



## Kidney cancer in the Greater San Francisco Bay Area 1988-2003

Spring 2006

Kidney cancer accounts for over 2% of newly diagnosed cancers in the Greater Bay Area, with over 700 new cases and nearly 200 deaths in 2003. Known risk factors for kidney cancer include cigarette smoking, obesity, hypertension, and certain hereditary conditions. Five-year relative survival with kidney cancer is approximately 63% overall, but it is above 75% for children age 9 years and under.

### INCIDENCE TRENDS

The incidence rate of kidney cancer in males is approximately double that in females. In the Greater Bay Area between 1988 and 2003, the incidence rate of kidney cancer was fairly constant in males, whereas it increased slightly in females (below, Figure 1). The trend in Greater Bay Area females, but not males, parallels the rising incidence of kidney cancer among both males and females in the United States in recent decades (Chow *et al.*, JAMA 1999;281:1628-1631).

Figure 1. Age-adjusted incidence rates of kidney cancer by sex and year of diagnosis, Greater San Francisco Bay Area, 1988-2003

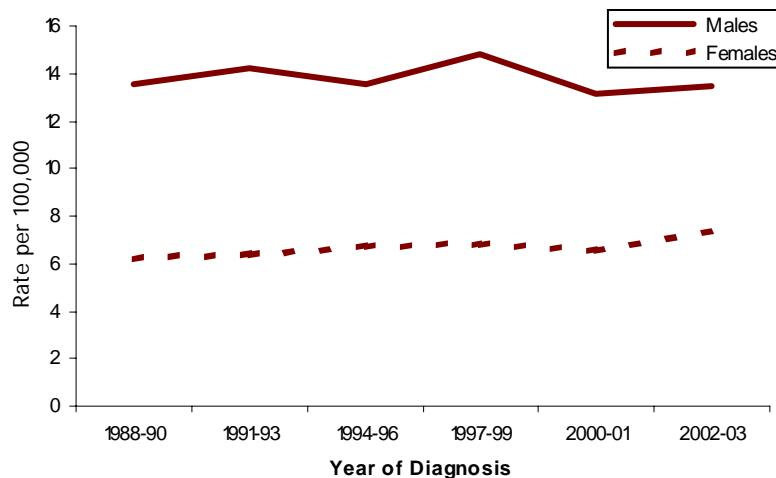


Figure 2. Age-adjusted incidence rates of kidney cancer by sex and race/ethnicity, Greater San Francisco Bay Area, 1999-2003

### RACIAL/ETHNIC PATTERNS

Incidence rates of kidney cancer are similarly high in Hispanics and non-Hispanic blacks, followed by non-Hispanic whites (right, Figure 2). The lowest rates are observed in Asians/Pacific Islanders. The variation across racial/ethnic groups is similar in males and females.

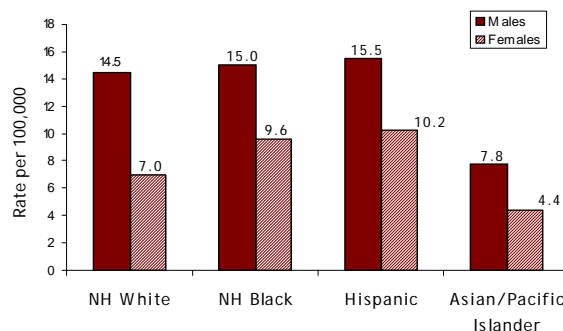




Figure 3. Age-specific incidence rates of kidney cancer by sex, Greater San Francisco Bay Area, 1999-2003

### AGE-SPECIFIC INCIDENCE

Kidney cancer incidence initially peaks among infants and young children, with similar rates in boys and girls (right, Figure 3). Incidence rises again in early adulthood, maintaining a male:female ratio of approximately 2:1 in all age groups, and peaks at the oldest ages.

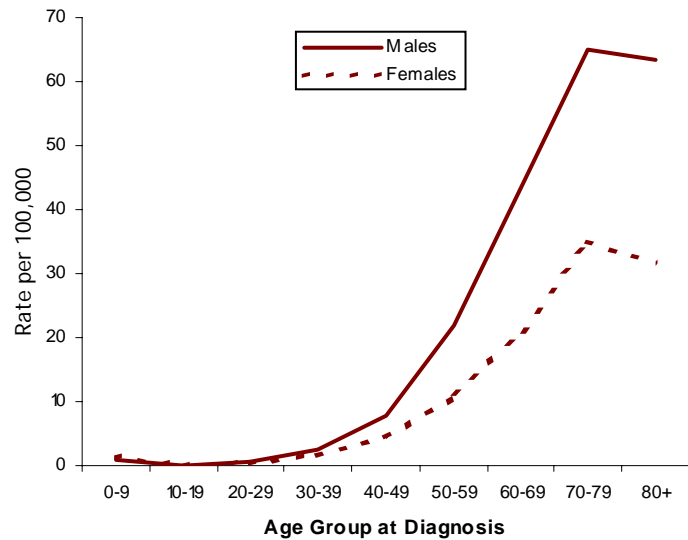
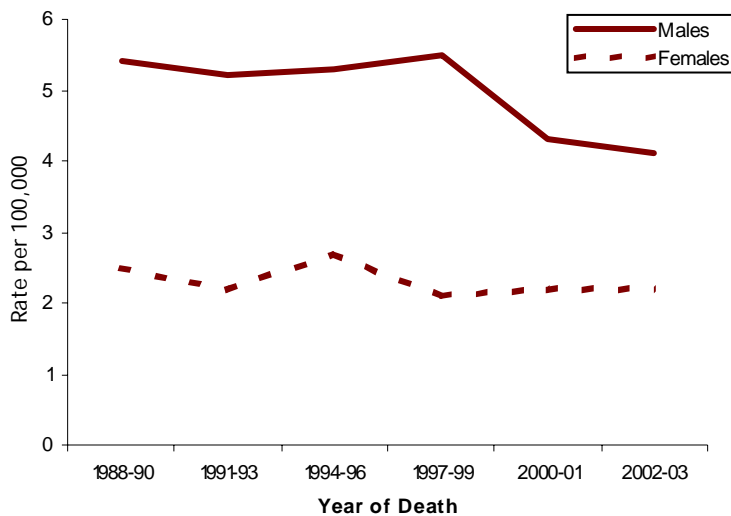


Figure 4. Age-adjusted mortality rates of kidney cancer by sex and year of death, Greater San Francisco Bay Area, 1988-2003



### TRENDS IN MORTALITY

In contrast to incidence patterns, kidney cancer mortality rates decreased between 1988 and 2003 among Greater Bay Area males (left, Figure 4). Mortality rates were relatively steady among females, with the suggestion of a decline since the mid-1990s.

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.