

STOMACH

Stomach cancer was the most common form of cancer in the world in the 1970s and early 1980s, and is probably now only surpassed by lung cancer. Stomach cancer incidence rates show substantial variation internationally. Rates are highest in Japan and eastern Asia, but other areas of the world have high stomach cancer incidence rates including eastern Europe and parts of Latin America. Incidence rates

are generally lower in western Europe and the United States. Stomach cancer incidence and mortality rates have been declining for several decades in most areas of the world. For one subsite of the stomach, the cardia, incidence rates appear to be increasing, particularly among white men.

Stomach cancer incidence rates for the racial/ethnic populations in the SEER regions can be grouped broadly into three levels. Those with high age-adjusted incidence rates are Koreans, Vietnamese, Japanese, Alaska Natives and Hawaiians. Those with intermediate incidence rates are white Hispanic, Chinese, and black populations. Filipinos and non-Hispanic whites have substantially lower incidence rates than the other groups. These patterns hold for both men and women when rates are available for both sexes.

The incidence rate for Korean men is 1.6 times the rate in Japanese men, the group with the second highest rate, and is 2.4 times the rate in Hawaiians. The range in incidence rates is narrower among the groups in the intermediate level. The incidence rate for Korean men is nearly 5.8 times greater than the rate in Filipino men, the group with the lowest incidence rate. Among women, the highest incidence rate is in the Vietnamese population and is nearly 6.6 times greater than the rate in non-Hispanic whites. The male-to-female ratio of age-adjusted incidence rates is

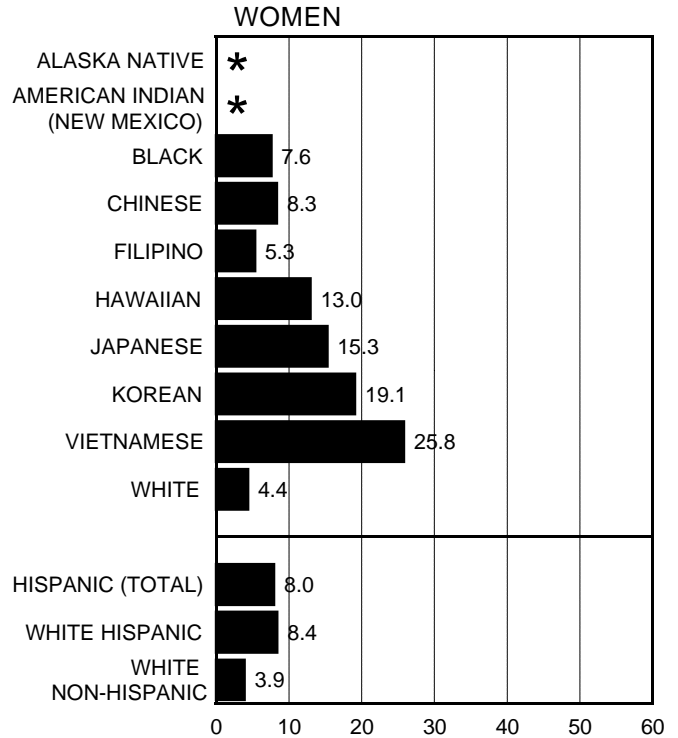
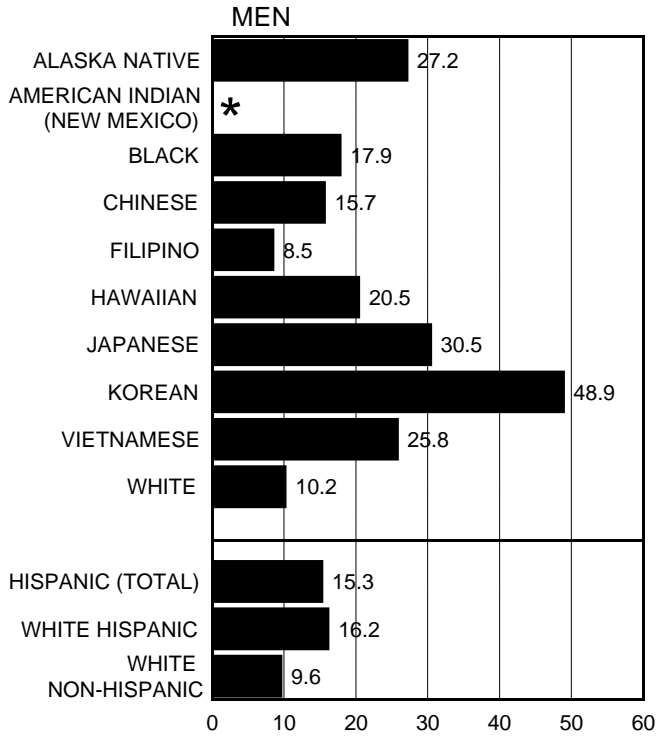
highest for Koreans (2.6) and followed closely by non-Hispanic whites and blacks (2.5 and 2.4, respectively). The ratio is less than two for other racial-ethnic groups. Notably, the incidence rates for Vietnamese men and women are the same.

The racial/ethnic patterns of stomach cancer mortality in the United States are similar to those for incidence. These patterns remain when incidence and mortality rates are calculated for the three age groups. There are some differences in the ratios of incidence rates to mortality rates. Filipinos show relatively high ratios of incidence to mortality (greater than 2); Japanese, Alaska Natives, white Hispanics, Chinese, and non-Hispanic whites show intermediate ratios (1.5-1.9); blacks and Hawaiians show low ratios of incidence to mortality rates (1.0-1.4).

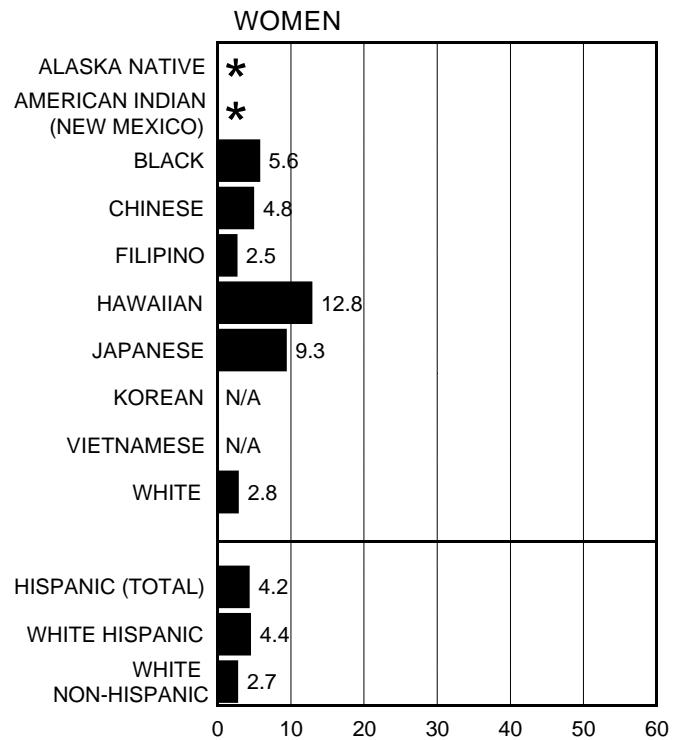
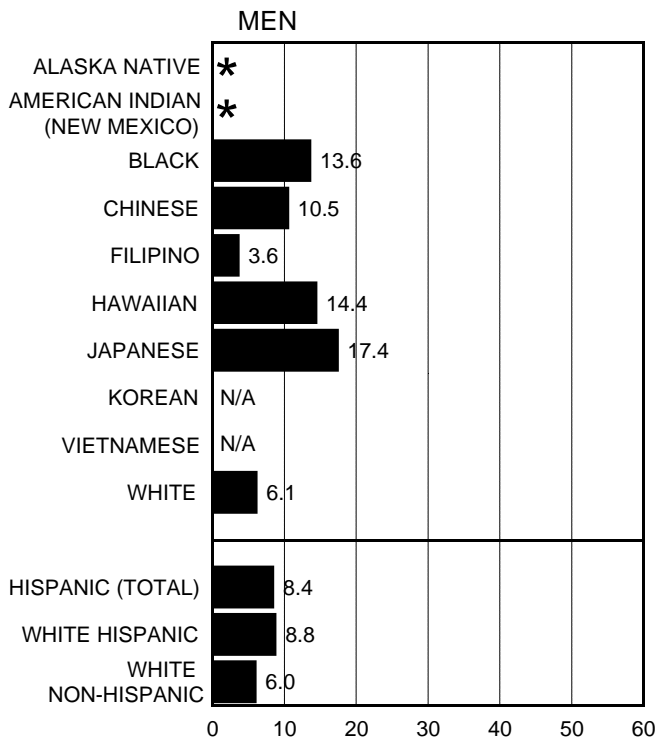
Better techniques for food preservation and storage are often cited as reasons for the decline in stomach cancer incidence worldwide. Refrigeration has resulted in lower intake of salted, smoked and pickled foods and greater availability of fresh fruits and vegetables. Evidence is strong that salt intake is a major determinant of stomach cancer risk. Cigarette smoking may also play a role. Infection with *helicobacter pylori*, the major cause of chronic active gastritis, also appears to be important in the development of stomach cancer.

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SEER INCIDENCE Rates, 1988-1992



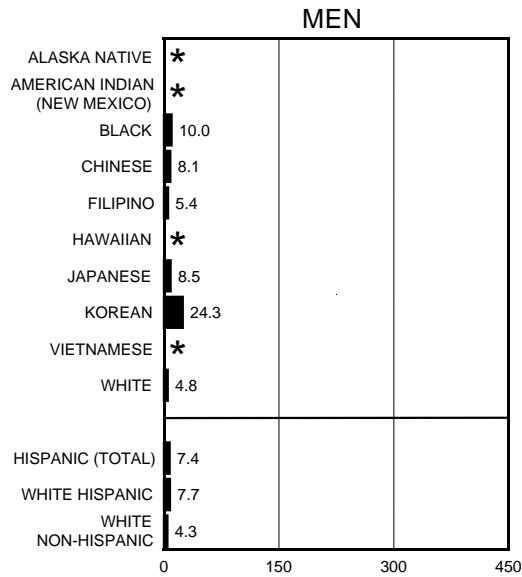
United States MORTALITY Rates, 1988-1992



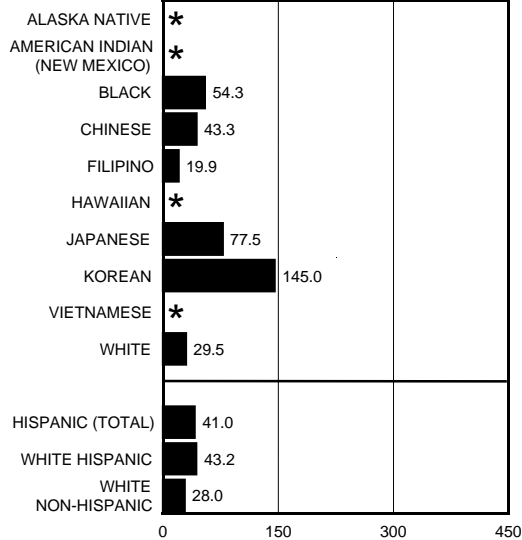
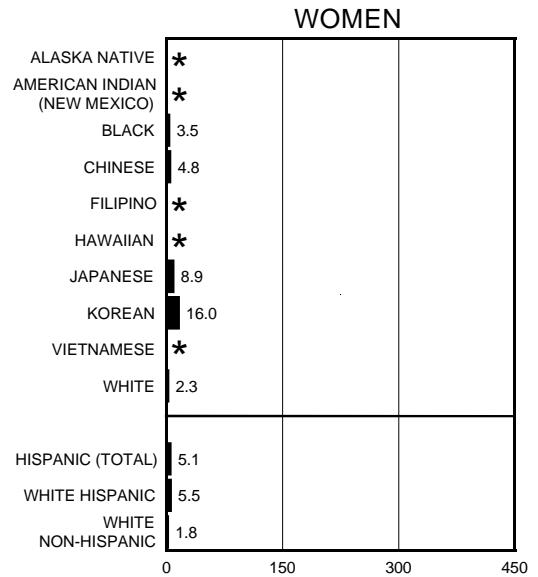
NOTE: Rates are "average annual" per 100,000 population, age-adjusted to 1970 U.S. standard; N/A = information not available; * = rate not calculated when fewer than 25 cases.

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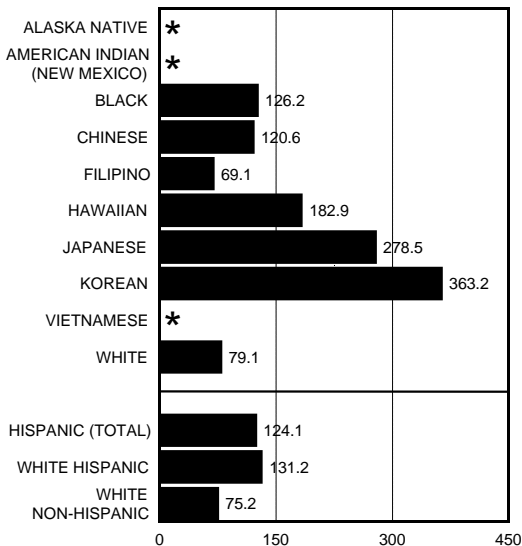
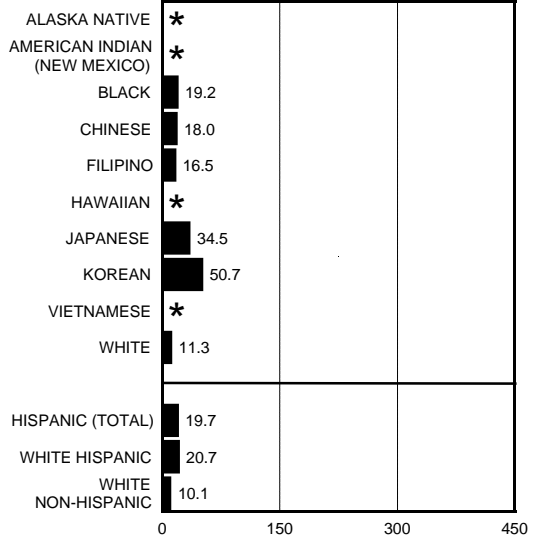
SEER INCIDENCE Rates by Age at Diagnosis, 1988-1992



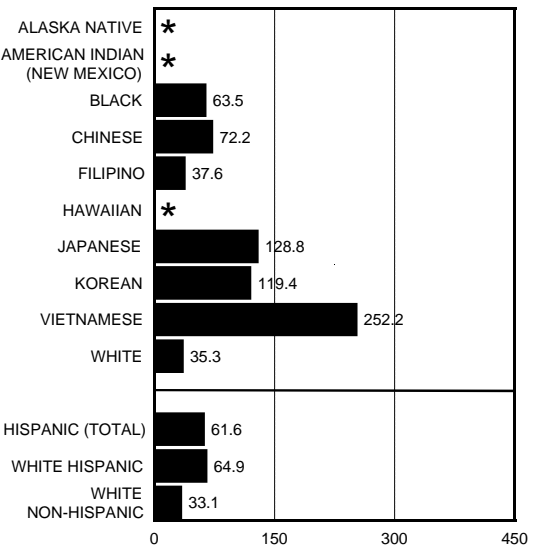
AGE 30-54



AGE 55-69



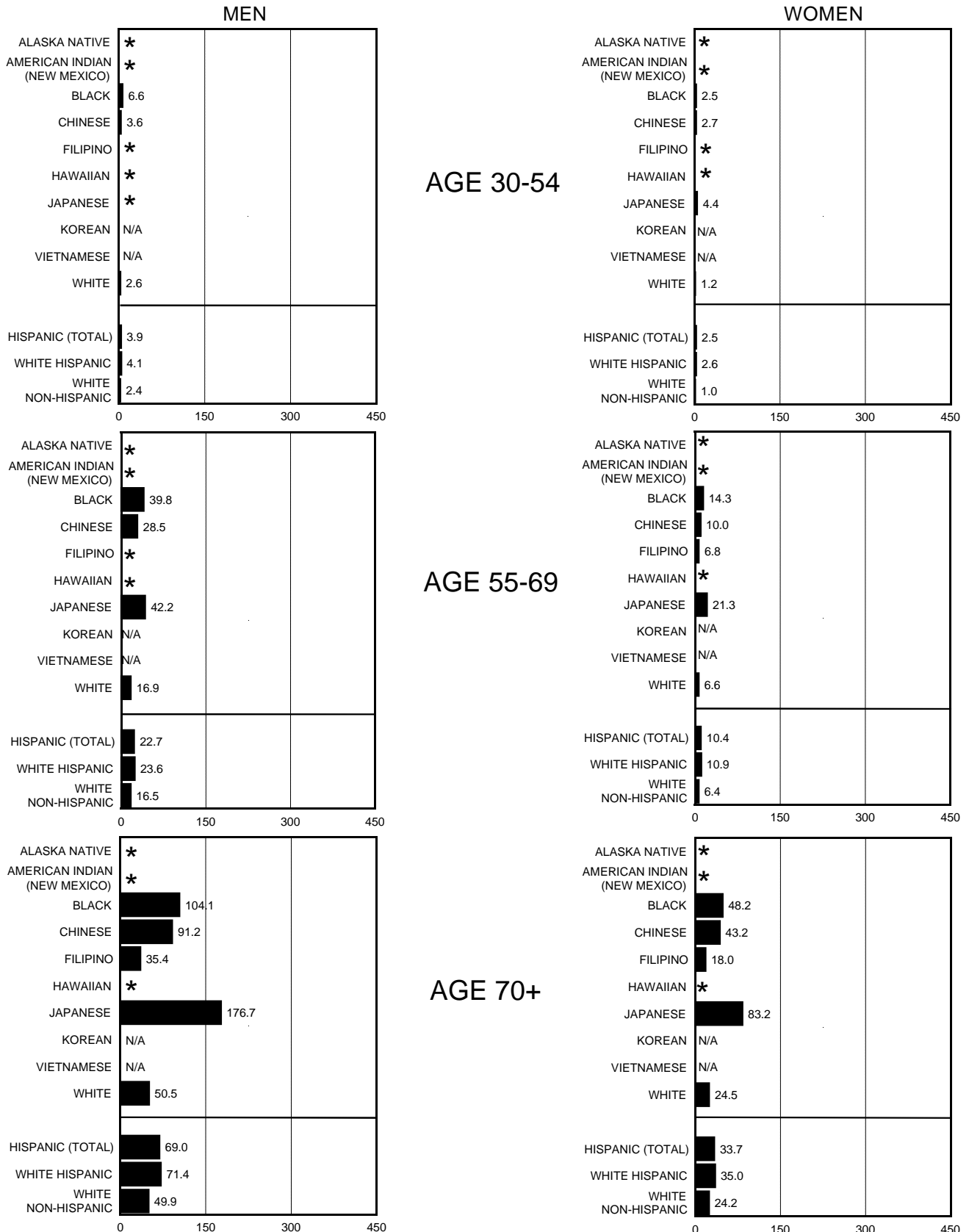
AGE 70+



NOTE: Rates are per 100,000 population, age-adjusted to 1970 U.S. standard; * = rate not calculated when fewer than 25 cases.

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United States MORTALITY Rates by Age at Death, 1988-1992



NOTE: Rates are "average annual" per 100,000 population, age-adjusted to 1970 U.S. standard; N/A = data unavailable; * = fewer than 25 deaths.