Area Socioeconomic Variations in Cancer Incidence and Stage at Diagnosis in New Jersey, 1996-2002

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INTRODUCTION

Socioeconomic disparities in cancer incidence and mortality in the United States persist and remain an urgent public health problem. Recent studies of cancer and both individual- and area-level socioeconomic status (SES) have found low SES or poverty to be associated with higher incidence of lung, cervical, stomach, oral, and esophageal cancer.[1-8] Also, a lower incidence of breast cancer and melanoma has been observed among persons residing in poorer areas.[1-2,9] Socioeconomic disparities in stage at diagnosis have also been reported for prostate, female breast, cervical, colorectal cancer, and melanoma of the skin.[1,10] One of the goals of the *Healthy People 2010* initiative of the U.S. Department of Health and Human Services is to eliminate health disparities among racial/ethnic and socioeconomic groups.[11] The purpose of this report is to provide information on socioeconomic disparities in cancer incidence and stage at diagnosis in New Jersey for use by health planners, health care providers, researchers, and the public.

The poverty rate is the percentage of a population living in poverty and is a useful measure of economic deprivation in a neighborhood or community. Census tract poverty rates from the 2000 U.S. Census were linked to New Jersey State Cancer Registry incidence data. New Jersey census tracts were grouped by the poverty rate into three poverty area groups. The three poverty area groups were defined as follows: areas with low poverty (less than 10% of the population below the poverty level); areas with medium poverty (10 to 19.99% of the population below the poverty level); and areas with high poverty (20% or more of the population below the poverty level).

Average annual age-adjusted cancer incidence rates were calculated for each poverty area group in New Jersey. Included in the report are the average annual age-adjusted incidence rates per 100,000 population for all types of cancer combined and 16 cancers that are the most common types among men and/or women, or among the leading causes of cancer death. The 16 specific cancer types are female breast cancer, cervical cancer, colorectal cancer, endometrial cancer, esophageal cancer, liver cancer, lung and bronchus cancer, melanoma of the skin, non-Hodgkin lymphoma, oral (oral cavity and pharynx) cancer, ovarian cancer, pancreas cancer, prostate cancer, stomach cancer, thyroid cancer, and urinary bladder cancer. To compare incidence rates in the poverty area groups, incidence rate ratios (RR) were calculated as the ratio of the incidence rate in a poverty area group to the incidence rate in the areas with low poverty (with less than 10% of the population below the poverty level).

In addition, the report includes charts presenting the stage distribution for seven cancers for each poverty area group. These cancer types include six cancers for which screening tests are recommended or early detection is feasible (female breast cancer, cervical cancer, colorectal cancer, melanoma of the skin, oral cancer, and prostate cancer), as well as lung cancer, the number one cancer killer in New Jersey.

The time period is the seven years from 1996 to 2002 for incidence rates and stage at diagnosis. Data are provided by gender and area poverty group for all races combined. Data are also provided for six population subgroups: black men, black women, Hispanic men, Hispanic

women, white men, and white women. Please see the Technical Notes on pp. 67-75 for additional information on methods used for these analyses.

Additional New Jersey cancer incidence, mortality, and survival data are available, or will be soon, from the Cancer Epidemiology Services office or on our website, http://nj.gov/health/ces/reports.shtml, including:

- *Cancer Incidence and Mortality in New Jersey 2000-2004*;
- *Cancer Incidence Rates in New Jersey's Ten Most Populated Municipalities 1998-2002*;
- *Trends in Cancer Incidence and Mortality in New Jersey, 1979-2002*;
- *Cancer Survival in New Jersey 1979-1997*;
- *Cancer Prevalence in New Jersey on January 1, 2003*; and
- *Childhood Cancer in New Jersey 1979-2002*.

Our new interactive cancer data mapping application provides incidence and mortality counts and rates statewide and at the county level by year, age, sex, race, and ethnicity for the years 2000-2004 at http://www.cancer-rates.info/nj/. This application will be updated as each additional year's data become complete. Other New Jersey and U.S. cancer data can be found on the following websites:

- Cancer Control Planet http://cancercontrolplanet.cancer.gov/
- North American Association of Central Cancer Registries' *Cancer in North America 2000-2004* http://www.naaccr.org/index.asp?Col_SectionKey=11&Col_ContentID=50
- Surveillance, Epidemiology and End Results Program (SEER) Cancer Statistics http://surveillance.cancer.gov/statistics/

SUMMARY

Cancer Incidence, 1996-2002

The average annual incidence rates of certain cancers, including cervical, esophageal, liver, oral cavity and pharynx, and stomach cancer were significantly higher in the poorest areas in New Jersey as compared to the wealthiest areas. Among men, lung cancer incidence rates were significantly higher in the poorest areas, while lung cancer rates for women did not differ substantially among the three poverty area groups (areas with high poverty, medium poverty, and low poverty). Incidence rates of other types of cancers, including female breast, endometrial, ovarian, thyroid, and urinary bladder, as well as melanoma of the skin, were lower in the poorest areas than in the wealthiest areas.

The populations of the three area poverty groups differed substantially by race, ethnicity, and other demographic characteristics. The poorest areas had a higher proportion of black and Hispanic residents, as compared to the wealthiest areas. These demographic differences can affect incidence rates in the poverty areas, especially for cancers with large differences in incidence rates between racial groups, such as melanoma of the skin and prostate cancer. See Table 1 on p. 83 for more information on the populations of the area poverty groups.

Cancer Stage at Diagnosis, 1996-2002

Disparities in stage at diagnosis for some cancers were observed among the poverty areas. Among women newly diagnosed with breast cancer, women residing in the poorest areas were less likely to be diagnosed at the *in situ* or local stage, as compared to women residing in the wealthier areas. Similarly, a lower proportion of women diagnosed with cervical cancer who resided in the poorest areas were diagnosed with local stage cancer. Among men and women newly diagnosed with melanoma of the skin and oral cancer, residents of the poorest areas were less likely to be diagnosed at the *in situ* or local stage. These disparities may be due to lack of health insurance or access to screening and health care among persons living in poverty.

Disparities between the poverty areas in stage at diagnosis were less pronounced for colorectal, lung, and prostate cancers.

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Cancer Incidence by Poverty Level – New Jersey, 1996-2002

Total Cancer Incidence

- A total of 157,300 men and 148,330 women residing in New Jersey were diagnosed with invasive cancer during 1996-2002.

- Among all men, the average annual cancer incidence rates were somewhat higher in the areas with high poverty than in the areas with low poverty during 1996-2002.

- Cancer incidence rates were somewhat lower in the areas with high poverty compared to the lowest poverty areas among all women.

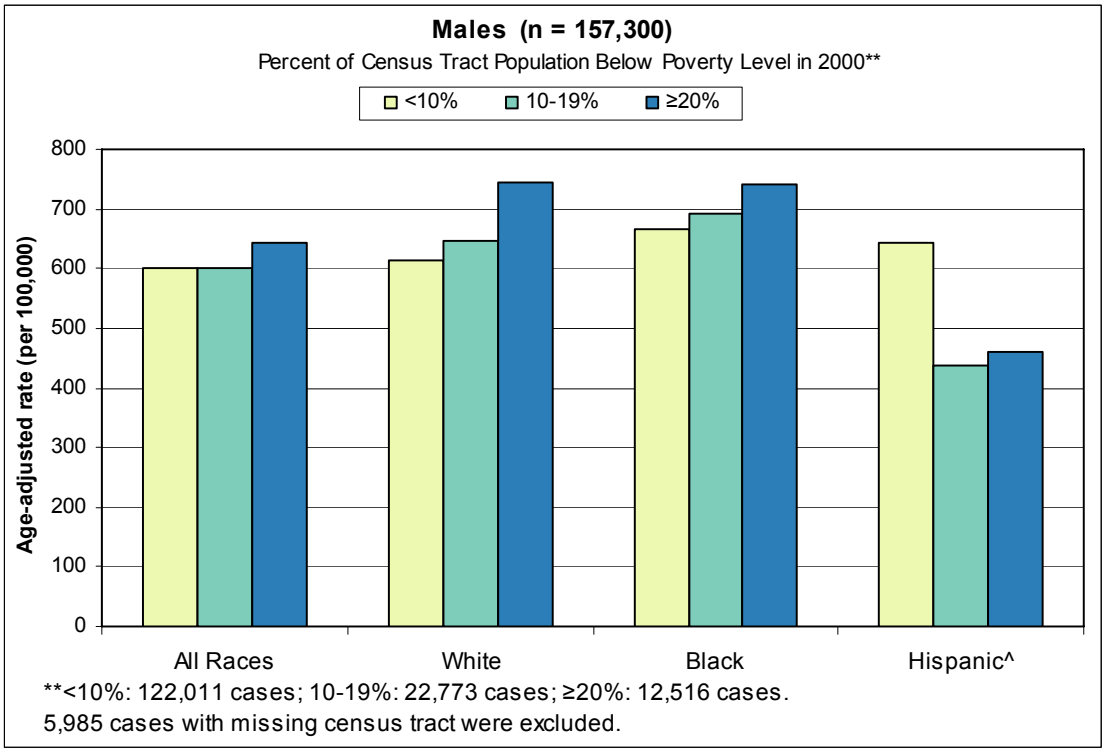
- When comparing race-specific cancer incidence rates in the three poverty areas, differences among the poverty areas were observed. Among white men, black men, white women, and black women, incidence rates were highest among residents in the areas with high poverty.

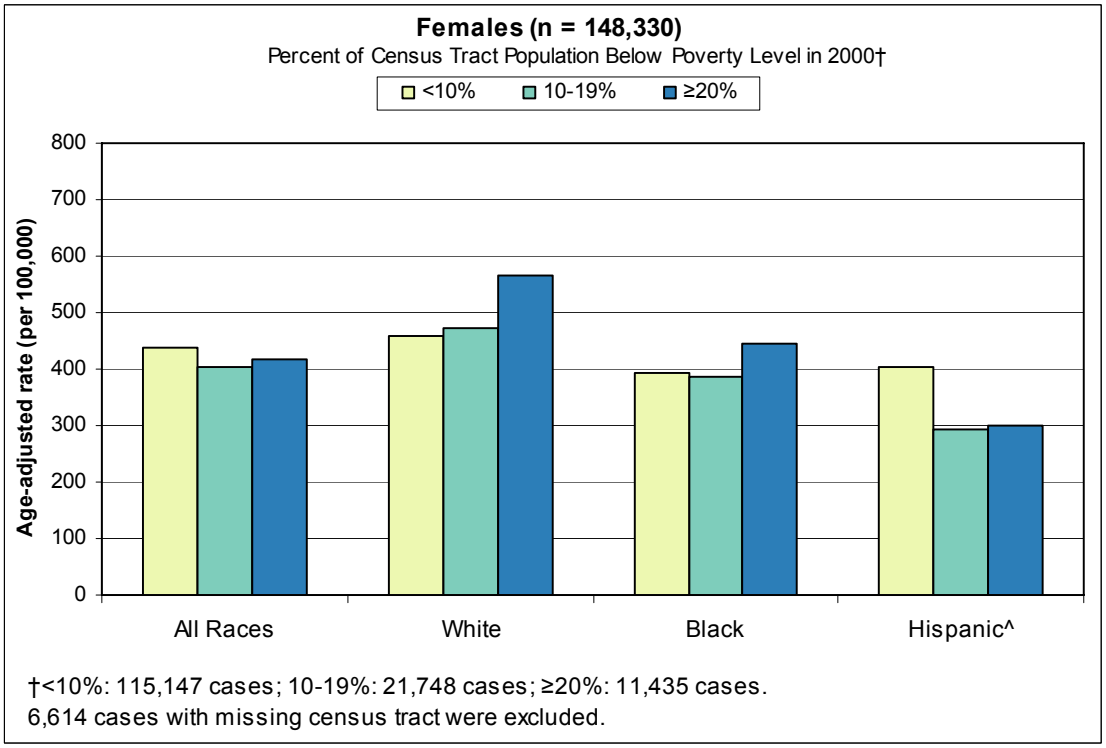
- Among Hispanic men and women, incidence rates were highest in the areas with low poverty.

- In general, most cancers are related to a combination of heredity, lifestyle factors such as smoking or secondhand smoke, diet, obesity, lack of physical activity, alcohol consumption, sun exposure, and reproductive factors, certain occupational exposures, and some infections. About a third of all cancers may be attributed to cigarette smoking.

See Tables 2-9 in Appendix B for additional information.

New Jersey Average Annual Cancer Incidence Rates* by Poverty Level, 1996-2002
All Cancer Sites





*Average annual rates are age-adjusted to the 2000 U.S. standard population (18 age groups).
In situ cases are not included, except for bladder cancer. 2002 data are preliminary.
^Hispanics may be of any race; therefore, the categories of race and ethnicity are not mutually exclusive.
Source: New Jersey State Cancer Registry, New Jersey Department of Health and Senior Services, 2005

Female Breast Cancer Incidence

- A total of 44,163 women residing in New Jersey were diagnosed with invasive breast cancer during 1996-2002.

- Among all women, breast cancer incidence rates were highest among women residing in the areas with low poverty. During 1996-2002, the average annual breast cancer incidence rate in the areas with low poverty was 25% higher than that in the areas with high poverty.

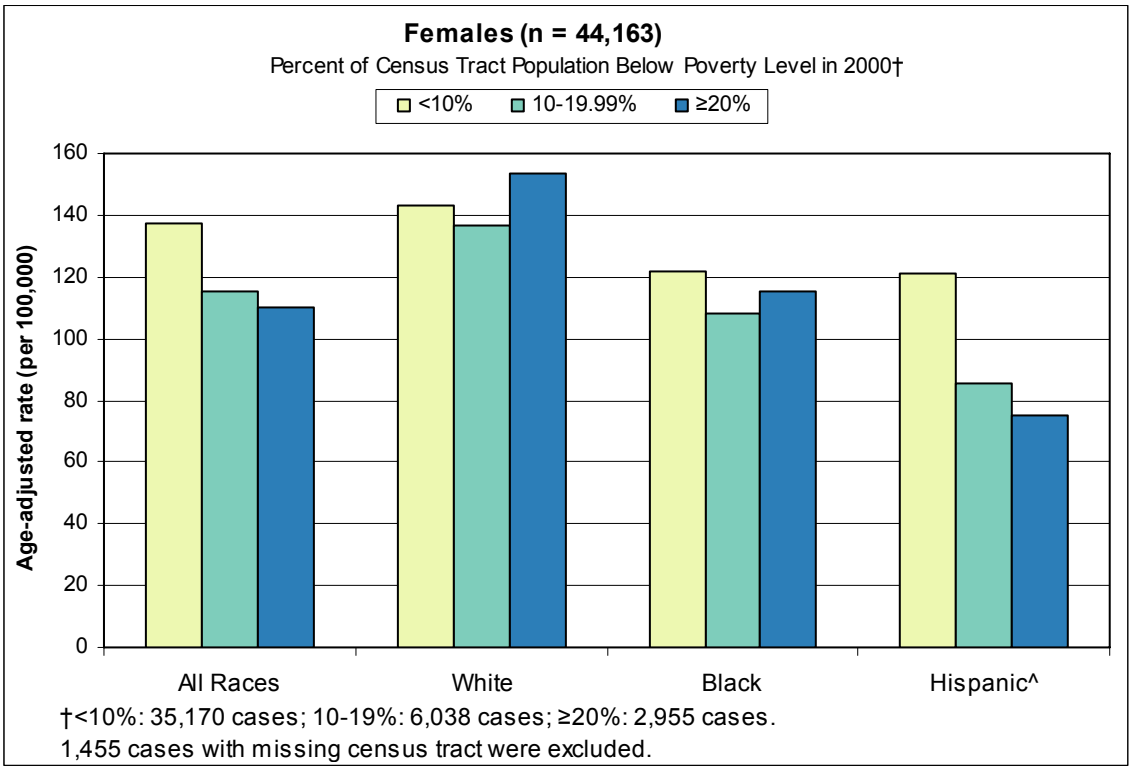
- Among both black and Hispanic women, the highest breast cancer incidence rates were observed in the areas with low poverty. Among white women, the highest breast cancer incidence rates were in the areas with high poverty.

- The known breast cancer risk factors include delayed childbirth / never having children, early onset of menstruation, late menopause, a personal or family history of breast cancer, as well as mutations in either of two genes, BRCA-1 and BRCA-2. Other risk factors include biopsy-confirmed atypical hyperplasia, recent use of oral contraceptives or post-menopausal estrogens and progestin, obesity after menopause, and moderate to heavy alcohol consumption. Other factors that may be associated with breast cancer are lack of physical activity and a diet high in saturated fat.

- Women in higher socio-economic status groups often have more breast cancer risk factors than women in lower socio-economic status groups.

See Tables 2-9 in Appendix B for additional information.

New Jersey Average Annual Cancer Incidence Rates* by Poverty Level, 1996-2002
Breast Cancer



*Average annual rates are age-adjusted to the 2000 U.S. standard population (18 age groups).
In situ cases are not included. 2002 data are preliminary.
^Hispanics may be of any race; therefore, the categories of race and ethnicity are not mutually exclusive.
Source: New Jersey State Cancer Registry, New Jersey Department of Health and Senior Services, 2005

Cervical Cancer Incidence

- A total of 3,241 women residing in New Jersey were diagnosed with invasive cervical cancer during 1996-2002.

- Among all women, cervical cancer incidence rates were highest among women residing in the areas with high poverty. During 1996-2002, the average annual cervical cancer incidence rate in the areas with high poverty was 2.4 times higher than the rate in the areas with low poverty. The cervical cancer incidence rate in the areas with medium poverty was 1.6 times higher than the rate in the areas with low poverty.

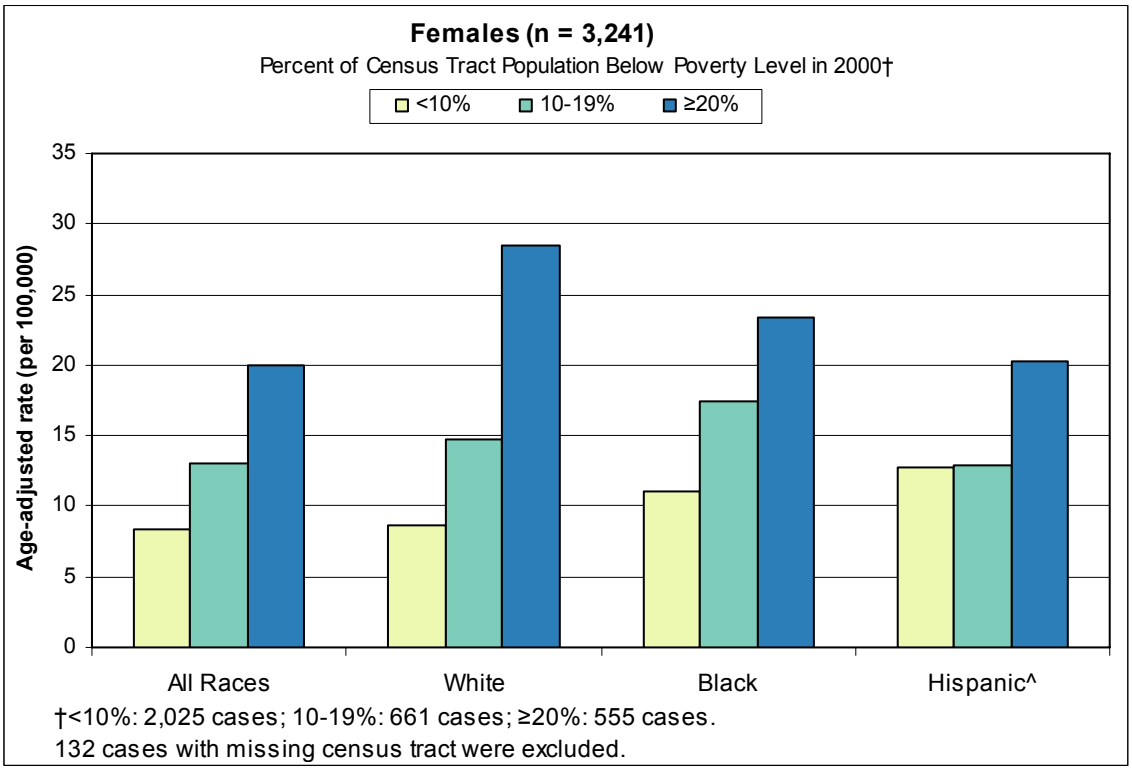
- A similar pattern of increased cervical cancer incidence in areas with high poverty also was observed for white, black, and Hispanic women.

- The lower incidence in the areas with low poverty may be due in part to increased Pap tests among higher-income women. Pap tests can detect abnormal cells that can lead to cervical cancer or cervical cancer at the *in situ* stage, when it can be treated before becoming invasive cancer.

- The main cause of cervical cancer is infection with certain types of human papillomavirus (HPV). Infection with HPV is common in healthy women and does not usually result in cervical cancer. Factors related to the persistence of HPV infection and progression to cervical cancer include immunosuppression, cigarette smoking, and nutritional factors. Other risk factors for cervical cancer include early age at first sexual intercourse, many sexual partners or partners who have had many sexual partners, multiple births, and long-term oral contraceptive use.

See Tables 2-9 in Appendix B for additional information.

New Jersey Average Annual Cancer Incidence Rates* by Poverty Level, 1996-2002
Cervical Cancer



*Average annual rates are age-adjusted to the 2000 U.S. standard population (18 age groups).
In situ cases are not included. 2002 data are preliminary.
^Hispanics may be of any race; therefore, the categories of race and ethnicity are not mutually exclusive.
Source: New Jersey State Cancer Registry, New Jersey Department of Health and Senior Services, 2005

Colorectal Cancer Incidence

- A total of 18,617 men and 18,627 women residing in New Jersey were diagnosed with invasive colorectal cancer during 1996-2002.

- Among all men, the average annual colorectal cancer incidence rates were similar in the areas with high, medium, and low poverty during 1996-2002. Colorectal cancer incidence rates were also similar in the three poverty areas among all women.

- When comparing race-specific colorectal cancer incidence rates in the three poverty areas, differences among the poverty areas were observed. Among both white and black men, incidence rates were highest among men residing in the areas with high poverty.

- Among white and black women, colorectal cancer incidence rates were highest among women residing in the areas with high poverty.

- Among Hispanic men, colorectal cancer incidence rates were highest among men residing in the areas with low poverty, in contrast to white and black men. Rates among Hispanic men in the areas with low poverty were approximately 74% higher than rates among Hispanic men in the areas with high poverty.

- Hispanic women were observed to have highest rates in the areas with low poverty.

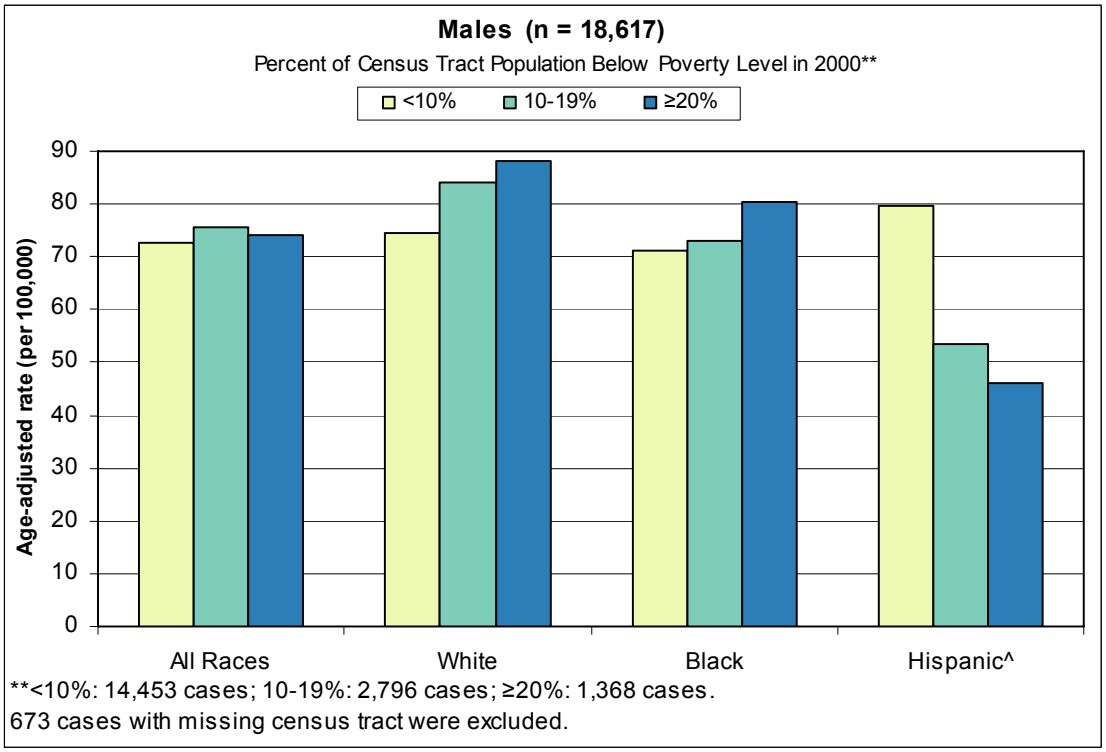
- Risk factors for colorectal cancer include age (the risk increases with increasing age), a personal or family history of colorectal cancer and/or polyps, a personal history of inflammatory bowel disease, smoking, alcohol use, physical inactivity, and a diet high in saturated fat and/or red meat and low in fruits and vegetables.

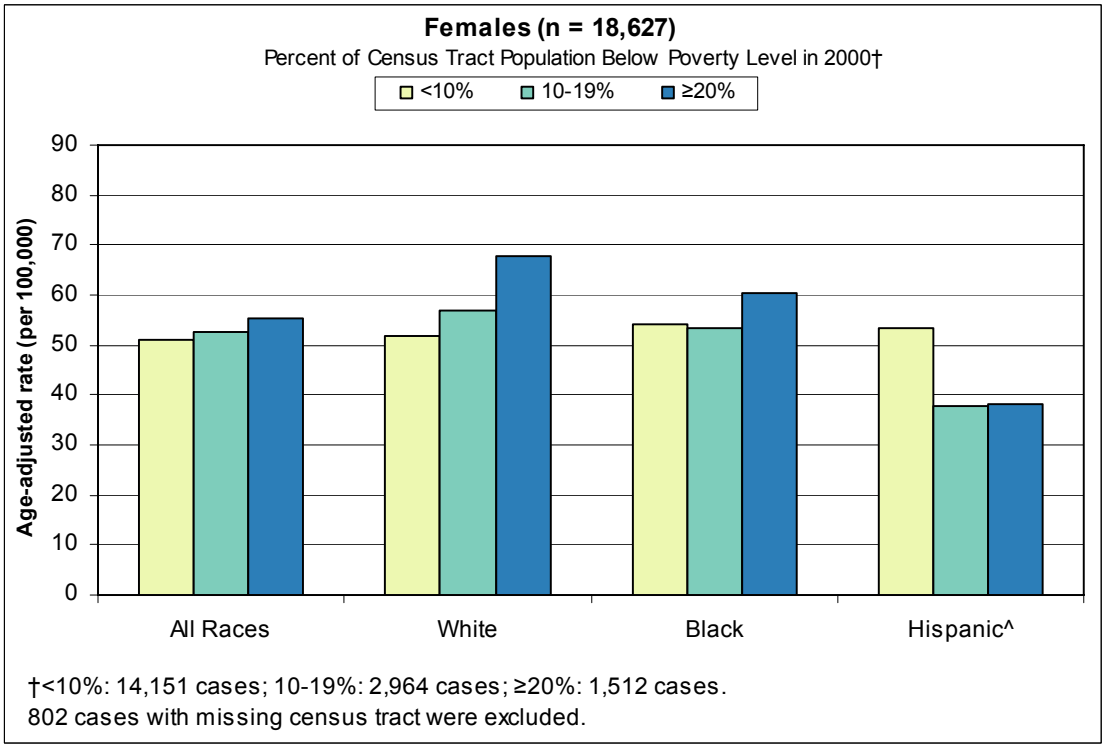
- The lower incidence for whites and blacks in the areas with low poverty may be due in part to increased screening in those areas, through which colon polyps are detected and removed before they become cancerous.

- Among Hispanics, the lower incidence rates in the areas with high poverty may be due to a higher proportion of more recent Hispanic immigrants in the areas with high poverty, and possible differences in diet, physical activity, and other risk factors for colorectal cancer between immigrants and other residents.

See Tables 2-9 in Appendix B for additional information.

New Jersey Average Annual Cancer Incidence Rates* by Poverty Level, 1996-2002
Colorectal Cancer





*Average annual rates are age-adjusted to the 2000 U.S. standard population (18 age groups).
In situ cases are not included. 2002 data are preliminary.
^Hispanics may be of any race; therefore, the categories of race and ethnicity are not mutually exclusive.
Source: New Jersey State Cancer Registry, New Jersey Department of Health and Senior Services, 2005

Endometrial Cancer Incidence*

- A total of 9,342 women residing in New Jersey were diagnosed with invasive endometrial cancer* during 1996-2002.

- Among all women, the average annual endometrial cancer incidence rate during 1996-2002 was somewhat lower among women residing in the areas with high poverty compared to women in the areas with low poverty.

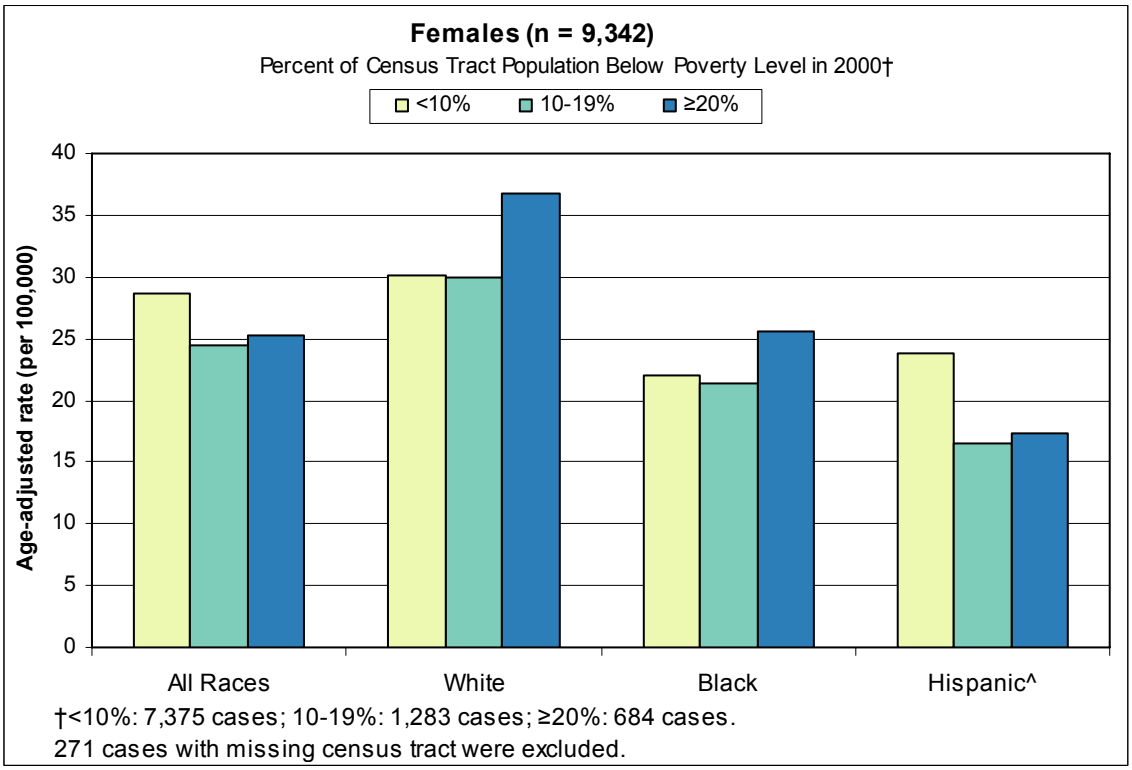
- Among Hispanic women, the endometrial cancer incidence rate was 27% lower among women residing in the areas with high poverty compared to women in the areas with low poverty.

- The relationship between poverty area and endometrial cancer incidence was reversed among white and black women. For both white and black women, women residing in the areas with high poverty had higher endometrial cancer rates than women residing in the areas with low poverty.

- The major risk factor for endometrial cancer is a high lifetime exposure to estrogen, for example, from estrogen replacement therapy without progestin, early onset of menstruation, late menopause, and never having children. Other risk factors include tamoxifen use, a history of polycystic ovary syndrome, infertility, and obesity. A diet high in animal fat is a possible risk factor.

*Includes cancer of the corpus uteri and the uterus, NOS.
See Tables 2-9 in Appendix B for additional information.

New Jersey Average Annual Cancer Incidence Rates* by Poverty Level, 1996-2002
Endometrial Cancer



*Average annual rates are age-adjusted to the 2000 U.S. standard population (18 age groups). Includes cancer of the corpus uteri and uterus, NOS. *In situ* cases are not included. 2002 data are preliminary.
^Hispanics may be of any race; therefore, the categories of race and ethnicity are not mutually exclusive.
Source: New Jersey State Cancer Registry, New Jersey Department of Health and Senior Services, 2005

Esophageal Cancer Incidence

- A total of 2,179 men and 803 women residing in New Jersey were diagnosed with invasive esophageal cancer during 1996-2002.

- Among all men, average annual esophageal cancer incidence rates during 1996-2002 were highest among men residing in the areas with high poverty. The esophageal cancer incidence rate in the areas with high poverty was 2 times higher than rates in the areas with low poverty. The esophageal cancer incidence rate in the areas with medium poverty was 1.3 times higher than the rate in the areas with low poverty.

- Among all women, the esophageal cancer incidence rate was highest among women residing in the areas with high poverty. The esophageal cancer incidence rate among women in the areas with high poverty was 2.1 times higher than the rate in the areas with low poverty.

- A similar pattern of increased esophageal cancer incidence rates in the areas with high poverty was also observed for white men, black men, white women, and black women.

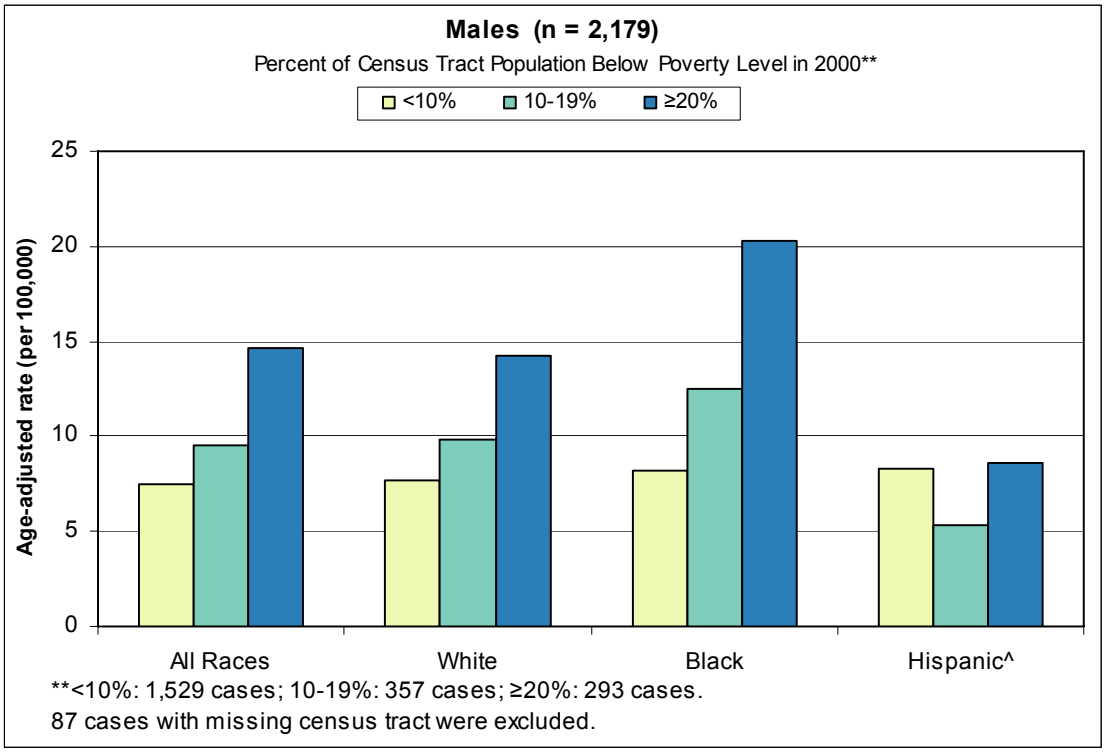
- Among men and women residing in the areas with low poverty, esophageal cancer incidence rates were similar for whites and blacks. However, among men and women in the areas with high poverty, esophageal cancer rates were higher among blacks than whites.

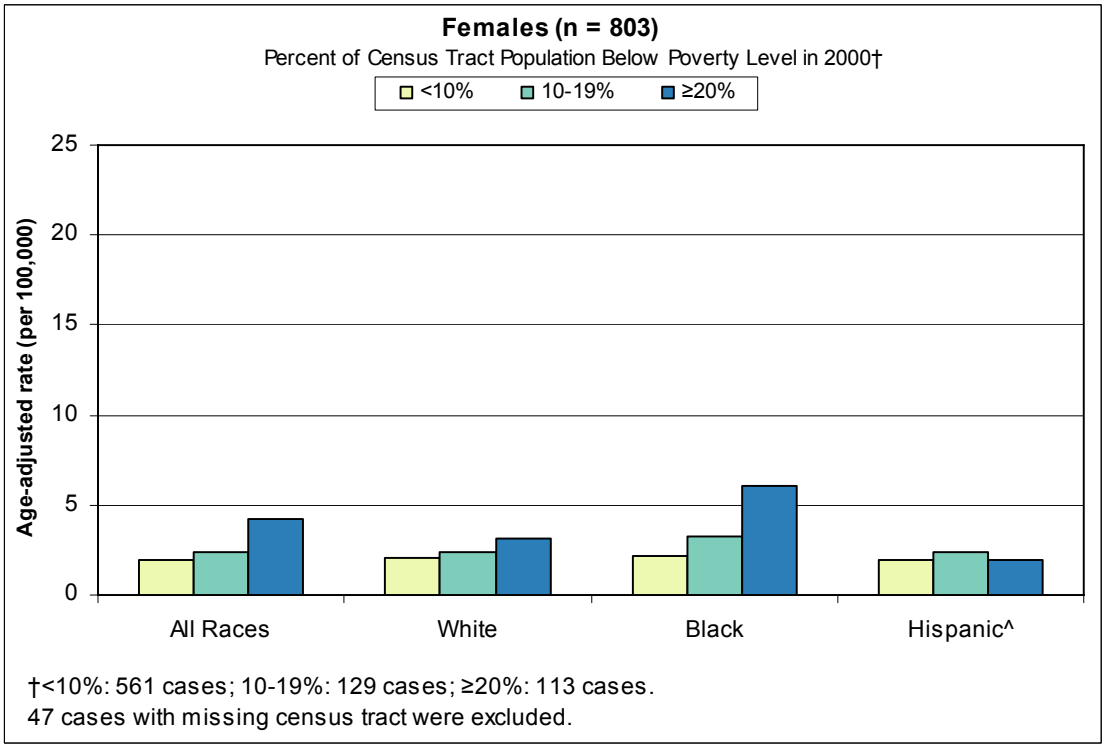
- The most important risk factors for esophageal cancer are cigarette smoking, excessive alcohol drinking, and a condition called Barrett's esophagus. Other risk factors include obesity, poor nutrition, and insufficient consumption of fruits and vegetables.

- The increased incidence of esophageal cancer in the areas with high poverty may be due in part to a higher prevalence of risk factors such as cigarette smoking and lower consumption of fruits and vegetables.

See Tables 2-9 in Appendix B for additional information.

New Jersey Average Annual Cancer Incidence Rates* by Poverty Level, 1996-2002
Esophageal Cancer





*Average annual rates are age-adjusted to the 2000 U.S. standard population (18 age groups).
In situ cases are not included. 2002 data are preliminary.
^Hispanics may be of any race; therefore, the categories of race and ethnicity are not mutually exclusive.
Source: New Jersey State Cancer Registry, New Jersey Department of Health and Senior Services, 2005

Liver Cancer Incidence

- A total of 1,753 men and 682 women residing in New Jersey were diagnosed with invasive liver cancer during 1996-2002.

- Among all men, liver cancer incidence rates were highest among men residing in the areas with high poverty. During 1996-2002, the average annual male liver cancer incidence rate in the areas with high poverty was 1.8 times higher than the male rate in the areas with low poverty. The liver cancer incidence rate in the areas with medium poverty was 1.3 times higher than the rate in the areas with low poverty.

- Among all women, the liver cancer incidence rate in the areas with high poverty was 1.9 times higher than the rate in the areas with low poverty.

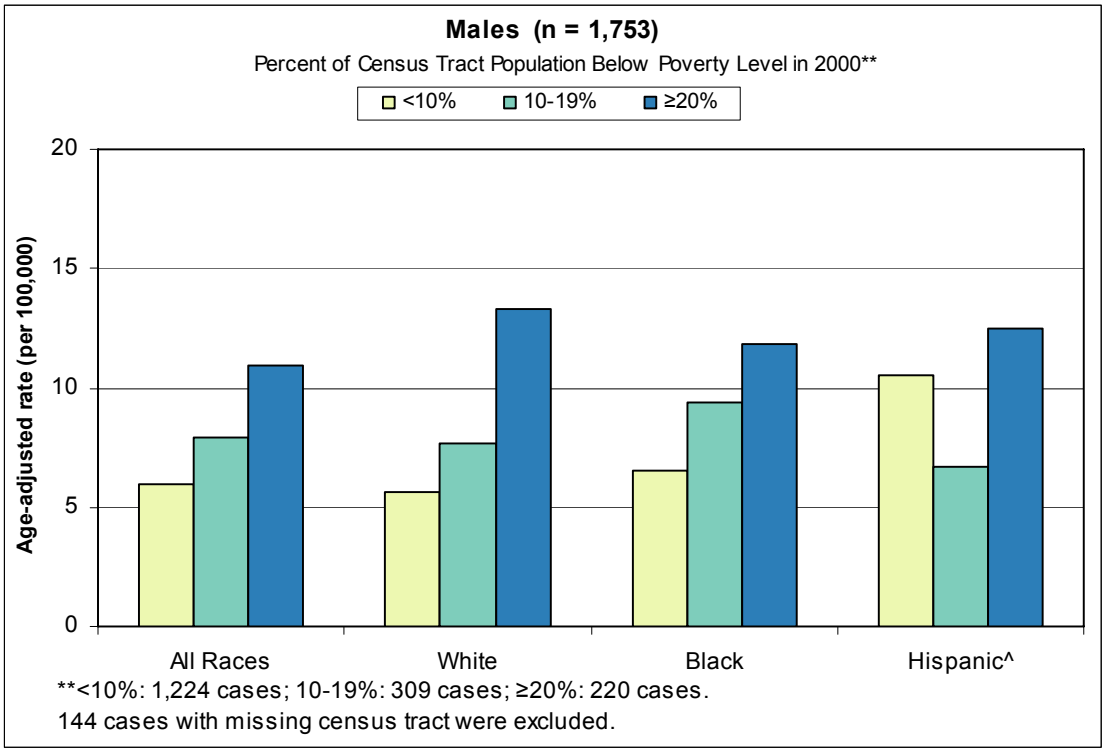
- A similar pattern of increased liver cancer incidence in the areas with high poverty was also observed for white men, black men, and white women.

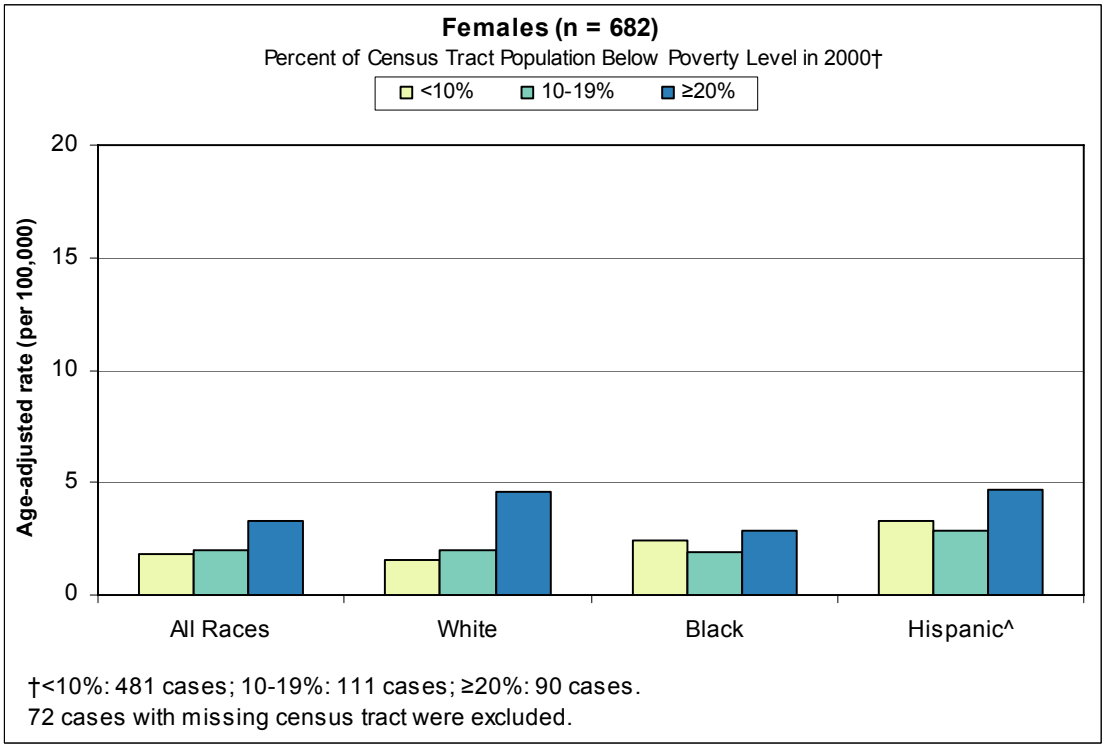
- Chronic infection with hepatitis B or C virus is an important risk factor for liver cancer. Other risk factors for liver cancer include increasing age, cirrhosis of the liver (chronic liver injury, often caused by alcohol abuse), ingestion of aflatoxin (a substance produced by certain types of mold that invade poorly stored peanuts and other foods), cigarette smoking, and occupational exposure to thorium dioxide or vinyl chloride. Possible risk factors include use of anabolic steroids and some inherited metabolic diseases (e.g., hemochromatosis).

- The increased incidence of liver cancer in the areas with high poverty may be due in part to a higher prevalence of infection with hepatitis B or C virus. The prevalence of both infections in the U.S. has been reported to be higher among persons living below the poverty line than persons above the poverty line.[12]

See Tables 2-9 in Appendix B for additional information.

New Jersey Average Annual Cancer Incidence Rates* by Poverty Level, 1996-2002
Liver Cancer





*Average annual rates are age-adjusted to the 2000 U.S. standard population (18 age groups).
In situ cases are not included. 2002 data are preliminary.
^Hispanics may be of any race; therefore, the categories of race and ethnicity are not mutually exclusive.
Source: New Jersey State Cancer Registry, New Jersey Department of Health and Senior Services, 2005

Lung and Bronchus Cancer Incidence

- A total of 21,884 men and 18,172 women residing in New Jersey were diagnosed with invasive cancer of the lung and bronchus during 1996-2002.

- Among all men, incidence rates for cancer of the lung and bronchus were highest for men residing in the areas with high poverty. During 1996-2002, the average annual lung cancer incidence rate in the areas with high poverty was 1.4 times higher than the rate in the areas with low poverty.

- When comparing race-specific lung cancer incidence rates in the three poverty areas, incidence rates among both white and black men were highest for residents of the areas with high poverty. Incidence rates among black men residing in the areas with high poverty were much higher than any other group.

- Among Hispanic men, lung cancer incidence rates were highest among men residing in the areas with low poverty, in contrast to white and black men.

- Incidence rates were fairly similar for all women in the three poverty areas.

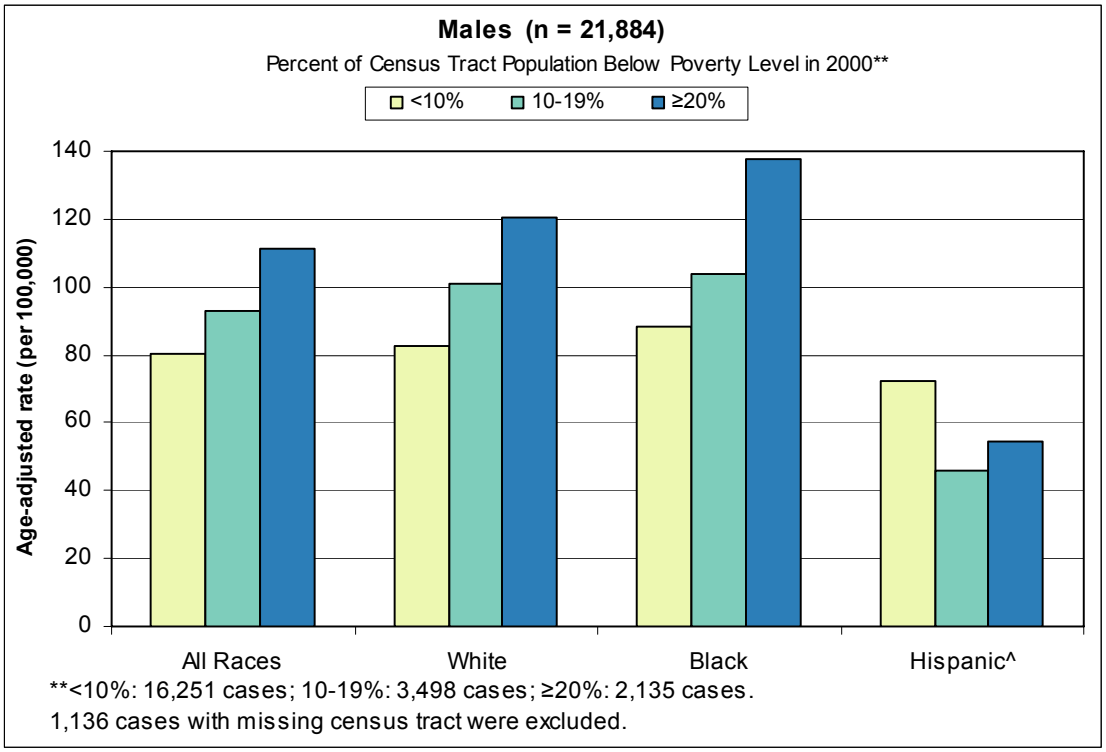
- Hispanic women were observed to have highest rates in the areas with low poverty.

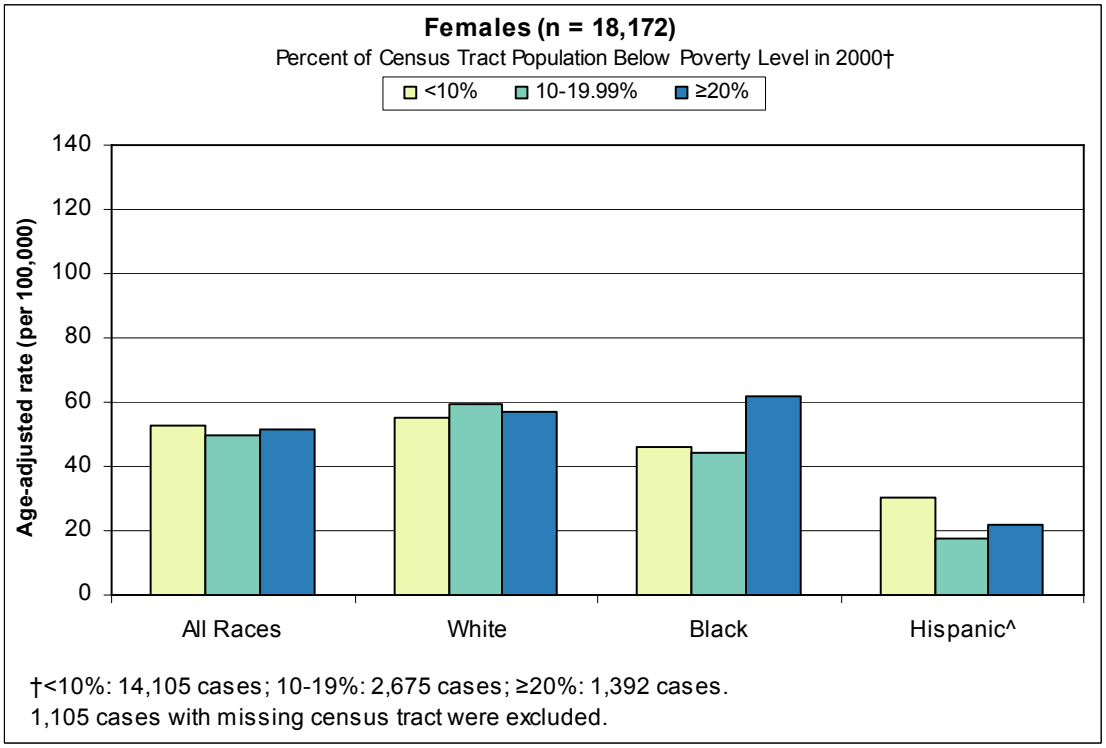
- Cigarette smoking is responsible for almost 90% of all lung cancers. Other risk factors include exposure to secondhand tobacco smoke, residential radon exposure, and certain occupational exposures, including arsenic, asbestos, chromium, nickel, radon, soot, and tar. Exposure to high levels of air pollution is an additional risk factor.

- A higher prevalence of smoking has been reported among persons living in poverty in the U.S.[13], and this is likely to be one of the main reasons for the increased incidence of lung cancer in the areas with high poverty.

See Tables 2-9 in Appendix B for additional information.

New Jersey Average Annual Cancer Incidence Rates* by Poverty Level, 1996-2002
Lung and Bronchus Cancer





*Average annual rates are age-adjusted to the 2000 U.S. standard population (18 age groups).
In situ cases are not included. 2002 data are preliminary.
^Hispanics may be of any race; therefore, the categories of race and ethnicity are not mutually exclusive.
Source: New Jersey State Cancer Registry, New Jersey Department of Health and Senior Services, 2005

Melanoma of the Skin Incidence

- A total of 5,537 men and 4,182 women residing in New Jersey were diagnosed with invasive melanoma of the skin during 1996-2002.

- Among all men, the average annual incidence rate of melanoma of the skin during 1996-2002 was 4.3 times higher in the areas with low poverty than in the areas with high poverty.

- Similarly, among all women, incidence rates of melanoma of the skin were highest among women residing in the areas with low poverty and lowest in the areas with high poverty.

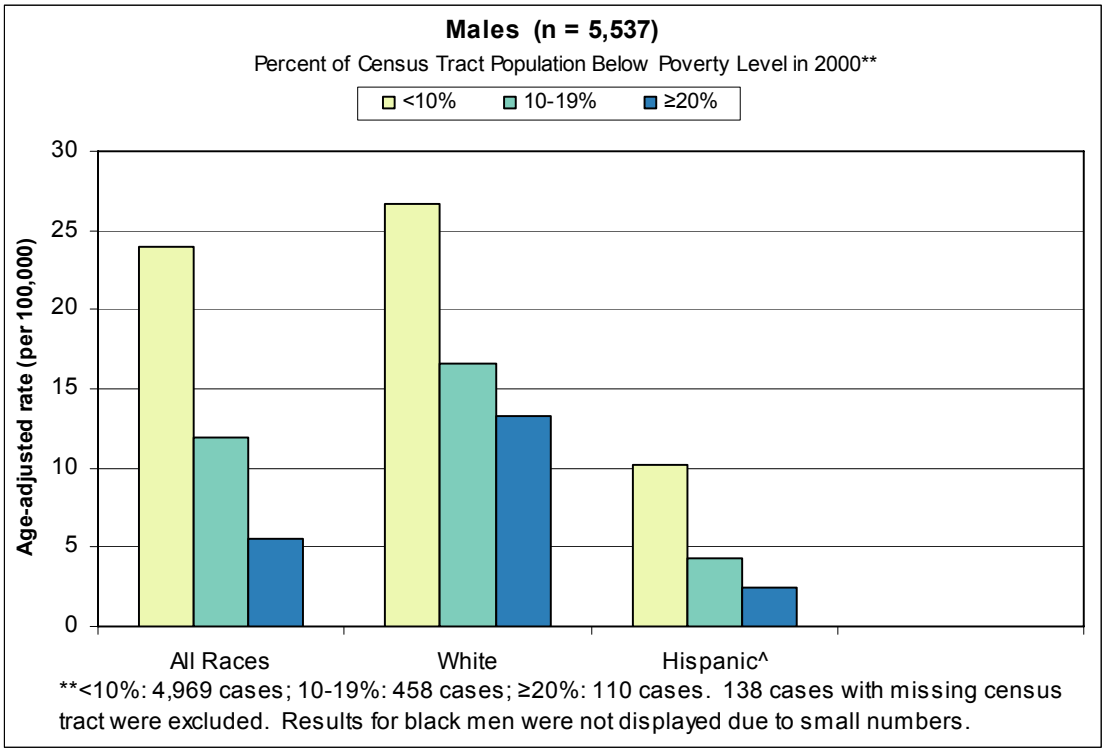
- Incidence rates of melanoma of the skin were higher among men compared to women and among whites compared to blacks.

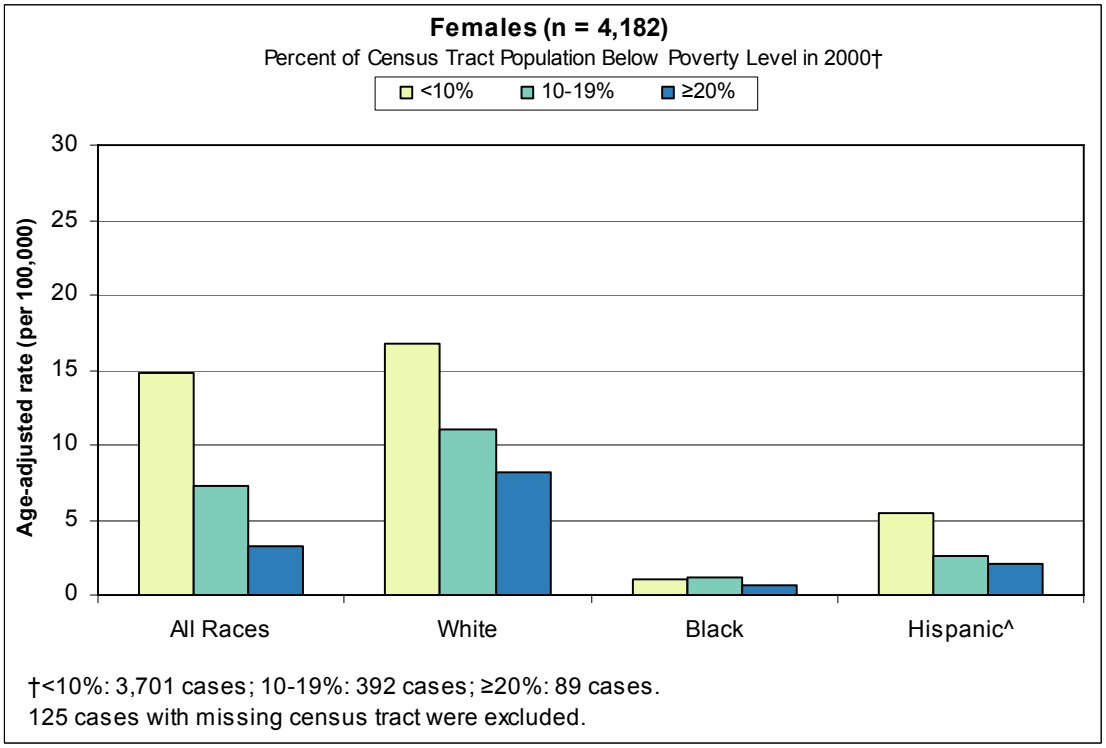
- A similar pattern of increased melanoma incidence in the areas with low poverty was also observed for white men, white women, Hispanic men, and Hispanic women. Melanoma incidence rates were low among black men and women in all three poverty areas (data for black men were not shown due to small numbers).

- Risk factors for melanoma of the skin include excessive exposure to sunlight, fair skin, personal or family history of melanoma, moles, sun sensitivity, history of diseases that suppress the immune system, and occupational exposure to coal tar, pitch, creosote, arsenic compounds or radium.

See Tables 2-9 in Appendix B for additional information.

New Jersey Average Annual Cancer Incidence Rates* by Poverty Level, 1996-2002
Melanoma of the Skin





*Average annual rates are age-adjusted to the 2000 U.S. standard population (18 age groups).
In situ cases are not included. 2002 data are preliminary.
^Hispanics may be of any race; therefore, the categories of race and ethnicity are not mutually exclusive.
Source: New Jersey State Cancer Registry, New Jersey Department of Health and Senior Services, 2005

Non-Hodgkin Lymphoma Incidence

- A total of 6,540 men and 6,071 women residing in New Jersey were diagnosed with non-Hodgkin lymphoma (NHL) during 1996-2002.

- Among all men, the average annual NHL incidence rate was somewhat lower among men residing in the areas with high poverty compared to men in the areas with low poverty during 1996-2002.

- Among all women during the same time period, the NHL incidence rate was also somewhat lower among women residing in the areas with high poverty compared to women in the areas with low poverty.

- A similar pattern of lower NHL incidence in areas with high poverty was also observed for Hispanic men and women.

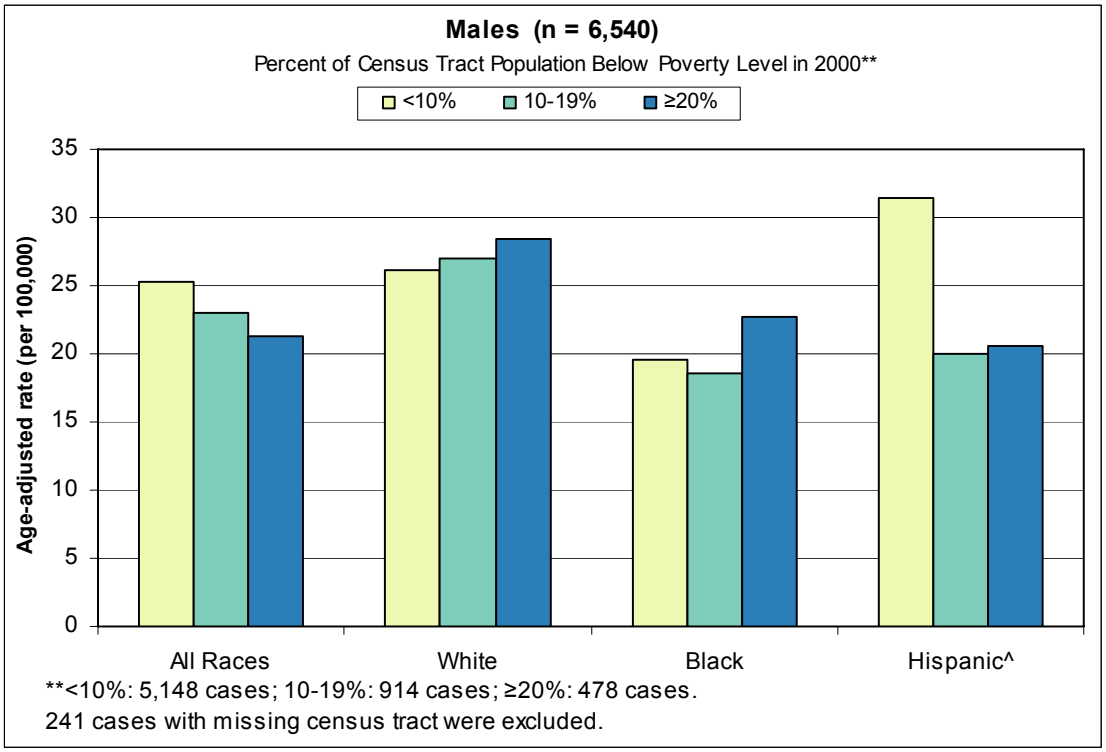
- The relationship between poverty area and NHL incidence was reversed among white women. White women residing in the areas with high poverty had higher NHL rates than white women residing in the areas with low poverty. White and black men in the areas with high poverty also had somewhat higher NHL rates than men in the areas with low poverty.

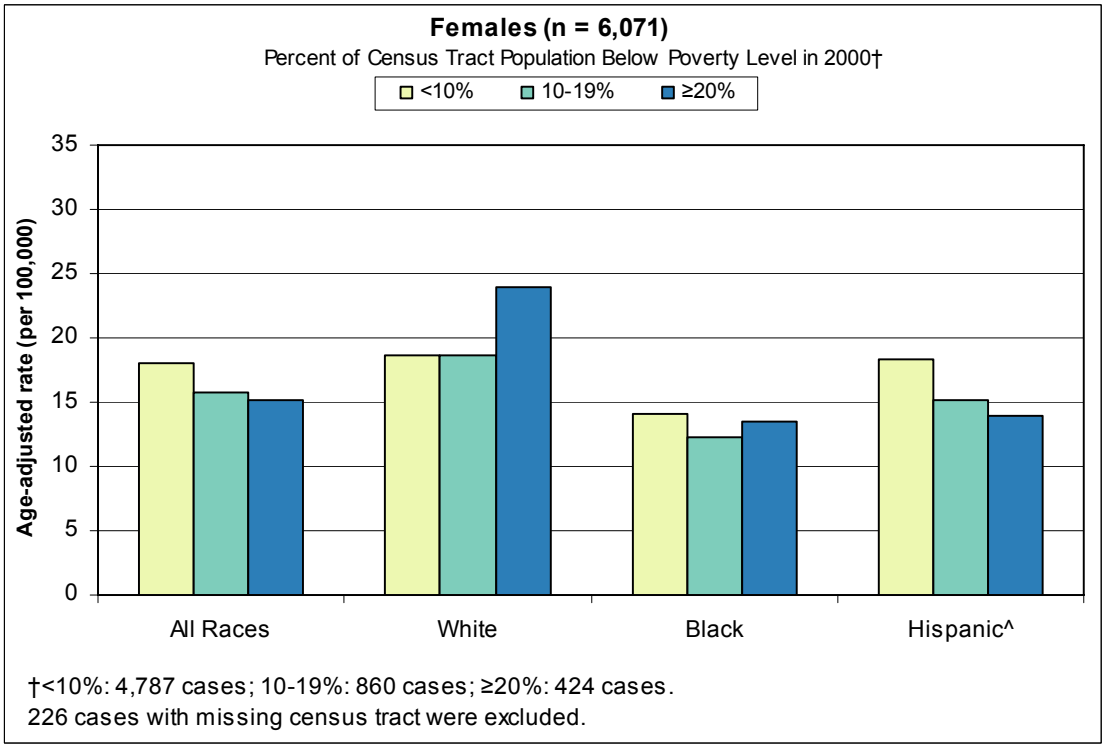
- There did not appear to be substantial differences among the three poverty areas in NHL incidence among black women.

- Persons with reduced immune function due to organ transplantation, human immunodeficiency virus (HIV) or inherited immune deficiency diseases have higher risk for NHL. Other risk factors include infection with human T-cell leukemia/lymphoma virus (HTLV-1) or *Helicobacter pylori* bacteria. Possible risk factors include occupational exposure to pesticides, herbicides, or organic solvents, infection with Epstein-Barr or Hepatitis C virus, and obesity.

See Tables 2-9 in Appendix B for additional information.

New Jersey Average Annual Cancer Incidence Rates* by Poverty Level, 1996-2002
Non-Hodgkin Lymphoma





*Average annual rates are age-adjusted to the 2000 U.S. standard population (18 age groups).
In situ cases are not included. 2002 data are preliminary.
^Hispanics may be of any race; therefore, the categories of race and ethnicity are not mutually exclusive.
Source: New Jersey State Cancer Registry, New Jersey Department of Health and Senior Services, 2005

Oral Cavity and Pharynx Cancer Incidence

- A total of 3,950 men and 2,040 women residing in New Jersey were diagnosed with invasive cancer of the oral cavity and pharynx during 1996-2002.

- Among all men, incidence rates for oral cavity and pharynx cancer were highest for men residing in the areas with high poverty. During 1996-2002, the average annual oral and pharynx cancer incidence rate in the areas with high poverty was 1.7 times higher than the rate in the areas with low poverty. The incidence rate in the areas with medium poverty was 1.2 times higher than the rate in the areas with low poverty.

- Among all women, incidence rates for cancer of the oral cavity and pharynx were highest for women residing in the areas with high poverty. During 1996-2002, the average annual oral and pharynx cancer incidence rate in the areas with high poverty was 1.5 times higher than the rate in the areas with low poverty.

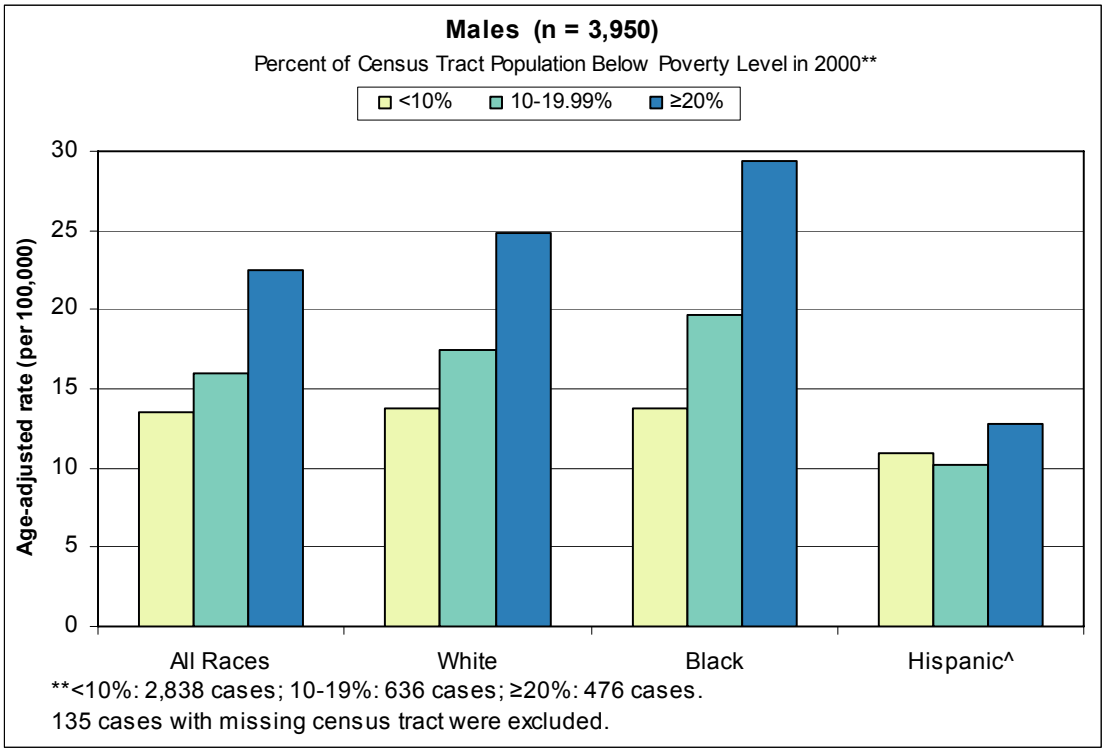
- A similar pattern of higher oral cancer incidence in the areas with high poverty was also observed among white men, black men, Hispanic men, white women, and black women.

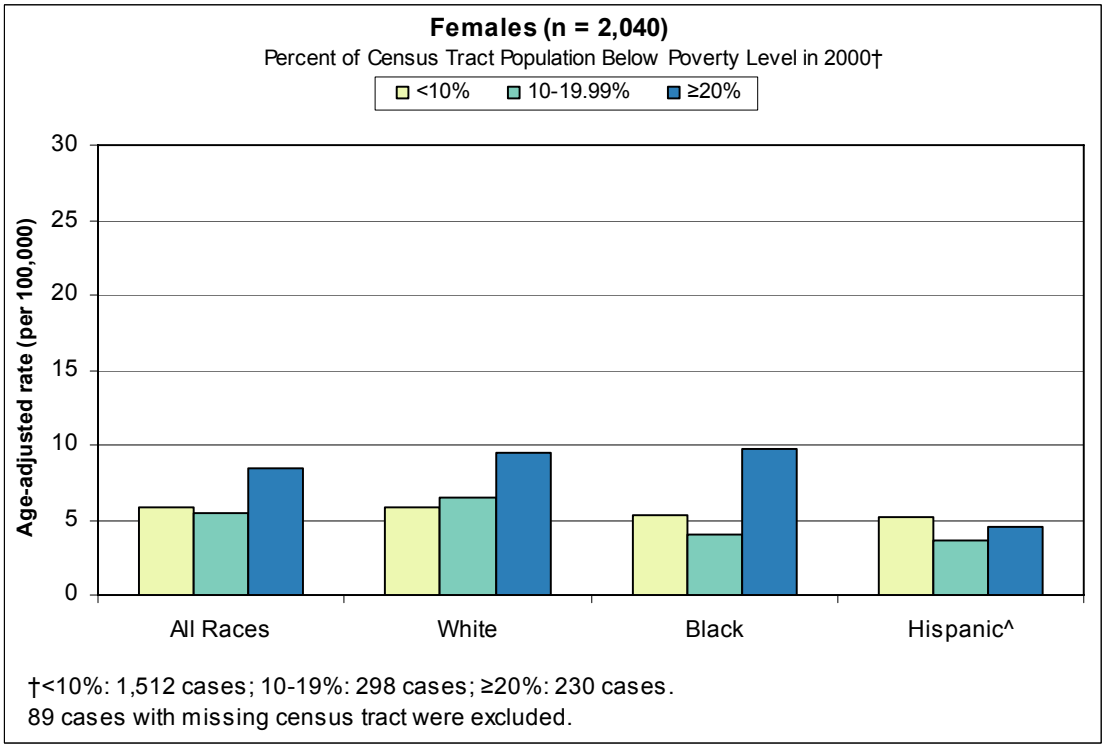
- Risk factors for oral cavity and pharynx cancer include cigarette, cigar, and pipe smoking, as well as the use of smokeless tobacco products and excessive alcohol consumption. Human papillomavirus (HPV) infection is a possible additional risk factor.

- The higher prevalence of smoking reported among persons living in poverty in the U.S.[13] may be one of the main reasons for the increased incidence of oral cancer in the areas with high poverty.

See Tables 2-9 in Appendix B for additional information.

New Jersey Average Annual Cancer Incidence Rates* by Poverty Level, 1996-2002
Oral Cavity and Pharynx Cancer





*Average annual rates are age-adjusted to the 2000 U.S. standard population (18 age groups).
In situ cases are not included. 2002 data are preliminary.
^Hispanics may be of any race; therefore, the categories of race and ethnicity are not mutually exclusive.
Source: New Jersey State Cancer Registry, New Jersey Department of Health and Senior Services, 2005

Ovarian Cancer Incidence

- A total of 5,592 women residing in New Jersey were diagnosed with invasive ovarian cancer during 1996-2002.

- Among all women, the ovarian cancer incidence rate was highest among women residing in the areas with low poverty. During 1996-2002, the average annual ovarian cancer incidence rate in the areas with high poverty was about 20% lower than the rate in the areas with low poverty.

- A similar pattern was observed among black and Hispanic women, with lower ovarian cancer incidence rates in the areas with high poverty.

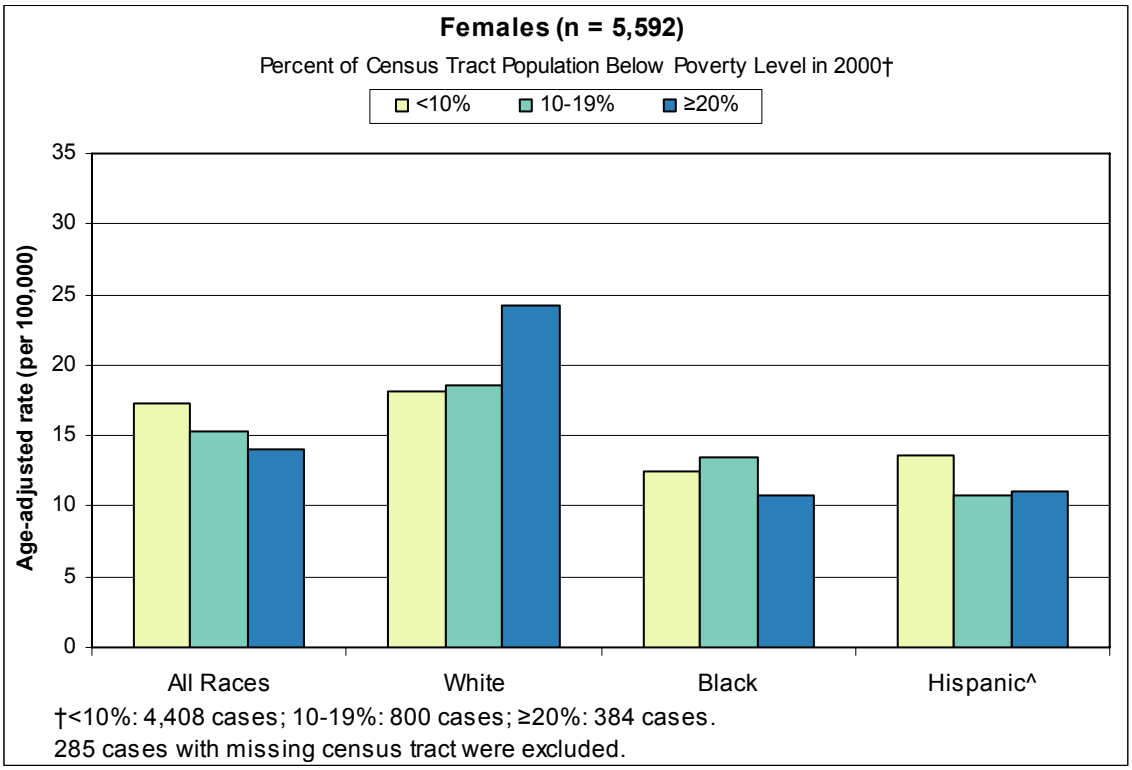
- The relationship between poverty area and ovarian cancer incidence was different among white women. White women residing in the areas with high poverty had higher ovarian cancer rates than white women residing in the areas with low poverty.

- In each poverty area group, white women had higher ovarian cancer rates than black women during 1996-2002.

- Risk factors for ovarian cancer include increasing age, personal or family history of breast or ovarian cancer, never bearing children, mutations in certain genes (BRCA1 or BRCA2), and the genetic syndrome hereditary nonpolyposis colon cancer. Increased body weight is a possible risk factor. Oral contraceptive use reduces the risk of ovarian cancer.

See Tables 2-9 in Appendix B for additional information.

New Jersey Average Annual Cancer Incidence Rates* by Poverty Level, 1996-2002
Ovarian Cancer



*Average annual rates are age-adjusted to the 2000 U.S. standard population (18 age groups).
In situ cases are not included. 2002 data are preliminary.
^Hispanics may be of any race; therefore, the categories of race and ethnicity are not mutually exclusive.
Source: New Jersey State Cancer Registry, New Jersey Department of Health and Senior Services, 2005

Pancreatic Cancer Incidence

- A total of 3,240 men and 3,670 women residing in New Jersey were diagnosed with invasive pancreatic cancer during 1996-2002.

- Among all men, the average annual pancreatic cancer incidence rate during 1996-2002 was somewhat higher among men residing in the areas with high poverty compared to men in the areas with low poverty.

- Among all women during the same time period, the pancreatic cancer incidence rate was also somewhat higher among women residing in the areas with high poverty compared to women in the areas with low poverty.

- Among whites, differences in pancreatic cancer incidence rates were more pronounced among the three poverty areas. The pancreatic cancer incidence rate among white men in the areas with high poverty was approximately 46% higher than among white men in the areas with low poverty. The pancreatic cancer rate among white women in the areas with high poverty was approximately 36% higher than white women in the areas with low poverty.

- For Hispanic men, the pancreatic cancer incidence rate was highest among men in the areas with low poverty.

- There did not appear to be substantial differences between the three poverty areas in pancreatic cancer incidence among black men, black women, or Hispanic women.

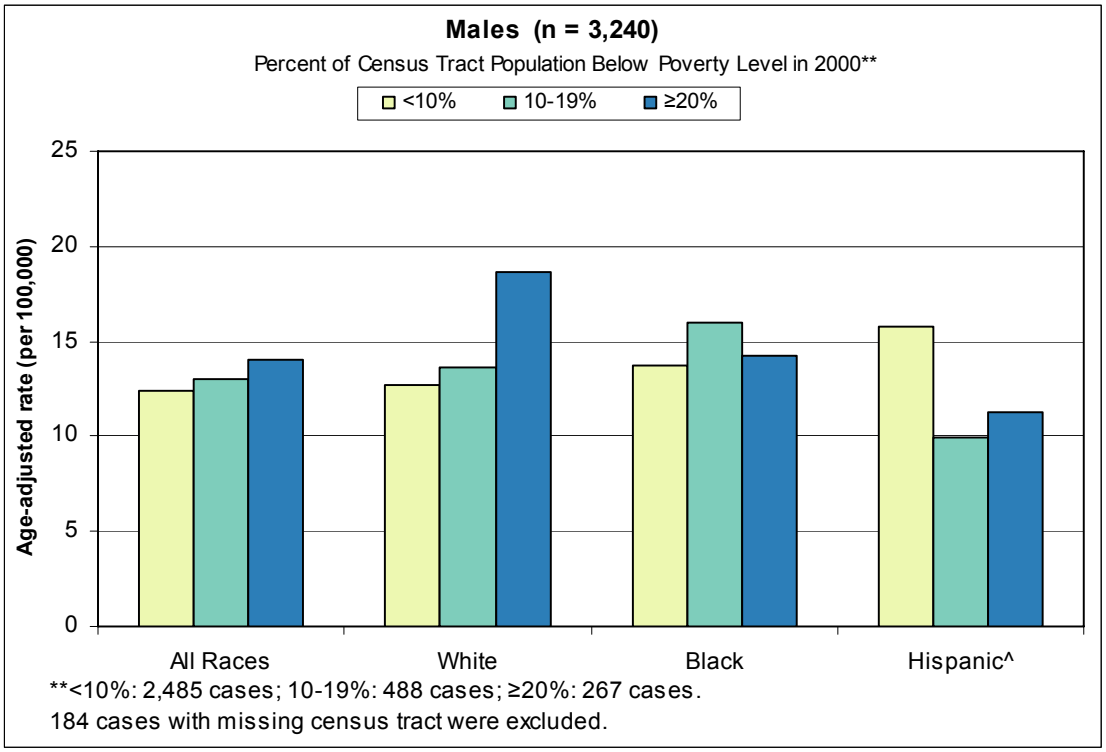
- The highest pancreatic cancer incidence rates observed were among white men residing in the areas with high poverty (18.6 per 100,000 person-years).

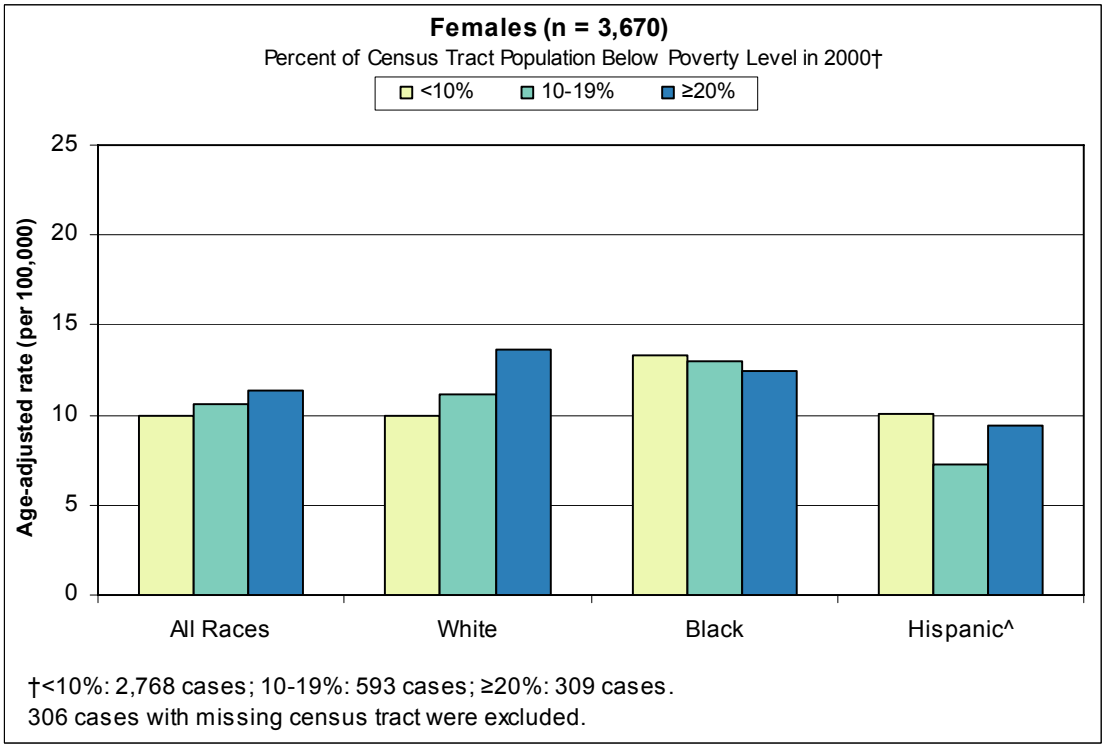
- Risk factors for pancreatic cancer include increasing age and cigarette smoking. Possible risk factors include diabetes, chronic pancreatitis (inflammation of the pancreas), obesity, and certain occupational exposures.

- The higher prevalence of smoking reported among persons living in poverty in the U.S.[13] may be one reason for the higher incidence of pancreatic cancer in the areas with high poverty.

See Tables 2-9 in Appendix B for additional information.

New Jersey Average Annual Cancer Incidence Rates* by Poverty Level, 1996-2002
Pancreas Cancer





*Average annual rates are age-adjusted to the 2000 U.S. standard population (18 age groups).
In situ cases are not included. 2002 data are preliminary.
^Hispanics may be of any race; therefore, the categories of race and ethnicity are not mutually exclusive.
Source: New Jersey State Cancer Registry, New Jersey Department of Health and Senior Services, 2005

Prostate Cancer Incidence

- A total of 50,392 men residing in New Jersey were diagnosed with invasive prostate cancer during 1996-2002.

- Among all men, the average annual prostate cancer incidence rate during 1996-2002 was somewhat higher among men residing in the areas with high poverty compared to men in the areas with low poverty.

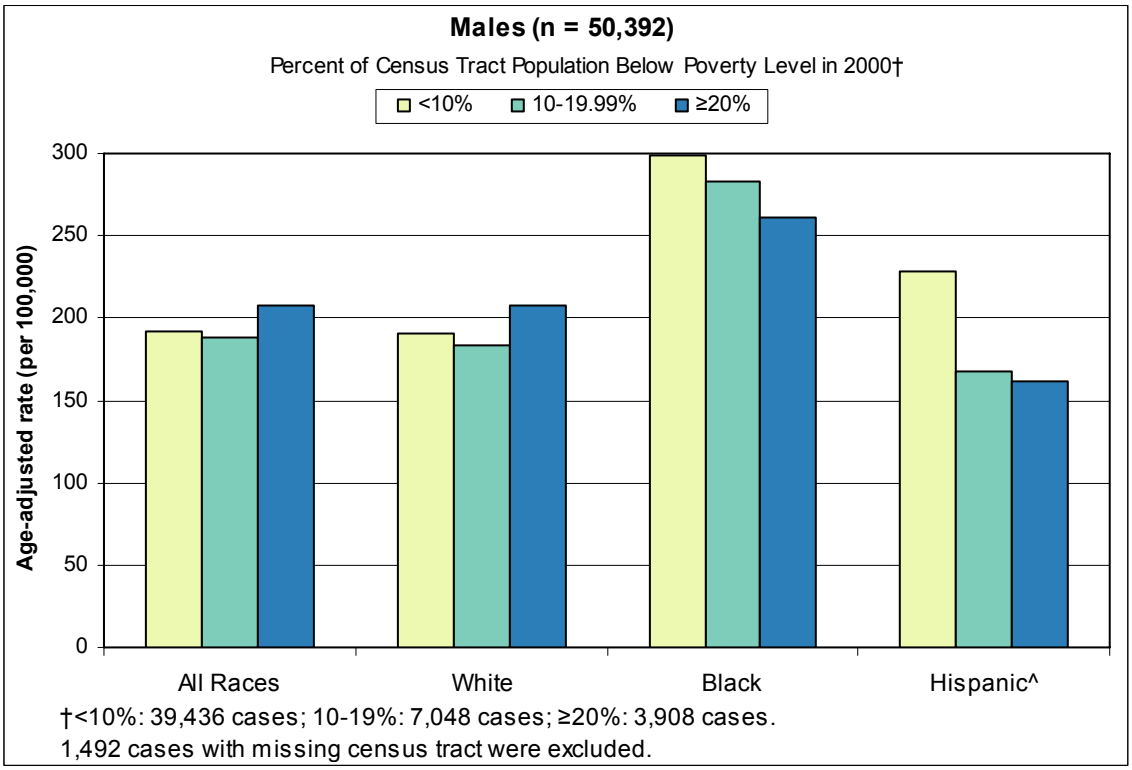
- When comparing race-specific cancer incidence rates in the three poverty areas, black men had higher prostate cancer rates than white men in each poverty area.

- The highest prostate cancer incidence rates for black and Hispanic men were observed in the areas with low poverty. Among white men, the highest prostate cancer incidence rate was observed in the areas with high poverty.

- Risk factors for prostate cancer include age, black race, family history of prostate cancer, and hormonal changes. A possible risk factor is a diet high in saturated fat.

See Tables 2-9 in Appendix B for additional information.

New Jersey Average Annual Cancer Incidence Rates* by Poverty Level, 1996-2002
Prostate Cancer



*Average annual rates are age-adjusted to the 2000 U.S. standard population (18 age groups).
In situ cases are not included. 2002 data are preliminary.
^Hispanics may be of any race; therefore, the categories of race and ethnicity are not mutually exclusive.
Source: New Jersey State Cancer Registry, New Jersey Department of Health and Senior Services, 2005

Stomach Cancer Incidence

- A total of 3,510 men and 2,240 women residing in New Jersey were diagnosed with invasive stomach cancer during 1996-2002.

- Among all men, the average annual stomach cancer incidence rate during 1996-2002 in the areas with high poverty was 63% higher than the rate in the areas with low poverty.

- Among all women, the stomach cancer incidence rate in the areas with high poverty was 1.8 times higher than the rate in the areas with low poverty.

- A similar pattern of increased stomach cancer incidence in areas with high poverty was also observed for white men, black men, white women, and black women.

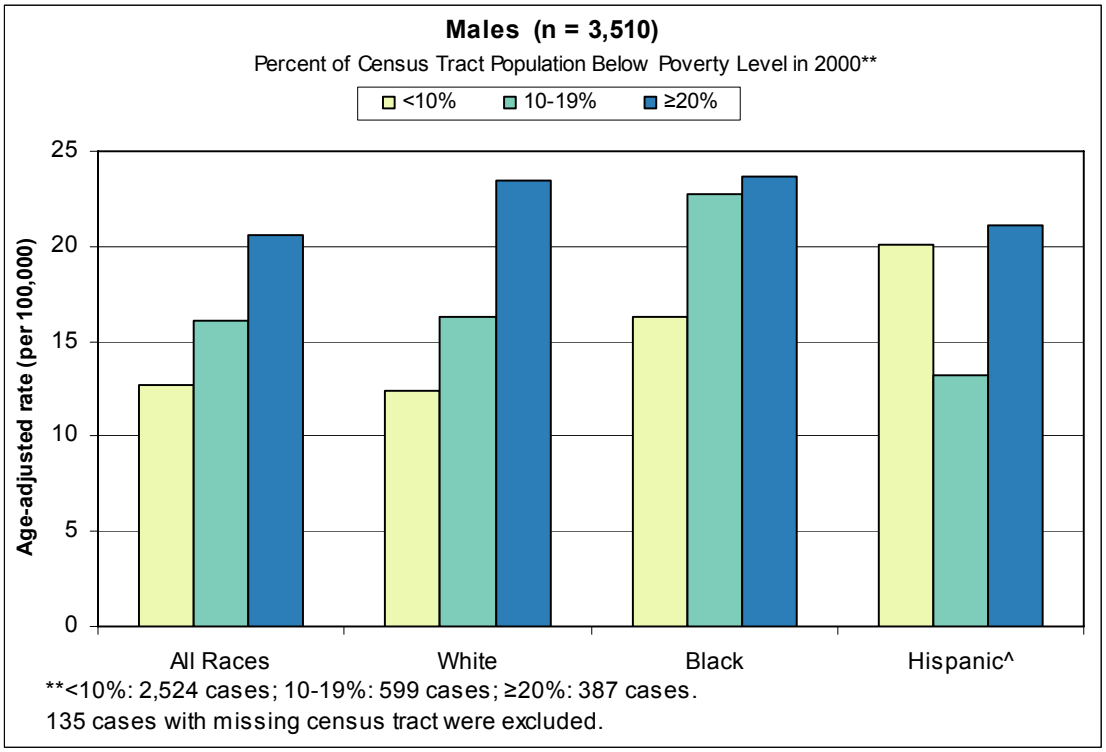
- There did not appear to be substantial differences among the three poverty areas in stomach cancer incidence among Hispanic women.

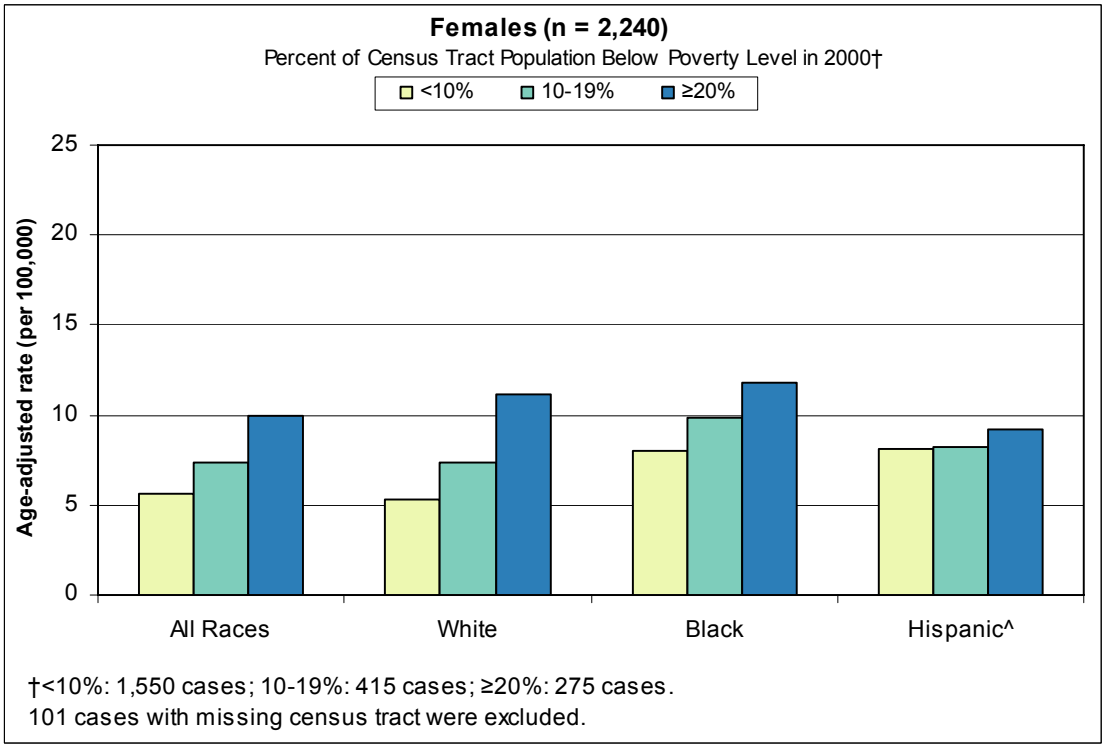
- Infection with the bacterium *Helicobacter pylori* is a major risk factor for stomach cancer. People who eat a diet high in smoked, salted, and pickled foods have an increased risk of stomach cancer, while people with high consumption of fruits and vegetables have a lower risk of stomach cancer. Other risk factors for stomach cancer include increasing age, male sex, cigarette smoking, chronic gastritis (inflammation of the stomach lining), and family history of stomach cancer.

- The prevalence of *Helicobacter pylori* has been reported to be higher among persons living below the poverty line than persons above the poverty line[12], and this may be one of the reasons for the increased incidence of stomach cancer in the areas with high poverty. Higher incidence of stomach cancer in the poorest areas may also be due in part to a higher prevalence of other risk factors such as cigarette smoking and lower consumption of fruits and vegetables.

See Tables 2-9 in Appendix B for additional information.

New Jersey Average Annual Cancer Incidence Rates* by Poverty Level, 1996-2002
Stomach Cancer





*Average annual rates are age-adjusted to the 2000 U.S. standard population (18 age groups).
In situ cases are not included. 2002 data are preliminary.
^Hispanics may be of any race; therefore, the categories of race and ethnicity are not mutually exclusive.
Source: New Jersey State Cancer Registry, New Jersey Department of Health and Senior Services, 2005

Thyroid Cancer Incidence

- A total of 1,174 men and 3,589 women residing in New Jersey were diagnosed with invasive thyroid cancer during 1996-2002.

- Among all women, thyroid cancer incidence rates were highest among women residing in the areas with low poverty. During 1996-2002, the average annual thyroid cancer incidence rate in the areas with high poverty was approximately 37% lower than the rate in the areas with low poverty.

- Male thyroid cancer incidence rates were much lower than female rates. Among all men, thyroid cancer rates were highest among men residing in the areas with low poverty.

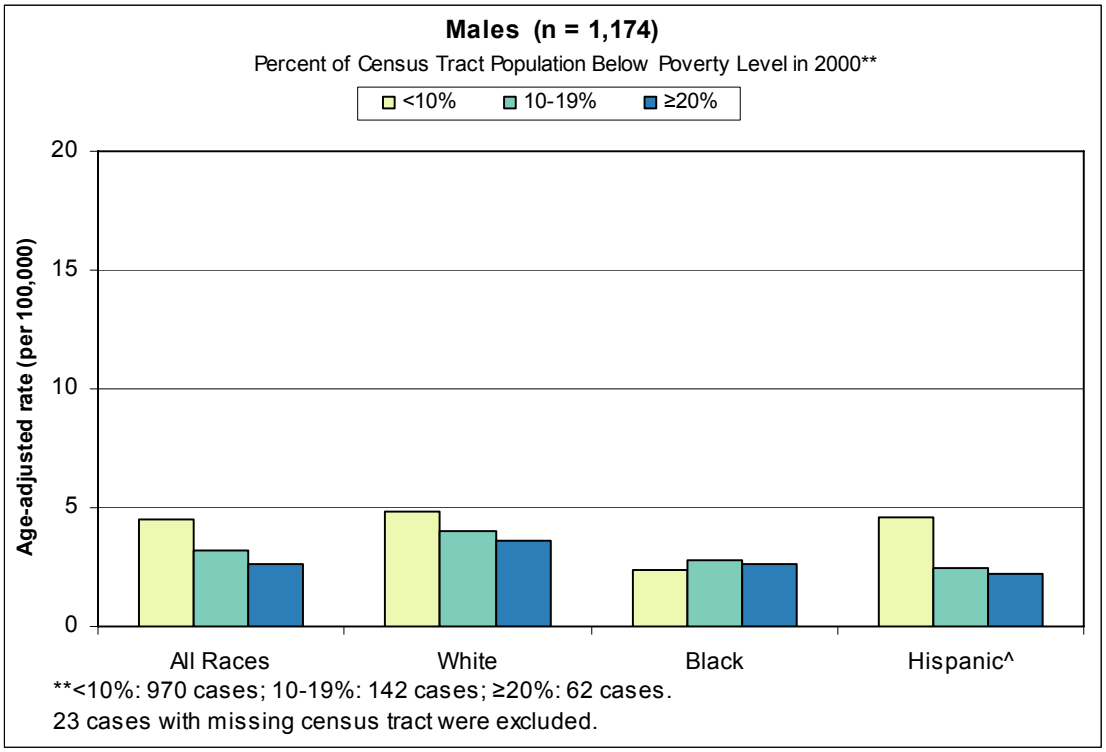
- For black women, Hispanic women, white men, and Hispanic men, thyroid cancer incidence rates were also highest in the areas with low poverty.

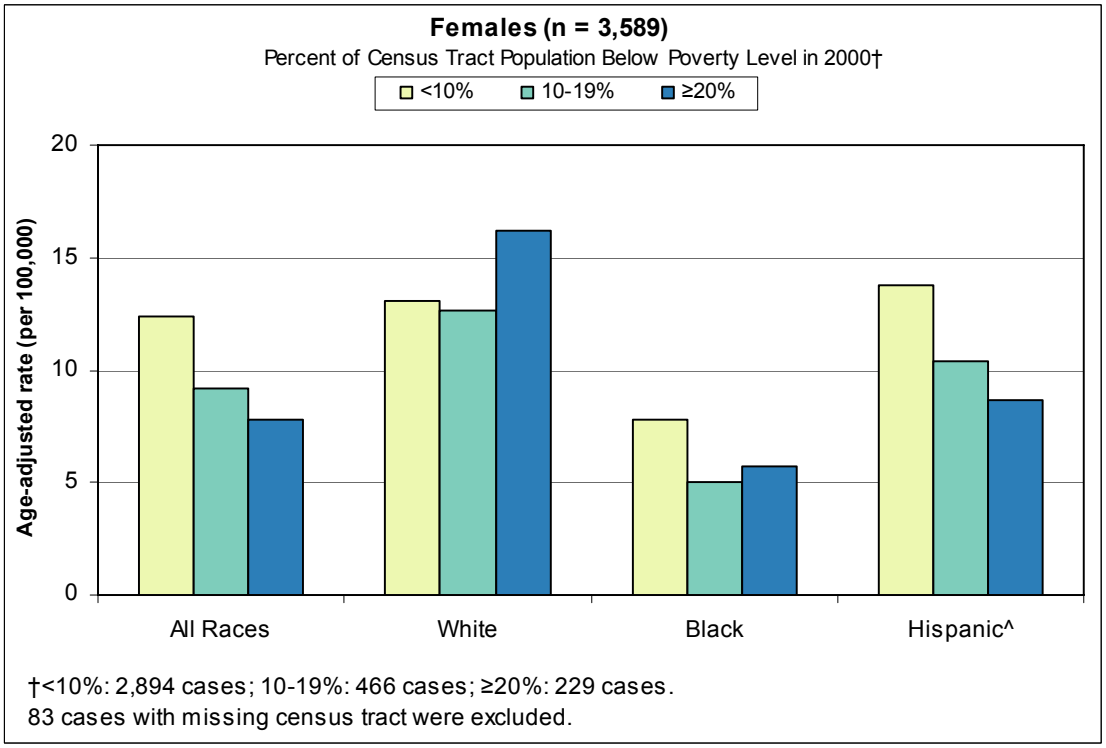
- Among white women, thyroid cancer incidence rates were highest in the areas with high poverty. White women residing in areas with high poverty had the highest incidence of any subgroup.

- Risk factors for thyroid cancer include high doses of ionizing radiation such as might be received in therapeutic treatment, family history of thyroid diseases, and personal history of goiter and other benign thyroid diseases. Some possible risk factors are diagnostic radiation such as x-rays, endogenous female hormones, oral contraceptive use, a diet high in fish and shellfish, and obesity.

See Tables 2-9 in Appendix B for additional information.

New Jersey Average Annual Cancer Incidence Rates* by Poverty Level, 1996-2002
Thyroid Cancer





*Average annual rates are age-adjusted to the 2000 U.S. standard population (18 age groups).
In situ cases are not included. 2002 data are preliminary.
^Hispanics may be of any race; therefore, the categories of race and ethnicity are not mutually exclusive.
Source: New Jersey State Cancer Registry, New Jersey Department of Health and Senior Services, 2005

Urinary Bladder Cancer Incidence

- A total of 10,956 men and 4,120 women residing in New Jersey were diagnosed with invasive or *in situ* urinary bladder cancer during 1996-2002.

- Among all men, the average annual bladder cancer incidence rate was 43% lower among men residing in the areas with high poverty compared to men in the areas with low poverty during 1996-2002.

- Among all women during the same time period, the bladder cancer incidence rate was also somewhat lower among women residing in the areas with high poverty compared to women in the areas with low poverty.

- A similar pattern of decreased bladder cancer incidence in areas with high poverty was also observed for black men, Hispanic men, and Hispanic women.

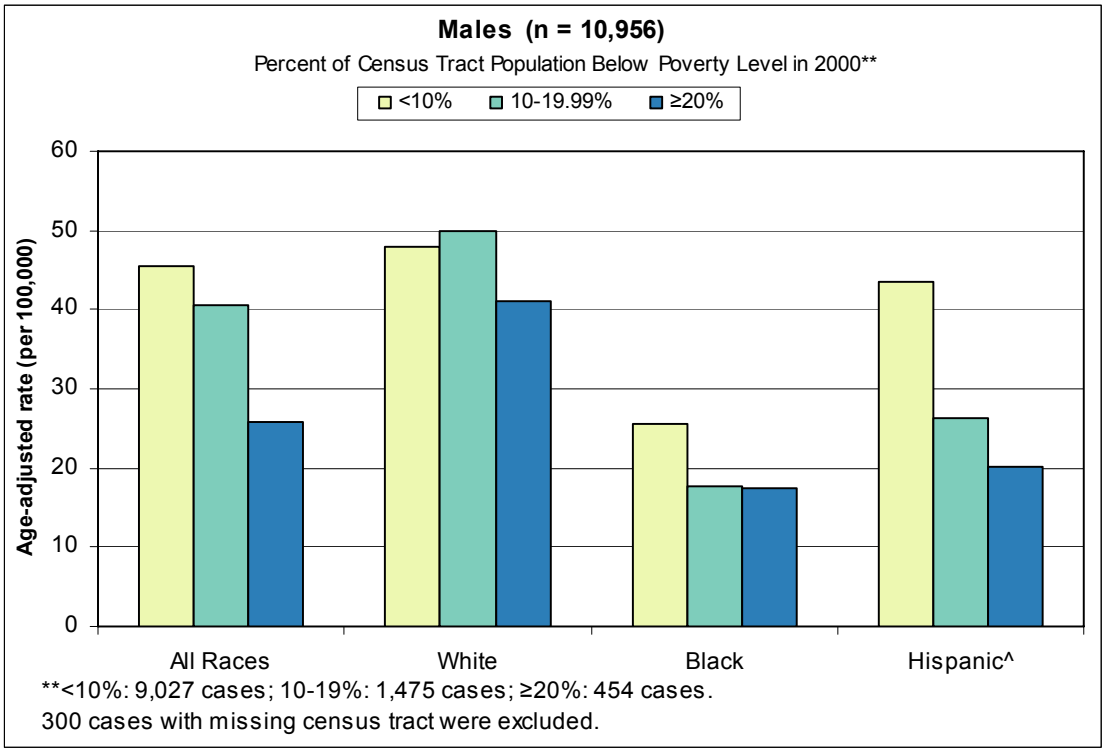
- Among white men, the bladder cancer incidence rate was lowest in the areas with high poverty, but highest in the areas with medium poverty.

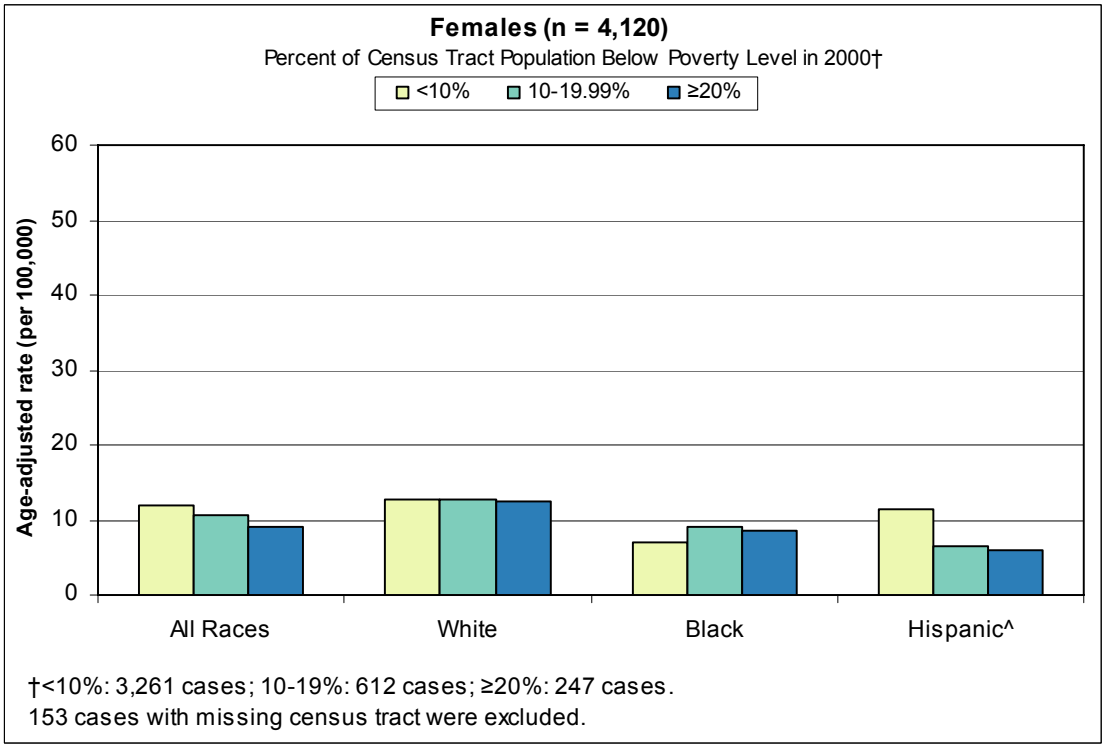
- There do not appear to be substantial differences among the three poverty areas in bladder cancer incidence among white or black women.

- The most important risk factor for bladder cancer is cigarette smoking. Other risk factors are increasing age, and occupational exposure to benzidine and 2-naphthylamine and occupations in the dye, leather, or rubber industries. Possible risk factors include bladder infection with *Schistosoma haematobium* (a parasitic flatworm common in some tropical areas), treatment with chlornaphazine or cyclophosphamide (anti-cancer drugs), long-term use of pain killers containing phenacetin, urinary tract infections or low urine flow, dietary factors, tobacco use other than cigarettes, and genetic factors.

See Tables 2-9 in Appendix B for additional information.

New Jersey Average Annual Cancer Incidence Rates* by Poverty Level, 1996-2002
Urinary Bladder Cancer





*Average annual rates are age-adjusted to the 2000 U.S. standard population (18 age groups).
In situ cases are included. 2002 data are preliminary.
^Hispanics may be of any race; therefore, the categories of race and ethnicity are not mutually exclusive.
Source: New Jersey State Cancer Registry, New Jersey Department of Health and Senior Services, 2005

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Cancer Stage at Diagnosis by Poverty Level – New Jersey, 1996-2002

Female Breast Cancer – Stage at Diagnosis

- A total of 54,333 women residing in New Jersey and diagnosed with invasive or *in situ* breast cancer during 1996-2002 were included in the analysis.

- Among all women diagnosed with breast cancer during 1996-2002, women residing in the areas with low poverty were more likely to be diagnosed with *in situ* or local stage cancer than women residing in the areas with medium and high poverty. Approximately 68% of incident breast cancers in the areas with low poverty were diagnosed at the *in situ* or local stage, compared to 58% in the areas with high poverty.

- A similar pattern of earlier stage at diagnosis in the areas with low poverty was also seen among white, black, and Hispanic women.

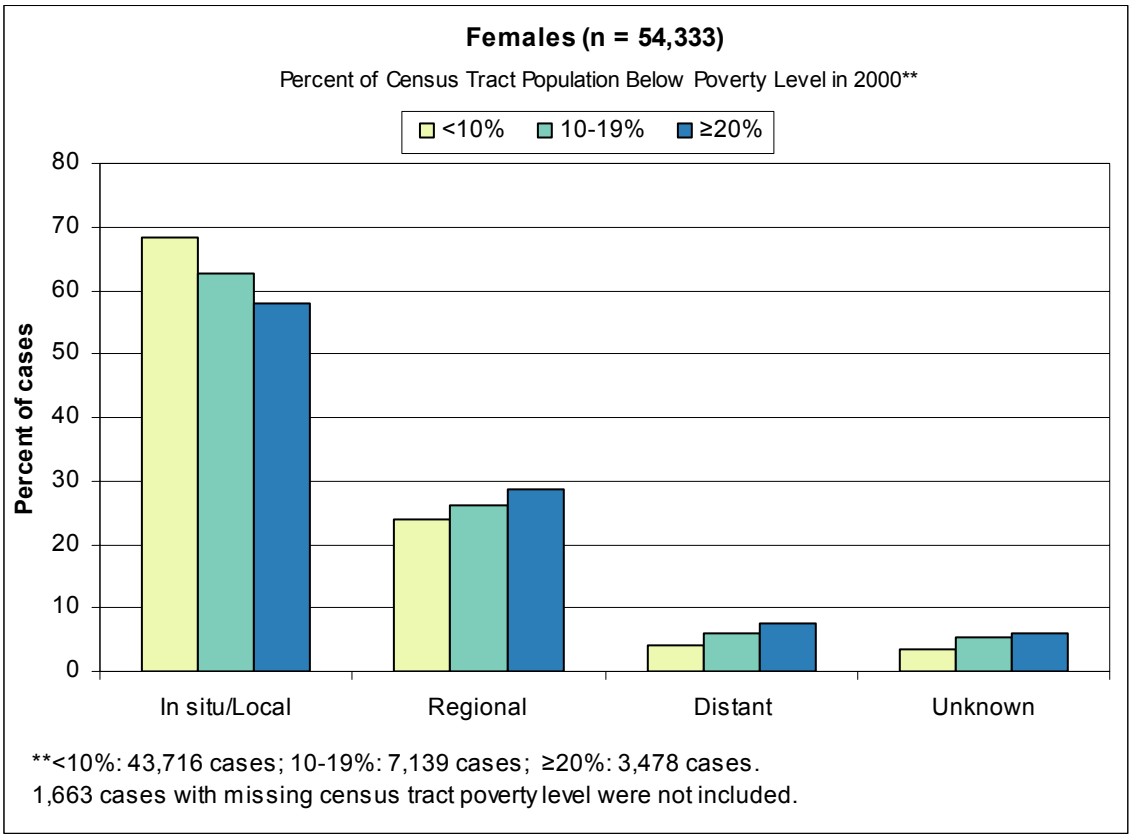
- Among women diagnosed with breast cancer in the areas with high poverty, a higher proportion of white women were diagnosed at the *in situ* or local stage (60%), compared to black women (56%).

- Among Hispanic women diagnosed with breast cancer in the areas with high poverty, 58% were diagnosed at the *in situ* or local stage.

- Early detection of breast cancer is essential for reducing mortality, as women diagnosed at earlier stage have much better survival than those diagnosed at late stage. According to the American Cancer Society, the five-year relative survival rate for women diagnosed with breast cancer during 1995-2001 was 97.9% for women diagnosed with local stage cancer and only 26.1% for women diagnosed with distant stage cancer.[14]

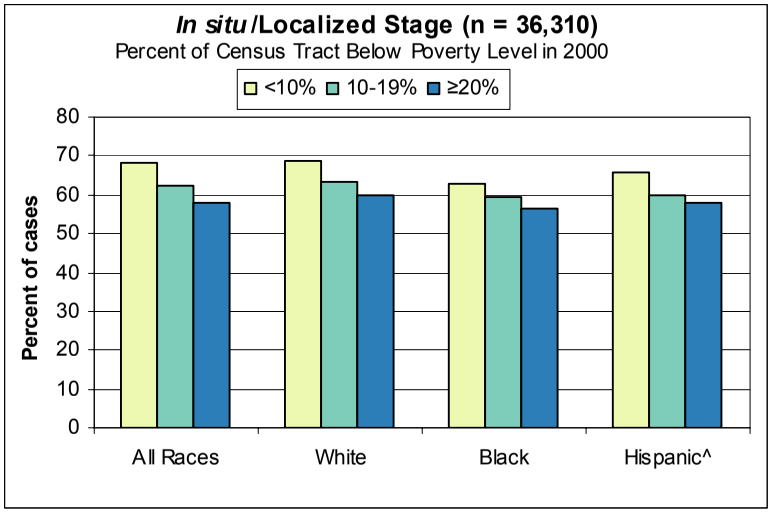
See Tables 10-17 in Appendix C for additional information.

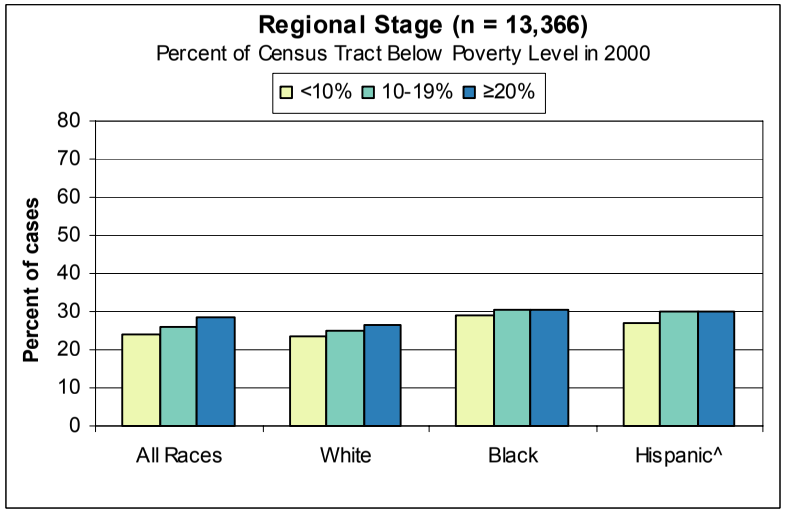
New Jersey Cancer* Stage Distribution (%) by Poverty Level, 1996-2002
Breast Cancer

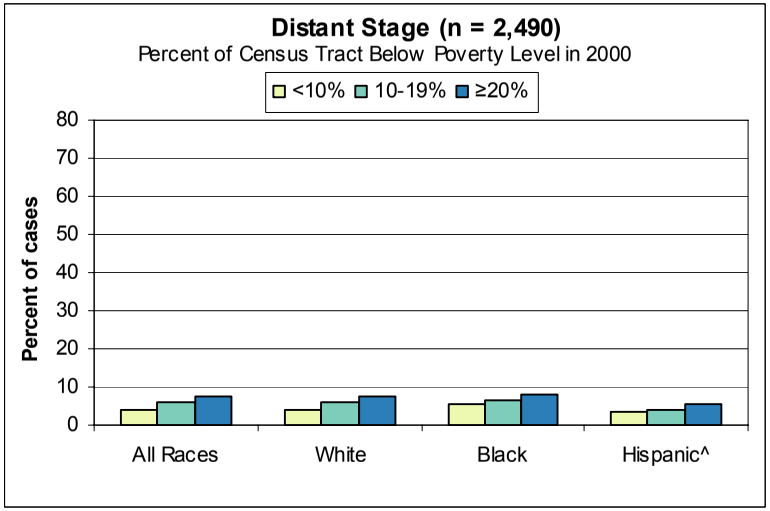


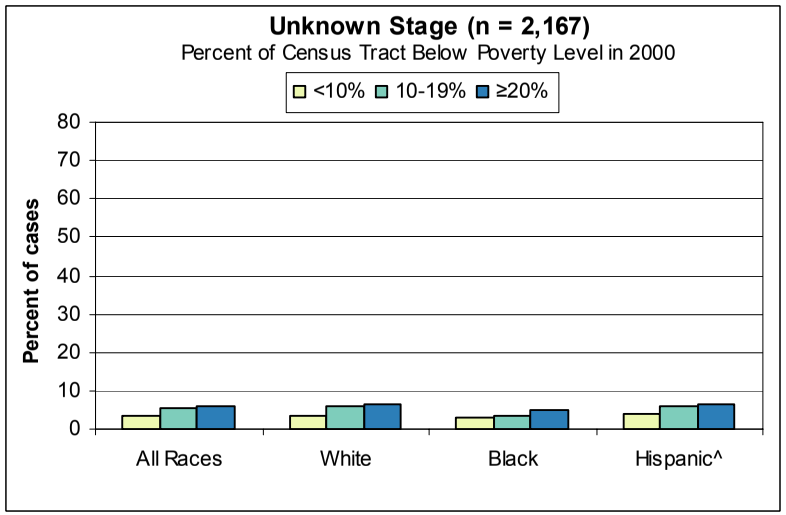
*2002 data are preliminary.
Note: Percentages may not add up to 100% due to rounding.
Source: New Jersey State Cancer Registry, New Jersey Department of Health and Senior Services, 2005

New Jersey Cancer* Stage Distribution by Race/Ethnicity, and Poverty Level, 1996-2002 (n = 54,333)
Breast Cancer - Females









*2002 data are preliminary. 1,663 cases with missing census tract poverty level were not included.
^Hispanics may be of any race; therefore, the categories of race and ethnicity are not mutually exclusive.
Note: Percentages may not add up to 100% due to rounding.
Source: New Jersey State Cancer Registry, New Jersey Department of Health and Senior Services, 2005

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Cervical Cancer – Stage at Diagnosis

- A total of 3,241 women residing in New Jersey and diagnosed with invasive cervical cancer during 1996-2002 were included in the analysis.

- Among all women diagnosed with cervical cancer during 1996-2002, women residing in the areas with low poverty were more likely to be diagnosed with local stage cancer than women residing in the areas with medium and high poverty. Approximately 50% of incident cervical cancers in the areas with low poverty were diagnosed at the local stage, compared to 42% in the areas with high poverty.

- A similar pattern of earlier stage at diagnosis in areas with low poverty was also observed for white, black, and Hispanic women.

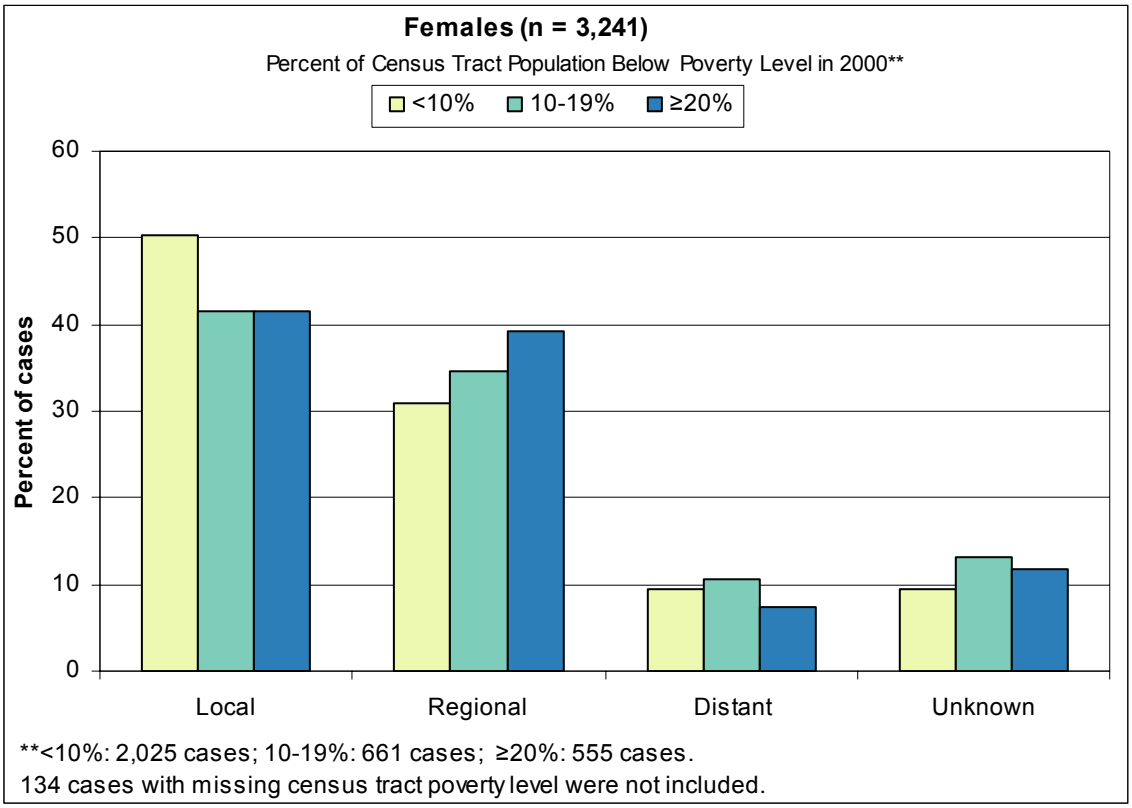
- Among women diagnosed with cervical cancer in the areas with low poverty, the proportion diagnosed at the local stage was similar for white and black women.

- Among women diagnosed with cervical cancer in the areas with high poverty, the proportion diagnosed at the local stage was higher for white women (43%) than black women (39%).

- Early detection of cervical cancer is essential for reducing mortality, as women diagnosed at earlier stage have much better survival than those diagnosed at late stage. According to the American Cancer Society, the five-year relative survival rate for women diagnosed with cervical cancer during 1995-2001 was 92.4% for women diagnosed with local stage cancer and only 16.5% for women diagnosed with distant stage cancer.[14]

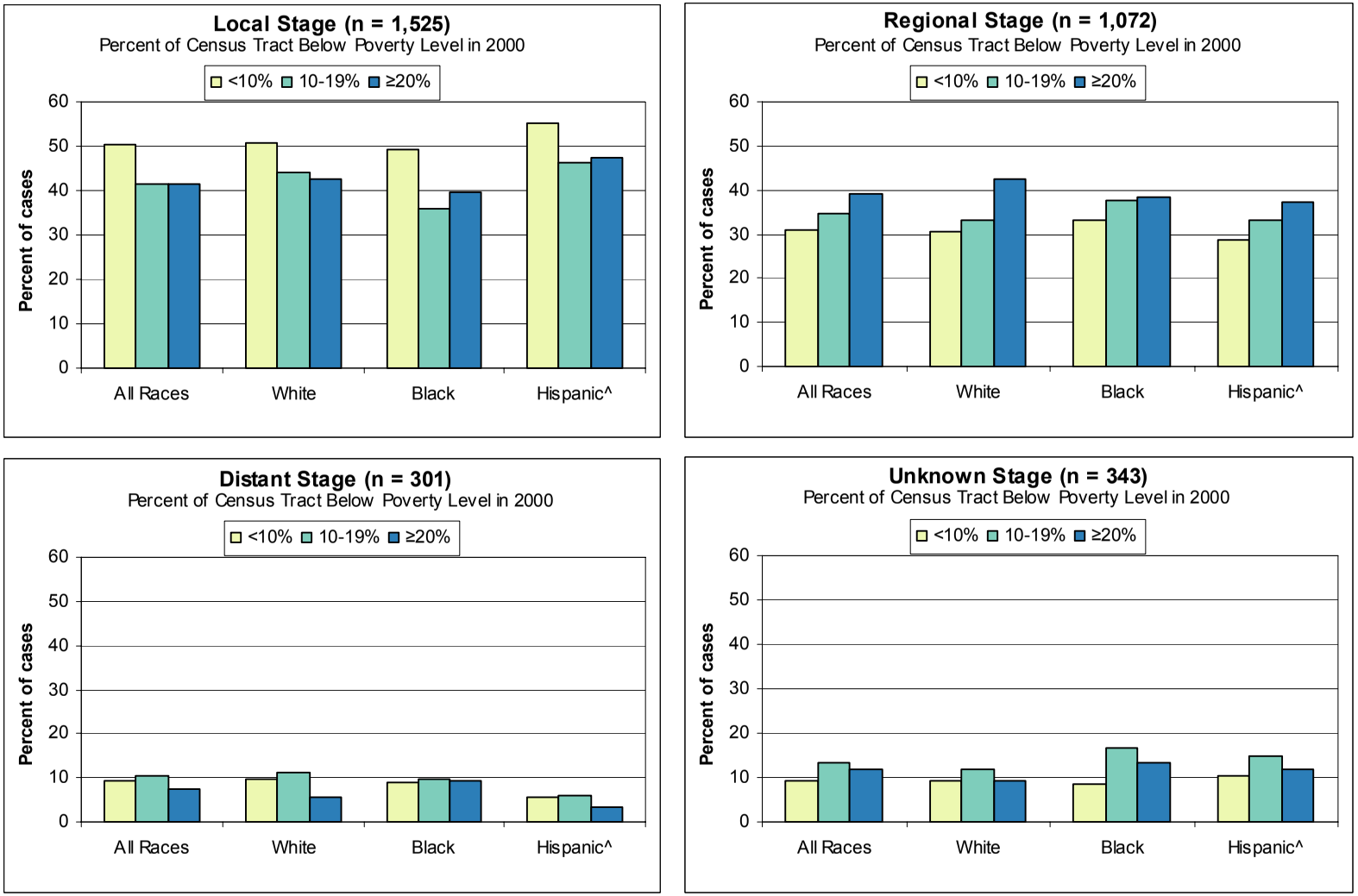
See Tables 10-17 in Appendix C for additional information.

New Jersey Cancer* Stage Distribution (%) by Poverty Level, 1996-2002
Cervical Cancer



***In situ* cancer cases were excluded. 2002 data are preliminary.
Note: Percentages may not add up to 100% due to rounding.
Source: New Jersey State Cancer Registry, New Jersey Department of Health and Senior Services, 2005

New Jersey Cancer* Stage Distribution by Race/Ethnicity, and Poverty Level, 1996-2002 (n = 3,241)
Cervical Cancer – Females



**In situ* cancer cases were excluded. 2002 data are preliminary. 134 cases with missing census tract poverty level were not included.
^Hispanics may be of any race; therefore, the categories of race and ethnicity are not mutually exclusive.
Note: Percentages may not add up to 100% due to rounding.
Source: New Jersey State Cancer Registry, New Jersey Department of Health and Senior Services, 2005

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Colorectal Cancer – Stage at Diagnosis

- A total of 20,669 men and 20,331 women residing in New Jersey and diagnosed with invasive or *in situ* colorectal cancer during 1996-2002 were included in the analysis.

- There did not appear to be substantial differences among the three poverty areas in stage at diagnosis among all women diagnosed with colorectal cancer during 1996-2002. Approximately 39% of incident colorectal cancers in the areas with low, medium, and high poverty were diagnosed at the *in situ* or local stage.

- Similarly, among white and black women diagnosed with colorectal cancer, there did not appear to be substantial differences among the three poverty areas in stage at diagnosis.

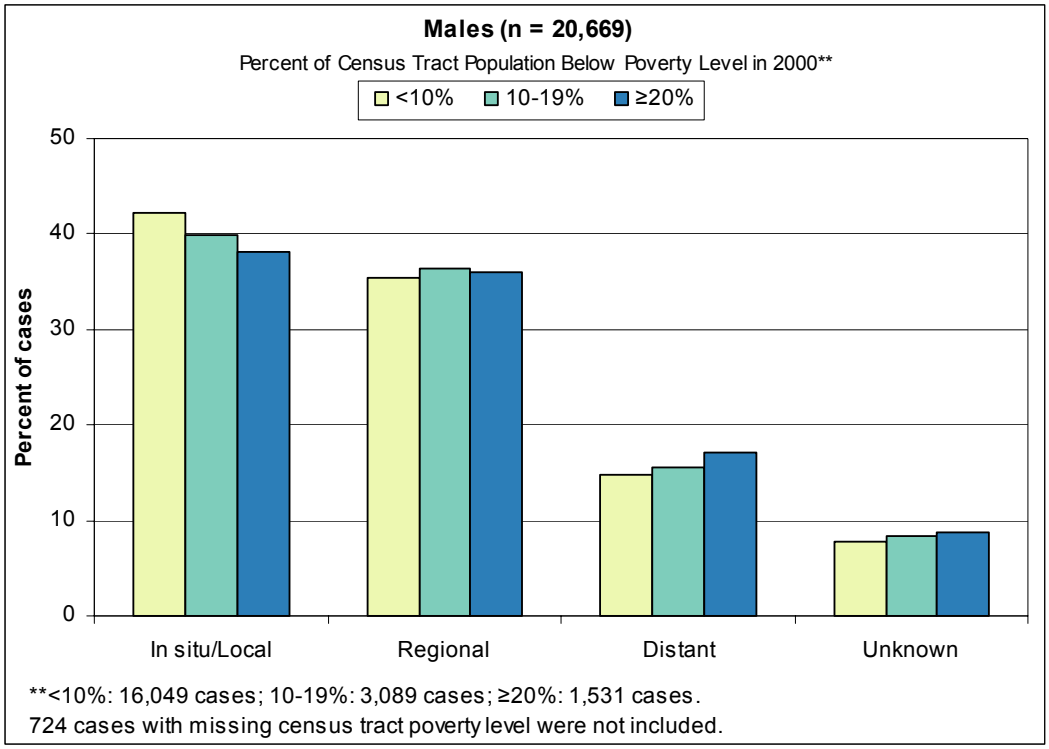
- Among all men diagnosed with colorectal cancer during 1996-2002, men residing in the areas with low poverty were somewhat more likely to be diagnosed with *in situ* or local stage cancer than men residing in the areas with high poverty. Approximately 42% of incident male colorectal cancers in the areas with low poverty were diagnosed at *in situ* or local stage, compared to 38% in the areas with high poverty.

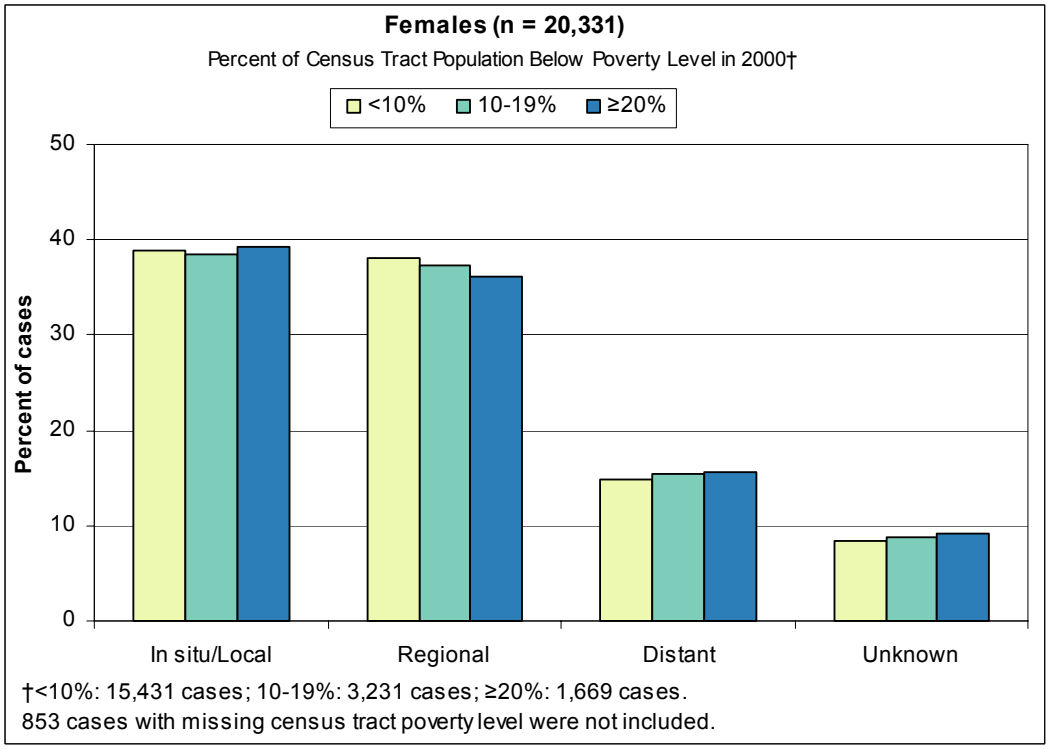
- Similarly, among white, black, and Hispanic men diagnosed with colorectal cancer, men residing in the areas with low poverty were more likely to be diagnosed with *in situ* or local stage cancer than men residing in the areas with high poverty.

- Early detection of colorectal cancer is essential for reducing mortality, as people diagnosed at earlier stage have much better survival than those diagnosed at late stage. According to the American Cancer Society, the five-year relative survival rate for people diagnosed with colorectal cancer during 1995-2001 was 90.4% for people diagnosed with local stage cancer and only 9.7% for people diagnosed with distant stage cancer.[14]

See Tables 10-17 in Appendix C for additional information.

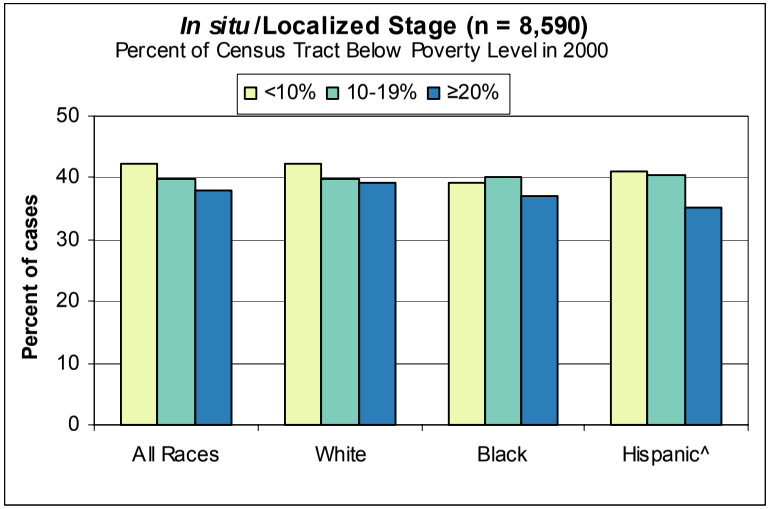
New Jersey Cancer* Stage Distribution (%) by Poverty Level, 1996-2002
Colorectal Cancer

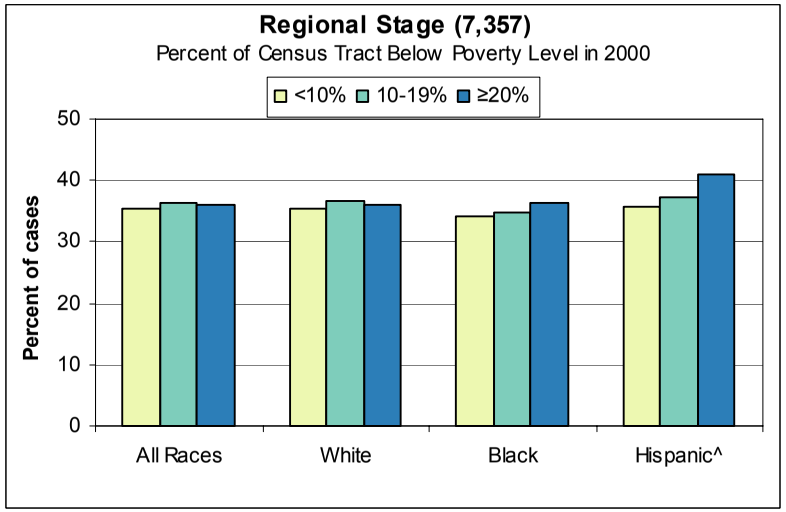


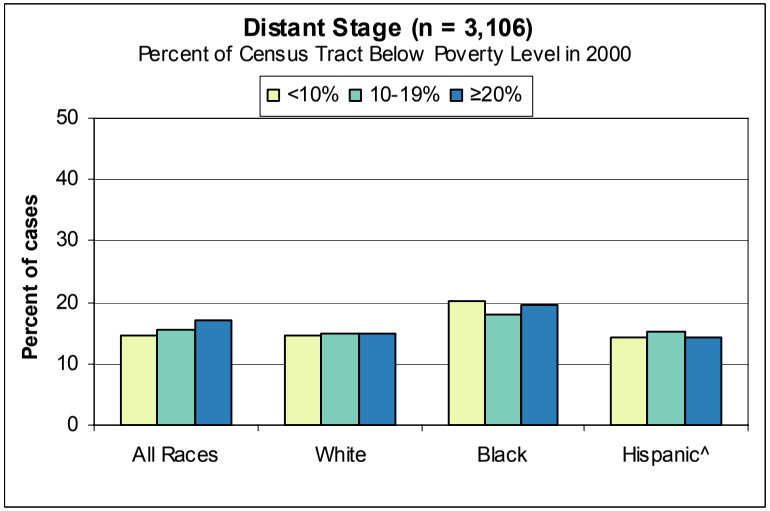


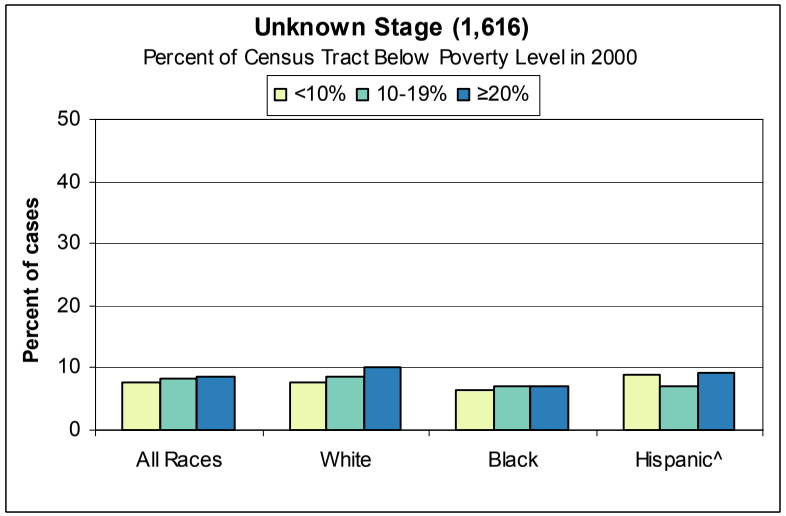
*2002 data are preliminary.
Note: Percentages may not add up to 100% due to rounding.
Source: New Jersey State Cancer Registry, New Jersey Department of Health and Senior Services, 2005

New Jersey Cancer* Stage Distribution by Race/Ethnicity, and Poverty Level, 1996-2002 (n = 20,669)
Colorectal Cancer - Males



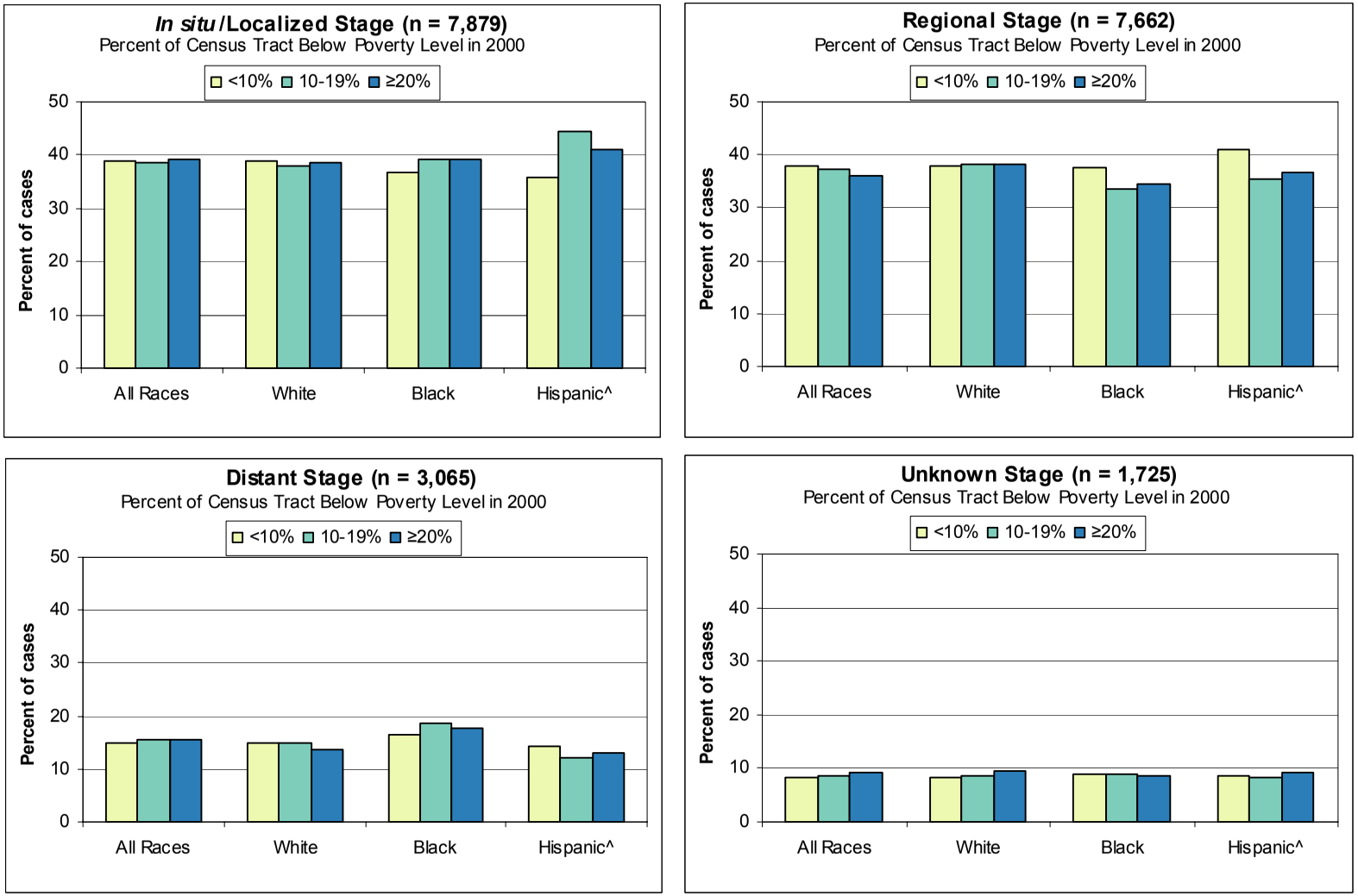






*2002 data are preliminary. 724 cases with missing census tract poverty level were not included.
^Hispanics may be of any race; therefore, the categories of race and ethnicity are not mutually exclusive.
Note: Percentages may not add up to 100% due to rounding.
Source: New Jersey State Cancer Registry, New Jersey Department of Health and Senior Services, 2005

New Jersey Cancer* Stage Distribution by Race/Ethnicity, and Poverty Level, 1996-2002 (n = 20,331)
Colorectal Cancer - Females



*2002 data are preliminary. 853 cases with missing census tract poverty level were not included.
^Hispanics may be of any race; therefore, the categories of race and ethnicity are not mutually exclusive.
Note: Percentages may not add up to 100% due to rounding.
Source: New Jersey State Cancer Registry, New Jersey Department of Health and Senior Services, 2005

Lung and Bronchus Cancer – Stage at Diagnosis

- A total of 21,916 men and 18,186 women residing in New Jersey and diagnosed with invasive or *in situ* cancer of the lung and bronchus during 1996-2002 were included in the analysis.

- The highest proportion of both men and women diagnosed with lung cancer were diagnosed at the distant stage in each poverty area.

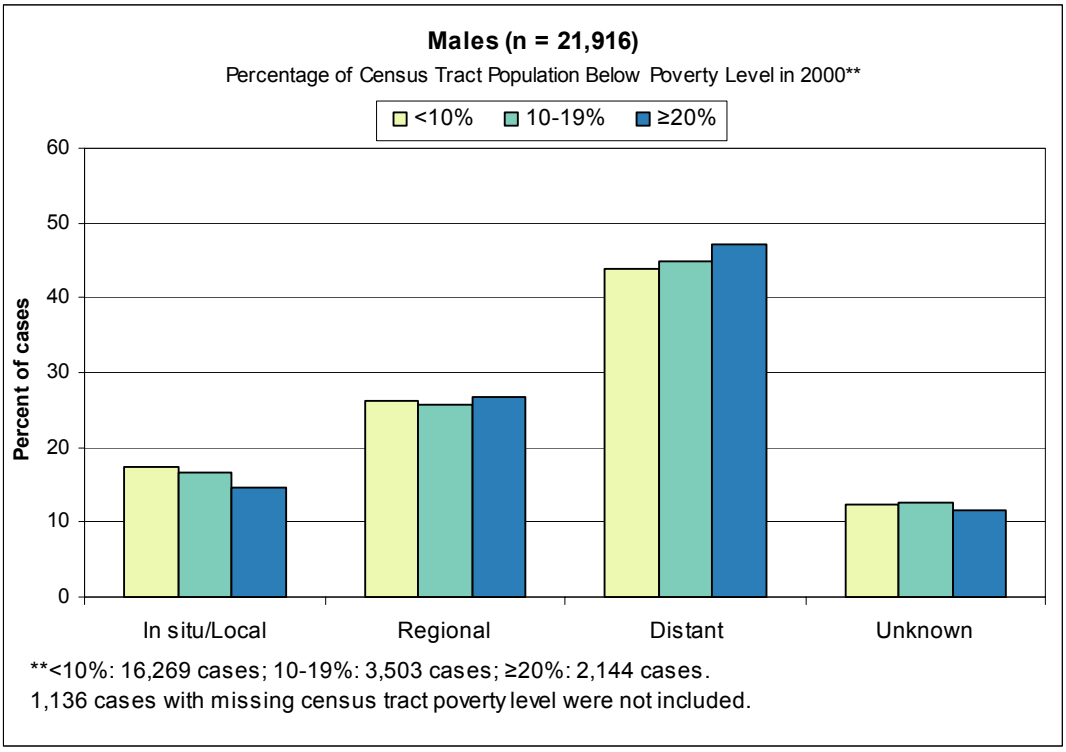
- There did not appear to be substantial differences among the three poverty areas in stage of diagnosis among all men diagnosed with lung cancer. Approximately, 15%-17% of incident lung cancer among men residing in the areas with low, medium, and high poverty was diagnosed at the *in situ* or local stage.

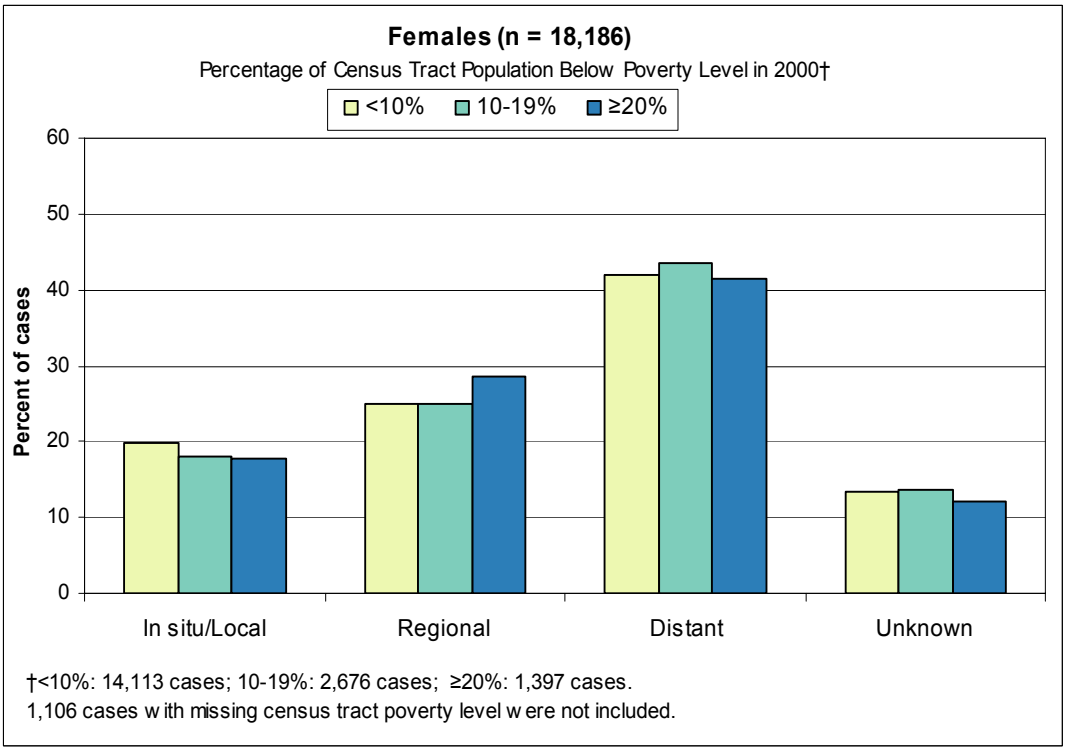
- The stage distribution for women diagnosed with lung cancer was similar to that for men during the same time period.

- Early detection of lung cancer is essential for reducing mortality, as people diagnosed at earlier stage have much better survival than those diagnosed at late stage. According to the American Cancer Society, the five-year relative survival rate for people diagnosed with lung and bronchus cancer during 1995-2001 was 49.5% for people diagnosed with local stage cancer and only 2.1% for people diagnosed with distant stage cancer.[14]

See Tables 10-17 in Appendix C for additional information.

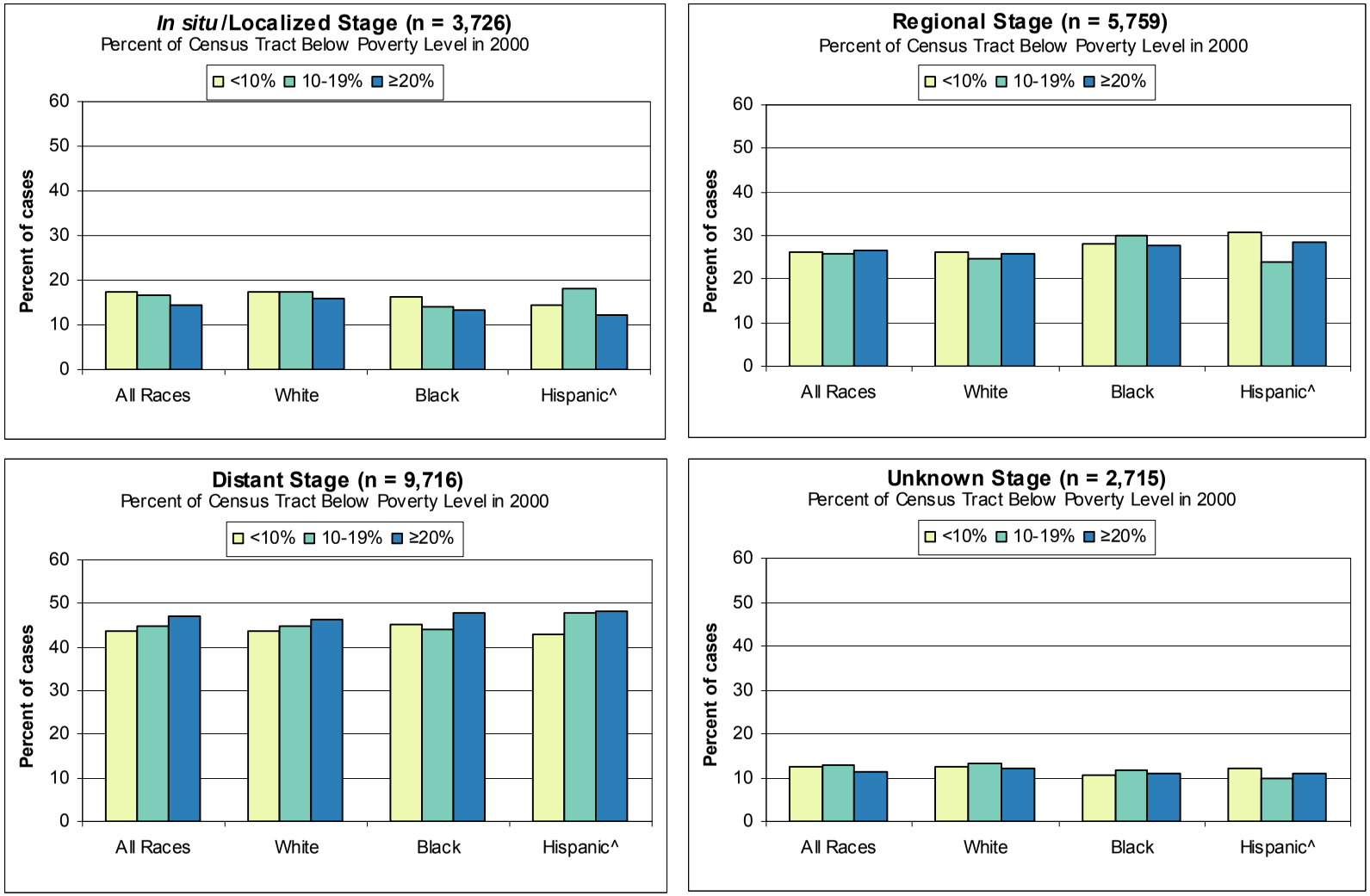
New Jersey Cancer* Stage Distribution (%) by Poverty Level, 1996-2002
Lung and Bronchus Cancer





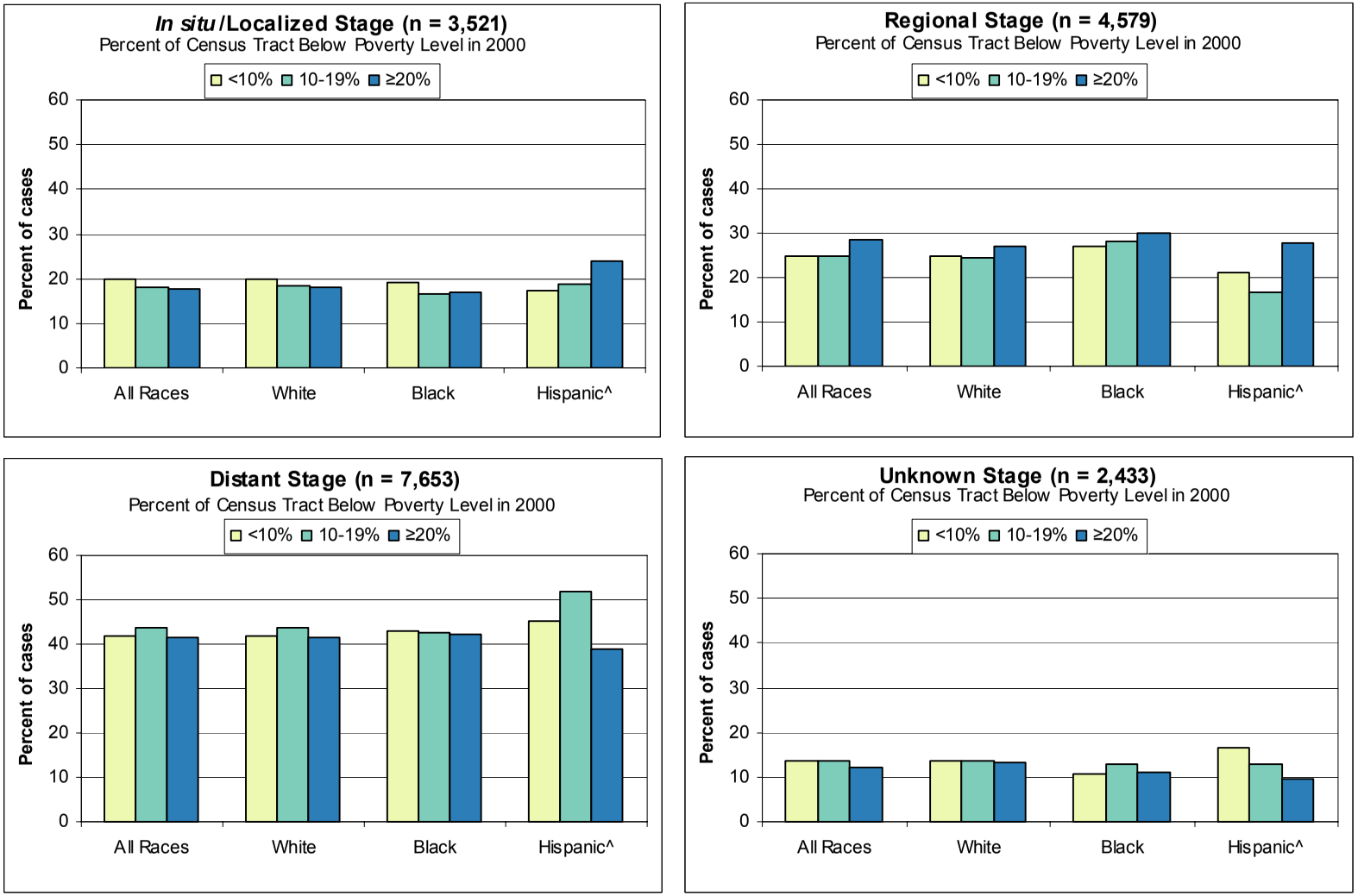
*2002 data are preliminary.
Note: Percentages may not add up to 100% due to rounding.
Source: New Jersey State Cancer Registry, New Jersey Department of Health and Senior Services, 2005

New Jersey Cancer* Stage Distribution by Race/Ethnicity, and Poverty Level, 1996-2002 (n = 21,916)
Lung and Bronchus Cancer - Males



*2002 data are preliminary. 1,136 cases with missing census tract poverty level were not included.
^Hispanics may be of any race; therefore, the categories of race and ethnicity are not mutually exclusive.
Note: Percentages may not add up to 100% due to rounding.
Source: New Jersey State Cancer Registry, New Jersey Department of Health and Senior Services, 2005

New Jersey Cancer* Stage Distribution by Race/Ethnicity, and Poverty Level, 1996-2002 (n = 18,186)
Lung and Bronchus Cancer - Females



*2002 data are preliminary. 1,106 cases with missing census tract poverty level were not included.
^Hispanics may be of any race; therefore, the categories of race and ethnicity are not mutually exclusive.
Note: Percentages may not add up to 100% due to rounding.
Source: New Jersey State Cancer Registry, New Jersey Department of Health and Senior Services, 2005

Melanoma of the Skin – Stage at Diagnosis

- A total of 8,747 men and 7,197 women residing in New Jersey and diagnosed with invasive or *in situ* melanoma of the skin during 1996-2002 were included in the analysis.

- Among men diagnosed with melanoma of the skin during 1996-2002, men residing in the areas with low poverty were more likely to be diagnosed with *in situ* or local stage cancer (85%), compared to men in the areas with medium (82%) or high poverty (69%).

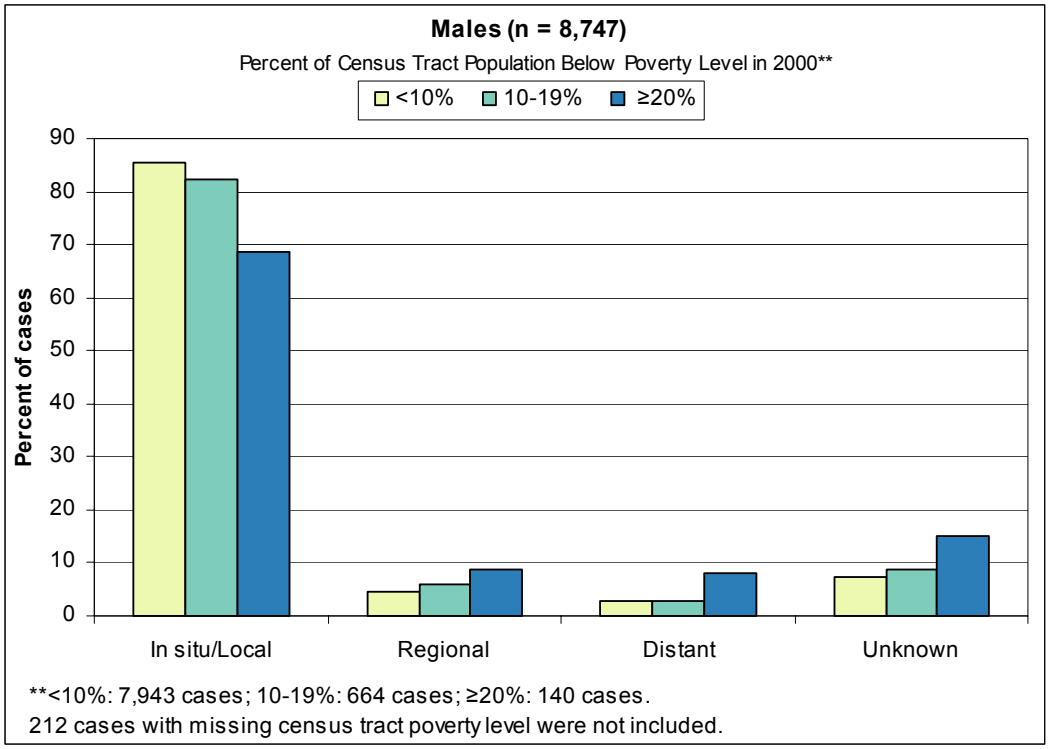
- During the same time period, a similar pattern was observed among women diagnosed with melanoma, with a higher proportion of women residing in the areas with low poverty diagnosed with earlier-stage cancer (88%), as compared to women in the areas with medium (82%) or high poverty (76%).

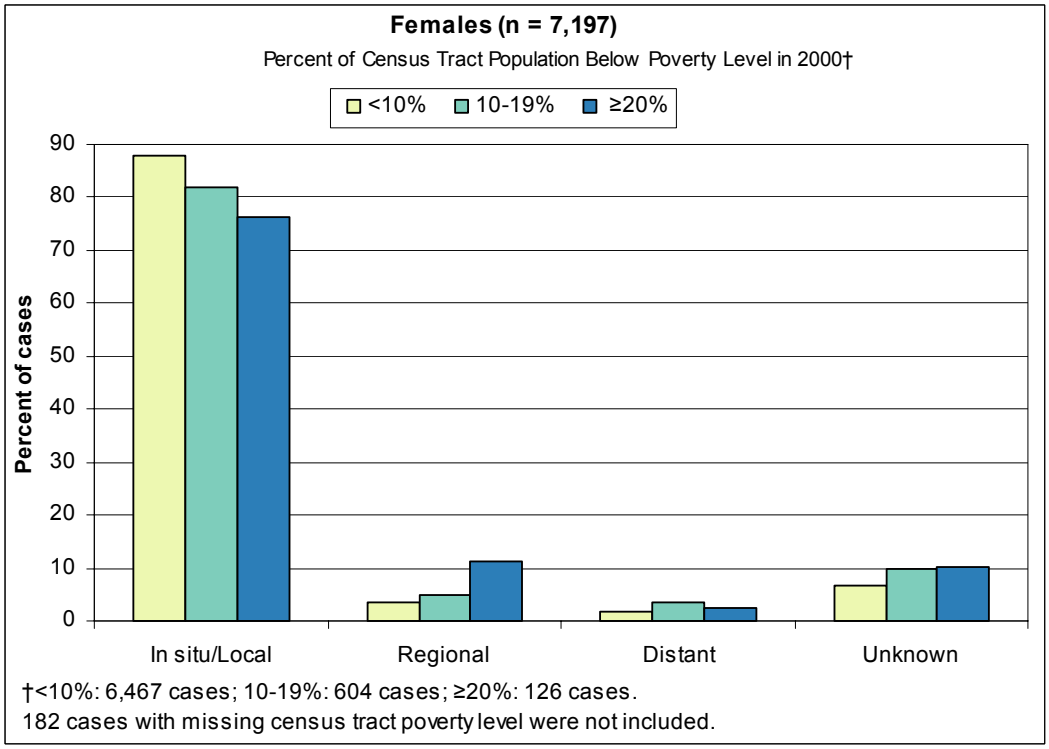
- Most of the melanoma cases were white (95%). Data are not displayed by race or ethnicity due to the small numbers of cases diagnosed among blacks and Hispanics in some of the poverty areas.

- Early detection of melanoma is essential for reducing mortality, as people diagnosed at earlier stage have much better survival than those diagnosed at late stage. According to the American Cancer Society, the five-year relative survival rate for people diagnosed with melanoma of the skin during 1995-2001 was 98.3% for people diagnosed with local stage melanoma and only 16.0% for people diagnosed with distant stage melanoma.[14]

See Tables 10-17 in Appendix C for additional information.

New Jersey Cancer* Stage Distribution (%) by Poverty Level, 1996-2002
Melanoma of the Skin





*2002 data are preliminary.
Note: Percentages may not add up to 100% due to rounding.
Source: New Jersey State Cancer Registry, New Jersey Department of Health and Senior Services, 2005

Oral Cavity and Pharynx Cancer - Stage at Diagnosis

- A total of 4,034 men and 2,086 women residing in New Jersey and diagnosed with invasive or *in situ* oral and pharynx cancer during 1996-2002 were included in the analysis.

- Among men diagnosed with oral cancer during 1996-2002, men residing in the areas with low poverty were more likely to be diagnosed at the *in situ* or local stage (34%), compared to men in the areas with medium (27%) and high poverty (21%).

- A similar pattern was observed among white and black men diagnosed with oral cancer, with men residing in the areas with low poverty more likely to be diagnosed at the *in situ* or local stage, compared to men residing in the areas with high poverty.

- Among men diagnosed with oral cancer in the areas with high poverty, a higher proportion of white men were diagnosed at early stage (25%), compared to black men (18%).

- Among persons diagnosed with oral cancer in all poverty areas, a larger proportion of women were diagnosed at early stages, compared to men.

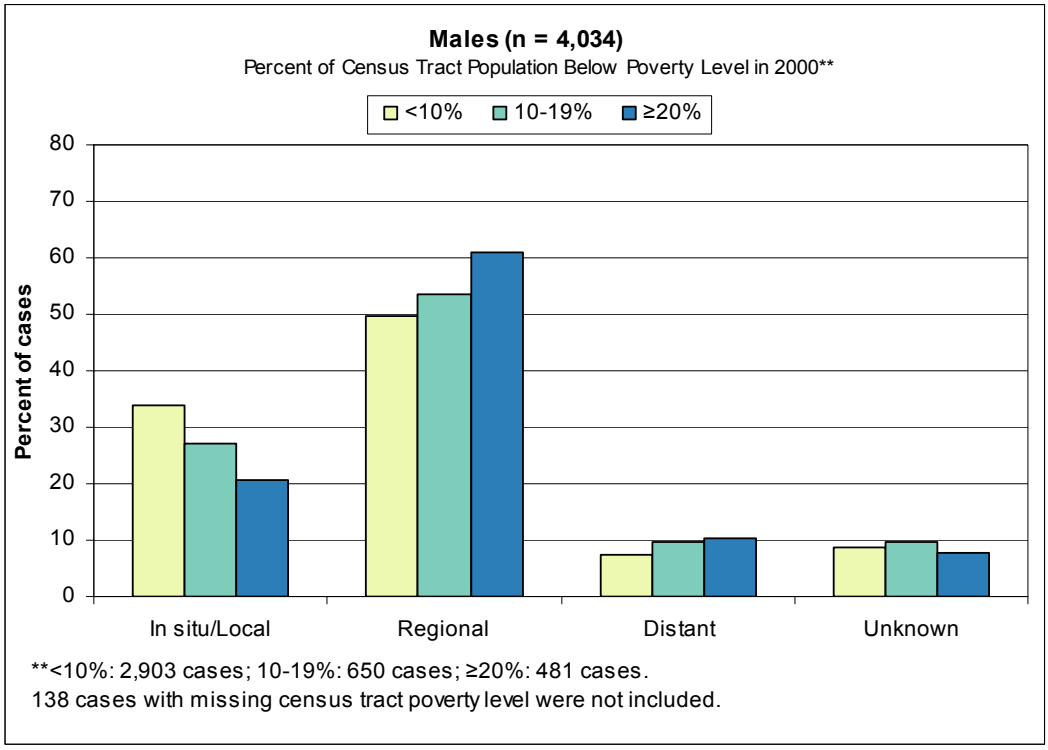
- Among women diagnosed with oral cancer, women residing in the areas with low poverty had a higher proportion of diagnoses at the *in situ* or local stage (44%), compared to women in the areas with medium (42%) and high poverty (32%).

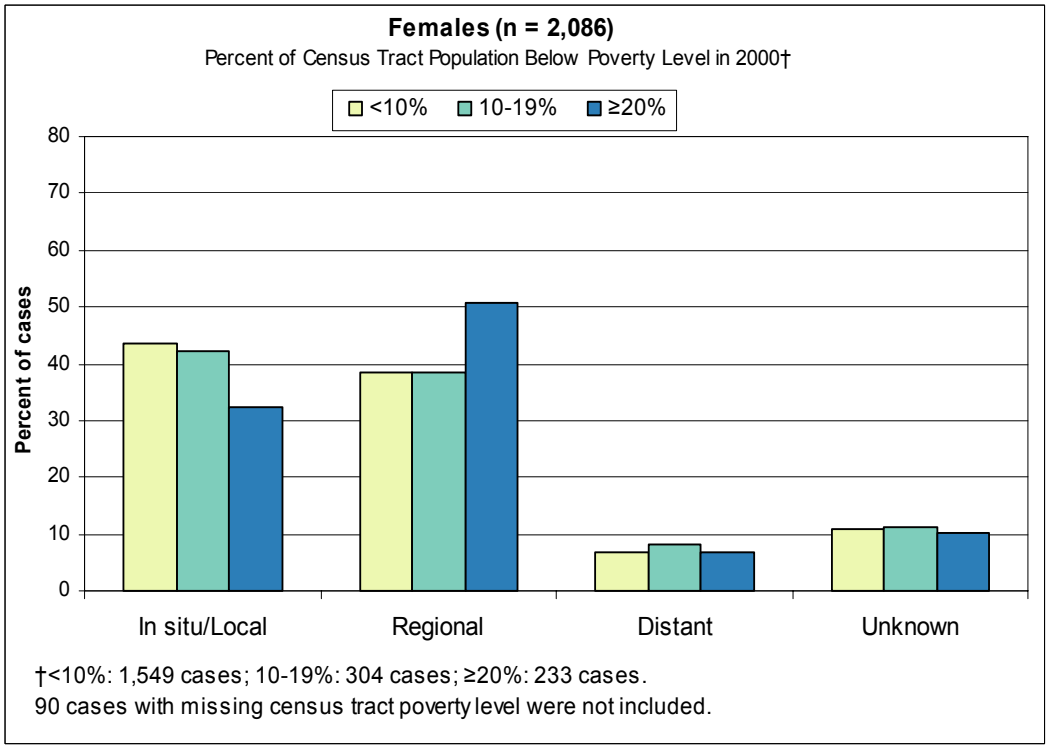
- Results were not displayed for black and Hispanic women due to small numbers of cases in some of the poverty areas.

- Early detection of oral cancer is essential for reducing mortality, as people diagnosed at earlier stage have much better survival than those diagnosed at late stage. According to the American Cancer Society, the five-year relative survival rate for people diagnosed with oral cavity and pharynx cancer during 1995-2001 was 82.1% for people diagnosed with local stage cancer and only 27.6% for people diagnosed with distant stage cancer.[14]

See Tables 10-17 in Appendix C for additional information.

New Jersey Cancer* Stage Distribution (%) by Poverty Level, 1996-2002
Oral Cavity and Pharynx Cancer



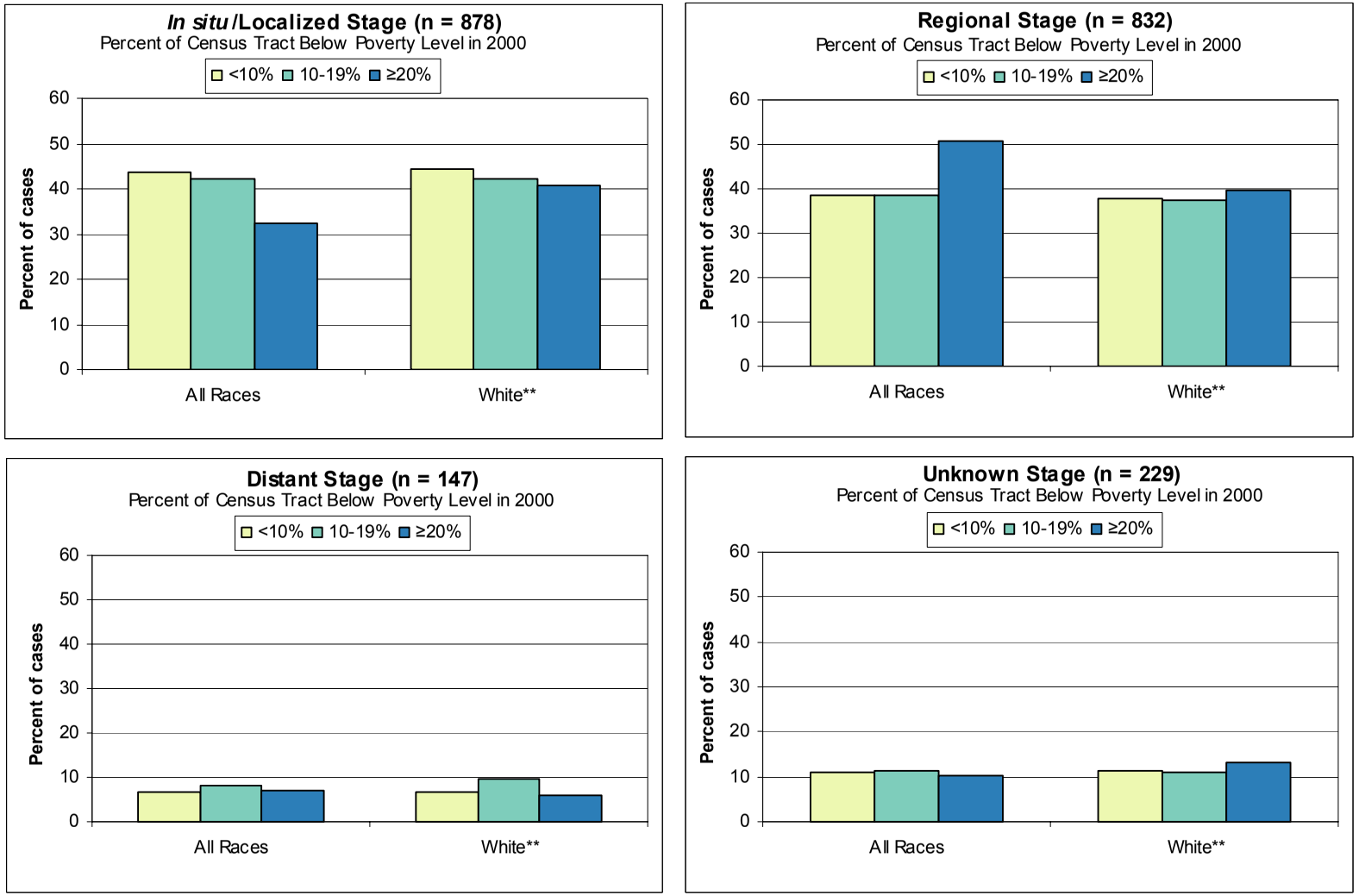


*2002 data are preliminary.
Note: Percentages may not add up to 100% due to rounding.
Source: New Jersey State Cancer Registry, New Jersey Department of Health and Senior Services, 2005

New Jersey Cancer* Stage Distribution by Race/Ethnicity, and Poverty Level, 1996-2002 (n = 4,034)
Oral Cavity and Pharynx Cancer - Males

*2002 data are preliminary. 138 cases with missing census tract poverty level were not included.
^Hispanics may be of any race; therefore, the categories of race and ethnicity are not mutually exclusive.
Note: Percentages may not add up to 100% due to rounding.
Source: New Jersey State Cancer Registry, New Jersey Department of Health and Senior Services, 2005

New Jersey Cancer* Stage Distribution by Race/Ethnicity, and Poverty Level, 1996-2002 (n = 2,086)
Oral Cavity and Pharynx Cancer - Females



*2002 data are preliminary. 90 cases with missing census tract poverty level were not included.
^Includes Hispanics who are white race. Hispanics may be of any race; therefore, the categories of race and ethnicity are not mutually exclusive.
The stage distribution information for Black and Hispanic females was omitted due to small numbers in some cells (n <5).
Note: Percentages may not add up to 100% due to rounding.
Source: New Jersey State Cancer Registry, New Jersey Department of Health and Senior Services, 2005

Prostate Cancer – Stage at Diagnosis

- A total of 50,476 men residing in New Jersey and diagnosed with invasive or *in situ* prostate cancer during 1996-2002 were included in the analysis.

- Among men diagnosed with prostate cancer during 1996-2002, more than 70% of all males were diagnosed with *in situ* or local stage cancer. Similarly, more than 70% of males in each racial/ethnic group or poverty group received early diagnoses.

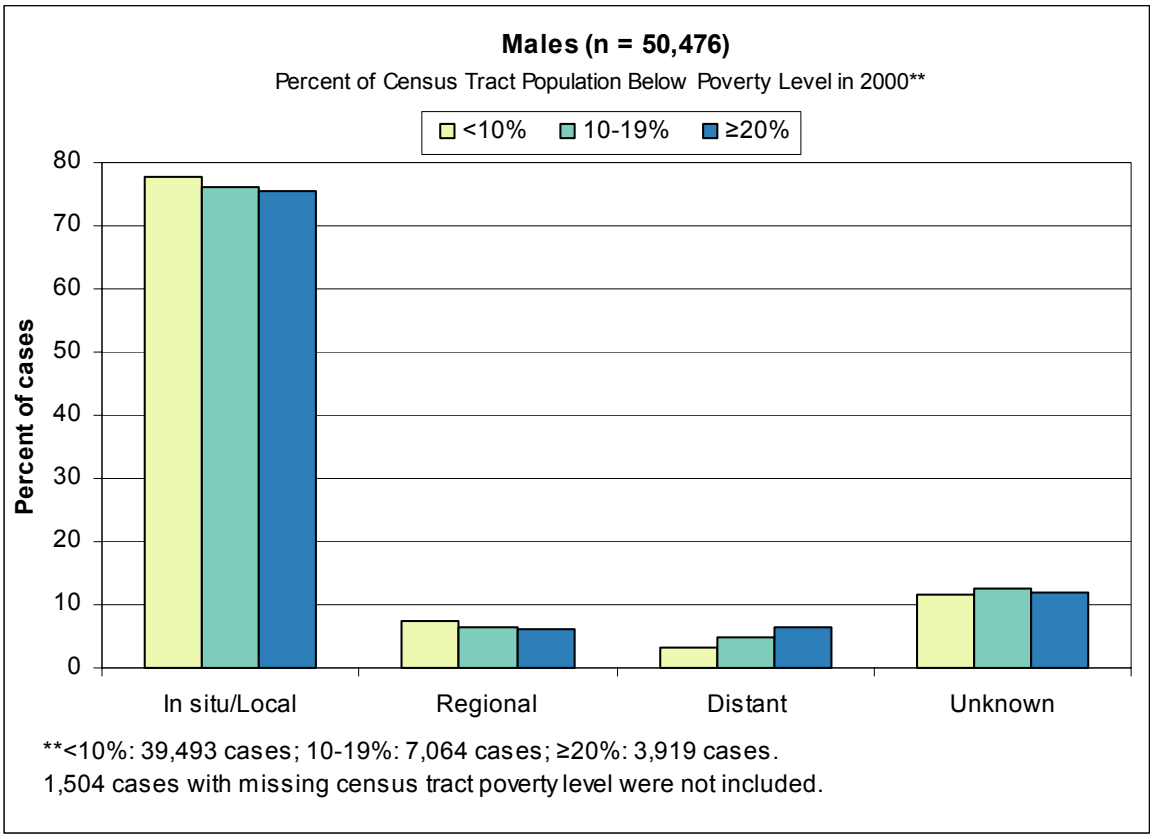
- Among all men diagnosed with prostate cancer, a slightly higher proportion of men residing in the areas with low poverty were diagnosed at early stages (78%) as compared to men residing in the areas with medium (76%) and high poverty (75%).

- The proportion of black men diagnosed with *in situ* or local stage prostate cancer was fairly similar to that of white men in each poverty group.

- Early detection of prostate cancer is essential for reducing mortality, as men diagnosed at earlier stage have much better survival than those diagnosed at late stage. According to the American Cancer Society, the five-year relative survival rate for men diagnosed with prostate cancer during 1995-2001 was 100% for men diagnosed with local stage cancer and 33.5% for men diagnosed with distant stage cancer.[14]

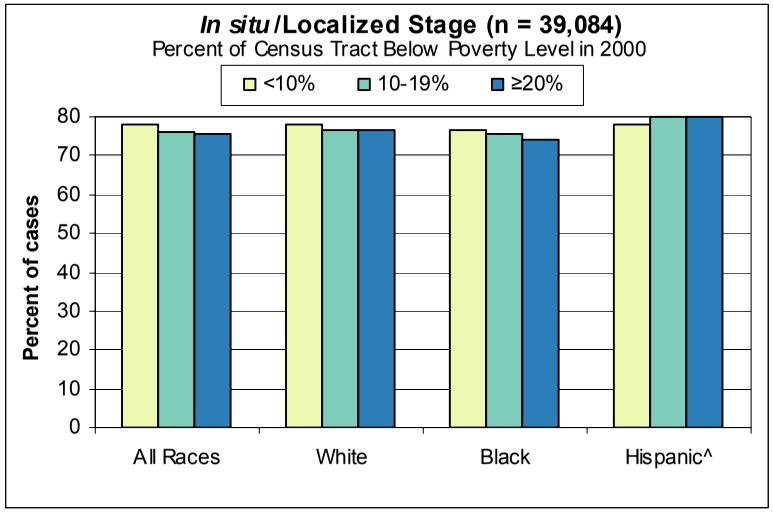
See Tables 10-17 in Appendix C for additional information.

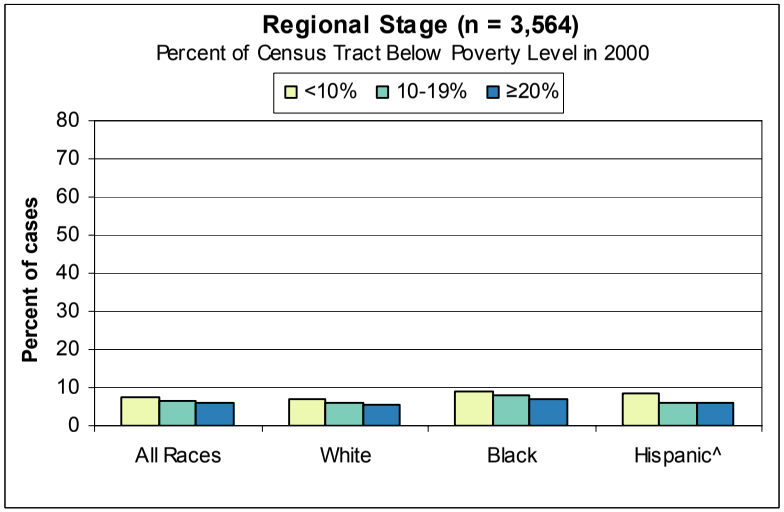
New Jersey Cancer* Stage Distribution (%) by Poverty Level, 1996-2002
Prostate Cancer

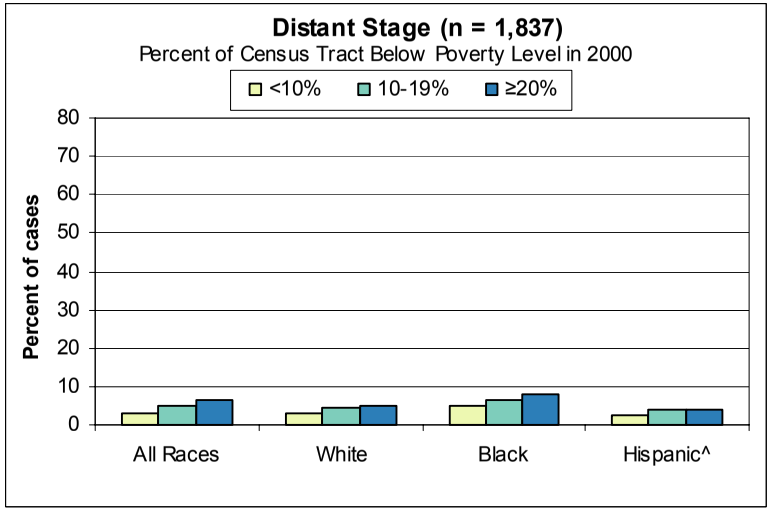


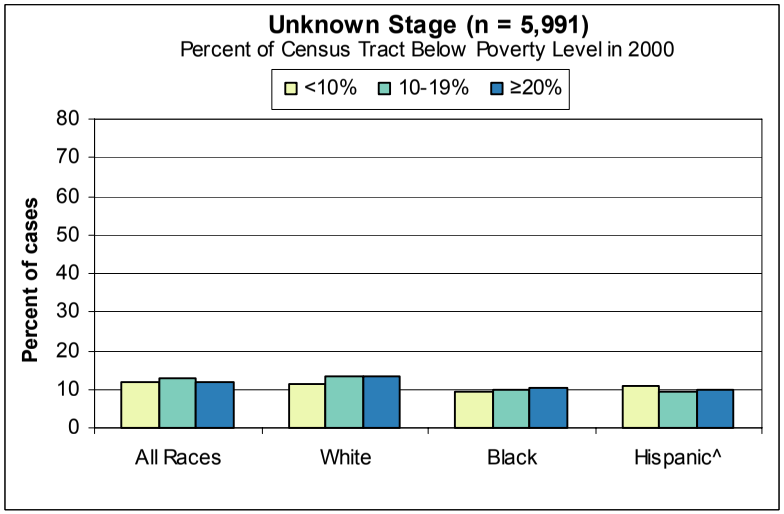
*2002 data are preliminary.
Note: Percentages may not add up to 100% due to rounding.
Source: New Jersey State Cancer Registry, New Jersey Department of Health and Senior Services, 2005

New Jersey Cancer* Stage Distribution by Race/Ethnicity, and Poverty Level, 1996-2002 (n = 50,476)
Prostate Cancer - Males









*2002 data are preliminary. 1,504 cases with missing census tract poverty level were not included.
^Hispanics may be of any race; therefore, the categories of race and ethnicity are not mutually exclusive.
Note: Percentages may not add up to 100% due to rounding.
Source: New Jersey State Cancer Registry, New Jersey Department of Health and Senior Services, 2005

TECHNICAL NOTES

New Jersey State Cancer Registry (NJSCR)

NJSCR Overview

The objectives of the New Jersey State Cancer Registry (NJSCR) are to:

- monitor cancer trends in New Jersey;
- promote scientific research;
- respond to New Jersey residents about cancer concerns;
- educate the public;
- provide information for planning and evaluating cancer prevention and control activities; and
- share and compare cancer data with other states and the nation.

The New Jersey State Cancer Registry is a population-based cancer incidence registry that serves the entire state of New Jersey, which has a population of over 8.7 million people. The NJSCR was established by legislation (NJSA 26:2-104 et. seq.) and includes all cases of cancer diagnosed in New Jersey residents since October 1, 1978. New Jersey regulations (NJAC 8:57A) require the reporting of all newly diagnosed cancer cases to the NJSCR within three months of hospital discharge or six months of diagnosis, whichever is sooner. Reports are filed by hospitals, diagnosing physicians, dentists, and independent clinical laboratories. Every hospital in New Jersey reports cancer cases electronically. In addition, reporting agreements are maintained with New York, Pennsylvania, Delaware, Florida, Maryland, and North Carolina so that New Jersey residents diagnosed with cancer outside the state can be identified. Legislation passed in 1996 strengthened the Registry by requiring electronic reporting, requiring abstracting by certified tumor registrars, and establishing penalties for late or incomplete reporting.

All primary invasive and *in situ* neoplasms are reportable to the NJSCR, except cervical cancer *in situ* diagnosed after 1994 and certain carcinomas of the skin. The information collected by the NJSCR includes basic patient identifiers, demographic characteristics of the patient, medical information on each cancer diagnosis (such as the anatomic site, histologic type and stage of disease), first course of treatment and vital status (alive or deceased) determined annually. For deceased cases, the underlying cause of death is also included. The primary site, behavior, grade, and histology of each cancer are coded according to the *International Classification of Diseases for Oncology (ICD-O), 2nd edition*[15] for cancers diagnosed through 2000 and the *3rd edition*[16] for cancers diagnosed after 2000. The NJSCR follows the data standards promulgated by the North American Association of Central Cancer Registries (NAACCR), including the use of the Surveillance, Epidemiology, and End Results (SEER) multiple primary rules. An individual may develop more than one cancer. Following the SEER multiple primary rules, patients could therefore be counted more than once if they were diagnosed with two or more primary cancers.

The NJSCR is a member of the North American Association of Central Cancer Registries (NAACCR), an organization that sets standards for cancer registries, facilitates data exchange, and publishes cancer data. The NJSCR has been a participant of the National Program of Cancer

Registries (NPCR) sponsored by the Centers for Disease Control and Prevention (CDC) since it began in 1994 and is one of the National Cancer Institute's (NCI) Surveillance, Epidemiology and End Results (SEER) expansion registries.

NJSCR Data Quality

NAACCR has awarded the Gold Standard, the highest standard possible, to the NJSCR for the quality of the data for each year from 1995 through 2002. The NJSCR has consistently achieved the highest level of certification for its data since the inception of this award. The criteria used to judge the quality of the data are completeness of cancer case ascertainment, completeness of certain information on the cancer cases, percent of death certificate only cases, percent of duplicate cases, passing an editing program, and timeliness.

Completeness of reporting to the NJSCR was estimated by comparing New Jersey and U.S. incidence to mortality ratios for whites standardized for age, gender, and cancer site. The data used to generate these ratios were the cancer incidence rates for all SEER registries combined. Using these standard formulae, it is possible for the estimation of completeness to be greater than 100 percent. For the NJSCR 2002 data, the completeness of case reporting was estimated to be over 100 percent.

While our estimates of completeness are very high, some cases of cancer among New Jersey residents who were diagnosed and/or treated in out-of-state facilities may not yet have been reported to the NJSCR by other state registries. This should be considered in interpreting the data for the more recent years. However, these relatively few cases will not significantly affect the cancer rates, or alter the overall trends presented in this report.

Other 2002 cancer incidence data quality indicators measured were as follows:

percent death-certificate-only cases - 1.7 percent;
percent of unresolved duplicates - < 0.1 percent;
percent of cases with unknown race - 1.6 percent;
percent of cases with unknown county - 0.09 percent;
number of cases with unknown age - 9; and
number of cases with unknown gender - 9.

It should also be noted that there may be minor differences in the New Jersey incidence rates in this report compared to previous reports, due to ongoing editing and review of the data. The 2002 incidence rates presented here are expected to increase by the time all data are complete, and therefore, are considered preliminary.

The NJSCR continues to work toward improving the quality and number of its reporting sources. Over the past few years, significant improvements have been realized in this regard. For example some of these improvements have resulted in better reporting of skin cancers such as melanoma, which may explain some of the increases seen in the incidence of this cancer. One of the most significant improvements has been the implementation of electronic pathology laboratory reporting (E-path) from a national pathology laboratory and several hospital-based laboratories.

The ultimate goal is to enable E-path laboratory reporting from every laboratory that serves New Jersey. E-path reporting is expected to improve the timeliness and completeness of cancer reporting, especially for non-hospitalized cases.

In order to minimize the number of cases with an unknown county of residence, the NJSCR runs all addresses through a standardization and geocoding process. For this report, cases where the county of residence is unknown have been excluded to be in accordance with the standard procedures used by SEER. The effect of this change on the incidence rates is very small. For example, the total number of cases with unknown county for 1996-2002 is 268, which represents 0.08% of the total case population.

Geocoding

The NJSCR geocodes the residential address at the time of cancer diagnosis for each case. To ensure accuracy of address information, follow-up with physicians and hospitals to verify address data is conducted prior to the geocoding process. The geocoding process involves matching a case's address to a street level reference map containing its geographic coordinates (latitude and longitude). The NJSCR employs both automated and interactive geocoding. The automated geocoding is done through the New Jersey Office of Information Technology Services (NJOITS). The NJOITS geocoding system employs Integrity software and the most recent street boundary file provided by Tele Atlas. The NJSCR has attempted to geocode all cancer cases beginning with the 1979 cases and updates the registry on a monthly basis. Interactive geocoding is performed by trained staff and is used to manually examine and review cases that could not be geocoded. Staff persons also use the Tele Atlas boundary file for the interactive process.

When a street address is missing or unable to be geocoded, cases are geocoded to the centroid of the zip code. Of the cases used in this report, 94.5 percent were geocoded using the street address to assign the census tract, and 5.5 percent (n = 18,000) were geocoded based on zip code only. Census tracts are assigned based on the locations derived during geocoding. For cases geocoded by street address, census tracts are assigned based on the approximate geocoded location of their address. For cases geocoded by zip code, census tracts are assigned based on the location of the zip code centroid.

The relative locations assigned by geocoding can sometimes be inaccurate and can result in errors in census tract assignment. Overall, the number of misassigned cases should be very small and should not greatly affect the cancer rates for large populations such as those in the three poverty area groups in New Jersey. The exclusion of cases that could not be geocoded would result in an underestimate of rates in the three poverty area groups. A potential source of bias is if cases living in the areas with high poverty were less likely to have an address that could be geocoded using the street address – this would result in an underestimate of the rates for those areas.

Data Sources and Specifications For This Report

Cancer Incidence and Stage at Diagnosis

New Jersey cancer incidence and cancer stage at diagnosis data for 1996-2002 were taken from the November, 2004 analytic file of the New Jersey State Cancer Registry. All the counts and rates were tabulated using SAS version 8.00.[17]

Out-of-state residents and cases whose residence in New Jersey could not be confirmed (unknown county) were excluded from the New Jersey incidence rates and counts, as were persons of unknown age and/or gender. Of the 340,718 invasive and *in situ* cases diagnosed among New Jersey residents during 1996-2002, the cases with missing or invalid address information that could not be geocoded were excluded (n = 12,423 or 3.6% of the total), as well as cases who resided in census tracts for whom the Census Bureau did not provide information on poverty rate (n = 428 or 0.1%).

For analyses of stage at diagnosis, both invasive and *in situ* cancers were included, except for *in situ* cancers of the cervix, which were not reportable after 1994. For analyses of cancer incidence, only invasive cancers were included, except for *in situ* bladder cancers, which were included in analyses of incidence of cancer of all sites and of bladder cancer.

Beginning with the year 2001, the coding scheme for incident cancer cases changed from the *International Classification of Diseases for Oncology, 2nd edition (ICD-0-2* [15] to the *3rd edition* (*ICD-0-3*).[16] The following SEER web link contains additional information on the transition from *ICD-0-2* to *ICD-0-3*: http://training.seer.cancer.gov/module_icdo3/downloadables/ICDO3%20abstract%20n%20article%20NEW%20PDF.pdf [18]. The primary effect of the coding change is that borderline ovarian cancer cases were not included in the 2001 and 2002 data, but were included for the previous years, 1996-2000, for both New Jersey and the U.S. This resulted in about 100 fewer cases per year included for 2001 and 2002 in New Jersey.

Poverty Rate and Census Tract Poverty Level

The poverty rate is the percentage of the population classified as being below the official poverty threshold. The poverty thresholds take into account family size and age composition (the number of children under 18) and are updated annually by the Census Bureau to reflect changes in the Consumer Price Index. The official poverty threshold for a family of four was $17,029 in 1999, the year for which information on income was collected during the U.S. 2000 Census. The Census Bureau does not adjust the poverty thresholds for regional or local variation in the cost of living.[19]

Data on income during the previous calendar year (1999) were collected in the Census 2000, long form questionnaire items 31 and 32, which were questions about the amount of income that individuals in a family earned from various sources. If a family's total income was less than the

poverty threshold for the family's size and composition, the family and each individual in the family were considered poor. The Census Bureau does not determine poverty status for persons in institutions (including prisons), military group quarters, college dormitories, and unrelated individuals under 15 years old. According to the U.S. 2000 Census, 12.4% of the U.S. population and 8.5% of the New Jersey population were living below the poverty level in 1999.[18]

Census tracts are small, statistical subdivisions of a county that are relatively homogeneous in terms of population and economic characteristics. Census tracts usually contain 1,000 to 8,000 persons, with an average of about 4,000.[20] The census tract poverty rate is the percent of the census tract population with income below the poverty threshold. The New Jersey census tract poverty rate data from the U.S. 2000 Census were downloaded from the Public Health Disparities Geocoding Project Monograph's website[21]: http://www.hsph.harvard.edu/thegeocodingproject/webpage/monograph/povdata.htm.

The census tract poverty level has been found to be a useful measure of economic deprivation in previous studies of area-based socioeconomic variations in cancer incidence and mortality, as well as other health outcomes. [1,2,22] There were 1,950 census tracts in New Jersey in 2000. The census tracts were classified into three groups by census tract poverty rate: 1. areas with low poverty, with less than 10% of the population below the poverty level; 2. areas with medium poverty, with 10 to 19.99% of the population below the poverty level; and 3. areas with high poverty, with 20% or more of the population below the poverty level. [1] The Census Bureau classifies census tracts with a poverty rate of 20% or higher as "poverty areas" or areas with concentrated poverty.[23] According to the 2000 Census, 10.5% of New Jersey residents lived in census tracts where the poverty rate was 20% or higher. The Census did not provide poverty rates for 16 census tracts with small populations in New Jersey. Cases who were geocoded to one of the 16 census tracts with missing poverty level (n = 428) were excluded from all analyses. See Figure 1 and Table 1.

Demographic Characteristics of Area Poverty Groups

In New Jersey, 10.5% of the population lived in census tracts with poverty rates of 20% or more (areas with high poverty) in 2000. The three area poverty groups differed substantially by race, ethnicity, and other characteristics. In the areas with low poverty, 83% of residents reported being white race alone, and 6.8% of residents reported being black race alone; while in the areas with high poverty, 29.5% reported being white race alone, and 44.5% reported being black race alone. A higher proportion of persons residing in the areas with high poverty were Hispanic (36.8%), as compared to residents of the areas with low poverty (6.5%). The areas with high poverty tended to have a younger age distribution. In the areas with high poverty, 33.1% of the population was under 20 years of age, as compared to 26.3% in the areas with low poverty.

There were also differences in terms of educational level. Of adults 25 years or older residing in the areas with high poverty, 58.1% were high school graduates and 9.8% had completed a bachelor's degree or higher. Among adults in the areas with low poverty, 87.4% were high school graduates and 34.7% had completed a bachelor's degree or higher. See Table 1 for demographic characteristics of the three area poverty groups in New Jersey in 2000.

Population Estimations

The populations by age and gender for census tracts in New Jersey in 2000 were obtained from the Census 2000 Summary File 1 [24] for persons of all races, white race alone, black race alone, and Hispanic ethnicity, and were downloaded from the U.S. Census website: http://www.census.gov/.

The populations from the 2000 Census used multiple race categories because individuals could mark one or more races. For agencies such as the National Cancer Institute (NCI) and National Center for Health Statistics (NCHS) to continue reporting long-term trends in disease rates for single-race groups, a method was needed to "bridge" these multi-race classifications into single-race categories. Such a method was developed by NCHS using information collected as part of their National Health Interview Survey.[25] In collaboration with NCHS, the Census Bureau produced a set of year 2000 population estimates that assigned everyone to a single race group. The resulting year 2000 estimates were then used to produce an improved set of 1991-2002 population estimates at the state and county levels.

The "bridged" single race populations at the census tract level are not available from the Census Bureau. For this report, the census tract populations for white race alone were used to calculate the cancer incidence rates for whites. The census tract populations for black race alone were used to calculate the cancer incidence rates for blacks. Both population files were obtained from the Census 2000 Summary File 1 [24] and downloaded from the U.S. Census website: http://www.census.gov/. The use of white race alone populations will result in an over-estimate of the white incidence rates because multi-racial cases who are identified by the NJSCR as white would be included in the numerator but not in the denominator (white race only population) of the rates. Similarly, the use of black race alone populations will result in an over-estimate of the black incidence rates because multi-racial cases who are identified by the NJSCR as black race would be included in the numerator but not in the denominator (black race only population). In New Jersey, 97.5% of persons who reported being white race (alone or in combination with other races) reported being white race only, and 94.2% of persons who reported being black race (alone or in combination with other races) reported being black race only, according to the U.S. 2000 Census.

To evaluate the effect of using the white race only and black race only populations in calculating incidence rates, average annual age-adjusted cancer incidence rates during 1996-2002 were calculated for whites and blacks in the state of New Jersey using two different denominators: 1. the "bridged" single race estimates for whites and blacks during the year 2000, and 2. white race only and black race only populations from the 2000 Census. For cancers of all sites, the use of the white race only or black race only population increased the rates by 2.7% for white males, 2.1% for black males, 3.5% for white females, and 3.1% for black females (as compared to rates calculated using the "bridged" white and black populations). For most other cancer sites discussed in this report, the use of white race only or black race only populations increased the race-specific rates by 1 to 4%. However, the impact was greater for some of the less common cancers. For example, cervical cancer incidence rates were increased by 6.1% for white women

and 4.2% for black women. Other cancers with increases in race-specific incidence of more than 4% include melanoma (white females by 5.2%), liver (white females by 5.3%), ovarian (black females by 4.1%), and thyroid (white males by 4.4%, white females by 7.1%, and black females by 6.5%).

Description of Algorithm for Designating Hispanic Ethnicity

In 2003, the NJSCR adopted the NAACCR Hispanic Identification Algorithm (NHIA) to assign Hispanic ethnicity to cases. This method uses data on birthplace, marital status, sex, race, and surname match to the 1990 Hispanic surname list to augment the number of cases and decedents reported as Hispanic in the registry during the years 1994-2003.

In 2005, NAACCR made several revisions to NHIA, now NHIA version 2. The most significant change in NHIA version 2 was the addition of an option for registries to not apply the algorithm to counties in which the Hispanic population is less than five percent. The New Jersey State Cancer Registry determined that this option did not enhance the accuracy of the NHIA and therefore opted not to apply this option. Thus, using NHIA version 2 will not affect the New Jersey cancer rates among Hispanics.
Prior to the development of NHIA, the NJSCR used a method to assign Hispanic ethnicity to cases that was adapted from algorithms developed by the Illinois State Cancer Registry (ISCR) and by the NJSCR. NHIA is closely related to these former algorithms, so there is high agreement between the cases previously determined to be Hispanic and those currently determined to be Hispanic.

As a result of using the NHIA, the NJSCR was able to increase the number of Hispanic cases by 23 percent for this time period, thereby correcting an under-identification of Hispanics. For a more complete description of the NHIA version 2 and a copy of the NHIA SAS program visit the following link at the NAACCR web site:

http://www.naaccr.org/index.asp?Col_SectionKey=7&Col_ContentID=312#Hispanic

Caution should be used when comparing rates among Hispanics with the rates in the different race groups (e.g. black, white) because ethnicity and race are not mutually exclusive. In New Jersey, the majority (89 percent) of Hispanics identify themselves as white. The Hispanics who identify themselves as white are included in the white race category as well as the all races category. Similarly, the Hispanics who identify themselves as black are included in the black race category as well as the all races category.

Calculation of Rates

Age-adjusted Rates and the Year 2000 Standard

The U.S. Department of Health and Human Services requires that health data be age-adjusted using the U.S. year 2000 population as a standard, beginning with the 1999 reporting year. Age-adjustment to the year 2000 population as the standard was first used in one of our earlier

reports, *Cancer Incidence and Mortality in New Jersey 1996-2000,* issued in December 2002. Prior to the release of 1999 data, various federal and state agencies calculated disease rates using different U.S. population standards, including the 1940 and 1970 standard populations. Our report *Cancer Incidence and Mortality in New Jersey, 1995-1999*, issued in September 2001, used the former 1970 population standard for all five years and also illustrated the effect on 1999 incidence rates of changing the population standard from 1970 to 2000.

Calculations using the 2000 standard population do not indicate a change in cancer incidence or occurrence - only a different representation of the rates of reported cancer. Using the 2000 population as the standard produces standardized cancer rates that appear to be about 20 percent higher than previously reported.

Rate Calculation Formulas

A cancer incidence rate is defined as the number of new cases of cancer detected during a specified time period in a specified population. Cancer rates are most commonly expressed as cases per 100,000 population. Cancer occurs at different rates in different age groups, and population subgroups defined by gender and race have different age distributions. Therefore, before a valid comparison can be made between rates, it is necessary to standardize the rates to the age distribution of a standard population. In this report, the 2000 U.S. standard million population was used, with 18 age groups.

The first step in the age-standardization procedure is to determine the age-specific rates. For each age group for a given time interval (within each gender group, for each of the three area poverty groups), the following formula was applied:

$$r_a = \frac{n_a}{t \; x \; P_a}$$

where:

r_a = the age-specific rate for age group a,
n_a = the number of events (cancer diagnoses) in the age group during the time interval,
t = the length of the time interval (in years), and
P_a = average size of the population in the age group during the time interval (mid-year population or average of mid-year population sizes).

In order to determine the age-adjusted rate, a weighted average of the age-specific rates is calculated, using the age distribution of the standard population to derive the age-specific weighting factors.[26] This is the technique of direct standardization, which uses the following formula:

$$R = \frac{\sum_{a=1}^{n} r_a \; x \; Std.P_a}{\sum_{a=1}^{n} Std.P_a}$$

where:

R = the age-adjusted rate

r_a = the age-specific rate for age group a, and

$Std.P_a$ = the size of the standard population in each age group a.

While age standardization facilitates the comparison of rates among different populations and different years, there can be important age-specific differences in disease occurrence, which are not apparent in comparisons of the age-adjusted rates.[27]

In this report, average annual cancer incidence rates during 1996-2002 were calculated for the three area poverty groups. Age group-sex-race-census tract-specific decennial populations in 2000 were summed to compute the populations of the three poverty areas. The age group-sex-race-specific populations, multiplied by 7, were used as the denominators for computing the average annual rates for the 1996-2002 time period for each of the three poverty areas.

Rate Ratios

Incidence rate ratios (RR) were calculated as the ratio of the incidence rate in a poverty area group to the incidence rate in the areas with low poverty (with less than 10% of the population below the poverty level). The 95 percent confidence intervals for the rate ratios were computed using equations for the variance and confidence intervals for a standardized rate.[28] The rate ratios and 95 percent confidence intervals are presented in Tables 2-9 in Appendix B.

Suppression of Rates and Counts Under Five

It should also be noted that the annual rates for relatively uncommon cancers tend to fluctuate substantially from year to year because of small numbers of cases, particularly in minority populations. Rates generated from small numbers should be interpreted with caution. For this report, rates were suppressed where counts were less than 5 as a way to ensure a greater level of statistical reliability and patient confidentiality. In the analyses of cancer stage at diagnosis, counts and proportions were suppressed for a type of cancer or a population sub-group when there were fewer than 5 cases in any stage at diagnosis group for that cancer.

Charts

The color scheme for the charts in this report was selected using the ColorBrewer software[29]. The color scheme used in the charts for this report is readable to people with red-green color blindness, and it can be black and white photocopied.

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GLOSSARY

Tumor: An abnormal growth of tissue; benign or malignant.

Cancer: A group of more than 100 diseases characterized by uncontrolled growth and spread of abnormal cells.

Carcinogen: Any substance that causes cancer or helps cancer to develop.

Risk factor: Anything that increases a person's chance of getting a disease such as cancer.

Diagnosis: Identifying a disease by its signs, symptoms, and laboratory findings; usually the earlier a diagnosis of cancer is made, the better the chance for cure.

Primary Site: The site in the body where the cancer began; usually cancer is named after the organ in which it started, e.g. breast cancer. It is possible to have more than one primary cancer or multiple primaries at the same time.

Stage: The extent of a cancer in the body. Staging is usually based on the size of the tumor, whether lymph nodes contain cancer, and whether the cancer has spread from the original site to other parts of the body.

Metastasis: The spread of cancer cells to distant areas of the body through the lymph system or bloodstream.

Poverty Rate: The percentage of the population classified as being below the official poverty threshold.

Epidemiology: The study of patterns of the occurrence of disease in human populations and the factors that influence these patterns.

Incidence: The number of newly diagnosed cases of disease occurring in a specific population during a specific time period.

Incidence rate (or crude incidence rate): The number of newly diagnosed cases of disease in a specific population during a specific time period per "***x***" number of people. Usually the time period is one year and the "***x***" number of people is 100,000.

- **Age-specific incidence rate:** The number of newly diagnosed cases of a disease in a specific age group in a specific population over a specific time period per "***x***" number of people in the specific age group. Usually five-year age

groups (0-4, 5-9, 10-14, etc.) are used. The time period is usually one year and the "**x**" number of people is 100,000.

- **Age-standardization (or age-adjustment):** The statistical adjustment of crude rates for differences in age distributions in order to compare rates in different populations. There are two types of standardization, direct and indirect.

- **Age-adjusted incidence rate:** A summary incidence rate that takes into account the age distribution of the population. This is routinely done so that comparisons can be made from year to year. Age-adjustment also enables comparisons among geographic areas. There are several methods to age-adjust; direct standardization is the method most commonly used. With this method, the age-specific incidence rates of the populations of interest (e.g. New Jersey) are applied to a standard population (e.g. 2000 U.S. standard population).

APPENDIX A – NEW JERSEY 2000 POPULATION AND POVERTY LEVEL DATA

Figure 1

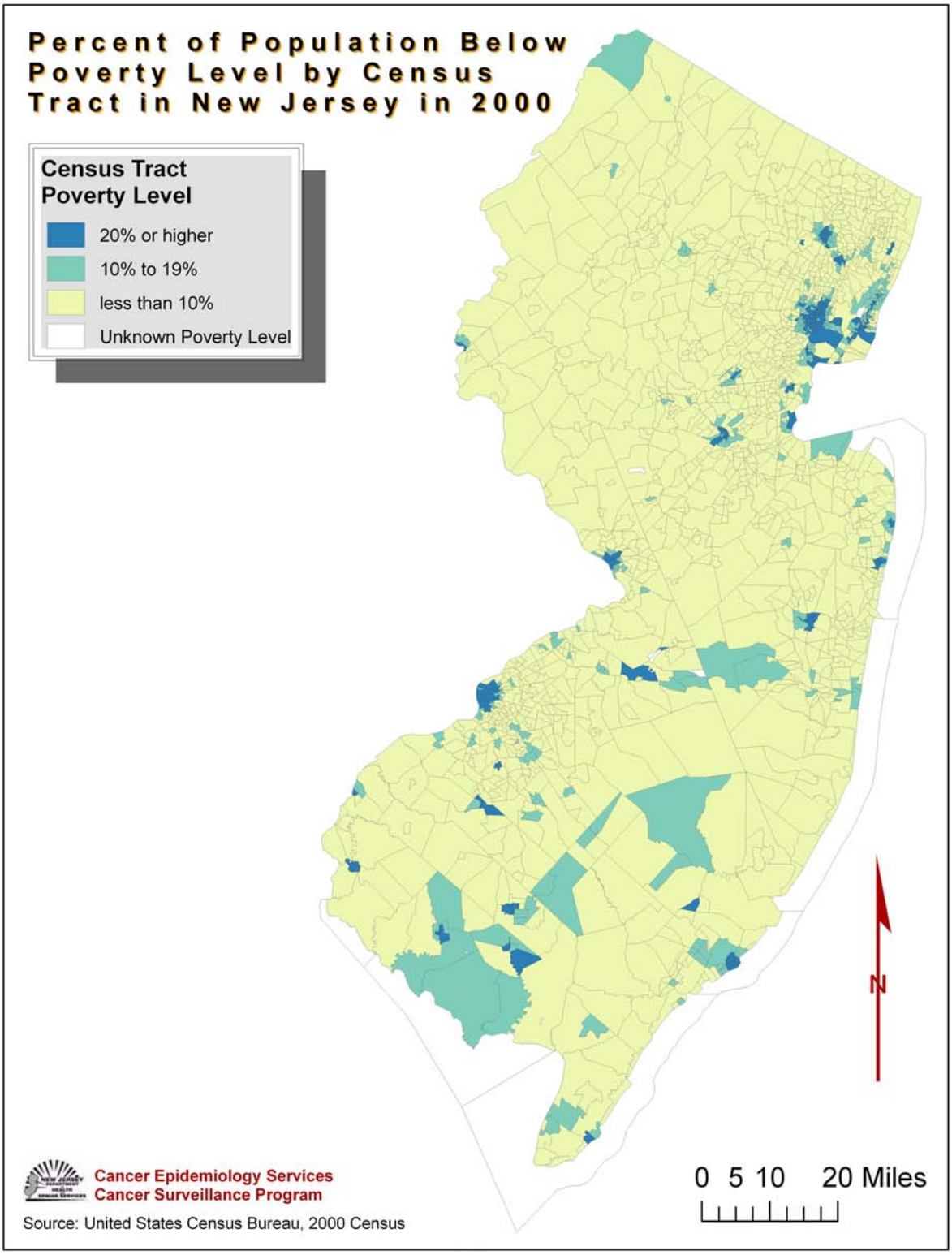
Percent of Population Below Poverty Level by Census Tract in New Jersey in 2000
Census Tract Poverty Level
20% or higher
10% to 19%
less than 10%
Unknown Poverty Level
N
0 5 10 20 Miles
Cancer Epidemiology Services
Cancer Surveillance Program
Source: United States Census Bureau, 2000 Census

Table 1. New Jersey Population by Census Tract Poverty Level* and Other Characteristics, 2000

Characteristic	Low Poverty (0-9.99%)		Medium Poverty (10-19.99%)		High Poverty (≥20%)		Missing Poverty		All Census Tracts	
	No.	%	No.	%	No.	%	No.	%	No.	%
Total	6,132,760		1,395,179		886,327		84		8,414,350	
Age										
Under 20 years	1,612,287	26.3%	378,342	27.1%	293,467	33.1%	11	13.1%	2,284,107	27.1%
65 years and older	864,638	14.1%	168,652	12.1%	79,841	9.0%	5	6.0%	1,113,136	13.2%
Race										
White alone	5,087,499	83.0%	755,579	54.2%	261,571	29.5%	56	66.7%	6,104,705	72.6%
Black alone	415,794	6.8%	331,413	23.8%	394,607	44.5%	7	8.3%	1,141,821	13.6%
Hispanic Origin**	397,681	6.5%	393,235	28.2%	326,245	36.8%	30	35.7%	1,117,191	13.3%
Educational Attainment										
(25 years or older)	4,234,985		914,270		508,534		10		5,657,799	
High school graduate^	3,700,159	87.4%	647,535	70.8%	295,618	58.1%	10	100.0%	4,643,322	82.1%
Bachelor or higher	1,468,935	34.7%	166,176	18.2%	49,740	9.8%	10	100.0%	1,684,861	29.8%

*The census tract poverty level is the percent of the census tract population with income below the poverty threshold in 1999. Census tract poverty data are from the U.S. 2000 Census.
**Hispanics may be of any race.
^Includes high school equivalency.

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APPENDIX B – NEW JERSEY CANCER INCIDENCE RATES DATA TABLES

Table 2: New Jersey Average Annual Cancer Incidence Rates by Poverty Level, 1996-2002 Males, All Races

Cancer	Poverty Level*	Total Cases	Rate**	Rate Ratio***	95% Confidence Interval	
					Lower	Upper
All Sites^	Low	122,011	601.1	1.00	-	-
	Medium	22,773	599.3	1.00	0.98	1.01
	High	12,516	642.6	1.07 †	1.05	1.09
Oral Cavity and Pharynx	Low	2,838	13.5	1.00	-	-
	Medium	636	16.0	1.19 †	1.09	1.29
	High	476	22.5	1.66 †	1.51	1.84
Esophagus	Low	1,529	7.5	1.00	-	-
	Medium	357	9.5	1.27 †	1.13	1.43
	High	293	14.7	1.96 †	1.73	2.23
Stomach	Low	2,524	12.7	1.00	-	-
	Medium	599	16.1	1.27 †	1.16	1.38
	High	387	20.6	1.63 †	1.46	1.81
Colorectal	Low	14,453	72.7	1.00	-	-
	Medium	2,796	75.6	1.04	1.00	1.08
	High	1,368	74.1	1.02	0.96	1.08
Liver	Low	1,224	6.0	1.00	-	-
	Medium	309	7.9	1.32 †	1.16	1.50
	High	220	10.9	1.82 †	1.57	2.11
Pancreas	Low	2,485	12.4	1.00	-	-
	Medium	488	13.0	1.05	0.95	1.16
	High	267	14.0	1.13	0.99	1.29
Lung and Bronchus	Low	16,251	80.4	1.00	-	-
	Medium	3,498	92.8	1.15 †	1.11	1.20
	High	2,135	111.2	1.38 †	1.32	1.45
Melanoma of the Skin	Low	4,969	24.0	1.00	-	-
	Medium	458	11.9	0.49 ††	0.45	0.54
	High	110	5.5	0.23 ††	0.19	0.28
Prostate	Low	39,436	192.4	1.00	-	-
	Medium	7,048	188.0	0.98	0.95	1.00
	High	3,908	208.1	1.08 †	1.05	1.12
Urinary Bladder^	Low	9,027	45.5	1.00	-	-
	Medium	1,475	40.6	0.89 ††	0.84	0.94
	High	454	25.9	0.57 ††	0.52	0.63
Thyroid	Low	970	4.5	1.00	-	-
	Medium	142	3.2	0.71 ††	0.59	0.85
	High	62	2.6	0.57 ††	0.44	0.75
Non-Hodgkin Lymphoma	Low	5,148	25.3	1.00	-	-
	Medium	914	23.0	0.91 ††	0.85	0.98
	High	478	21.3	0.84 ††	0.77	0.93

*Percent of census tract population below poverty level in 2000. The three poverty area groups are defined as follows: low poverty (< 10% of the population below the poverty level); medium poverty (10-19.99% of the population below the poverty level); and high poverty (≥ 20% of the population below the poverty level).
**Average annual incidence rate during 1996-2002. Rates are per 100,000 and age-adjusted to the 2000 U.S. standard population (18 age groups). 2002 data are preliminary.
***Incidence rate ratio. Referent group is the low poverty group. The rate ratios were calculated using rates before rounding, and may differ slightly from rate ratios calculated using the rounded rates.
^Includes *in situ* cancer of the bladder.
†Statistically significantly higher than the referent group.
††Statistically significantly lower than the referent group.

Table 3: New Jersey Average Annual Cancer Incidence Rates by Poverty Level, 1996-2002 Females, All Races

Cancer	Poverty Level*	Total Cases	Rate**	Rate Ratio***	95% Confidence Interval	
					Lower	Upper
All Sites^	Low	115,147	439.6	1.00	-	-
	Medium	21,748	404.7	0.92 ††	0.91	0.93
	High	11,435	418.6	0.95 ††	0.93	0.97
Oral Cavity and Pharynx	Low	1,512	5.8	1.00	-	-
	Medium	298	5.5	0.96	0.85	1.09
	High	230	8.4	1.47 †	1.28	1.69
Esophagus	Low	561	2.0	1.00	-	-
	Medium	129	2.4	1.18	0.97	1.43
	High	113	4.2	2.07 †	1.69	2.53
Stomach	Low	1,550	5.6	1.00	-	-
	Medium	415	7.4	1.33 †	1.19	1.48
	High	275	10.0	1.80 †	1.59	2.05
Colorectal	Low	14,151	51.0	1.00	-	-
	Medium	2,964	52.5	1.03	0.99	1.07
	High	1,512	55.3	1.09 †	1.03	1.15
Liver	Low	481	1.8	1.00	-	-
	Medium	111	2.0	1.16	0.94	1.43
	High	90	3.3	1.88 †	1.50	2.35
Pancreas	Low	2,768	10.0	1.00	-	-
	Medium	593	10.6	1.06	0.97	1.16
	High	309	11.4	1.14 †	1.02	1.29
Lung and Bronchus	Low	14,105	52.7	1.00	-	-
	Medium	2,675	49.7	0.94 ††	0.90	0.98
	High	1,392	51.6	0.98	0.93	1.04
Melanoma of the Skin	Low	3,701	14.8	1.00	-	-
	Medium	392	7.3	0.49 ††	0.44	0.55
	High	89	3.2	0.21 ††	0.17	0.27
Breast	Low	35,170	137.1	1.00	-	-
	Medium	6,038	115.6	0.84 ††	0.82	0.87
	High	2,955	109.8	0.80 ††	0.77	0.83
Cervix Uteri	Low	2,025	8.3	1.00	-	-
	Medium	661	13.1	1.57 †	1.44	1.72
	High	555	20.0	2.41 †	2.19	2.65
Corpus uterus and uterus, NOS	Low	7,375	28.6	1.00	-	-
	Medium	1,283	24.5	0.86 ††	0.81	0.91
	High	684	25.3	0.89 ††	0.82	0.96
Ovary	Low	4,408	17.3	1.00	-	-
	Medium	800	15.3	0.88 ††	0.82	0.95
	High	384	14.0	0.81 ††	0.73	0.90
Urinary Bladder^	Low	3,261	11.9	1.00	-	-
	Medium	612	10.7	0.90 ††	0.82	0.99
	High	247	9.1	0.76 ††	0.67	0.87
Thyroid	Low	2,894	12.4	1.00	-	-
	Medium	466	9.2	0.74 ††	0.67	0.82
	High	229	7.8	0.63 ††	0.55	0.72
Non-Hodgkin Lymphoma	Low	4,787	18.1	1.00	-	-
	Medium	860	15.7	0.87 ††	0.81	0.94
	High	424	15.2	0.84 ††	0.76	0.93

*Percent of census tract population below poverty level in 2000. The three poverty area groups are defined as follows: low poverty (< 10% of the population below the poverty level); medium poverty (10-19.99% of the population below the poverty level); and high poverty (≥ 20% of the population below the poverty level).

**Average annual incidence rate during 1996-2002. Rates are per 100,000 and age-adjusted to the 2000 U.S. standard population (18 age groups). 2002 data are preliminary.
***Incidence rate ratio. Referent group is the low poverty group. The rate ratios were calculated using rates before rounding, and may differ slightly from rate ratios calculated using the rounded rates.
^Includes *in situ* cancer of the bladder.
†Statistically significantly higher than the referent group.
††Statistically significantly lower than the referent group.

Table 4: New Jersey Average Annual Cancer Incidence Rates by Poverty Level, 1996-2002 White Males

Cancer	Poverty Level*	Total Cases	Rate**	Rate Ratio***	95% Confidence Interval	
					Lower	Upper
All Sites^	Low	112,399	613.4	1.00	-	-
	Medium	17,218	645.9	1.05 †	1.04	1.07
	High	5,685	743.9	1.21 †	1.18	1.25
Oral Cavity and Pharynx	Low	2,568	13.8	1.00	-	-
	Medium	458	17.4	1.26 †	1.14	1.39
	High	191	24.8	1.80 †	1.55	2.08
Esophagus	Low	1,418	7.7	1.00	-	-
	Medium	257	9.8	1.27 †	1.11	1.45
	High	109	14.2	1.86 †	1.53	2.26
Stomach	Low	2,248	12.4	1.00	-	-
	Medium	432	16.3	1.31 †	1.18	1.45
	High	177	23.5	1.89 †	1.62	2.21
Colorectal	Low	13,453	74.4	1.00	-	-
	Medium	2,237	84.1	1.13 †	1.08	1.18
	High	657	88.0	1.18 †	1.09	1.28
Liver	Low	1,032	5.6	1.00	-	-
	Medium	202	7.7	1.37 †	1.18	1.60
	High	101	13.3	2.38 †	1.94	2.92
Pancreas	Low	2,313	12.7	1.00	-	-
	Medium	363	13.6	1.07	0.96	1.20
	High	140	18.6	1.46 †	1.23	1.73
Lung and Bronchus	Low	15,204	82.6	1.00	-	-
	Medium	2,707	101.2	1.23 †	1.18	1.28
	High	910	120.5	1.46 †	1.36	1.56
Melanoma of the Skin	Low	4,896	26.7	1.00	-	-
	Medium	442	16.6	0.62 ††	0.57	0.69
	High	103	13.3	0.50 ††	0.41	0.60
Prostate	Low	35,423	190.2	1.00	-	-
	Medium	4,930	183.5	0.96 ††	0.94	0.99
	High	1,566	207.8	1.09 †	1.04	1.15
Urinary Bladder^	Low	8,694	48.0	1.00	-	-
	Medium	1,326	49.9	1.04	0.98	1.10
	High	303	41.1	0.86 ††	0.76	0.96
Thyroid	Low	883	4.8	1.00	-	-
	Medium	108	4.0	0.83 ††	0.68	1.01
	High	30	3.6	0.75 ††	0.52	1.09
Non-Hodgkin Lymphoma	Low	4,757	26.2	1.00	-	-
	Medium	713	27.0	1.03	0.95	1.11
	High	227	28.5	1.09	0.95	1.24

*Percent of census tract population below poverty level in 2000. The three poverty area groups are defined as follows: low poverty (< 10% of the population below the poverty level); medium poverty (10-19.99% of the population below the poverty level); and high poverty (≥ 20% of the population below the poverty level).
**Average annual incidence rate during 1996-2002. Rates are per 100,000 and age-adjusted to the 2000 U.S. standard population (18 age groups). 2002 data are preliminary.
***Incidence rate ratio. Referent group is the low poverty group. The rate ratios were calculated using rates before rounding, and may differ slightly from rate ratios calculated using the rounded rates.
^Includes *in situ* cancer of the bladder.
†Statistically significantly higher than the referent group.
††Statistically significantly lower than the referent group.

Table 5: New Jersey Average Annual Cancer Incidence Rates by Poverty Level, 1996-2002 White Females

Cancer	Poverty Level*	Total Cases	Rate**	Rate Ratio***	95% Confidence Interval	
					Lower	Upper
All Sites^	Low	106,819	458.0	1.00	-	-
	Medium	17,017	472.0	1.03 †	1.01	1.05
	High	5,477	564.1	1.23 †	1.20	1.27
Oral Cavity and Pharynx	Low	1,380	5.9	1.00	-	-
	Medium	236	6.5	1.11	0.96	1.28
	High	97	9.5	1.61 †	1.30	2.00
Esophagus	Low	516	2.1	1.00	-	-
	Medium	93	2.4	1.18	0.94	1.48
	High	34	3.1	1.49 †	1.04	2.13
Stomach	Low	1,353	5.3	1.00	-	-
	Medium	298	7.4	1.40 †	1.22	1.59
	High	117	11.2	2.12 †	1.74	2.58
Colorectal	Low	13,203	52.0	1.00	-	-
	Medium	2,355	56.9	1.09 †	1.04	1.14
	High	727	67.8	1.30 †	1.21	1.41
Liver	Low	406	1.6	1.00	-	-
	Medium	77	2.0	1.25	0.97	1.61
	High	51	4.6	2.83 †	2.10	3.82
Pancreas	Low	2,550	10.0	1.00	-	-
	Medium	454	11.1	1.11	1.00	1.23
	High	149	13.6	1.36 †	1.14	1.61
Lung and Bronchus	Low	13,352	55.2	1.00	-	-
	Medium	2,198	59.1	1.07 †	1.02	1.12
	High	586	57.1	1.04	0.95	1.13
Melanoma of the Skin	Low	3,622	16.8	1.00	-	-
	Medium	374	11.0	0.66 ††	0.59	0.73
	High	76	8.2	0.49 ††	0.38	0.61
Breast	Low	32,376	143.0	1.00	-	-
	Medium	4,660	136.8	0.96 ††	0.93	0.99
	High	1,394	153.5	1.07 †	1.02	1.13
Cervix uteri	Low	1,777	8.6	1.00	-	-
	Medium	429	14.8	1.72 †	1.54	1.91
	High	234	28.5	3.31 †	2.88	3.80
Corpus uterus and uterus, NOS	Low	6,919	30.2	1.00	-	-
	Medium	1,023	29.9	0.99	0.93	1.06
	High	340	36.8	1.22 †	1.09	1.36
Ovary	Low	4,105	18.2	1.00	-	-
	Medium	621	18.6	1.02	0.94	1.11
	High	224	24.2	1.33 †	1.16	1.53
Urinary Bladder^	Low	3,129	12.6	1.00	-	-
	Medium	517	12.7	1.01	0.91	1.11
	High	131	12.5	0.99	0.83	1.19
Thyroid	Low	2,567	13.1	1.00	-	-
	Medium	361	12.6	0.96	0.85	1.07
	High	140	16.2	1.23 †	1.04	1.47
Non-Hodgkin Lymphoma	Low	4,452	18.7	1.00	-	-
	Medium	697	18.7	1.00	0.92	1.08
	High	232	23.9	1.28 †	1.11	1.46

*Percent of census tract population below poverty level in 2000. The three poverty area groups are defined as follows: low poverty (< 10% of the population below the poverty level); medium poverty (10-19.99% of the population below the poverty level); and high poverty (≥ 20% of the population below the poverty level).

**Average annual incidence rate during 1996-2002. Rates are per 100,000 and age-adjusted to the 2000 U.S. standard population (18 age groups). 2002 data are preliminary.
***Incidence rate ratio. Referent group is the low poverty group. The rate ratios were calculated using rates before rounding, and may differ slightly from rate ratios calculated using the rounded rates.
^Includes *in situ* cancer of the bladder.
†Statistically significantly higher than the referent group.
††Statistically significantly lower than the referent group.

Table 6: New Jersey Average Annual Cancer Incidence Rates by Poverty Level, 1996-2002 Black Males

Cancer	Poverty Level*	Total Cases	Rate**	Rate Ratio***	95% Confidence Interval	
					Lower	Upper
All Sites^	Low	6,104	667.0	1.00	-	-
	Medium	4,784	692.6	1.04	1.00	1.08
	High	6,408	740.4	1.11 †	1.07	1.15
Oral Cavity and Pharynx	Low	146	13.8	1.00	-	-
	Medium	155	19.7	1.43 †	1.13	1.82
	High	272	29.4	2.14 †	1.73	2.64
Esophagus	Low	75	8.2	1.00	-	-
	Medium	88	12.5	1.52 †	1.09	2.12
	High	180	20.3	2.47 †	1.86	3.30
Stomach	Low	136	16.3	1.00	-	-
	Medium	140	22.7	1.39 †	1.07	1.80
	High	192	23.7	1.45 †	1.14	1.83
Colorectal	Low	618	71.1	1.00	-	-
	Medium	479	73.2	1.03	0.90	1.17
	High	668	80.5	1.13 †	1.01	1.27
Liver	Low	63	6.5	1.00	-	-
	Medium	71	9.4	1.45 †	1.01	2.08
	High	105	11.8	1.82 †	1.30	2.53
Pancreas	Low	119	13.7	1.00	-	-
	Medium	105	16.0	1.17	0.88	1.56
	High	119	14.2	1.04	0.79	1.36
Lung and Bronchus	Low	773	88.5	1.00	-	-
	Medium	715	103.7	1.17 †	1.05	1.30
	High	1,186	137.9	1.56 †	1.42	1.71
Melanoma of the Skin	Low	14	1.2	1.00	-	-
	Medium	6	0.8	0.72	0.26	1.96
	High	#	#			
Prostate	Low	2,746	298.3	1.00	-	-
	Medium	1,878	282.6	0.95	0.89	1.01
	High	2,197	261.3	0.88 ††	0.83	0.93
Urinary Bladder^	Low	187	25.6	1.00	-	-
	Medium	114	17.8	0.70 ††	0.54	0.89
	High	139	17.5	0.68 ††	0.54	0.86
Thyroid	Low	28	2.4	1.00	-	-
	Medium	25	2.8	1.18	0.67	2.06
	High	27	2.6	1.07	0.63	1.84
Non-Hodgkin Lymphoma	Low	214	19.6	1.00	-	-
	Medium	157	18.6	0.95	0.76	1.19
	High	229	22.7	1.16	0.95	1.42

*Percent of census tract population below poverty level in 2000. The three poverty area groups are defined as follows: low poverty (< 10% of the population below the poverty level); medium poverty (10-19.99% of the population below the poverty level); and high poverty (≥ 20% of the population below the poverty level).
**Average annual incidence rate during 1996-2002. Rates are per 100,000 and age-adjusted to the 2000 U.S. standard population (18 age groups). 2002 data are preliminary.
***Incidence rate ratio. Referent group is the low poverty group. The rate ratios were calculated using rates before rounding, and may differ slightly from rate ratios calculated using the rounded rates.
^Includes *in situ* cancer of the bladder.
†Statistically significantly higher than the referent group.
††Statistically significantly lower than the referent group.
#Rates were not displayed due to fewer than 5 cases.

Table 7: New Jersey Average Annual Cancer Incidence Rates by Poverty Level, 1996-2002 Black Females

Cancer	Poverty Level*	Total Cases	Rate**	Rate Ratio***	95% Confidence Interval	
					Lower	Upper
All Sites^	Low	5,129	394.3	1.00	-	-
	Medium	4,026	386.2	0.98	0.94	1.02
	High	5,649	443.2	1.12 †	1.08	1.17
Oral Cavity and Pharynx	Low	67	5.3	1.00	-	-
	Medium	43	4.0	0.75	0.51	1.10
	High	127	9.8	1.85 †	1.37	2.50
Esophagus	Low	28	2.2	1.00	-	-
	Medium	34	3.3	1.49	0.89	2.47
	High	78	6.1	2.77 †	1.79	4.30
Stomach	Low	98	8.1	1.00	-	-
	Medium	96	9.8	1.22	0.91	1.62
	High	146	11.8	1.47 †	1.13	1.90
Colorectal	Low	657	54.2	1.00	-	-
	Medium	533	53.4	0.98	0.88	1.11
	High	759	60.5	1.12 †	1.00	1.30
Liver	Low	30	2.4	1.00	-	-
	Medium	19	1.9	0.76	0.43	1.37
	High	37	2.9	1.21	0.74	1.96
Pancreas	Low	157	13.3	1.00	-	-
	Medium	124	13.0	0.98	0.77	1.25
	High	155	12.5	0.94	0.75	1.18
Lung and Bronchus	Low	573	46.3	1.00	-	-
	Medium	446	44.2	0.95	0.84	1.08
	High	785	61.7	1.33 †	1.20	1.49
Melanoma of the Skin	Low	13	1.1	1.00	-	-
	Medium	14	1.2	1.14	0.53	2.46
	High	9	0.7	0.61	0.26	1.44
Breast	Low	1,673	122.1	1.00	-	-
	Medium	1,174	108.4	0.89 ††	0.82	0.96
	High	1,464	115.3	0.94	0.88	1.01
Cervix uteri	Low	154	11.0	1.00	-	-
	Medium	194	17.4	1.58 †	1.27	1.96
	High	304	23.4	2.12 †	1.74	2.58
Corpus uterus and uterus, NOS	Low	285	22.0	1.00		
	Medium	222	21.4	0.97	0.82	1.17
	High	330	25.6	1.17	0.99	1.37
Ovary	Low	165	12.4	1.00		
	Medium	143	13.4	1.08	0.86	1.35
	High	141	10.8	0.87	0.69	1.09
Urinary Bladder^	Low	82	7.1	1.00	-	-
	Medium	84	9.1	1.28	0.94	1.74
	High	109	8.7	1.22	0.91	1.62
Thyroid	Low	119	7.8	1.00	-	-
	Medium	58	5.0	0.64 ††	0.47	0.88
	High	77	5.7	0.73 ††	0.55	0.98
Non-Hodgkin Lymphoma	Low	192	14.1	1.00	-	-
	Medium	132	12.3	0.87	0.69	1.09
	High	176	13.5	0.96	0.78	1.18

*Percent of census tract population below poverty level in 2000. The three poverty area groups are defined as follows: low poverty (< 10% of the population below the poverty level); medium poverty (10-19.99% of the population below the poverty level); and high poverty (≥ 20% of the population below the poverty level).

**Average annual incidence rate during 1996-2002. Rates are per 100,000 and age-adjusted to the 2000 U.S. standard population (18 age groups). 2002 data are preliminary.
***Incidence rate ratio. Referent group is the low poverty group. The rate ratios were calculated using rates before rounding, and may differ slightly from rate ratios calculated using the rounded rates.
^Includes *in situ* cancer of the bladder.
†Statistically significantly higher than the referent group.
††Statistically significantly lower than the referent group.

Table 8: New Jersey Average Annual Cancer Incidence Rates by Poverty Level, 1996-2002 Hispanic* Males

Cancer	Poverty Level**	Total Cases	Rate***	Rate Ratio^		95% Confidence Interval	
						Lower	Upper
All Sites^^	Low	3,598	644.5	1.00		-	-
	Medium	2,910	438.5	0.68	††	0.64	0.72
	High	2,347	459.3	0.71	††	0.67	0.76
Oral Cavity and Pharynx	Low	76	10.9	1.00		-	-
	Medium	77	10.2	0.94		0.65	1.34
	High	80	12.8	1.18		0.83	1.68
Esophagus	Low	48	8.3	1.00		-	-
	Medium	34	5.3	0.64		0.39	1.06
	High	44	8.6	1.03		0.64	1.66
Stomach	Low	113	20.1	1.00		-	-
	Medium	101	13.2	0.66	††	0.48	0.89
	High	103	21.1	1.05		0.77	1.44
Colorectal	Low	403	79.8	1.00		-	-
	Medium	326	53.6	0.67	††	0.57	0.79
	High	234	46.0	0.58	††	0.48	0.69
Liver	Low	65	10.5	1.00		-	-
	Medium	51	6.7	0.64	††	0.42	0.98
	High	68	12.5	1.19		0.80	1.77
Pancreas	Low	76	15.8	1.00		-	-
	Medium	56	9.9	0.63	††	0.42	0.93
	High	57	11.3	0.72		0.48	1.06
Lung and Bronchus	Low	357	72.3	1.00		-	-
	Medium	288	46.0	0.64	††	0.53	0.76
	High	244	54.7	0.76	††	0.63	0.91
Melanoma of the Skin	Low	61	10.2	1.00		-	-
	Medium	33	4.3	0.42	††	0.25	0.71
	High	16	2.4	0.24	††	0.12	0.47
Prostate	Low	1,204	228.6	1.00		-	-
	Medium	993	167.2	0.73	††	0.67	0.80
	High	704	161.2	0.71	††	0.64	0.78
Urinary Bladder^^	Low	211	43.5	1.00		-	-
	Medium	141	26.4	0.61	††	0.48	0.78
	High	80	20.1	0.46	††	0.34	0.62
Thyroid	Low	43	4.6	1.00		-	-
	Medium	28	2.5	0.53	††	0.31	0.92
	High	17	2.2	0.48	††	0.25	0.91
Non-Hodgkin Lymphoma	Low	204	31.4	1.00		-	-
	Medium	164	20.0	0.63	††	0.49	0.82
	High	133	20.6	0.65	††	0.50	0.85

*Hispanics may be of any race; therefore, the categories of race and ethnicity are not mutually exclusive.
**Percent of census tract population below poverty level in 2000. The three poverty area groups are defined as follows: low poverty (< 10% of the population below the poverty level); medium poverty (10-19.99% of the population below the poverty level); and high poverty (≥ 20% of the population below the poverty level).
***Average annual incidence rate during 1996-2002. Rates are per 100,000 and age-adjusted to the 2000 U.S. standard population (18 age groups). 2002 data are preliminary.
^Incidence rate ratio. Referent group is the low poverty group. The rate ratios were calculated using rates before rounding, and may differ slightly from rate ratios calculated using the rounded rates.
^^Includes *in situ* cancer of the bladder.
†Statistically significantly higher than the referent group.
††Statistically significantly lower than the referent group.

Table 9: New Jersey Average Annual Cancer Incidence Rates by Poverty Level, 1996-2002 Hispanic* Females

Cancer	Poverty Level**	Total Cases	Rate***	Rate Ratio^		95% Confidence Interval	
						Lower	Upper
All Sites^^	Low	3,590	402.8	1.00		-	-
	Medium	2,780	294.6	0.73	††	0.69	0.77
	High	2,108	301.7	0.75	††	0.71	0.79
Oral Cavity and Pharynx	Low	42	5.2	1.00		-	-
	Medium	35	3.7	0.71		0.44	1.15
	High	29	4.5	0.86		0.51	1.44
Esophagus	Low	14	1.9	1.00		-	-
	Medium	18	2.4	1.21		0.58	2.52
	High	8	1.9	0.97		0.40	2.39
Stomach	Low	64	8.1	1.00		-	-
	Medium	69	8.2	1.01		0.71	1.45
	High	55	9.2	1.13		0.77	1.66
Colorectal	Low	408	53.4	1.00		-	-
	Medium	312	37.6	0.70	††	0.60	0.82
	High	226	38.1	0.71	††	0.60	0.85
Liver	Low	24	3.3	1.00		-	-
	Medium	26	2.9	0.89		0.50	1.59
	High	25	4.7	1.43		0.79	2.59
Pancreas	Low	74	10.1	1.00		-	-
	Medium	57	7.2	0.71		0.50	1.02
	High	55	9.4	0.92		0.64	1.34
Lung and Bronchus	Low	224	30.1	1.00		-	-
	Medium	150	17.7	0.59	††	0.47	0.73
	High	133	22.0	0.73	††	0.58	0.91
Melanoma of the Skin	Low	50	5.4	1.00		-	-
	Medium	28	2.6	0.48	††	0.29	0.79
	High	15	2.1	0.40	††	0.21	0.76
Breast	Low	1,163	121.1	1.00		-	-
	Medium	831	85.6	0.71	††	0.64	0.78
	High	556	75.4	0.62	††	0.56	0.69
Cervix uteri	Low	143	12.7	1.00		-	-
	Medium	156	12.9	1.02		0.80	1.29
	High	179	20.2	1.59	†	1.26	2.02
Corpus uterus and uterus, NOS	Low	209	23.8	1.00		-	-
	Medium	156	16.5	0.69	††	0.56	0.86
	High	118	17.4	0.73	††	0.57	0.93
Ovary	Low	134	13.6	1.00		-	-
	Medium	109	10.7	0.79		0.60	1.03
	High	87	11.0	0.81		0.60	1.08
Urinary Bladder^^	Low	83	11.5	1.00		-	-
	Medium	49	6.5	0.57	††	0.39	0.82
	High	33	6.0	0.53	††	0.34	0.81
Thyroid	Low	177	13.8	1.00		-	-
	Medium	129	10.4	0.75	††	0.59	0.96
	High	84	8.7	0.63	††	0.48	0.83
Non-Hodgkin Lymphoma	Low	167	18.3	1.00		-	-
	Medium	145	15.1	0.82		0.65	1.05
	High	98	14.0	0.76		0.58	1.00

*Hispanics may be of any race; therefore, the categories of race and ethnicity are not mutually exclusive.

**Percent of census tract population below poverty level in 2000. The three poverty area groups are defined as follows: low poverty (< 10% of the population below the poverty level); medium poverty (10-19.99% of the population below the poverty level); and high poverty (≥ 20% of the population below the poverty level).
***Average annual incidence rate during 1996-2002. Rates are per 100,000 and age-adjusted to the 2000 U.S. standard population (18 age groups). 2002 data are preliminary.
^Incidence rate ratio. Referent group is the low poverty group. The rate ratios were calculated using rates before rounding, and may differ slightly from rate ratios calculated using the rounded rates.
^^Includes *in situ* cancer of the bladder.
†Statistically significantly higher than the referent group.
††Statistically significantly lower than the referent group.

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APPENDIX C – NEW JERSEY CANCER STAGE AT DIAGNOSIS DATA TABLES

Table 10: New Jersey Cancer Stage Distribution by Poverty Level, 1996-2002
Males, All Races

Cancer	Poverty Level*	Stage at Diagnosis								Total
		In situ/Local		Regional		Distant		Unknown		
		No.	%	No.	%	No.	%	No.	%	No.
All Sites	Low	66,727	52.4%	21,447	16.8%	22,917	18.0%	16,214	12.7%	127,305
	Medium	11,091	47.4%	4,280	18.3%	4,650	19.9%	3,385	14.5%	23,406
	High	5,498	43.0%	2,469	19.3%	2,945	23.0%	1,872	14.6%	12,784
	Unknown**	1,926	31.3%	753	12.2%	907	14.7%	2,567	41.7%	6,153
Oral Cavity	Low	987	34.0%	1,446	49.8%	219	7.5%	251	8.6%	2,903
and Pharynx	Medium	177	27.2%	348	53.5%	63	9.7%	62	9.5%	650
	High	99	20.6%	294	61.1%	50	10.4%	38	7.9%	481
	Unknown**	46	33.3%	57	41.3%	6	4.3%	29	21.0%	138
Colorectal	Low	6,774	42.2%	5,686	35.4%	2,362	14.7%	1,227	7.6%	16,049
	Medium	1,233	39.9%	1,120	36.3%	480	15.5%	256	8.3%	3,089
	High	583	38.1%	551	36.0%	264	17.2%	133	8.7%	1,531
	Unknown**	234	32.3%	184	25.4%	94	13.0%	212	29.3%	724
Lung and	Low	2,833	17.4%	4,284	26.3%	7,128	43.8%	2,024	12.4%	16,269
Bronchus	Medium	580	16.6%	903	25.8%	1,576	45.0%	444	12.7%	3,503
	High	313	14.6%	572	26.7%	1,012	47.2%	247	11.5%	2,144
	Unknown**	96	8.5%	178	15.7%	272	23.9%	590	51.9%	1,136
Melanoma of	Low	6,784	85.4%	353	4.4%	233	2.9%	573	7.2%	7,943
the Skin	Medium	547	82.4%	40	6.0%	18	2.7%	59	8.9%	664
	High	96	68.6%	12	8.6%	11	7.9%	21	15.0%	140
	Unknown**	148	69.8%	13	6.1%	6	2.8%	45	21.2%	212
Prostate	Low	30,757	77.9%	2,866	7.3%	1,235	3.1%	4,635	11.7%	39,493
	Medium	5,371	76.0%	454	6.4%	347	4.9%	892	12.6%	7,064
	High	2,956	75.4%	244	6.2%	255	6.5%	464	11.8%	3,919
	Unknown**	867	57.6%	83	5.5%	72	4.8%	482	32.0%	1,504

*Percent of census tract population below poverty level in 2000. The three poverty area groups are defined as follows: low poverty (< 10% of the population below the poverty level); medium poverty (10-19.99% of the population below the poverty level); and high poverty (≥ 20% of the population below the poverty level).
**Unknown poverty level includes cases that could not be geocoded to the census tract poverty level or who were geocoded to a census tract for which the 2000 U.S. Census did not provide poverty data.

Table 11: New Jersey Cancer Stage Distribution by Poverty Level, 1996-2002
Females, All Races

Cancer	Poverty Level*	Stage at Diagnosis								Total
		In situ/Local		Regional		Distant		Unknown		
		No.	%	No.	%	No.	%	No.	%	No.
All Sites	Low	64,442	50.1%	28,539	22.2%	22,107	17.2%	13,506	10.5%	128,594
	Medium	10,445	44.4%	5,594	23.8%	4,513	19.2%	2,972	12.6%	23,524
	High	4,898	40.0%	3,197	26.1%	2,484	20.3%	1,675	13.7%	12,254
	Unknown**	1,867	26.8%	948	13.6%	869	12.5%	3,282	47.1%	6,966
Oral Cavity	Low	675	43.6%	597	38.5%	106	6.8%	171	11.0%	1,549
and Pharynx	Medium	128	42.1%	117	38.5%	25	8.2%	34	11.2%	304
	High	75	32.2%	118	50.6%	16	6.9%	24	10.3%	233
	Unknown**	23	25.6%	23	25.6%	2	2.2%	42	46.7%	90
Colorectal	Low	5,980	38.8%	5,856	37.9%	2,304	14.9%	1,291	8.4%	15,431
	Medium	1,245	38.5%	1,204	37.3%	500	15.5%	282	8.7%	3,231
	High	654	39.2%	602	36.1%	261	15.6%	152	9.1%	1,669
	Unknown**	224	26.3%	229	26.8%	93	10.9%	307	36.0%	853
Lung and	Low	2,794	19.8%	3,511	24.9%	5,906	41.8%	1,902	13.5%	14,113
Bronchus	Medium	478	17.9%	668	25.0%	1,167	43.6%	363	13.6%	2,676
	High	249	17.8%	400	28.6%	580	41.5%	168	12.0%	1,397
	Unknown**	99	9.0%	129	11.7%	215	19.4%	663	59.9%	1,106
Melanoma of	Low	5,692	88.0%	234	3.6%	114	1.8%	427	6.6%	6,467
the Skin	Medium	495	82.0%	29	4.8%	21	3.5%	59	9.8%	604
	High	96	76.2%	14	11.1%	3	2.4%	13	10.3%	126
	Unknown**	120	65.9%	5	2.7%	2	1.1%	55	30.2%	182
Breast	Low	29,834	68.2%	10,502	24.0%	1,810	4.1%	1,570	3.6%	43,716
	Medium	4,464	62.5%	1,867	26.2%	416	5.8%	392	5.5%	7,139
	High	2,012	57.8%	997	28.7%	264	7.6%	205	5.9%	3,478
	Unknown**	775	46.6%	330	19.8%	76	4.6%	482	29.0%	1,663
Cervix uteri^	Low	1,019	50.3%	625	30.9%	190	9.4%	191	9.4%	2,025
	Medium	275	41.6%	229	34.6%	70	10.6%	87	13.2%	661
	High	231	41.6%	218	39.3%	41	7.4%	65	11.7%	555
	Unknown**	47	35.1%	34	25.4%	5	3.7%	48	35.8%	134

*Percent of census tract population below poverty level in 2000. The three poverty area groups are defined as follows: low poverty (< 10% of the population below the poverty level); medium poverty (10-19.99% of the population below the poverty level); and high poverty (≥ 20% of the population below the poverty level).
**Unknown poverty level includes cases that could not be geocoded to the census tract poverty level or who were geocoded to a census tract for which the 2000 U.S. Census did not provide poverty data.
^*In situ* cancers of the cervix uteri are not included.

Table 12: New Jersey Cancer Stage Distribution by Poverty Level, 1996-2002
White Males

Cancer	Poverty Level*	Stage at Diagnosis								Total
		In situ/Local		Regional		Distant		Unknown		
		No.	%	No.	%	No.	%	No.	%	No.
All Sites	Low	61,705	52.6%	19,745	16.8%	21,068	17.9%	14,870	12.7%	117,388
	Medium	8,481	47.8%	3,176	17.9%	3,481	19.6%	2,610	14.7%	17,748
	High	2,568	44.1%	1,083	18.6%	1,280	22.0%	895	15.4%	5,826
	Unknown**	1,603	31.4%	597	11.7%	721	14.1%	2,178	42.7%	5,099
Oral Cavity	Low	913	34.8%	1,297	49.4%	187	7.1%	229	8.7%	2,626
and Pharynx	Medium	127	27.1%	245	52.2%	45	9.6%	52	11.1%	469
	High	48	24.6%	111	56.9%	20	10.3%	16	8.2%	195
	Unknown**	34	34.3%	39	39.4%	4	4.0%	22	22.2%	99
Colorectal	Low	6,323	42.4%	5,286	35.4%	2,177	14.6%	1,132	7.6%	14,918
	Medium	988	39.9%	908	36.7%	368	14.9%	212	8.6%	2,476
	High	288	39.3%	263	35.9%	109	14.9%	73	10.0%	733
	Unknown**	199	32.9%	148	24.5%	77	12.7%	180	29.8%	604
Lung and	Low	2,670	17.5%	3,995	26.2%	6,647	43.7%	1,909	12.5%	15,221
Bronchus	Medium	469	17.3%	668	24.6%	1,218	44.9%	355	13.1%	2,710
	High	145	15.8%	238	26.0%	423	46.2%	109	11.9%	915
	Unknown**	85	8.7%	144	14.8%	222	22.7%	525	53.8%	976
Melanoma of	Low	6,620	85.3%	350	4.5%	228	2.9%	561	7.2%	7,759
the Skin	Medium	529	83.2%	37	5.8%	17	2.7%	53	8.3%	636
	High	91	68.9%	12	9.1%	11	8.3%	18	13.6%	132
	Unknown**	135	69.2%	12	6.2%	5	2.6%	43	22.1%	195
Prostate	Low	27,751	78.2%	2,543	7.2%	1,068	3.0%	4,111	11.6%	35,473
	Medium	3,774	76.4%	290	5.9%	222	4.5%	654	13.2%	4,940
	High	1,203	76.7%	83	5.3%	76	4.8%	206	13.1%	1,568
	Unknown**	679	58.2%	65	5.6%	52	4.5%	371	31.8%	1,167

*Percent of census tract population below poverty level in 2000. The three poverty area groups are defined as follows: low poverty (< 10% of the population below the poverty level); medium poverty (10-19.99% of the population below the poverty level); and high poverty (≥ 20% of the population below the poverty level).
**Unknown poverty level includes cases that could not be geocoded to the census tract poverty level or who were geocoded to a census tract for which the 2000 U.S. Census did not provide poverty data.

Table 13: New Jersey Cancer Stage Distribution by Poverty Level, 1996-2002
White Females

Cancer	Poverty Level*	Stage at Diagnosis								Total
		In situ/Local		Regional		Distant		Unknown		
		No.	%	No.	%	No.	%	No.	%	No.
All Sites	Low	60,073	50.4%	26,202	22.0%	20,507	17.2%	12,478	10.5%	119,260
	Medium	8,324	45.2%	4,300	23.4%	3,463	18.8%	2,327	12.6%	18,414
	High	2,467	42.2%	1,452	24.8%	1,103	18.9%	829	14.2%	5,851
	Unknown**	1,617	26.6%	815	13.4%	755	12.4%	2,903	47.7%	6,090
Oral Cavity	Low	629	44.4%	535	37.8%	94	6.6%	159	11.2%	1,417
and Pharynx	Medium	101	42.1%	90	37.5%	23	9.6%	26	10.8%	240
	High	40	40.8%	39	39.8%	6	6.1%	13	13.3%	98
	Unknown**	18	23.1%	22	28.2%	2	2.6%	36	46.2%	78
Colorectal	Low	5,602	38.9%	5,462	38.0%	2,140	14.9%	1,182	8.2%	14,386
	Medium	978	38.1%	981	38.2%	384	15.0%	222	8.7%	2,565
	High	307	38.6%	305	38.3%	108	13.6%	76	9.5%	796
	Unknown**	196	26.2%	198	26.5%	80	10.7%	273	36.5%	747
Lung and	Low	2,654	19.9%	3,314	24.8%	5,578	41.8%	1,813	13.6%	13,359
Bronchus	Medium	403	18.3%	534	24.3%	959	43.6%	303	13.8%	2,199
	High	107	18.2%	160	27.2%	243	41.3%	79	13.4%	589
	Unknown**	87	8.6%	113	11.2%	195	19.3%	615	60.9%	1,010
Melanoma of	Low	5,543	88.2%	231	3.7%	111	1.8%	398	6.3%	6,283
the Skin	Medium	475	82.6%	27	4.7%	19	3.3%	54	9.4%	575
	High	81	75.7%	13	12.1%	2	1.9%	11	10.3%	107
	Unknown**	111	67.3%	5	3.0%	1	0.6%	48	29.1%	165
Breast	Low	27,595	68.7%	9,516	23.7%	1,663	4.1%	1,422	3.5%	40,196
	Medium	3,481	63.3%	1,375	25.0%	316	5.7%	326	5.9%	5,498
	High	969	59.7%	431	26.5%	118	7.3%	106	6.5%	1,624
	Unknown**	668	46.9%	284	19.9%	64	4.5%	408	28.7%	1,424
Cervix uteri^	Low	900	50.6%	540	30.4%	171	9.6%	166	9.3%	1,777
	Medium	189	44.1%	142	33.1%	47	11.0%	51	11.9%	429
	High	100	42.7%	99	42.3%	13	5.6%	22	9.4%	234
	Unknown**	41	39.4%	25	24.0%	5	4.8%	33	31.7%	104

*Percent of census tract population below poverty level in 2000. The three poverty area groups are defined as follows: low poverty (< 10% of the population below the poverty level); medium poverty (10-19.99% of the population below the poverty level); and high poverty (≥ 20% of the population below the poverty level).
**Unknown poverty level includes cases that could not be geocoded to the census tract poverty level or who were geocoded to a census tract for which the 2000 U.S. Census did not provide poverty data.
^*In situ* cancers of the cervix uteri are not included.

Table 14: New Jersey Cancer Stage Distribution by Poverty Level, 1996-2002
Black Males

Cancer	Poverty Level*	Stage at Diagnosis								Total
		In situ/Local		Regional		Distant		Unknown		
		No.	%	No.	%	No.	%	No.	%	No.
All Sites	Low	3,192	51.3%	1,060	17.0%	1,247	20.1%	720	11.6%	6,219
	Medium	2,267	46.6%	966	19.9%	1,009	20.7%	621	12.8%	4,863
	High	2,730	41.9%	1,316	20.2%	1,582	24.3%	892	13.7%	6,520
	Unknown**	244	30.3%	135	16.8%	155	19.3%	271	33.7%	805
Oral Cavity	Low	40	26.7%	82	54.7%	17	11.3%	11	7.3%	150
and Pharynx	Medium	44	28.0%	90	57.3%	15	9.6%	8	5.1%	157
	High	50	18.3%	177	64.8%	30	11.0%	16	5.9%	273
	Unknown**	11	30.6%	18	50.0%	2	5.6%	5	13.9%	36
Colorectal	Low	273	39.2%	238	34.2%	140	20.1%	45	6.5%	696
	Medium	210	40.1%	182	34.7%	95	18.1%	37	7.1%	524
	High	276	37.0%	270	36.2%	147	19.7%	53	7.1%	746
	Unknown**	27	26.5%	33	32.4%	15	14.7%	27	26.5%	102
Lung and	Low	126	16.3%	217	28.0%	349	45.1%	82	10.6%	774
Bronchus	Medium	102	14.2%	214	29.8%	317	44.2%	84	11.7%	717
	High	161	13.5%	329	27.7%	567	47.7%	132	11.1%	1,189
	Unknown**	8	5.8%	32	23.2%	46	33.3%	52	37.7%	138
Melanoma of	Low	#	#	#	#	#	#	#	#	16
the Skin	Medium	#	#	#	#	#	#	#	#	10
	High	#	#	#	#	#	#	#	#	3
	Unknown**	#	#	#	#	#	#	#	#	2
Prostate	Low	2,107	76.6%	243	8.8%	138	5.0%	261	9.5%	2,749
	Medium	1,423	75.6%	153	8.1%	120	6.4%	187	9.9%	1,883
	High	1,639	74.3%	156	7.1%	177	8.0%	233	10.6%	2,205
	Unknown**	146	62.9%	14	6.0%	18	7.8%	54	23.3%	232

*Percent of census tract population below poverty level in 2000. The three poverty area groups are defined as follows: low poverty (< 10% of the population below the poverty level); medium poverty (10-19.99% of the population below the poverty level); and high poverty (≥ 20% of the population below the poverty level).
**Unknown poverty level includes cases that could not be geocoded to the census tract poverty level or who were geocoded to a census tract for which the 2000 U.S. Census did not provide poverty data.
#Results not displayed due to small numbers in some stages.

Table 15: New Jersey Cancer Stage Distribution by Poverty Level, 1996-2002
Black Females

Cancer	Poverty Level*	Stage at Diagnosis								Total
		In situ/Local		Regional		Distant		Unknown		
		No.	%	No.	%	No.	%	No.	%	No.
All Sites	Low	2,483	44.2%	1,468	26.1%	1,090	19.4%	576	10.3%	5,617
	Medium	1,752	40.5%	1,116	25.8%	918	21.2%	539	12.5%	4,325
	High	2,282	37.6%	1,658	27.4%	1,325	21.9%	797	13.1%	6,062
	Unknown**	167	25.7%	107	16.5%	98	15.1%	277	42.7%	649
Oral Cavity	Low	22	32.8%	32	47.8%	6	9.0%	7	10.4%	67
and Pharynx	Medium	17	38.6%	21	47.7%	1	2.3%	5	11.4%	44
	High	34	26.4%	77	59.7%	9	7.0%	9	7.0%	129
	Unknown**	#	#	#	#	#	#	#	#	10
Colorectal	Low	264	36.8%	271	37.7%	119	16.6%	64	8.9%	718
	Medium	227	39.1%	194	33.4%	107	18.4%	52	9.0%	580
	High	332	39.3%	290	34.4%	149	17.7%	73	8.6%	844
	Unknown**	22	25.0%	28	31.8%	13	14.8%	25	28.4%	88
Lung and	Low	111	19.3%	155	27.0%	246	42.9%	62	10.8%	574
Bronchus	Medium	73	16.4%	126	28.3%	190	42.6%	57	12.8%	446
	High	134	17.0%	235	29.9%	332	42.2%	86	10.9%	787
	Unknown**	12	14.6%	13	15.9%	19	23.2%	38	46.3%	82
Melanoma of	Low	#	#	#	#	#	#	#	#	16
the Skin	Medium	#	#	#	#	#	#	#	#	16
	High	#	#	#	#	#	#	#	#	14
	Unknown**	#	#	#	#	#	#	#	#	2
Breast	Low	1,288	62.6%	599	29.1%	112	5.4%	60	2.9%	2,059
	Medium	821	59.4%	419	30.3%	93	6.7%	50	3.6%	1,383
	High	975	56.3%	524	30.3%	142	8.2%	90	5.2%	1,731
	Unknown**	69	43.1%	33	20.6%	11	6.9%	47	29.4%	160
Cervix uteri^	Low	76	49.4%	51	33.1%	14	9.1%	13	8.4%	154
	Medium	70	36.1%	73	37.6%	19	9.8%	32	16.5%	194
	High	120	39.5%	116	38.2%	28	9.2%	40	13.2%	304
	Unknown**	4	19.0%	8	38.1%	0	0.0%	9	42.9%	21

*Percent of census tract population below poverty level in 2000. The three poverty area groups are defined as follows: low poverty (< 10% of the population below the poverty level); medium poverty (10-19.99% of the population below the poverty level); and high poverty (≥ 20% of the population below the poverty level).
**Unknown poverty level includes cases that could not be geocoded to the census tract poverty level or who were geocoded to a census tract for which the 2000 U.S. Census did not provide poverty data.
^*In situ* cancers of the cervix uteri are not included.
#Results not displayed due to small numbers in some stages.

Table 16: New Jersey Cancer Stage Distribution by Poverty Level, 1996-2002
Hispanic* Males

Cancer	Poverty Level**	Stage at Diagnosis								Total
		In situ/Local		Regional		Distant		Unknown		
		No.	%	No.	%	No.	%	No.	%	No.
All Sites	Low	1,843	49.9%	669	18.1%	697	18.9%	486	13.2%	3,695
	Medium	1,482	49.8%	530	17.8%	577	19.4%	386	13.0%	2,975
	High	1,052	44.0%	462	19.3%	543	22.7%	334	14.0%	2,391
	Unknown^	103	28.9%	38	10.7%	51	14.3%	164	46.1%	356
Oral Cavity	Low	18	23.7%	46	60.5%	5	6.6%	7	9.2%	76
and Pharynx	Medium	21	27.3%	39	50.6%	12	15.6%	5	6.5%	77
	High	20	24.1%	51	61.4%	5	6.0%	7	8.4%	83
	Unknown^	#	#	#	#	#	#	#	#	7
Colorectal	Low	188	41.1%	163	35.7%	65	14.2%	41	9.0%	457
	Medium	149	40.5%	137	37.2%	56	15.2%	26	7.1%	368
	High	91	35.3%	106	41.1%	37	14.3%	24	9.3%	258
	Unknown^	12	37.5%	10	31.3%	1	3.1%	9	28.1%	32
Lung and	Low	51	14.3%	110	30.8%	153	42.9%	43	12.0%	357
Bronchus	Medium	53	18.3%	70	24.1%	139	47.9%	28	9.7%	290
	High	30	12.2%	70	28.5%	119	48.4%	27	11.0%	246
	Unknown^	3	5.1%	11	18.6%	14	23.7%	31	52.5%	59
Melanoma of	Low	58	72.5%	3	3.8%	5	6.3%	14	17.5%	80
the Skin	Medium	22	59.5%	6	16.2%	4	10.8%	5	13.5%	37
	High	#	#	#	#	#	#	#	#	17
	Unknown^	#	#	#	#	#	#	#	#	4
Prostate	Low	940	77.9%	103	8.5%	29	2.4%	134	11.1%	1,206
	Medium	800	80.2%	62	6.2%	42	4.2%	93	9.3%	997
	High	562	79.8%	43	6.1%	29	4.1%	70	9.9%	704
	Unknown^	54	58.1%	2	2.2%	4	4.3%	33	35.5%	93

*Hispanics may be of any race; therefore, the categories of race and ethnicity are not mutually exclusive.
**Percent of census tract population below poverty level in 2000. The three poverty area groups are defined as follows: low poverty (< 10% of the population below the poverty level); medium poverty (10-19.99% of the population below the poverty level); and high poverty (≥ 20% of the population below the poverty level).
^Unknown poverty level includes cases that could not be geocoded to the census tract poverty level or who were geocoded to a census tract for which the 2000 U.S. Census did not provide poverty data.
#Results not displayed due to small numbers in some stages.

Table 17: New Jersey Cancer Stage Distribution by Poverty Level, 1996-2002
Hispanic* Females

Cancer	Poverty Level**	Stage at Diagnosis								Total
		In situ/Local		Regional		Distant		Unknown		
		No.	%	No.	%	No.	%	No.	%	No.
All Sites	Low	1,995	50.3%	959	24.2%	582	14.7%	432	10.9%	3,968
	Medium	1,408	46.4%	749	24.7%	513	16.9%	365	12.0%	3,035
	High	1,003	44.3%	589	26.0%	368	16.2%	306	13.5%	2,266
	Unknown^	110	29.3%	47	12.5%	33	8.8%	186	49.5%	376
Oral Cavity	Low	22	50.0%	14	31.8%	2	4.5%	6	13.6%	44
and Pharynx	Medium	20	55.6%	9	25.0%	2	5.6%	5	13.9%	36
	High	#	#	#	#	#	#	#	#	29
	Unknown^	#	#	#	#	#	#	#	#	5
Colorectal	Low	158	35.9%	181	41.1%	63	14.3%	38	8.6%	440
	Medium	157	44.4%	125	35.3%	43	12.1%	29	8.2%	354
	High	101	40.9%	91	36.8%	32	13.0%	23	9.3%	247
	Unknown^	6	16.2%	13	35.1%	2	5.4%	16	43.2%	37
Lung and	Low	39	17.4%	47	21.0%	101	45.1%	37	16.5%	224
Bronchus	Medium	28	18.7%	25	16.7%	78	52.0%	19	12.7%	150
	High	32	23.9%	37	27.6%	52	38.8%	13	9.7%	134
	Unknown^	6	15.0%	1	2.5%	5	12.5%	28	70.0%	40
Melanoma of	Low	#	#	#	#	#	#	#	#	78
the Skin	Medium	#	#	#	#	#	#	#	#	37
	High	#	#	#	#	#	#	#	#	18
	Unknown^	#	#	#	#	#	#	#	#	4
Breast	Low	950	65.6%	393	27.1%	48	3.3%	58	4.0%	1,449
	Medium	608	60.1%	304	30.0%	41	4.1%	59	5.8%	1,012
	High	389	57.8%	202	30.0%	37	5.5%	45	6.7%	673
	Unknown^	35	41.7%	18	21.4%	3	3.6%	28	33.3%	84
Cervix uteri^^	Low	79	55.2%	41	28.7%	8	5.6%	15	10.5%	143
	Medium	72	46.2%	52	33.3%	9	5.8%	23	14.7%	156
	High	85	47.5%	67	37.4%	6	3.4%	21	11.7%	179
	Unknown^	9	40.9%	5	22.7%	0	0.0%	8	36.4%	22

*Hispanics may be of any race; therefore, the categories of race and ethnicity are not mutually exclusive.
**Percent of census tract population below poverty level in 2000. The three poverty area groups are defined as follows: low poverty (< 10% of the population below the poverty level); medium poverty (10-19.99% of the population below the poverty level); and high poverty (≥ 20% of the population below the poverty level).
^Unknown poverty level includes cases that could not be geocoded to the census tract poverty level or who were geocoded to a census tract for which the 2000 U.S. Census did not provide poverty data.
^^*In situ* cancers of the cervix uteri are not included.
#Results not displayed due to small numbers in some stages.