

MULTIPLE MYELOMA

Multiple myeloma, sometimes called plasma cell myeloma, arises in bone marrow and involves the plasma cells, a type of blood cell that normally plays a crucial role in the immune response by producing antibodies. It is classified as a lymphoproliferative disease and is therefore related to the lymphomas. In some early classification schemes, multiple myelomas were included in

statistics on lymphomas.

There is considerable variation in the incidence of the disease. Among men, age-adjusted incidence rates (per 100,000) range from a low of 1.6 among Japanese to a high of 11.3 among blacks, a seven-fold difference. This difference is particularly interesting since the opposite relationship holds for Ewing's sarcoma, a type of bone tumor that is extremely rare among blacks but high among Japanese. The second highest rate in men occurs among whites (5.0), a rate less than half that for black men. There are too few cases among Japanese women to calculate a meaningful rate. However, rates range from a low of 1.8 among Chinese to a high of 7.4 among black women, a four-fold difference. The second highest rate among women is in whites (3.2), still less than half that for black women. Incidence rates in men are approximately 50% higher than rates in women for all racial/ethnic groups, with the exception of Filipinos, where men have an 80% excess. Reasons for the excess among black men and women and among men in general are unknown. Multiple myeloma rarely occurs in the 30-54 year age group. However, in every age group, blacks have rates that are double those for whites among both men and women.

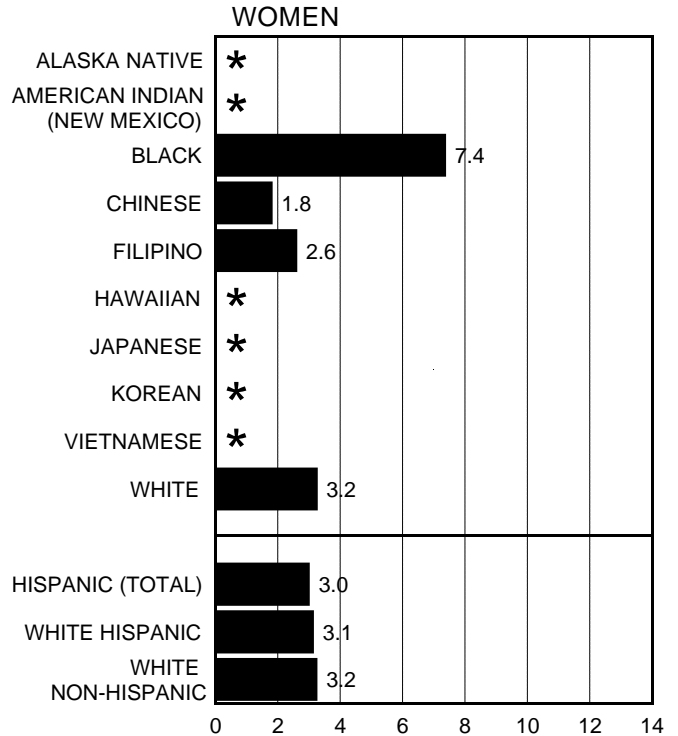
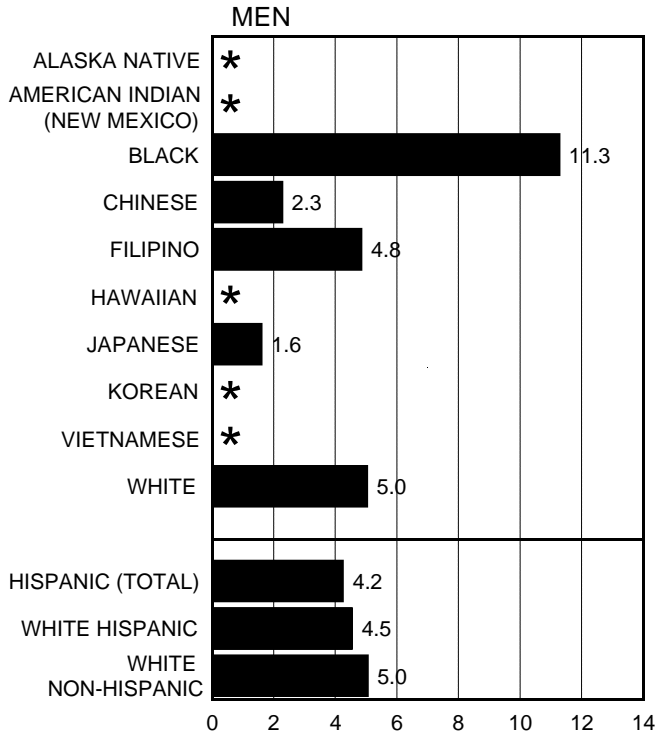
Mortality patterns by race are similar to those for incidence with blacks having the highest rates, approximately double those for

whites. The incidence-to-mortality rate ratios for men and women are less than two, except among Filipinos, where the ratios are 2.2 for men and 2.6 for women. It is unknown whether this results from an under-ascertainment of the death certificates for Filipinos or from a true difference in survival for this group. Racial/ethnic mortality patterns by age group are similar to those noted for incidence.

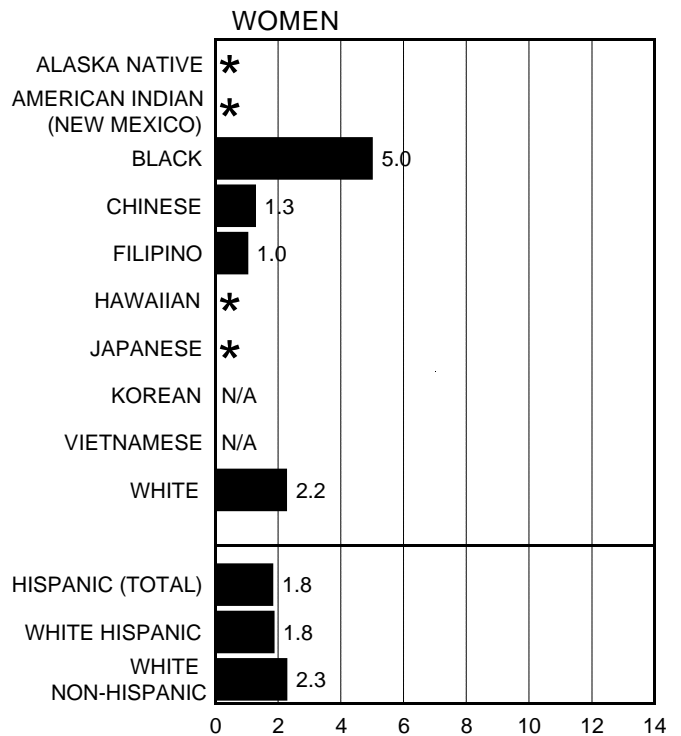
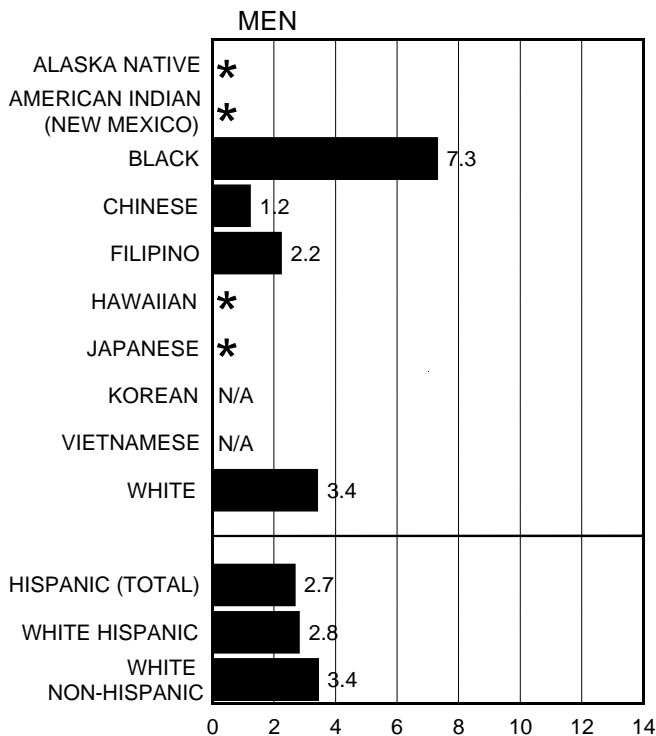
Little is known about the causes of multiple myeloma. Ionizing radiation, chemical exposures in the workplace, and hormonal influences have been suggested as factors. The possible roles of genetic factors and past medical history, especially involving inflammatory diseases, are other hypotheses under active study.

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SEER INCIDENCE Rates, 1988-1992



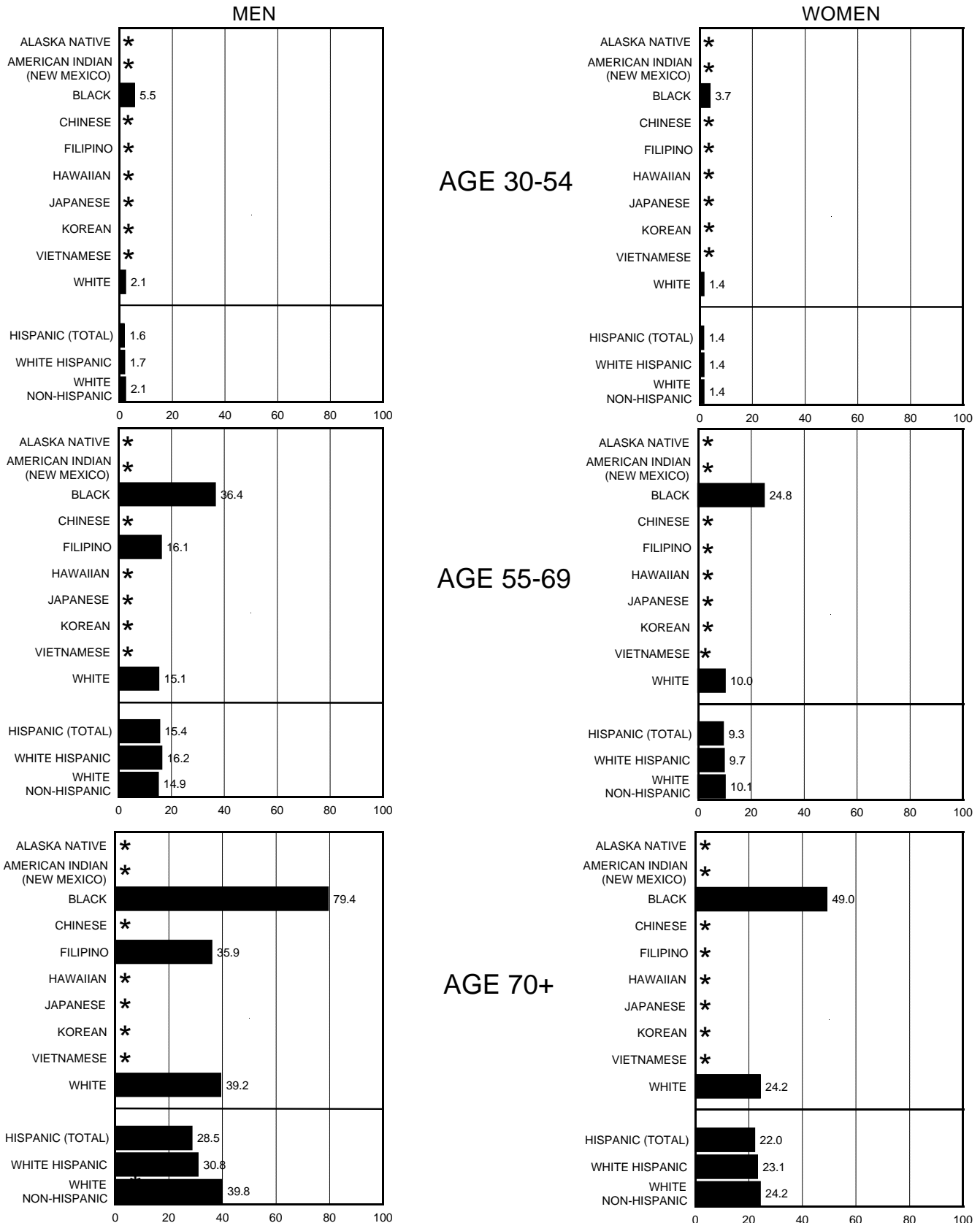
United States MORTALITY Rates, 1988-1992



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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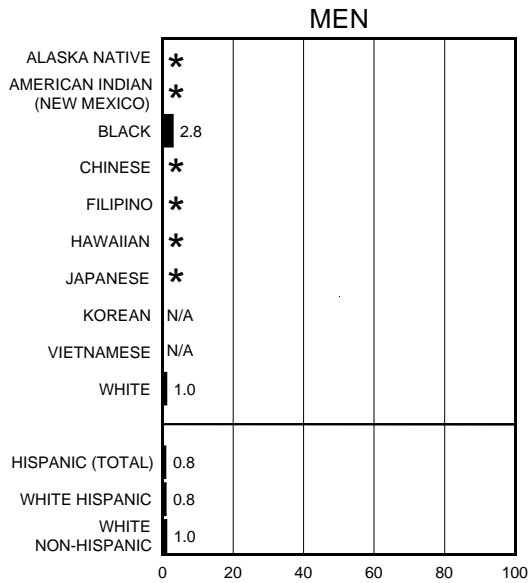
SEER INCIDENCE Rates by Age at Diagnosis, 1988-1992



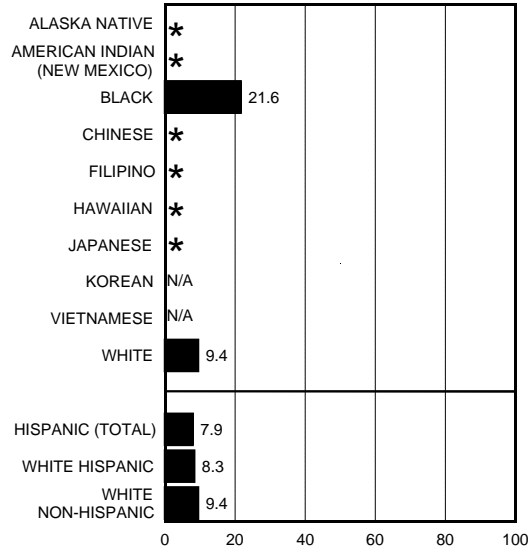
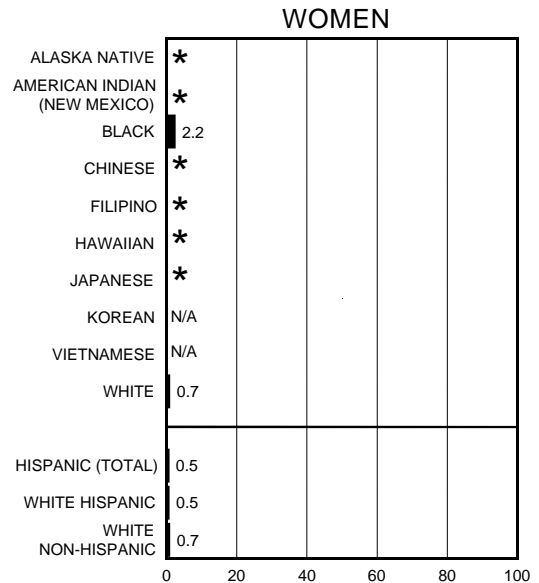
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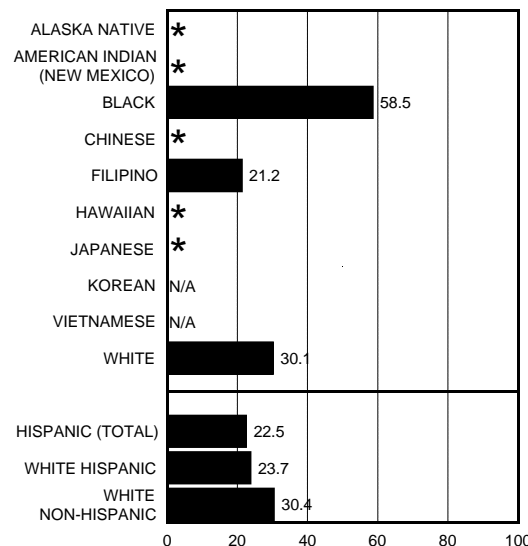
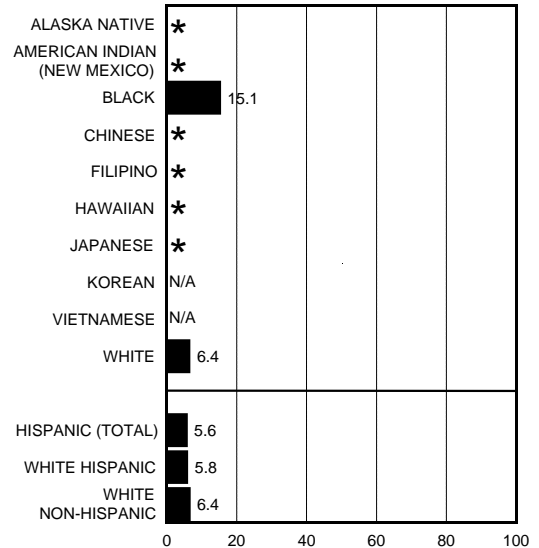
United States MORTALITY Rates by Age at Death, 1988-1992



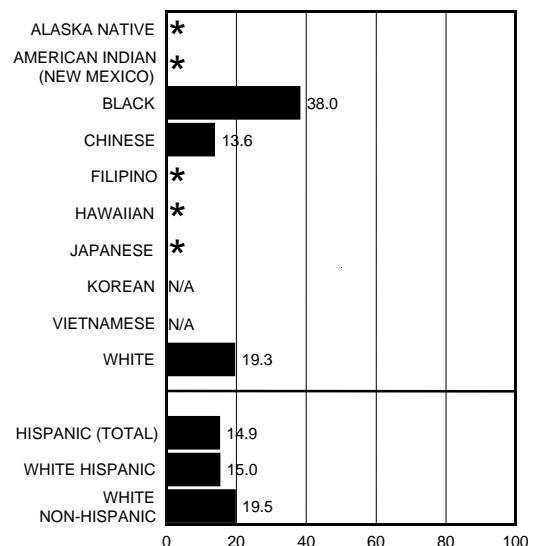
AGE 30-54



AGE 55-69



AGE 70+



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