

## LYMPHOMAS

**L**ymphomas, which include Hodgkin's disease and non-Hodgkin's lymphoma, are the fifth most common type of cancer diagnosed and the sixth most common cancer cause of death in the United States. Of the two basic lymphoma types, non-Hodgkin's lymphoma is the more common and will be discussed first.

### Non-Hodgkin's Lymphoma

The age-adjusted incidence rates for non-Hodgkin's lymphoma are higher among men than women in every racial/ethnic group except Koreans, in which there is a slight preponderance among women. In both men and women, non-Hodgkin's lymphoma incidence rates are highest among non-Hispanic whites (19.1 and 12.0 per 100,000 men and women, respectively) and lowest among Koreans (5.8 and 6.0 per 100,000). This corresponds to a high to low ratio of the rates (white non-Hispanic to Korean) of 3.3 for men, and 2.0 for women. Vietnamese men have the second highest rates (after whites), followed by white Hispanic, black, Filipino, Hawaiian, Chinese and Japanese men. There were too few cases diagnosed in Alaska Native and American Indian (New Mexico) men to calculate reliable rates. Among women, white Hispanics accounted for the second highest rates, followed by Filipino, Japanese, black and Chinese women. There are insufficient numbers of lymphoma cases diagnosed in Alaska Native, American Indian (New Mexico), Hawaiian and Vietnamese women to estimate their rates reliably.

Age-adjusted mortality rates of non-Hodgkin's lymphoma are consistent with the incidence rates with one exception: the mortality rate for Hawaiian men (8.8 per 100,000) exceeds that of any other group, even though the corresponding incidence

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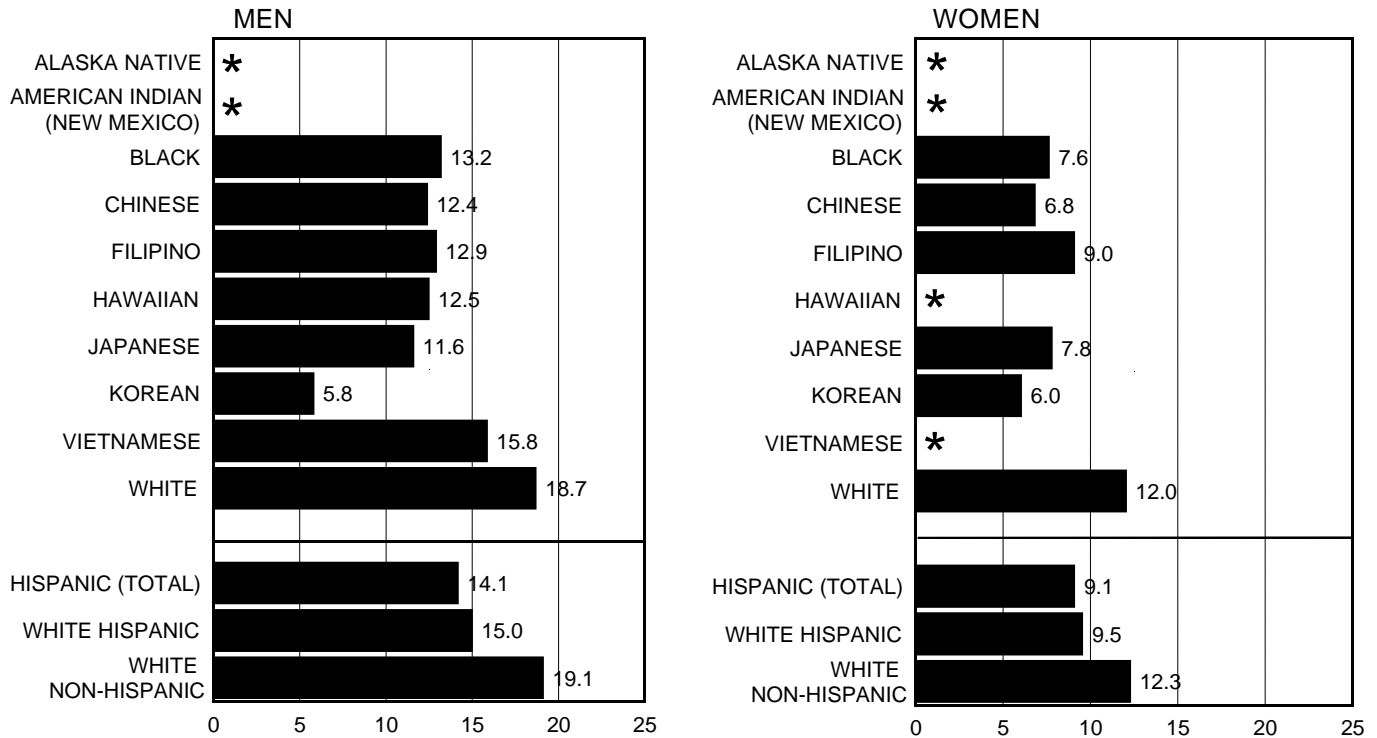
rate is considerably lower than that of white non-Hispanics. There are an insufficient number of deaths from non-Hodgkin's lymphoma among Hawaiian women to reliably assess the mortality rate for that group.

In every group, incidence rates increase with age, however the magnitude of this increase varies by racial/ethnic group. For example, from ages 30-54 years to ages 70 years and older, the incidence of non-Hodgkin's lymphoma increases about five-fold among white non-Hispanic men, but 11-fold among Filipino men. Among women, the comparable rates increase eight-fold among white non-Hispanics, but 16-fold among Filipinos. These differences reflect high incidence rates among older Filipinos, similar to those of white non-Hispanics. These high rates are not reflected, however, in the mortality data for Filipinos. Among those aged 30-54 years rates among black men and women are close to those among white non-Hispanics. Rates among black men and women aged 70 years and older, however, are only about one-half those of white non-Hispanics.

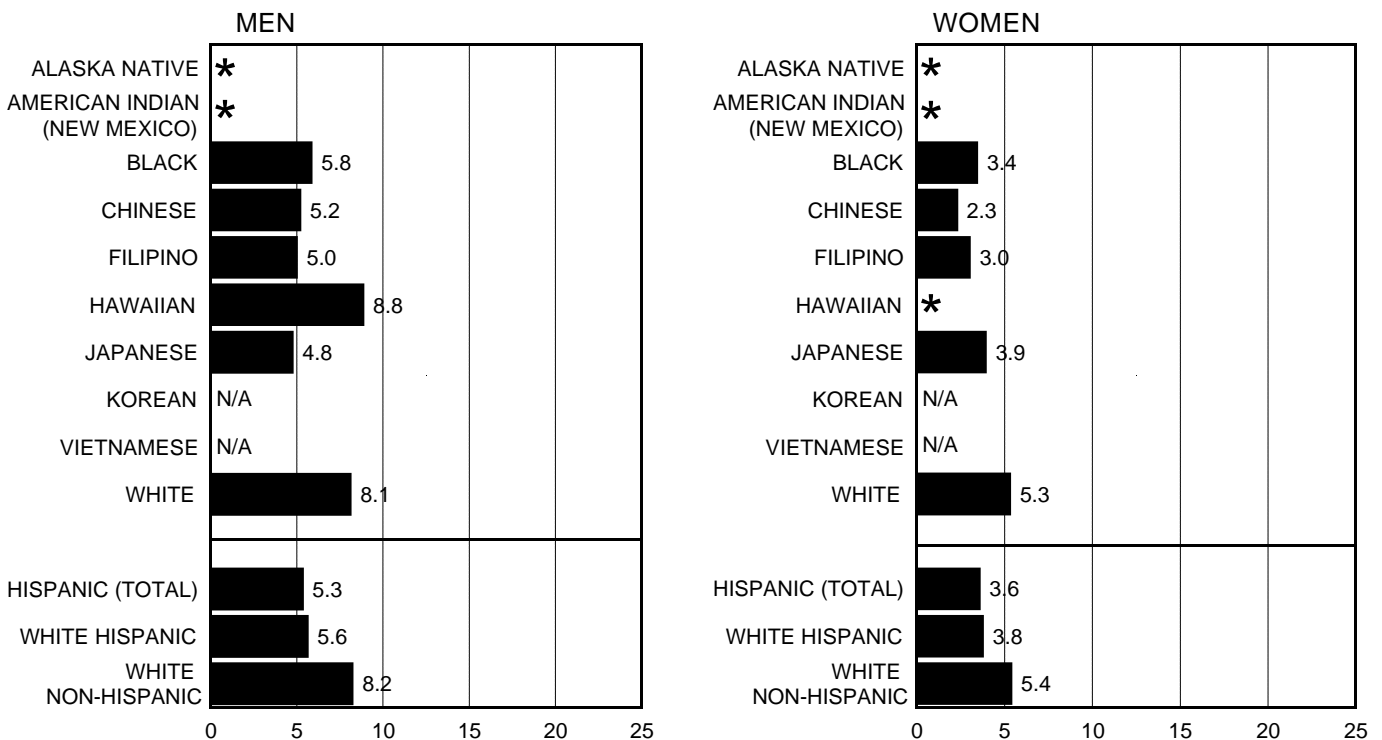
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# LYMPHOMAS: Non-Hodgkin's Lymphoma

## SEER INCIDENCE Rates, 1988-1992



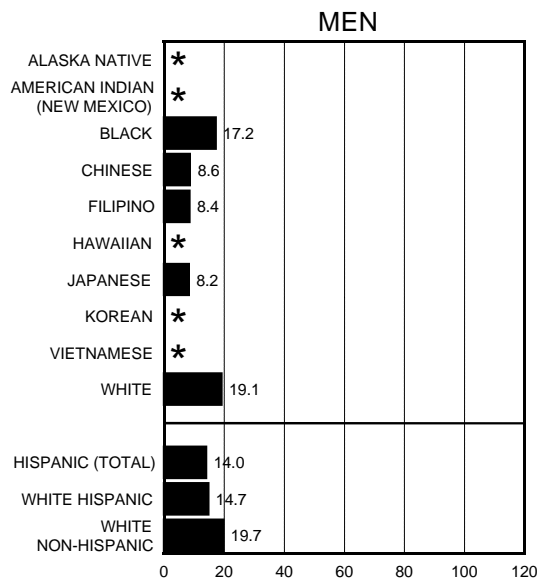
## United States MORTALITY Rates, 1988-1992



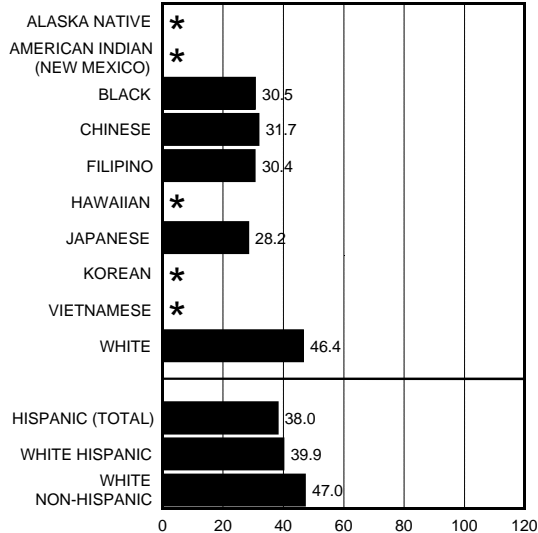
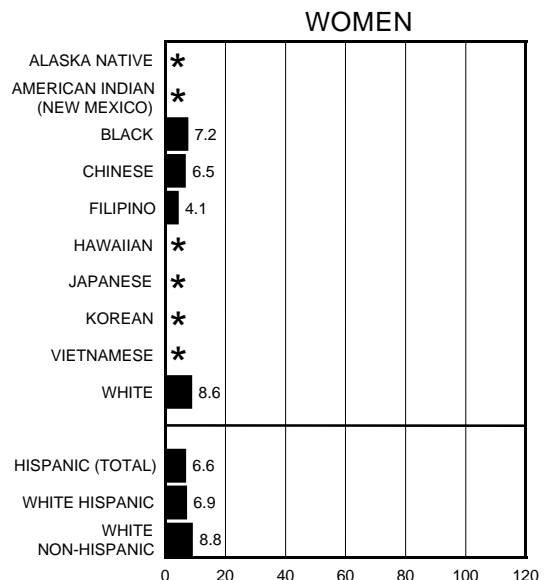
NOTE: Rates are "average annual" per 100,000 population, age-adjusted to 1970 U.S. standard; N/A = information not available; \* = rate not calculated when fewer than 25 cases.

# LYMPHOMAS: Non-Hodgkin's Lymphoma

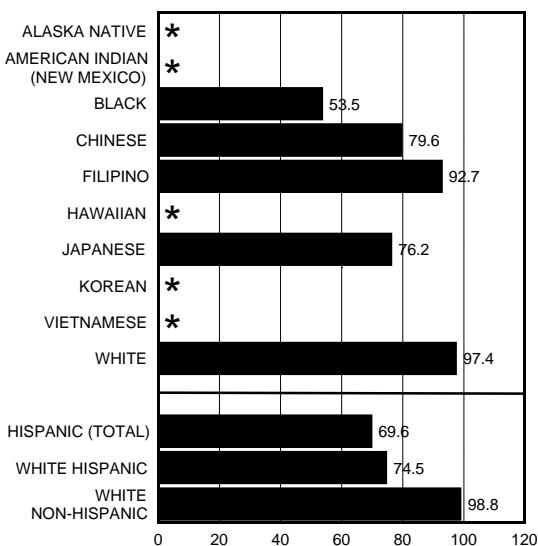
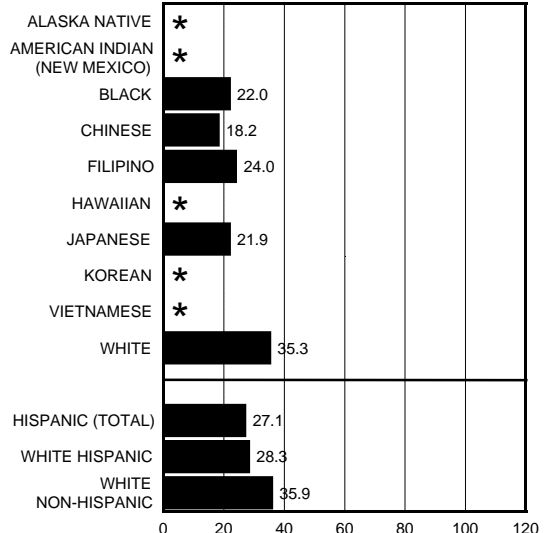
## SEER INCIDENCE Rates by Age at Diagnosis, 1988-1992



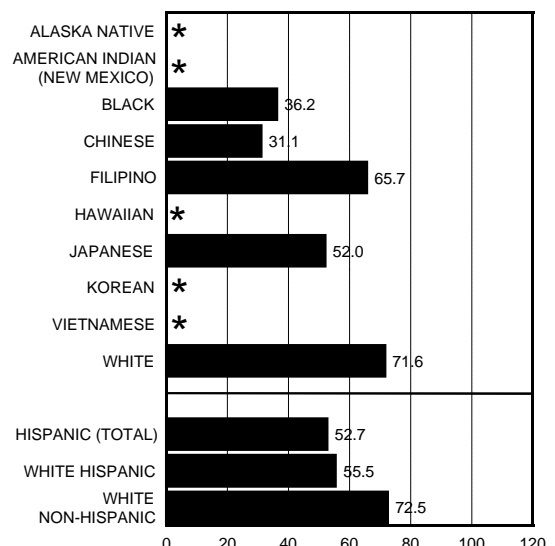
AGE 30-54



AGE 55-69



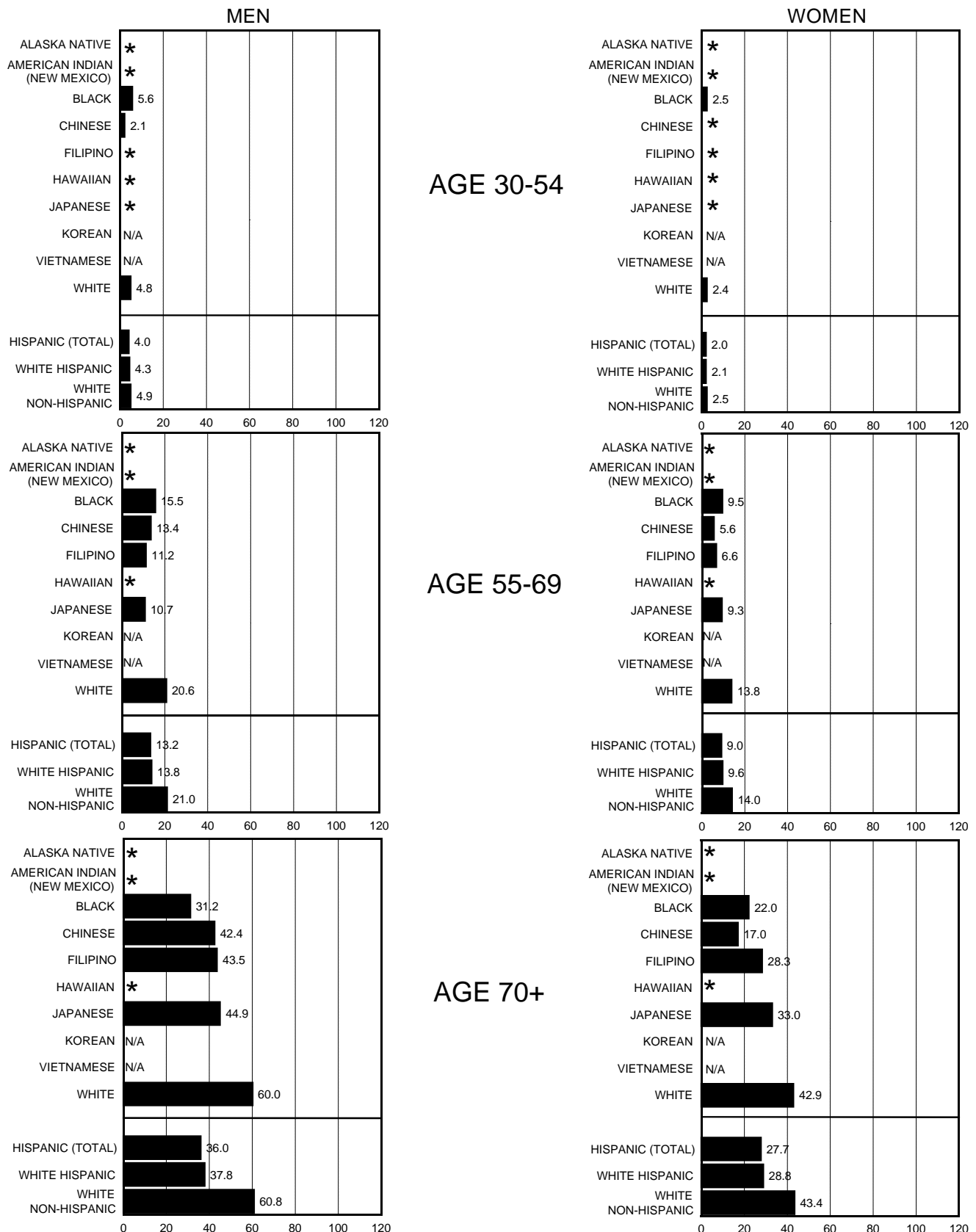
AGE 70+



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

# LYMPHOMAS: Non-Hodgkin's Lymphoma

## 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.

## **Hodgkin's Disease**

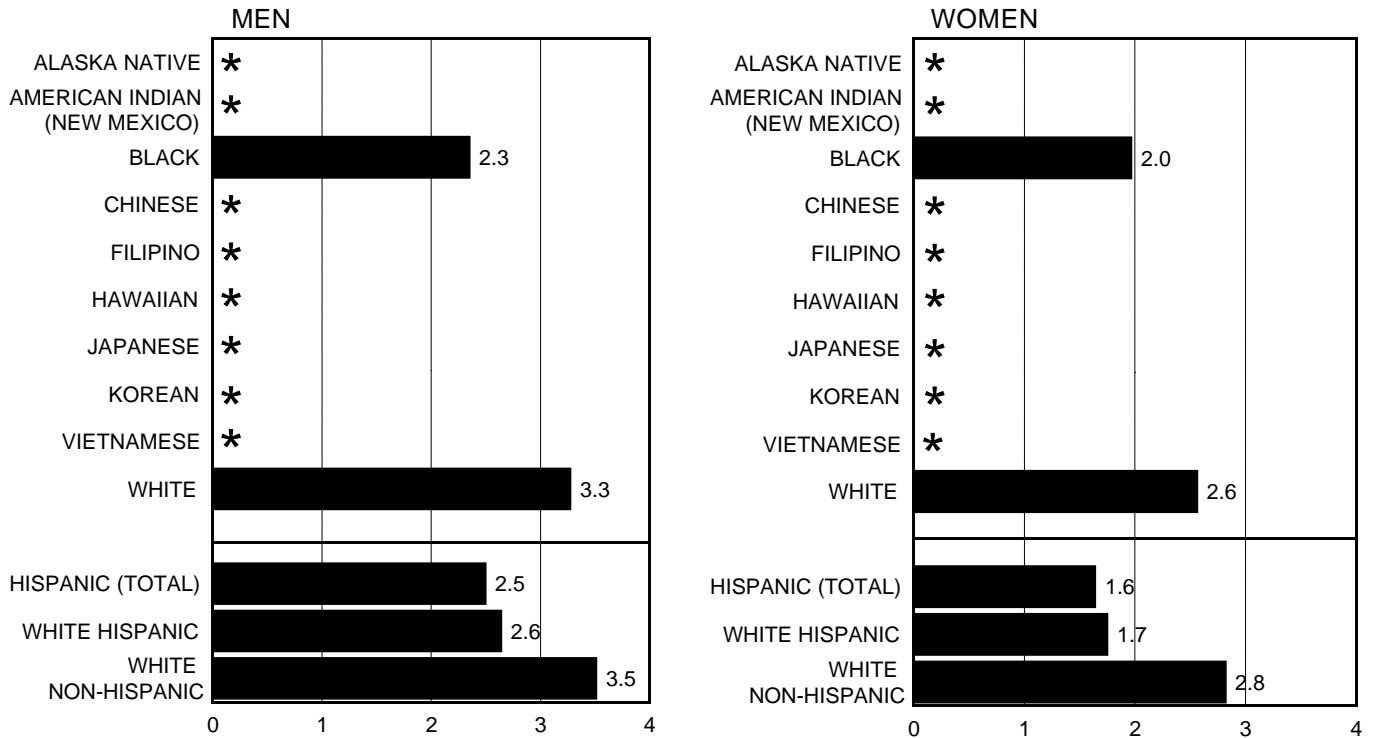
Hodgkin's disease is considerably less common than non-Hodgkin's lymphoma. As a result, reliable incidence and mortality rates are available only for black, Hispanic and white populations. In both men and women, overall age-adjusted incidence rates are highest among white non-Hispanics, and considerably lower in black and Hispanic populations. Incidence rates are higher in men, compared to women, in each racial/ethnic group.

Among women 30-54 years of age, Hodgkin's disease rates are highest in the white non-Hispanic population, slightly lower in the black population, and considerably lower among Hispanics. Only in the white population are reliable rates available in the other age groups. Rates among white non-Hispanic women aged 70 years and older are about 50% greater than in the two younger groups. The rates among black men and white non-Hispanic men are similar in both the 30-54 and 55-69 year age groups. The rate in white Hispanic men aged 55-69 years (5.1 per 100,000), however, is almost double that of the younger white Hispanics (2.7 per 100,000). Rates for men over age 70 years are available only for the white population and are about one-third higher than those for the younger age groups.

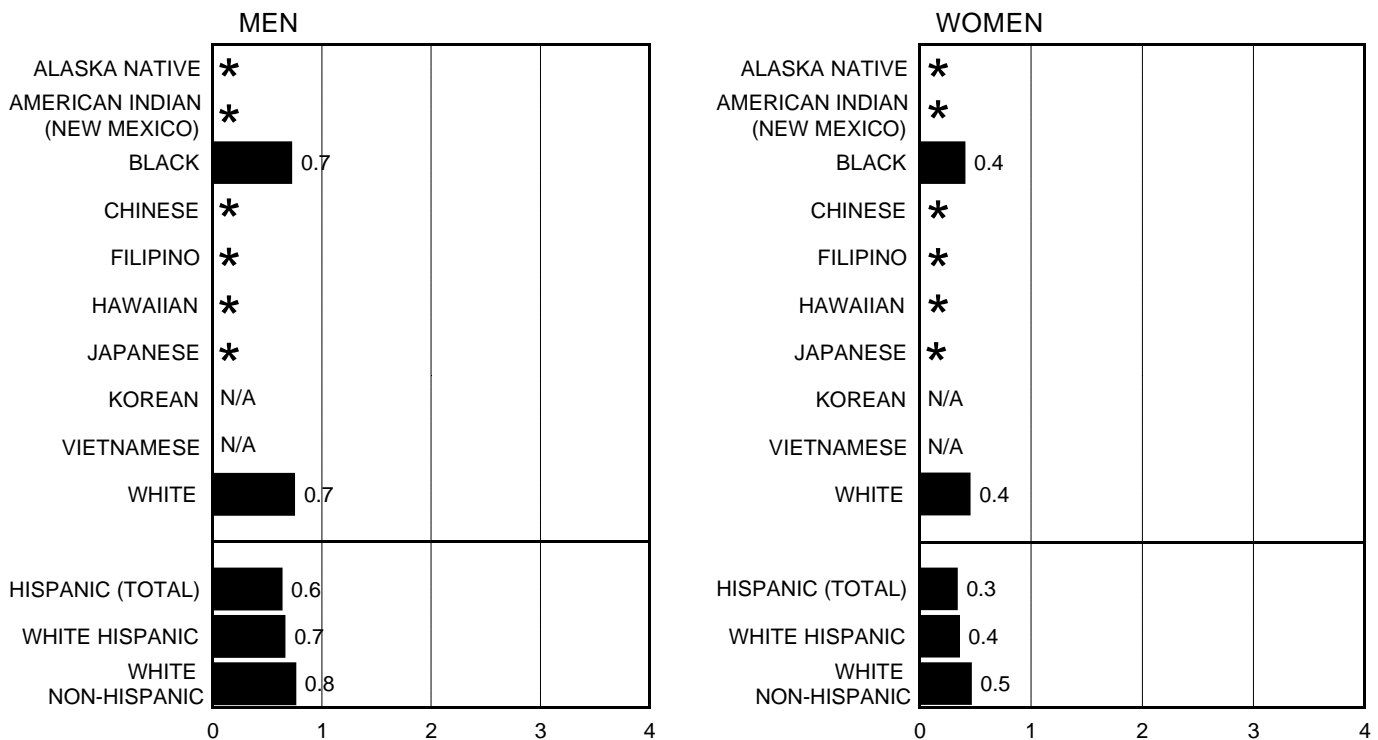
Risk factors for both Hodgkin's disease and non-Hodgkin's lymphomas are largely unknown. Altered immune function, whether due to exposure to specific viruses (such as HIV and HTLV-I), or due to other causes, clearly puts people at higher risk. Herbicides and other chemicals may also increase the risk of these diseases.

# LYMPHOMAS: Hodgkin's Disease

## SEER INCIDENCE Rates, 1988-1992



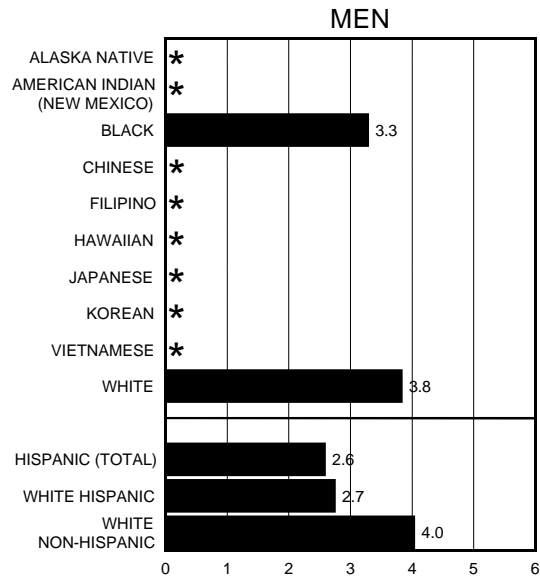
## United States MORTALITY Rates, 1988-1992



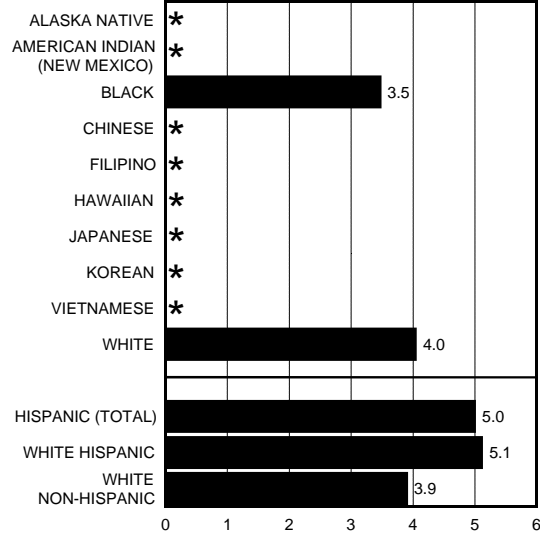
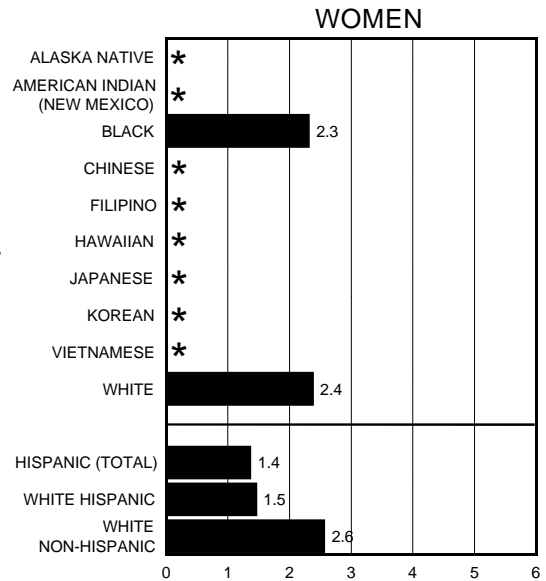
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# LYMPHOMAS: Hodgkin's Disease

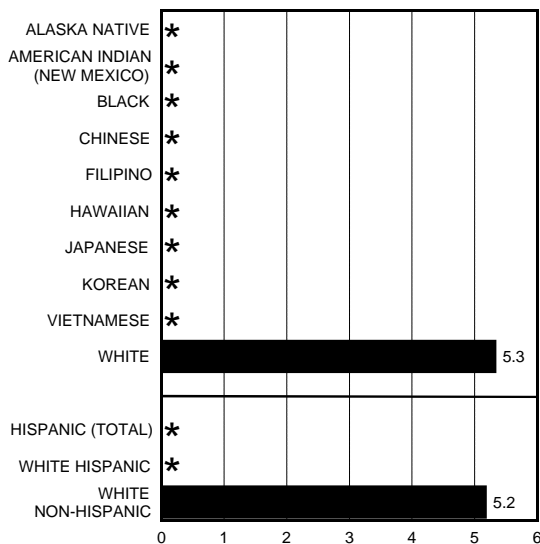
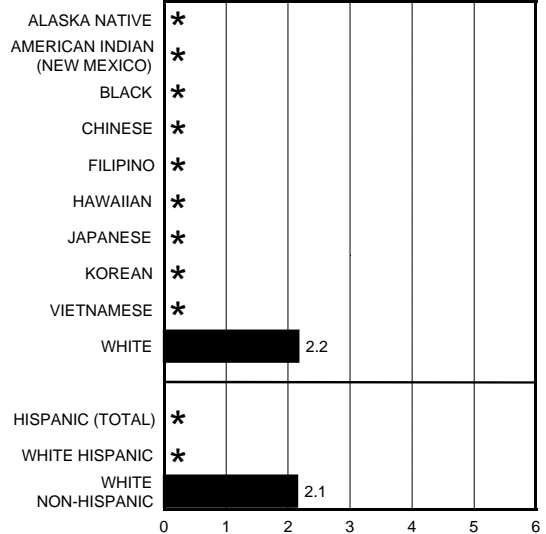
## SEER INCIDENCE Rates by Age at Diagnosis, 1988-1992



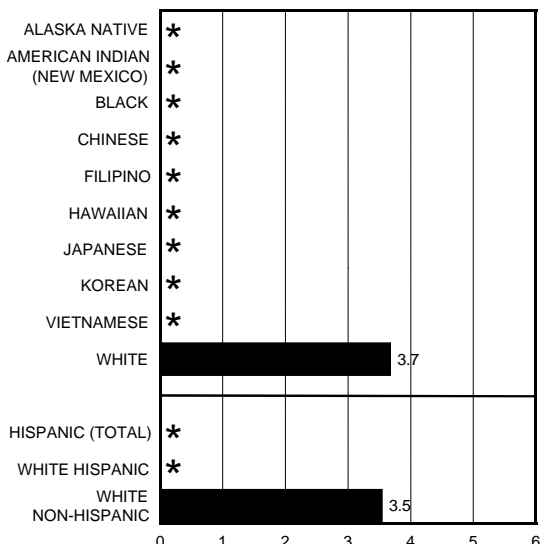
AGE 30-54



AGE 55-69



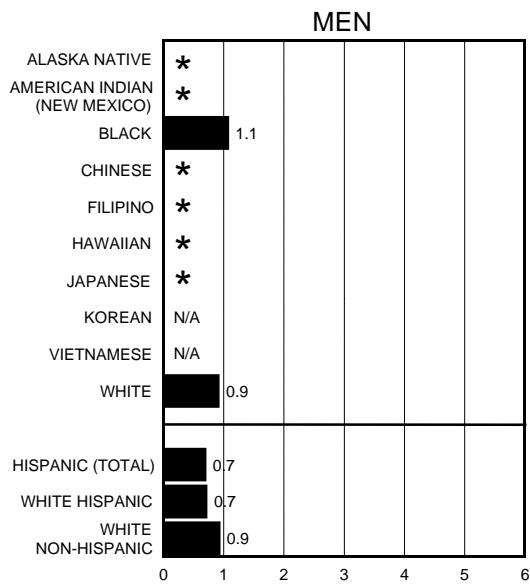
AGE 70+



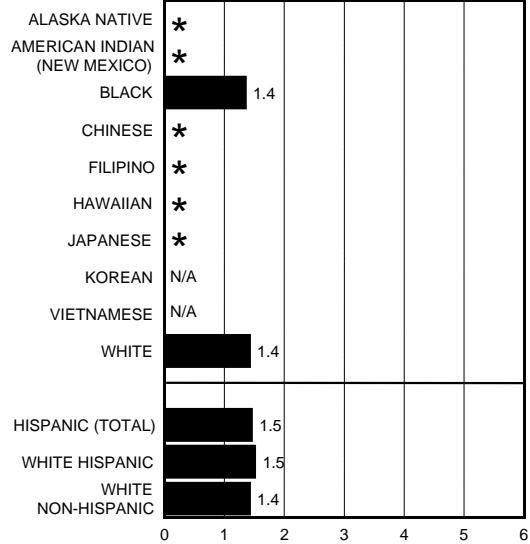
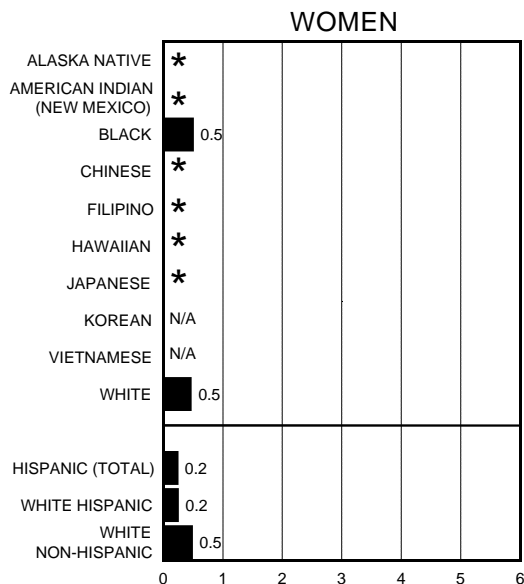
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# LYMPHOMAS: Hodgkin's Disease

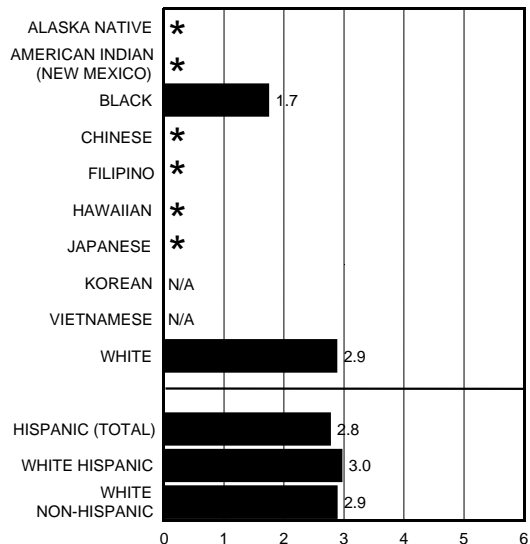
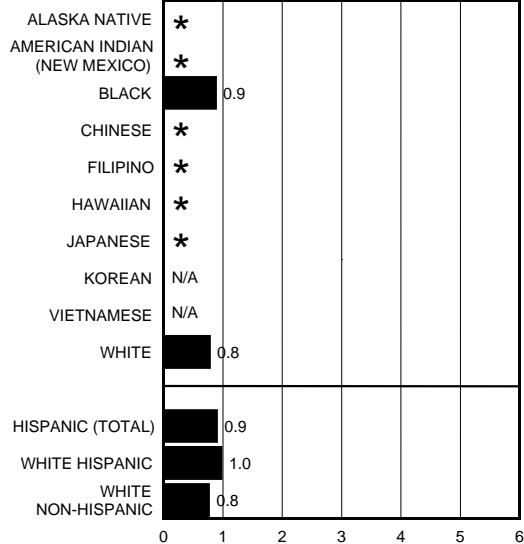
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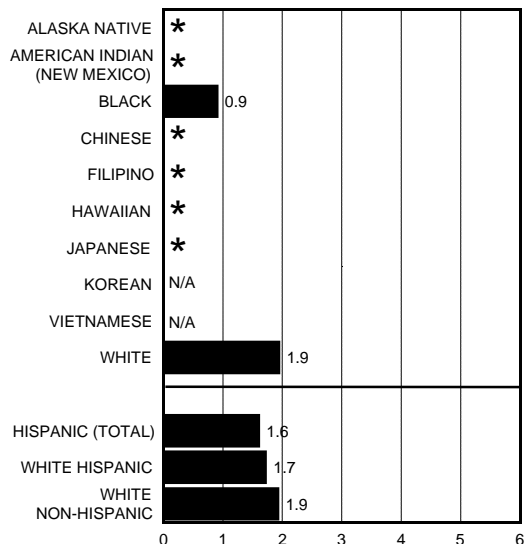
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AGE 55-69



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