

Female Breast Cancer in California

Breast cancer is the most commonly diagnosed cancer among California women, regardless of race/ethnicity, and is the second leading cause of cancer-related death. It is estimated that in 2013, 22,850 women in California will be diagnosed with invasive breast cancer, and that 4,340 will die from the disease.

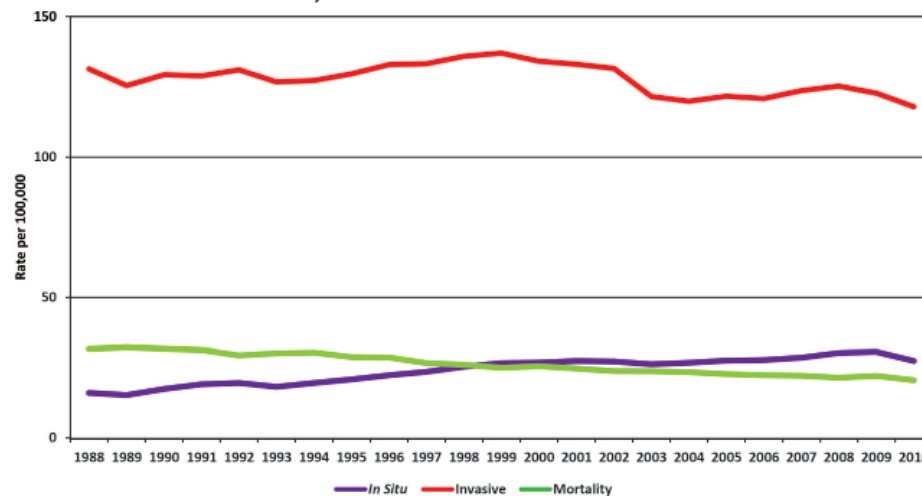
Overall, female invasive breast cancer incidence rates have been stable since 2001, although rates increased slightly from 1988 through 2000, by an average of 0.5 percent per year (Figure 1). However, incidence rates of *in situ* breast cancer, a non-invasive form of breast cancer which is most often detected through mammography screening and is correlated with an increased risk of developing malignant disease, have been increasing steadily

since 1988 (4.8 percent per year from 1988-1999 and 1.1 percent per year from 2000-2010). The female invasive breast cancer mortality rate decreased by an average of 2.1 percent per year from 1988 through 2010 (See Figure 1).

In situ breast cancer incidence in California from 2006-2010 was highest among non-Hispanic white females (33.3 per 100,000), followed by non-Hispanic Asians/Pacific Islanders (28.9 per 100,000), non-Hispanic blacks (28.1 per 100,000), and Hispanics (18.8 per 100,000). Invasive breast cancer incidence was highest among non-

Hispanic white females (141.3 per 100,000), followed by non-Hispanic blacks (125.9 per 100,000) and non-Hispanic Asians/Pacific Islanders (93.1 per 100,000), and was lowest among Hispanics (87.6 per 100,000). However, racial/ethnic mortality rate patterns for invasive breast cancer are slightly different; the highest mortality rate was among non-Hispanic blacks (33.0 per 100,000), followed by non-Hispanic whites (23.9 per

Figure 1: Age-Adjusted Female Breast Cancer Incidence and Mortality Rates in California, 1988-2010



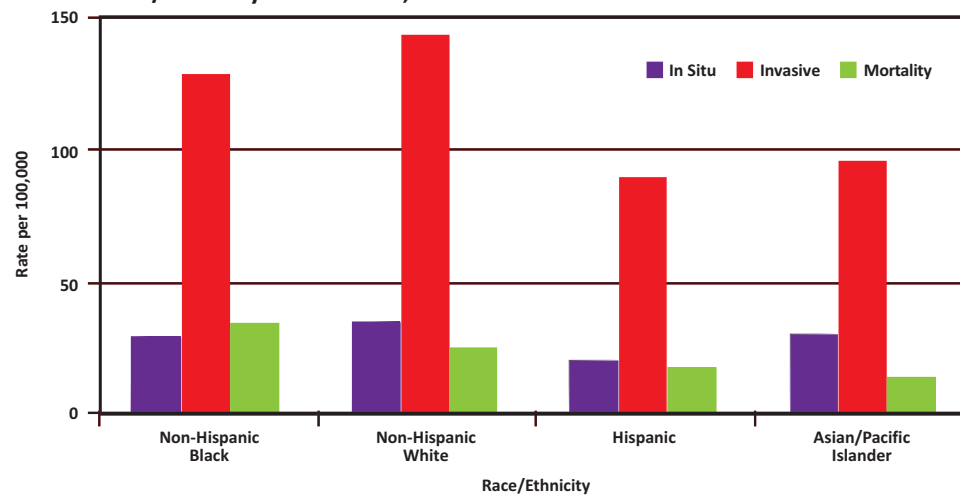
100,000), Hispanics (17.1 per 100,000), and non-Hispanic Asians/Pacific Islanders (13.2 per 100,000) (See Figure 2).

From 2001 to 2010, the majority of female invasive breast cancers were diagnosed

early (61.0 percent), when the cancer was still confined to the primary site (Figure 3). When diagnosed at the localized stage, five-year relative survival, a measure of the likelihood that a cancer patient will survive their cancer during the five

years post diagnosis, was very high (99.5 percent). Another 32.1 percent of invasive female breast cancer cases diagnosed between 2001 and 2010 in California were diagnosed at the regional stage – with a five-year relative survival of approximately 85 percent. Less than five percent of California female breast cancer patients were diagnosed at the distant stage, when the cancer has already metastasized. However, survival amongst this group was much lower, only approximately 24 percent (See Figure 3).

Figure 2:
Five-year Age-adjusted Female Breast Cancer Incidence and Mortality Rates by Race/Ethnicity In California, 2006-2010



Source: California Cancer Registry
Prepared by the Cancer Registry of Greater California.

Figure 3: Stage Distribution and Five-Year Relative Survival by Stage at Diagnosis for Female Invasive Breast Cancer, California, 2001-2010

Stage at Diagnosis	Stage Distribution	Five-Year Relative Survival
Localized (Confined to Primary Site)	61.0%	99.5%
Regional (Spread to Regional Lymph Nodes)	32.1%	84.8%
Distant (Metastasized to Other Organs)	4.2%	24.4%
Unknown Stage	2.7%	52.7%

Source: California Cancer Registry
Prepared by the Cancer Registry of Greater California.