



## Thyroid Cancer in the Greater Bay Area, 1991-2005

Spring 2008

Nationwide more than 25,000 women and 8,000 men are diagnosed with thyroid cancer each year. Known risk factors are family history of thyroid cancer, radiation exposure, personal history of a goiter or benign thyroid nodules, being a female, and being over 45 years of age (NCI). In 2005, thyroid cancer accounted for 2% of all cancer diagnoses in the Greater Bay Area. Nationally, as well as in the Greater Bay Area, thyroid cancer has increased since the early 1990's. However, research suggests that the higher rates are due to improved imaging technologies which result in the earlier detection of asymptomatic tumors and not a true increase in the occurrence of thyroid cancer (Javies, Welch, 2006).

### INCIDENCE TRENDS

In the Greater Bay Area, the incidence rate of thyroid cancer increased by 31% in females and remained stable in males between 1991 and 2005 (Figure 1). In women, the most dramatic increase occurred in recent years, from 2000-2005.

Figure 1. Age-adjusted incidence rates of thyroid cancer by year of diagnosis, Greater Bay Area, 1991-2005

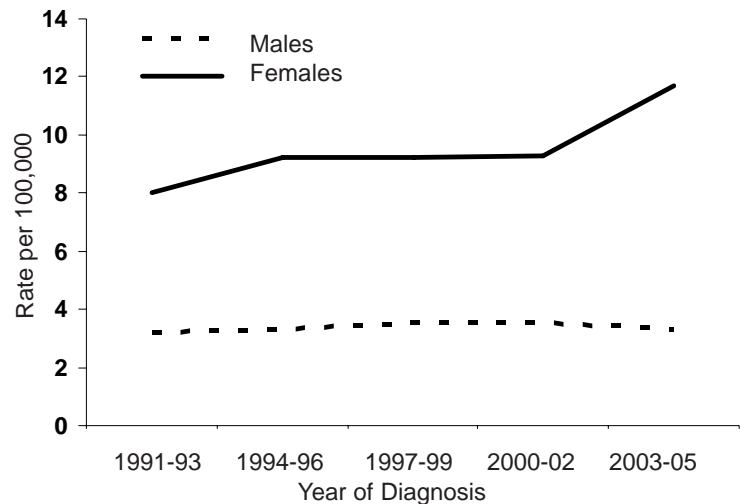
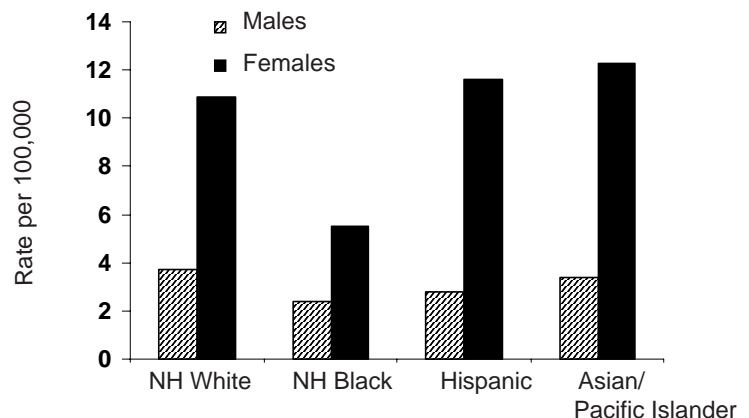


Figure 2. Age-adjusted incidence rates of thyroid by race/ethnicity, Greater Bay Area, 2001-2005

### RACIAL/ETHNIC PATTERNS

From 2001 to 2005, the incidence rates for thyroid cancer were highest among non-Hispanic Asian/Pacific Islander women and lowest among non-Hispanic (NH) black men (Figure 2). In all racial/ethnic groups, incidence rates of thyroid cancer were higher among females compared to males.

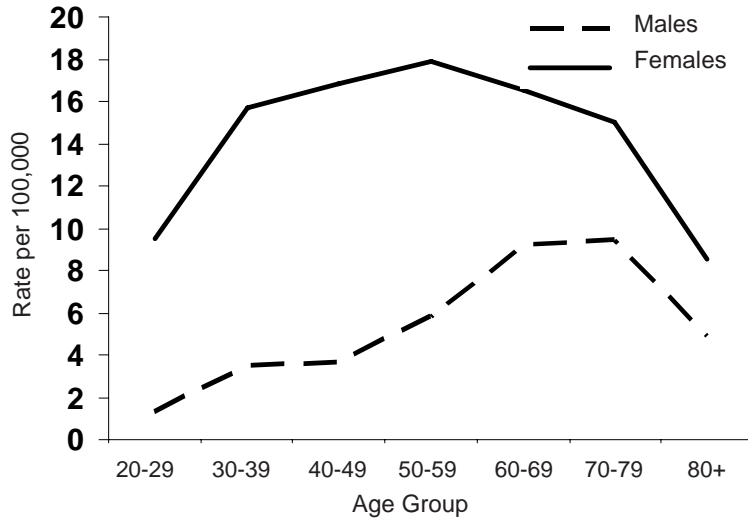




### AGE-SPECIFIC INCIDENCE

Thyroid cancer incidence in the Greater Bay Area increases with age in both females and males, peaking in females at 50-59 years of age and in males at 70-79 years of age (Figure 3).

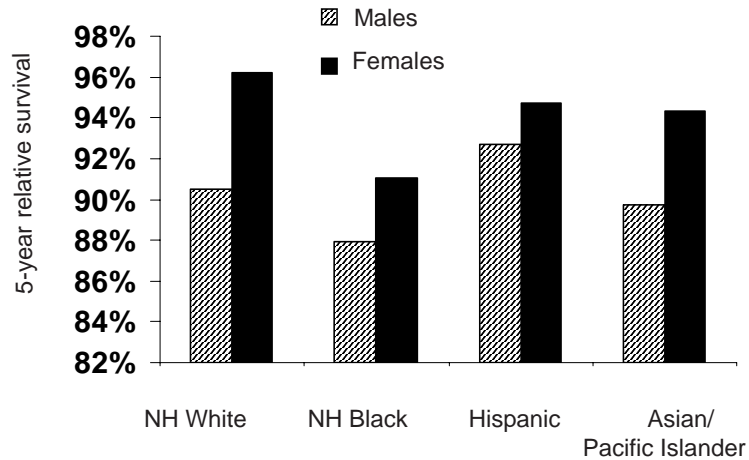
Figure 3. Age-specific incidence rates of thyroid cancer by age group, Greater Bay Area, 1991-2005



### 5-Year Relative Survival

Overall, the 5-year relative survival from thyroid cancer was 94%. The highest 5-year survival was seen among non-Hispanic whites and Hispanics, while non-Hispanic blacks had the lowest survival. In all racial/ethnic groups males had lower survival rates than females.

Figure 4. 5-year relative survival of thyroid cancer by race/ethnicity, Greater Bay Area 1991-2005



**References:**

National Cancer Institute (NCI), What you need to know about: Thyroid Cancer. 2007, <http://www.cancer.gov/cancertopics/wyntk/thyroid.pdf>

Javies L, Welch H G. Increasing Incidence of Thyroid Cancer in the United States, 1973-2002. *The Journal of the American Medical Association*. 2006; 295:2164-2167.

Technical Notes: Because age distributions vary by population, a standard statistical procedure called “age-adjustment” was used so that we can examine differences in cancer incidence and mortality rates due to factors other than age. Rates are age-adjusted (using the Year 2000 population standard) unless noted to be age-specific. Race/ethnicity was categorized as four mutually-exclusive racial/ethnic groups: non-Hispanic whites (whites), non-Hispanic blacks (blacks), Hispanics, and non-Hispanic Asians/Pacific Islanders (Asians/Pacific Islanders).

About the data: Cancer data have been collected in Alameda, Contra Costa, Marin, San Francisco, and San Mateo counties since 1973, and in Monterey, San Benito, Santa Clara, and Santa Cruz counties since 1988, forming two parts (Regions 1 and 8) of the California Cancer Registry. These counties, referred to as the Greater San Francisco Bay Area are also part of the National Cancer Institute’s Surveillance, Epidemiology, and End Results (SEER) registry program.

Founded in 1974, the mission of the Northern California Cancer Center is to reduce the burden of cancer through surveillance, epidemiology, prevention research and education. Essential to this mission is collaboration with partners in cancer research, education and the community.

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