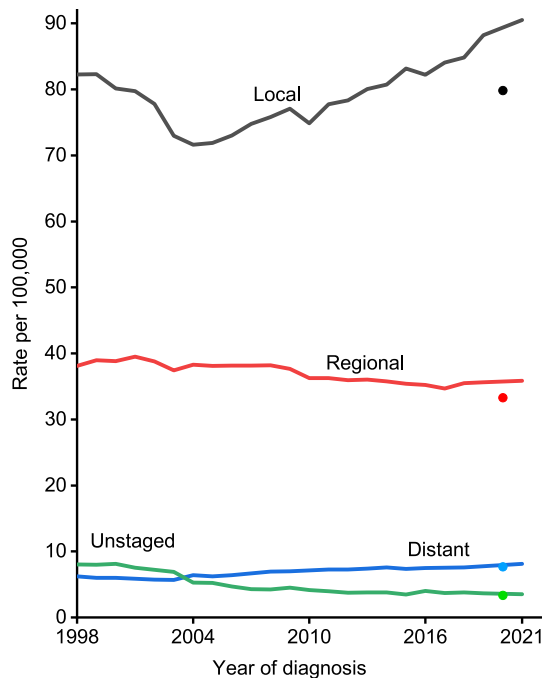


FIGURE 10 Trends in female breast cancer incidence rates by stage, United States, 1998–2021. Rates are age adjusted to the 2000 US standard population and adjusted for delays in reporting.

high-quality treatment.^{75,76} Insurance status has been estimated to account for approximately one third of the excess risk of death in Black nonelderly patients with early stage breast cancer.⁷⁷ Studies have shown that Black patients with breast cancer living in states that have expanded Medicaid had decreased delays in receipt of chemotherapy and surgery and the Black–White survival disparity was reduced compared with nonexpansion states.^{78–80} Nevertheless, Black women are more likely than White women to experience delays and discontinuation of treatment and are less likely to receive guideline-concordant care, regardless of insurance status.^{81–83}

Differences in tumor biology, comorbidities, and response to treatment also contribute to breast cancer disparities. Black women are twice as likely as women of any other race or ethnicity to be diagnosed with triple-negative breast cancer (Table 3), which is more

aggressive and has few effective therapies. However, among patients with triple-negative breast cancer, Black women have higher death rates than White women even after adjusting for demographic, clinical, treatment, and neighborhood differences.⁸¹ Recent studies suggest this may reflect less sensitivity to neoadjuvant chemotherapy, likely because of differences in tumor molecular characteristics and/or the microenvironment.^{49,84–86} Among Black women who attain a pathologic complete response, there is no survival disparity.⁸⁷

Triple-negative breast cancer presents unique challenges to early detection. It is more often diagnosed as an interval breast cancer than other subtypes and sometimes evades detection by appearing as a mass with benign characteristics. Nonetheless, screen-detected triple-negative breast cancer is associated with a survival advantage in both Black and White women.⁸⁸ In addition, recent studies of differences in the breast tissue microenvironment between Black and White women suggest that advances in immunotherapy for triple-negative breast cancer may be particularly relevant in eliminating breast cancer disparities.^{89,90} International research involving the study of breast cancer among women in Africa is also enhancing our understanding of the role played by germline genetic African ancestry in the pathogenesis of triple-negative breast cancer.⁹¹ Collectively, the body of extensive yet incomplete research regarding breast cancer disparities underscores the critical need for greater diversity in breast cancer clinical trials, particularly with the inclusion of more Black women, so that results can be more effectively generalized to the diverse population of patients with breast cancer.

Geographic variation

Table 7 presents state-level variations in breast cancer incidence, mortality, and screening. Differences by state reflect several factors, including demographic characteristics and the prevalence of cancer risk factors, mammography screening, and access to care, which is influenced by public health policy, such as the expansion of Medicaid, and other laws and programs.^{83,92} Breast cancer incidence ranges from 113.0 per 100,000 women in Nevada to 143.2 per 100,000 in North Carolina, whereas a wider gap exists for mortality, ranging from 15.2 per 100,000 women in Massachusetts, to 23.4 per 100,000 in Mississippi, and 24.0 per 100,000 in the District of Columbia. Mammography prevalence ranges from <60% in Wyoming and New Mexico to ≥75% in Massachusetts, Connecticut, Louisiana, and Rhode Island. Through the detection of asymptomatic lesions, mammography screening leads to early diagnosis of cancer, when it may be more susceptible to treatment. It is notable that the three states with the lowest breast cancer mortality (Massachusetts, Rhode Island, and North Dakota) have mammography prevalence of 71%–77%, whereas the states with the highest mortality (District of Columbia, Mississippi, and Oklahoma) have a prevalence of 62%–69%.

There are also wide state differences within each racial and ethnic group. For example, the death rate among Black women ranges by almost two-fold, from 16.9 per 100,000 in Rhode Island to

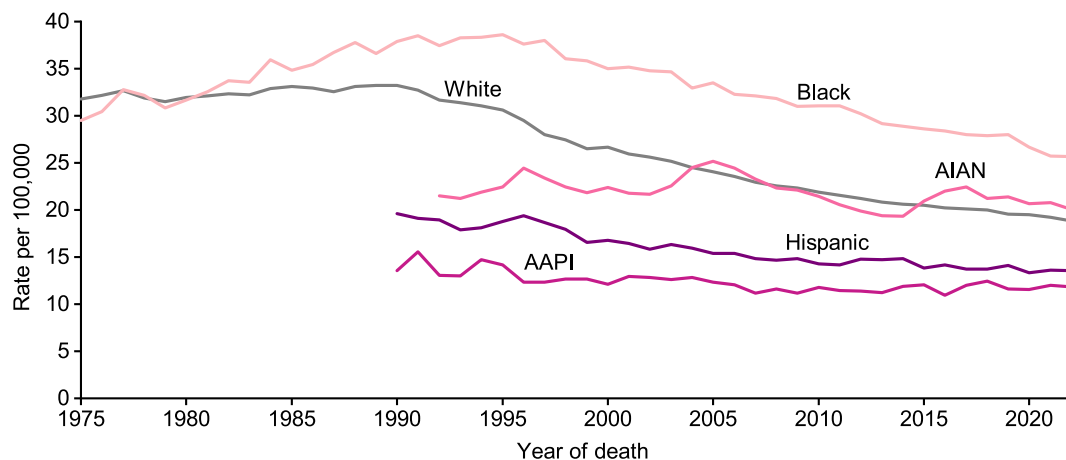


FIGURE 11 Trends in female breast cancer death rates by race/ethnicity, United States, 1975–2022. Rates are age adjusted to the 2000 US standard population. Race is exclusive of Hispanic origin, except for the years 1975–1989 for Black and White women. Mortality rates for American Indian/Alaska Native women are 3-year moving averages for the entire United States with adjustment for racial misclassification on death certificates. AAPI indicates Asian American/Pacific Islander; AIAN, American Indian/Alaska Native.

TABLE 6 Average annual percent change in breast cancer mortality rates from 2013 to 2022 by race/ethnicity and age.

Race	All ages	20–49 years	≥50 years
All races	−1.2 ^a	−1.3 ^a	−1.1 ^a
White	−1.0 ^a	−1.3 ^a	−1.0 ^a
Black	−1.4 ^a	−2.1 ^a	−1.2 ^a
AIAN	−0.4	−0.7	−0.3
AAPI	0.3	0.3	−0.2
Hispanic	−0.7 ^a	−0.8	−0.7 ^a

Note: Trend uses data from 1990 to 2022. Race is exclusive of Hispanic origin. Mortality rates for American Indian/Alaska Native women were adjusted for misclassification of race on death certificates. Average annual percent change (AAPC) is annual percent per year.

Abbreviations: AAPI, Asian American/Pacific Islander; AIAN, American Indian/Alaska Native.

^aThe AAPC is significantly different from zero ($p < .05$).

32.0 per 100,000 in the District of Columbia, which also has the highest incidence rate (144.2 per 100,000). This is in contrast to Arizona, which has among the highest death rate for Black women (31.1 per 100,000) and has among the lowest incidence rate (106.0 per 100,000). Low incidence coinciding with high mortality may reflect underscreening and later stage diagnosis, whereas high incidence and mortality may signal lack of access to timely, high-quality treatment. The Black–White breast cancer mortality disparity is evident across the majority of states but has disappeared in Colorado, New Mexico, Oregon, Rhode Island, Washington, and West Virginia. Some of this equity may be caused by changing demographic characteristics and not progress in early detection and/or treatment among Black women. The foreign-born Black population is highly

concentrated in the Northeast and South and is generally healthier than US-born African Americans.^{93,94}

There is a similar two-fold mortality disparity across states among women of other racial and ethnic groups, although sparse data limit interpretation. Rates range from <6.5 per 100,000 in Alabama and Arkansas to >17 per 100,000 in New Mexico and Hawaii among Hispanic women and from ≤7.5 per 100,000 in Connecticut and Indiana to 18.5 per 100,000 in Nevada among AAPI women. Data for AIAN women are too sparse to provide by state, but incidence varies greatly by Purchased/Referred Care Delivery Area region, from approximately 70 per 100,000 in the Southwest to 167 per 100,000 in the Southern Plains.⁹⁵

Data limitations

The estimated numbers of new invasive breast cancer cases and deaths in 2024 provide a reasonably accurate portrayal of the contemporary cancer burden, but they are model-based projections that should not be used to track trends over time because of several limitations documented elsewhere.¹⁴ Incidence rates by molecular subtype should not be compared with those published before 2022 because of changes in the classification of borderline positive ER/PR status from positive before the SEER November 2020 data submission to unknown thereafter. In addition, breast cancer incidence and mortality data for broadly defined racial and ethnic groups mask substantial heterogeneity within these populations. Errors in reporting race and ethnicity in medical records and on death certificates result in underestimated cancer incidence and mortality in some persons, particularly those who are AIAN individuals. Methods used to mitigate AIAN racial misclassification limit incidence data to Purchased/Referred Care Delivery Area counties,

TABLE 7 Female breast cancer incidence (2017–2021), mortality (2018–2022), and mammography prevalence (2022) by race/ethnicity and state.

State	Incidence rate per 100,000					Mortality rate per 100,000					Mammography screening, ^a %
	All races	White	Black	Hispanic	AAPI	All races	White	Black	Hispanic	AAPI	
Alabama	123.3	122.3	130.3	61.0	89.8	20.4	18.6	26.8	6.0	7.6	69
Alaska ^b	126.3	129.5	101.8	101.8	98.1	17.1	18.1	— ^c	— ^c	10.8	61
Arizona	117.5	127.0	106.0	97.5	90.7	18.8	19.6	31.1	15.2	14.6	66
Arkansas ^b	124.1	123.7	126.8	106.1	103.8	19.8	19.3	28.0	6.4	9.1	67
California	124.0	139.9	124.7	96.9	113.1	18.8	21.3	29.3	14.4	13.3	65
Colorado	133.3	138.0	123.8	109.7	100.5	18.6	19.1	22.4	15.6	9.0	64
Connecticut	143.1	148.1	135.4	122.8	88.5	16.8	17.2	23.8	9.2	7.3	75
Delaware	139.2	143.4	134.8	111.2	97.1	22.0	21.5	28.2	8.0	— ^c	72
District of Columbia	141.2	151.5	144.2	87.4	82.6	24.0	15.6	32.0	8.6	— ^c	68
Florida	126.7	134.3	116.8	108.7	89.9	18.6	19.1	24.8	13.9	13.0	69
Georgia	132.6	134.7	134.0	115.8	94.1	20.7	19.0	26.4	11.9	12.3	70
Hawaii	140.1	140.2	116.6	168.4	137.7	16.6	23.7	— ^c	20.4	14.7	72
Idaho	132.8	134.6	— ^c	106.3	110.8	19.7	20.4	— ^c	7.9	— ^c	60
Illinois	133.6	139.8	133.7	101.6	106.6	20.2	20.0	30.7	11.1	11.3	65
Indiana ^d	113.4	115.2	108.5	82.1	80.5	20.3	20.3	25.9	12.6	7.5	69
Iowa	136.9	139.1	134.1	76.2	96.2	17.8	17.9	25.4	9.4	7.6	69
Kansas	135.8	137.3	134.9	100.8	88.6	19.9	19.9	26.3	15.1	10.2	66
Kentucky	129.2	130.0	133.1	90.6	82.7	21.4	21.3	26.1	10.8	12.3	66
Louisiana	130.4	130.2	137.3	90.9	86.3	22.1	20.0	28.1	12.3	12.5	76
Maine	132.8	134.2	— ^c	84.2	73.8	16.7	16.8	— ^c	— ^c	— ^c	71
Maryland	135.5	144.4	134.4	86.4	101.8	20.0	18.6	25.9	11.7	10.4	74
Massachusetts	136.8	142.7	120.9	97.9	96.6	15.2	15.4	18.6	10.9	7.6	75
Michigan	127.0	129.6	121.1	88.8	88.4	20.3	19.7	27.2	14.4	11.7	71
Minnesota	140.4	143.6	112.5	117.3	87.8	17.2	17.3	23.3	10.0	8.6	71
Mississippi	124.6	124.0	129.7	51.1	88.7	23.4	20.1	30.4	14.9	12.3	69
Missouri	133.2	134.9	134.2	74.8	91.8	20.0	19.3	28.4	9.4	9.5	68
Montana	136.3	137.0	— ^c	70.5	— ^c	17.7	17.3	— ^c	15.5	— ^c	65
Nebraska	130.7	134.6	129.9	100.4	74.6	19.5	19.8	27.5	11.0	— ^c	66
Nevada	113.0	121.0	119.0	78.1	107.2	21.7	23.4	31.8	12.0	18.5	61
New Hampshire	139.6	142.4	82.0	111.4	72.8	17.6	17.9	— ^c	13.8	11.8	72
New Jersey	136.4	148.6	131.3	105.3	106.1	19.1	20.2	25.6	12.4	9.9	70
New Mexico	116.3	125.0	117.0	109.6	93.6	19.3	21.7	28.7	17.2	11.2	59
New York	134.1	144.4	123.8	107.5	110.2	17.2	17.6	23.0	11.6	9.2	72
North Carolina	143.2	145.8	143.1	107.0	92.6	19.9	18.8	26.5	9.6	8.3	71
North Dakota	130.9	131.9	— ^c	— ^c	102.0	16.2	16.3	— ^c	— ^c	— ^c	71
Ohio	132.3	134.4	127.7	81.6	93.0	20.2	19.8	26.5	8.9	11.2	66
Oklahoma	124.5	123.4	132.3	91.3	96.6	22.4	22.6	29.2	14.7	11.1	62
Oregon	131.1	133.1	111.0	104.7	96.1	19.1	19.9	18.9	10.6	12.3	67
Pennsylvania	131.2	133.9	124.8	102.6	86.1	19.6	19.2	27.3	12.8	9.0	70

TABLE 7 (Continued)

State	Incidence rate per 100,000					Mortality rate per 100,000					Mammography screening, ^a %
	All races	White	Black	Hispanic	AAPI	All races	White	Black	Hispanic	AAPI	
Rhode Island	139.1	144.2	128.5	90.4	103.9	16.1	16.7	16.9	8.9	— ^c	77
South Carolina	133.7	135.9	132.4	96.2	82.2	21.3	20.2	26.2	10.5	8.1	71
South Dakota	129.6	132.9	— ^c	— ^c	131.9	18.3	18.0	— ^c	— ^c	— ^c	73
Tennessee	124.6	126.4	122.2	88.6	80.2	21.7	20.9	28.8	10.3	10.0	68
Texas	121.4	133.4	128.3	99.3	92.6	19.7	20.6	28.7	15.1	11.8	66
Utah	119.1	119.0	77.4	130.0	94.4	20.2	20.7	— ^c	16.8	14.5	64
Vermont	127.9	127.6	— ^c	137.7	77.5	16.9	17.1	— ^c	— ^c	— ^c	63
Virginia	129.0	131.9	133.7	85.8	86.2	20.2	19.5	27.0	11.8	12.0	71
Washington	137.1	140.9	108.6	111.1	110.3	18.7	19.6	19.3	12.8	11.1	64
West Virginia	124.7	126.0	118.3	66.3	78.3	21.1	21.2	28.6	— ^c	— ^c	68
Wisconsin	137.0	138.5	143.0	106.1	81.5	17.9	17.8	26.4	14.0	7.7	71
Wyoming	122.7	126.2	— ^c	89.2	— ^c	19.9	20.3	— ^c	11.1	— ^c	58
Puerto Rico ^e	99.0					17.0					75

Note: Race is exclusive of Hispanic origin. Rates are age adjusted to 2000 US standard population.

Abbreviation: AAPI, indicates Asian American/Pacific Islander.

^aMammography prevalence in past 2 years among women ages 40 and older; estimates are age-adjusted to the 2000 US standard population using three age groups: 40–49, 50–64, and 65+ years.

^bIncidence rates for this registry are for years 2017–2020.

^cStatistic not displayed due to fewer than 25 cases or 10 deaths.

^dIncidence rate was obtained from Cancer in North America (CiNA) Explorer (<https://apps.naaccr.org/explorer/>).

^eData are for all race and ethnicities combined; mortality data, years 2016–2020.

excluding one-third of the population, and are for all-cancer mortality and not specific to breast cancer.¹⁹

Incidence rates and trends are based on cancer registry data that do not contain information on breast cancer recurrence. Statistics for invasive breast cancer include all histologic subtypes (i.e., invasive ductal carcinoma, invasive lobular carcinoma, medullary carcinoma, etc.) and thus mask differences across these heterogeneous disease subtypes. Trends and rates for incidence, mortality, and survival are based on deidentified data that do not control for social determinants of health (i.e., socioeconomic status, insurance) or certain disease characteristics (i.e., comorbidities, receipt of treatment).

Conclusions

Breast cancer mortality rates continued to decline steadily from 1989 through 2022, with an overall drop of 44% that translates to almost 518,000 fewer women dying from breast cancer in the United States during this time. This progress is the result of advances in treatment and earlier detection through screening. However, these interventions have not been disseminated equally. AIAN women have experienced no reduction in mortality, and Black

women have 38% higher mortality than White women despite lower incidence. Black women have the lowest survival of any racial and ethnic group for every breast cancer subtype and stage of disease except localized-stage, with which they are 10% less likely than White women to be diagnosed. Also concerning is the continued rise in breast cancer incidence that is particularly striking among Hispanic and AAPI women, who are vulnerable to challenges in access to care. Progress against breast cancer could be accelerated by mitigating racial disparities through increased racial diversity in clinical trials as well as community partnerships and other initiatives that increase access to high-quality screening and treatment among underserved women.

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