Female Breast Cancer

Breast cancer was the most commonly diagnosed cancer among females.

- Females in Contra Costa were more likely to be diagnosed with breast cancer than females in California.
- White females were most likely to be diagnosed with invasive breast cancer.
- Most invasive breast cancer cases and deaths were among white females.
- African American females were more likely to die from breast cancer than females in the county overall.

Deaths

Between 2005–2007, invasive breast cancer accounted for 15.8% of all cancer deaths among Contra Costa females and 3.9% of all female deaths in the county. During this period in Contra Costa, 415 female residents died of breast cancer. This means that on average, 138 female residents died from breast cancer each year.

The age-adjusted death rate from female breast cancer in Contra Costa (23.0 per 100,000) was similar to the age-adjusted rate for California (22.8 per 100,000) and was not significantly higher than the Healthy People 2010 objective (21.3 per 100,000).

Table 1 ■ Female breast cancer deaths by race/ethnicity

Contra Costa County, 2005–2007

	Deaths	Percent	Rate
White	303	73.0%	25.3
African American	50	12.0%	35.8*
Asian/Pacific Islander	35	8.4%	16.1
Hispanic	24	5.8%	12.0**
Total	**415**	**100.0%**	**23.0**

These are age-adjusted rates per 100,000 female residents.
Total includes racial/ethnic groups not listed above.
*Significantly higher rate than county females overall.
** Significantly lower rate than county females overall.

A breast cancer case is defined as a primary malignant tumor that originated in the breast rather than spread from another location.

The greatest number of deaths from female breast cancer in the county occurred among whites (303), followed by African Americans (50), Asians/Pacific Islanders (35) and Hispanics (24).

African American females had a significantly higher breast cancer death rate (35.8 per 100,000) than county females overall (23.0 per 100,000). Hispanic females had a lower breast cancer death rate (12.0 per 100,000) compared to county females overall.

Table 2 ■ Female breast cancer deaths by selected cities

Contra Costa County, 2005–2007

	Deaths	Percent	Rate
Concord	49	11.8%	23.9
Walnut Creek	47	11.3%	24.6
Antioch	38	9.2%	29.8
Richmond	33	8.0%	21.4
Pittsburg	20	4.8%	24.8
Brentwood	20	4.8%	31.2
Martinez	17	4.1%	NA
San Pablo	15	3.6%	NA
Oakley	13	3.1%	NA
El Cerrito	13	3.1%	NA
Pleasant Hill	12	2.9%	NA
Hercules	8	1.9%	NA
Pinole	6	1.4%	NA
Contra Costa	**415**	**100.0%**	**23.0**

These are age-adjusted rates per 100,000 female residents.
Contra Costa total includes females in cities not listed above.

The greatest number of deaths from breast cancer occurred among females living in Concord (49), Walnut Creek (47), Antioch (38) and Richmond (33). The available breast cancer death rates listed were similar to the rate for county females overall (23.0 per 100,000). Rates were limited at the city level due to small numbers of deaths.

New Cases

To understand the impact of breast cancer on the community's health it is important to assess both breast cancer diagnoses and deaths. Information about breast cancer deaths indicates the ultimate toll this disease takes on people's lives, but many more people develop breast cancer than die from it. Information about new invasive and in situ breast cancer cases provides a sense of how much and among whom the disease is being diagnosed and can highlight the need for prevention, screening and treatment programs.

Between 2003–2007, 4,685 new breast cancer cases were diagnosed among Contra Costa females; 81.5% were invasive and 18.5% were in situ cancer. Breast cancer was the most commonly diagnosed cancer among Contra Costa females, representing more than one-third (36.6%) of all new cancer cases among females.

INVASIVE BREAST CANCER

During this five-year period, 3,820 new cases of invasive breast cancer were diagnosed among females in Contra Costa—an average of 764 new cases per year. The age-adjusted rate of new female invasive breast cancer cases for this period was significantly higher in Contra Costa (136.1 per 100,000 females) than California (121.0 per 100,000 females).

The greatest number of new invasive female breast cancer cases in Contra Costa occurred among white females (2,766) followed by Asian/Pacific Islander (360), Hispanic (359) and black (303) females. White females also had the highest rate of new invasive breast cancer cases in the county (149.0 per 100,000); significantly higher than females in the county overall (136.1 per 100,000) and all other racial/ethnic groups listed in the table. Asian/Pacific Islander (92.3 per 100,000) and Hispanic females (110.6 per 100,000) experienced significantly lower rates compared to females in the county overall.

Table 3 ■ New invasive female breast cancer cases by race/ethnicity

Contra Costa County, 2003–2007

	Cases	Percent	Rate
White	2,766	72.4%	149.0*
Asian/Pacific Islander	360	9.4%	92.3**
Hispanic	359	9.4%	110.6*
Black	303	7.9%	124.7
Total	**3,820**	**100.0%**	**136.1**

These rates are age-adjusted per 100,000 female residents.
Total includes females in racial/ethnic groups not listed above.
* Significantly higher rate than county females overall.
** Significantly lower rate than county females overall.

Invasive breast cancer is cancer that has spread beyond the breast tissue where it developed to surrounding, healthy tissues.

IN SITU BREAST CANCER

Between 2003–2007, 865 new cases of in situ breast cancer were diagnosed among females in Contra Costa; 173 new cases per year. The age-adjusted rate of new in situ cases for this five-year period was higher in Contra Costa (30.7 per 100,000) than California (27.5 per 100,000).

The greatest number of new in situ female breast cancer cases in Contra Costa occurred among white females (601) followed by Asian/Pacific Islander (118), black (67) and Hispanic (63) females. Hispanic females experienced a significantly lower rate (19.5 per 100,000) of new in situ breast cancer cases compared to Contra Costa females overall (30.7 per 100,000).

Table 4 ■ New in situ female breast cancer cases by race/ethnicity

Contra Costa County, 2003–2007

	Cases	Percent	Rate
White	601	69.5%	32.6
Asian/Pacific Islander	118	13.6%	30.5
Black	67	7.7%	27.6
Hispanic	63	7.3%	19.5**
Total	**865**	**100.0%**	**30.7**

Total includes females in racial/ethnic groups not listed above.
These rates are age-adjusted per 100,000 female residents.
** Significantly lower rate than county females overall.

In situ breast cancer is cancer at its earliest stage that has not spread to neighboring tissue.

What is breast cancer?

The National Cancer Institute defines breast cancer as "cancer that forms in the tissues of the breast, usually the ducts (tubes that carry milk to the nipple) and lobules (glands that make milk)."[1] Although both males and females develop breast cancer, male breast cancer is rare.[1]

Why is it important?

Breast cancer is the most commonly diagnosed cancer among females in Contra Costa,[2] the greater Bay Area,[3] California[2] and the United States.[4] Breast cancer is also the second leading cause of cancer death among females in the county,[5] state[6] and nation.[7]

Although the rate of new breast cancer cases declined in the greater Bay Area in the early 2000s, it remained stable in 2003–2007 for most racial/ethnic groups except Asian/Pacific Islander females among whom the rate increased.[3]

Who does it impact most?

The exact causes of breast cancer are not known. However, several individual, familial and behavioral factors have been identified that appear to increase the chances of developing breast cancer.

Females are more likely to develop breast cancer than males.[7] The chance of being diagnosed with breast cancer also increases with age.[4,7] Most breast cancer cases develop after menopause and are diagnosed in females older than 60 years of age.[4,8] In Contra Costa, white females are most likely to be diagnosed with invasive breast cancer, but African American females are more likely to die from the disease than females in the county overall. Nationally, white females are most likely to be diagnosed with both invasive and in situ breast cancer.[9]

Other individual and familial factors related to developing breast cancer include the following: personal or family history of breast cancer (i.e., mother, daughter, sister); abnormal breast cells and ge-

netic mutations related to breast cancer genes BRCA1 and BRCA2; long exposure to estrogen, including menstruation over many years (i.e., starting before age 12 and ending after age 55) and having a first child after age 30 or never having had a full-term pregnancy; use of hormone replacement therapy; high doses of radiation to the chest; high breast tissue density;[7] and other lifestyle/behavioral factors including overweight or obesity, lack of exercise and too much alcohol consumption.[4,7]

What can we do about it?

The five-year survival rate for female breast cancer is high overall but best if diagnosed early: 98% if the cancer is confined to the breast when diagnosed compared to 21% if it has spread to other parts of the body.[10] On average, mammograms detect 80%–90% of breast cancer cases in females without symptoms.[7] Although mammography rates among women 40 years of age and older declined nationally between 2000 and 2005 from 70.1% to 66.4%, early detection and better treatments have been identified as an important factor in declining breast cancer mortality among females since 1990.[7] More recent declines are likely related to decreasing use of hormone replacement therapy after menopause.[7]

Breast cancer screening guidelines differ between various health organizations. In 2009, the U.S. Preventive Services Task Force began recommending that women receive mammograms every two years between the ages of 50 and 74 years and that they not conduct breast self-exams.[11] Some organizations adhere to older recommendations that suggest clinical breast exams every three years starting at age 20, annual mammograms and clinical breast exams starting at age 40, and that breast self exams be optional.[10,11] Females should discuss screening options with their health care provider to make an informed decision about when to be screened.

Being physically active, eating a healthy diet and maintaining a healthy weight may also help reduce the risk of breast cancer.[10] Policies and programs that improve access to affordable healthy foods and increase opportunities for safe, low- or no-cost physical activity can support healthy behaviors to help prevent breast cancer. Access to health insurance and affordable, culturally competent health care services is also important to enable people to pursue appropriate screening and early treatment for breast cancer.

Data Sources: Female Breast Cancer

TABLES

Tables 1–4: The cases and deaths reported in these tables represent instances of female breast cancer. Data presented for Hispanics include Hispanic residents of any race. Data presented for whites, Asians/Pacific Islanders and African Americans/blacks include non-Hispanic residents. Not all race/ethnicities are shown but all are included in totals for the county, by gender and by city. Counts fewer than five are not shown in order to protect anonymity. Rates were not calculated for any group with fewer than 20 cases due to unstable estimates.

Tables 1–2: These tables include total deaths and age-adjusted average annual death rates per 100,000 female residents for 2005 through 2007. Mortality data from the California Department of Public Health (CDPH), http://www.cdph.ca.gov/, Center for Health Statistics' Death Statistical Master File, 2005–2007. Any analyses or interpretations of the data were reached by the Community Health Assessment, Planning and Evaluation (CHAPE) Unit of Contra Costa Health Services and not the CDPH. Data was not available for all Contra Costa communities.

ICD10 coding for malignant neoplasm of the breast (ICD C50) from the Centers for Disease Control and Prevention National Center for Health Statistics, available online at: http://www.cdc.gov/nchs/data/nvsr/nvsr50/nvsr50_16.pdf.

Population estimates for Contra Costa and its subpopulations (by age, gender, race/ethnicity, city/census place) for 2005–2007 were provided by the Urban Strategies Council, Oakland, CA. January, 2010. Data sources used to create these estimates included: U.S. Census 2000, Neilsen Claritas 2009, Association of Bay Area Governments (ABAG) 2009 Projections, and California Department of Finance Population Estimates for Cities, Counties and the State 2001-2009, with 2000 Benchmark

California Population estimate for state level rate from the State of California, Department of Finance, E-4 Population Estimates for Cities, Counties and the State, 2001–2009, with 2000 Benchmark. Sacramento, California, May 2009.

Healthy People 2010 objectives from the U.S. Department of Health and Human Services' Office of Disease Prevention and Health Promotion, available online at http://www.healthypeople.gov/.

Table 3-4: These tables include five-year case counts and age-adjusted average annual new case rates per 100,000 female residents for 2003 through 2007. New case data from the California Cancer Registry. (2009). Cancer Incidence/Mortality Rates in California. Based on October 2009 Quarterly Extract (Released October 08, 2009). Retrieved (12/2/09) from http://www.cancer-rates.info/ca. International Classification of Diseases for Oncology, Third Edition (ICD-O-3) coding for new breast cancer cases: C500-509, excluding histology types 9590-9989, and sometimes 9050-9055, 9140+. (For information on ICD-O-3 codes see: http://seer.cancer.gov/siterecode/icdo3_d01272003/)

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