2013 Marin County Data Summary:
Breast Cancer Trends and Risk Factors

Age-adjusted Invasive Breast Cancer Incidence Rates
Marin and California — Non-Hispanic, White Females, 1990–2010

- In general over the past 20 years, the incidence rate of female breast cancer among Non-Hispanic Whites has been higher in Marin County than in California as a whole.¹
- The average annual incidence rate of female breast cancer among Non-Hispanic Whites in Marin County in 2008-2010 was 144 per 100,000 compared to a rate of 142 per 100,000 in California.¹

Age-adjusted Invasive Breast Cancer Mortality Rates
Marin and California — Non-Hispanic, White Females, 1990–2010

- The death rate due to female breast cancer among Non-Hispanic Whites was lower in Marin County than in California in 2008-2010, though the difference is not significant.¹
- The death rate due to female breast cancer among Non-Hispanic Whites has decreased significantly in both Marin County and California between 1990-1992 and 2008-2010.¹

Source: California Cancer Registry Web Query Tool, California Department of Public Health, Accessed 8/8/2013
- The breast cancer incidence rate during 2005-2009 among White Non-Hispanic females in Marin County (152.7) is higher than the overall female breast cancer incidence rate among White Non-Hispanic Females in California (140.6).²

- The entire San Francisco Bay Area has elevated rates of invasive breast cancer among White Non-Hispanic women.²
• The breast cancer incidence rate among Non-Hispanic White females is higher in Marin County than in the US for all age groups except ages 85+ where the rates were very similar. The rates are statistically significantly higher in Marin for the age groups 45-49, 50-54, and 60-64.

• Breast cancer incidence in the U.S. increases with age until approximately age 80 when women may be less likely to be screened and diagnosed or may be more likely to die of other more common causes, such as heart disease, rather than breast cancer.

• The breast cancer mortality rate among Non-Hispanic, White women is not higher in Marin County compared with the U.S. for all age groups, but is significantly higher for Marin women ages 70-74 compared with U.S. women in the same age group.

• In the United States and generally in Marin, the breast cancer mortality rate increases with increasing age.
• The breast cancer incidence rate is highest among White females in Marin County.\(^1\)

• The breast cancer incidence rate is lowest among Asian/Pacific Islander women in Marin County.\(^1\)

• During this time period, Marin County rates overall were the second highest in California; rates in Non-Hispanic White women were fifth highest in California, and rates in Hispanic women were the highest in California.\(^1\)

As with incidence rates, Whites have the highest mortality rates, followed by Hispanics and Asian/Pacific Islanders.\(^1\)

Mortality rates for Blacks in Marin County could not be calculated due to fewer than 15 deaths in the time period.\(^1\)
Breast Cancer Risk Factors

What raises a woman’s chance of getting breast cancer?\textsuperscript{5,6}

There are several factors that may affect your risk of developing breast cancer. These include:

- Getting older.
- Not having children, or having your first child later in life (after age 30).
- Starting your first menstrual period at an early age (before age 12).
- Beginning menopause at a late age (after age 55).
- Having a personal history of breast cancer or certain benign breast diseases, such as atypical ductal hyperplasia.
- Having close family relatives (such as a mother, sister, father, or daughter) who have had breast cancer.
- Having a genetic condition, such as certain mutations in your BRCA1 or BRCA2 genes.
- Having been treated with radiation therapy to the breast or chest.
- Being overweight, particularly after menopause.
- Using hormone replacement therapy for 5 or more years.
- Using oral contraceptives.
- Drinking alcohol (2+ drinks daily).
- Being physically inactive

Selected Breast Cancer Risk Factors in Marin Women

Mother’s Age When First Child Was Born Among Women Currently Ages 30+

Marin Women’s Study

57% of MWS participants had no children or had their first child after age 30

- Not having children or having children after age 30 is a risk factor for breast cancer.\textsuperscript{5,6}
- 57% of the Marin mammography population are at increased risk for breast cancer based on this risk factor.\textsuperscript{8}
- Women who have had more menstrual cycles, by starting their periods at a younger age and/or reaching menopause at a later age, are considered at higher risk for breast cancer.⁵,⁶
- An age at first period younger than age 12 and age at menopause after age 55 are considered risk factors for breast cancer.⁵,⁶
- 18% of the Marin mammography population would be at increased risk for breast cancer based on the age they started their period.⁸
- 7% of the Marin mammography population reached menopause after age 55 and could be at higher risk for breast cancer.⁸

Behavioral Risk Factors

- Obesity, especially after menopause, has been associated with breast cancer.⁵,⁶
- 39% of Marin women compared with 57% of California women over age 50 are obese placing them at increased risk for breast cancer.⁷
- Prolonged use of hormone therapy is a risk factor for breast cancer.\textsuperscript{5,6}
- Use of combination hormone therapy steadily decreased in the 2000s.\textsuperscript{10}
- 7\% of Marin women age 50+ reported using combination hormone therapy in 2006-2007 which may place them at increased risk for breast cancer.\textsuperscript{10}

- 20\% of women in the MWS reported drinking one or more alcoholic beverages a day in the past year, 10\% of which reported drinking two or more alcoholic beverages per day.\textsuperscript{8}
- 67\% of Marin women reported drinking alcohol in the past month compared with only 49\% of California women.\textsuperscript{9}
- Among those who reported drinking, 18\% of Marin women drank on 21+ days in the past month compared with only 7\% of California women.\textsuperscript{9}
- 46\% of Marin women who drank on 21+ days in the past month drank 2+ drinks per day compared with 50\% of California women.\textsuperscript{9}
- Approximately 6\% of Marin women and 2\% of California women drank 2 or more drinks per day on 21+ days per month, placing them at increased risk for breast cancer.\textsuperscript{9}

- Physical activity reduces breast cancer risk.\textsuperscript{5,6}
- Only 44\% of Marin women engage in moderate or vigorous physical activity which could reduce their breast cancer risk.\textsuperscript{7}
Mammogram Screening

- In 2007-2009, 81% of Marin women over 40 had received a mammogram in the past 2 years.7
- Women who were above the poverty level but below 200% poverty were less likely to have had a mammogram in the past two years than women in the lowest and two highest income groups.7
- Use of mammography did not differ significantly by race.11
- Use of mammography was lower in those with some college education compared to those with high school or less, or a college degree or higher.7
- The percent of women who received a mammogram in the past two years differed most markedly by insurance status. Women who were currently insured were much more likely to have had a mammogram in the past two years than women who were not currently insured.7

*statistically unstable

For additional information, please contact:
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Sources: