Cancer is the leading cause of death in Minnesota for persons between the ages of 35 and 74. Each year, an estimated 20,600 Minnesotans are diagnosed with cancer and 9,000 die from the disease.

In Minnesota, cancer death rates are significantly higher in non-whites compared with whites. While overall cancer incidence rates are similar for whites and non-whites, racial and ethnic disparities in incidence exist for certain cancers for which prevention or early detection can make a difference.

New Data by Race Available
This report focuses on cancer incidence and mortality rates by race and ethnicity for cancers for which prevention and/or early detection has been shown to save lives. These include cancers of the breast, cervix, colon and rectum, lung, prostate, and skin. Until now, cancer incidence data have not been available by race for Minnesota. These new data, combined with cancer mortality data by race and ethnicity, can help guide public health and community activities to reduce the burden of death and disability from cancer.

Cancer incidence data are now available by race in Minnesota for American Indians, Asian/Pacific Islanders, blacks, and whites. The category “black” encompasses persons of varying ethnic and geographic origins. Incidence data are not available for persons of Hispanic origin because ethnic origin is not usually reported to Minnesota’s cancer registry. Cancer mortality data are available for all of these racial and ethnic groups.

Interpreting these Data
This report’s focus on racial and ethnic disparities should not be interpreted to suggest that the burden of cancer is not significant in cases where there is no notable disparity between racial and ethnic groups. For some cancers, the burden of the disease is high among all racial and ethnic groups even though there is no difference among groups. For example, few disparities emerge for colorectal cancer despite the fact that it is the second leading cause of cancer death among Minnesotans.

It also should be noted that the absolute number of cancer cases among non-white racial and ethnic groups in Minnesota is relatively small, making statistical analysis more difficult to interpret. As more data become available, additional disparities in cancer incidence and mortality may become apparent.
BREAST

Breast cancer is the most common form of cancer in Minnesota women and the second leading cause of cancer death. Each year in Minnesota, approximately 3,200 women develop breast cancer and 700 die from the disease. One third of breast cancer deaths can be prevented through routine screening using mammography and clinical breast examination.

**Key Findings:** The breast cancer mortality rate in Minnesota is 50% higher in black women than in white non-Hispanic women even though the incidence rates are similar. A greater proportion of black women have their cancers diagnosed at a later, less treatable stage.

**Recommendations:** All women age 40 and older should be screened regularly for breast cancer with mammography and clinical breast examination. Particular efforts should be made to screen black women and to ensure their access to appropriate follow-up and treatment services.

CERVIX

Each year, approximately 200 women in Minnesota develop invasive cervical cancer and 50 die from it. Virtually all invasive cervical cancer occurrence and death is preventable through regular screening with Pap smears followed by treatment of pre-cancerous cervical abnormalities.

**Key Findings:** Black women in Minnesota have a cervical cancer incidence rate that is four times as high as the rate for white women. American Indian and Asian/Pacific Islander women have a cervical cancer incidence rate that is three times as high as the rate for white women. Deaths due to cervical cancer also occur at a higher rate among Asian/Pacific Islanders and blacks compared with white non-Hispanics.

**Recommendations:** All women who are age 18 and older or sexually active should be regularly screened with Pap smears. Particular emphasis should be placed on outreach to non-white women to encourage regular screening for cervical cancer. Women with significant pre-cancerous abnormalities should be promptly referred for treatment.

LUNG

Lung cancer is the leading cause of cancer death in Minnesota for both men and women and has one of the poorest prognoses of any cancer. Each year in Minnesota approximately 2,400 men and women develop lung cancer and 2,300 die from it. The vast majority of lung cancer cases are tobacco-related.

**Key Findings:** Lung cancer mortality rates for American Indian men, American Indian...
women, and black men are nearly double the rates for whites. Mortality rates for black women are 40% higher than for white non-Hispanic women. Asian/Pacific Islander and Hispanic white men and women have lung cancer mortality rates lower than those for white non-Hispanics.

**Recommendation:** Smoking prevention and tobacco cessation efforts should continue for all groups, but especially for American Indians and blacks.

**Prostate**

Prostate cancer is the most common cancer among men in Minnesota. Each year roughly 3,600 men are diagnosed with prostate cancer and 600 die from it. Use of prostate specific antigen (PSA) testing for prostate cancer is increasingly common but the benefits of mass screening are uncertain at this time. Early detection may be associated with improved outcomes for some individuals.

**Key Findings:** The prostate cancer incidence rate is one third higher in black men compared with white men, and the prostate cancer mortality rate is two and a half times higher for black men. Prostate cancer incidence rates are lower for American Indians and Asian/Pacific Islanders than for whites.

**Recommendations:** Health care professionals should discuss the risks and benefits of prostate cancer screening with their male patients, taking into consideration individual risk factors, health status, and age. Black men should be aware of their elevated risk.

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**Definitions and Data Sources**

The Minnesota Cancer Surveillance System (MCSS) collects cancer incidence data. This report examines cancer incidence rates for the years 1995-1997, the first years for which complete race data are available. Cancer incidence rate refers to the number of newly diagnosed cancers per 100,000 persons per year.

The source for population data is the United States Census Bureau. The adjusted census count was used for 1990 and interim ("intercensal") estimates were used for the years 1991-1999.

All rates cited in this report are annual rates that have been age-adjusted using the 1970 U.S. population as the standard.

Age-adjustment makes it possible to compare populations that may have different age distributions.

For the cancers discussed in the report, both incidence and mortality rates for American Indians, Asian/Pacific Islanders, and blacks are compared with rates for whites. Cancer mortality rates for Hispanic whites are also compared with those for white non-Hispanics.
COLON AND RECTUM
Colorectal cancer strikes an estimated 2,100 Minnesota men and women and results in 900 deaths each year. At least one third of all colorectal cancer deaths can be prevented by routine screening with fecal occult blood testing (FOBT), sigmoidoscopy and/or colonoscopy. Screening can detect both early cancer as well as pre-cancerous polyps, which can be removed before they develop into cancer.

**KEY FINDING:** Colorectal cancer mortality is higher among white non-Hispanic women than Hispanic white women. No other significant differences are noted among racial groups in Minnesota.

**RECOMMENDATION:** All men and women age 50 and older should be regularly screened for colorectal cancer.

SKIN (Melanoma)
An estimated 800 Minnesotans are diagnosed with malignant melanoma and 120 die from it each year. The most effective way to prevent melanoma is to avoid exposure to ultraviolet radiation.

**KEY FINDINGS:** White men have an incidence rate of melanoma nine times as high as the rate for non-white men. White women have an incidence rate of melanoma eight times as high as the rate for non-white women.

**RECOMMENDATIONS:** Children and adults should avoid exposure to direct sunlight. White and fair-skinned individuals should be made aware that they are at increased risk.

CONCLUSION
National data have long been available on cancer incidence and mortality by race and ethnicity. State level data are now available for the first time in Minnesota for use by community groups, researchers, and public health officials. This report highlights some of the more striking findings on disparities in cancer occurrence and death in Minnesota and suggests areas for which targeted cancer control activities may be warranted. More detailed cancer incidence and mortality data by race and ethnicity are available at [www.health.state.mn.us](http://www.health.state.mn.us).