

Diagnosis



The rates of newly diagnosed cancer cases (incidence) are one way to measure progress against cancer. The lower the rates, the better.

Another important measure is the proportion of cancers diagnosed at a late stage. The stage of a cancer shows how far the disease has progressed. The lower the stage at diagnosis, the better the chances for cure. Downward trends in the proportion of late cancer diagnoses are a sign that screening is working for the cancers for which early detection methods are available.

This section of *Cancer Progress Report 2001* provides data on the rates of new cancers in the United States—by cancer site and by racial and ethnic group. Also included are data on the proportion of cancers diagnosed at the late stage for five of the major cancer sites: breast, colon, rectum, cervix, and prostate.

DIAGNOSIS

Key Word: Incidence

Incidence

After several decades of steady increases, rates of new cancers began to decline in 1992.

Measuring New Cancer Cases

In 1998, more than half of all new cancers were cancers of the prostate, breast, lung, and colon/rectum. It is projected that there will be 1,268,000 new cases of cancer in 2001, including 198,100 prostate cancers; 192,200 female breast cancers; 169,500 lung cancers; and 135,400 cancers of the colon/rectum.

Cancer incidence usually is measured as the number of new cases each year for every 100,000 people.

Measure

Incidence rate: The number of new cancer cases per 100,000 people per year.

Period – 1973-1998

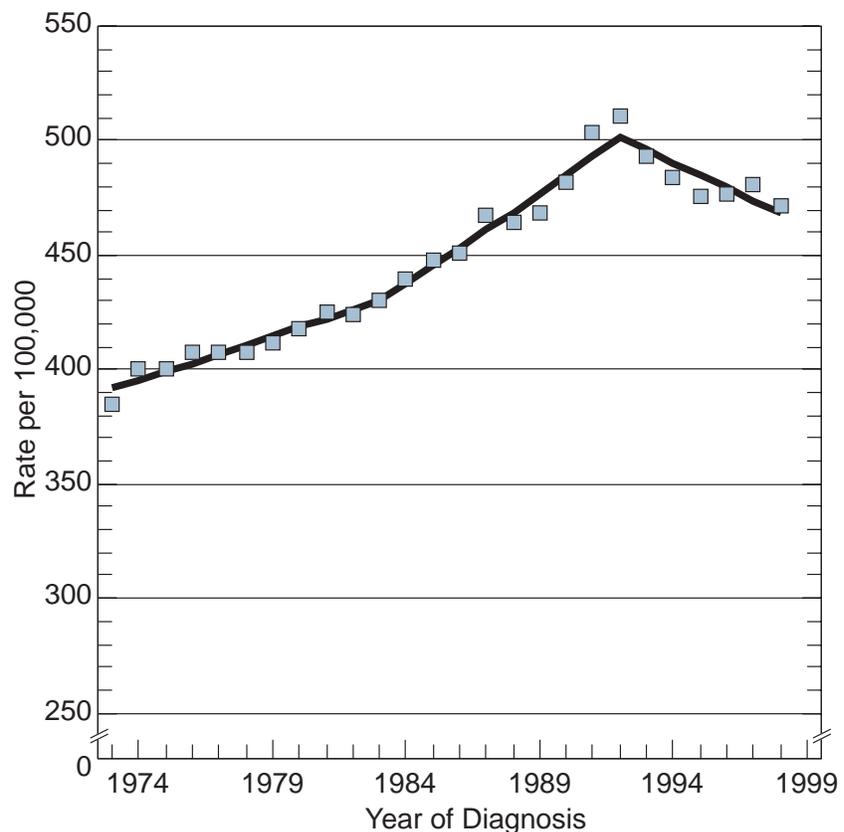
Trends – Rising, then falling slightly overall

U.S. cancer incidence for all sites combined was on the rise until early 1992, when it began to decline (Figure 18).

For the four most common cancers (Figure 19):

- The incidence of prostate cancer rose sharply beginning around 1988, peaked in 1992, and began a sharp decline until around 1995, after which it became stable.
- The incidence of breast cancer steadily increased between 1980 and 1987, and has remained stable since then. For ages 50-64, there appears to be a slight increase in recent years.
- The incidence of lung cancer increased until 1992, after which it declined slightly. However, for women the rates continue to increase, although not as rapidly as earlier.
- The incidence of colorectal cancer increased slightly until 1985. It has declined steadily since then, except for a slight rise since 1995, though this recent trend is not statistically significant.

Figure 18: Rates of New Cases of All Cancers—1973-1998



Source: SEER Program, National Cancer Institute.
Rates are per 100,000 population and age-adjusted by 5-year age groups to the 2000 U.S. standard million.

Most Recent Estimate

In 1998, the rate of new cases of all cancers was 471 per 100,000 people (Figure 18).

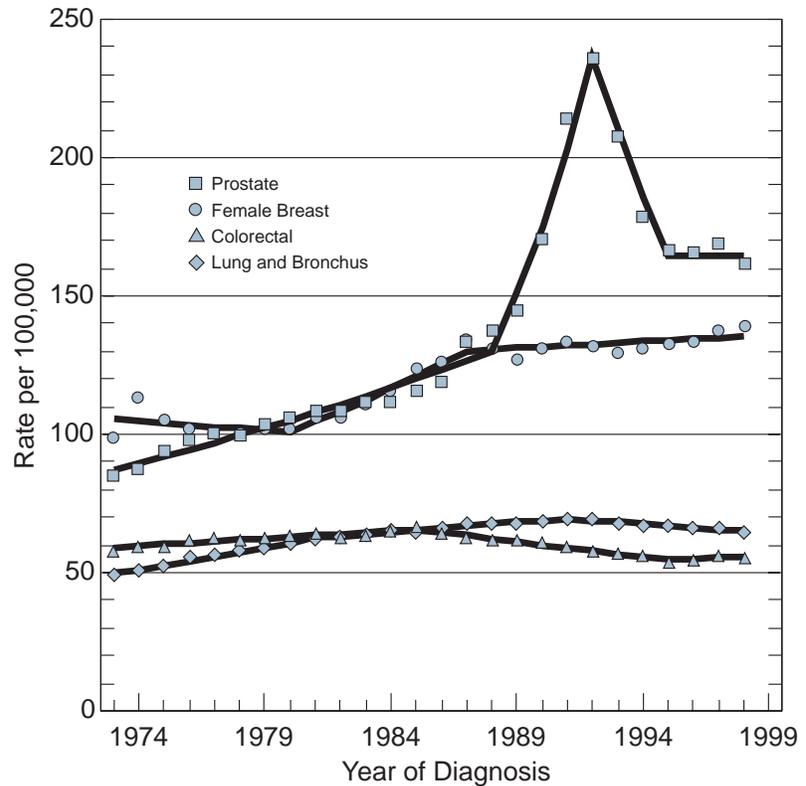
Healthy People 2010 Target

There is no Healthy People 2010 target for this measure.

Groups at High Risk for Getting New Cancers

Blacks have the highest rate of new cancers. Rates are very low among American Indians/Alaska Natives. (Figure 20.) These disparities are not likely to be due to differences in people's genes or body makeup. Rather, they are more likely to do with social, cultural, behavioral, and environmental factors.

Figure 19: Rates of New Cases of the Four Most Common Cancers—1973-1998



Source: SEER Program, National Cancer Institute.
Rates are per 100,000 population and age-adjusted by 5-year age groups to the 2000 U.S. standard million.

DIAGNOSIS

Key Word: Incidence

Incidence *(continued)*

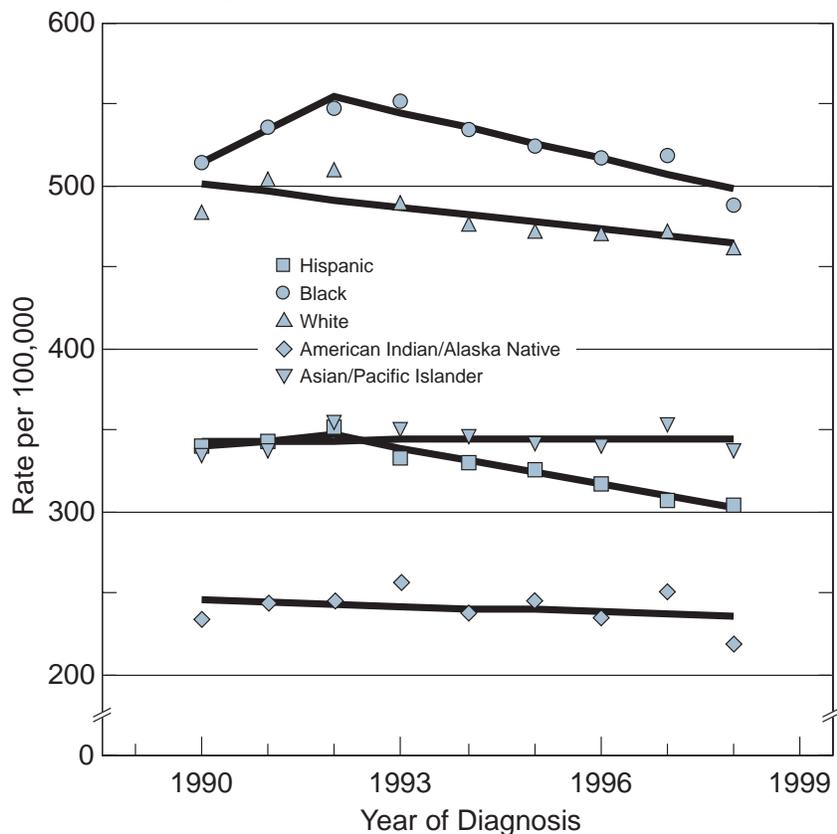
Key Issues

The rising lung cancer rate in women illustrates the need for more tobacco control efforts. This is especially important for teenage girls and young women, who are at higher risk than older women for starting to smoke and becoming addicted.

The recent increase in new breast cancers is unexplained and needs further study.

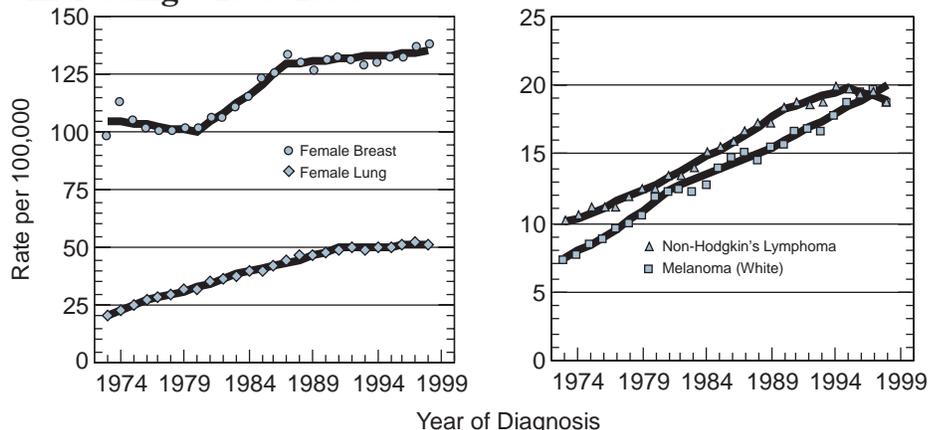
Although most major cancers are occurring less frequently, some are on the rise and require greater efforts at control. These include breast and lung cancer in women, as well as non-Hodgkin's lymphoma and melanoma in men and women (Figure 21). The incidence of some rare cancers, including liver and esophagus, also is increasing.

Figure 20: Rates of New Cases of All Cancers, by Race/Ethnicity—1990-1998



Source: SEER Program, National Cancer Institute. Rates are per 100,000 population and age-adjusted by 5-year age groups to the 2000 U.S. standard million.

Figure 21: Rates of Some Common Cancers That Are Increasing—1973-1998



Source: SEER Program, National Cancer Institute. Rates are per 100,000 population and age-adjusted by 5-year age groups to the 2000 U.S. standard million.

Stage at Diagnosis

There are fewer late-stage diagnoses for five major cancers.

Late-Stage Diagnosis of Cancer

Cancers can be diagnosed at different stages of their development. Stages at diagnosis may be expressed as numbers (I, II, III, or IV, for example) or by terms such as “localized,” “regional,” and “distant.” The lower the number or the more localized the cancer, the better a person’s chances of benefiting from treatment and being cured.

Tracking the rates of distant, or late, cancers is a good way to monitor the impact of cancer screening. When more cancers are detected in the early stages, fewer should be detected in the late stages.

Measure

Late-stage diagnosis rate: The number of new cancer cases diagnosed at a late stage, per 100,000 people per year. This report shows the rates for cancers of the prostate, colon, breast, rectum, and cervix.

Period – 1980-1998

Trends

Prostate: Falling. Late-stage prostate cancer has fallen dramatically since the early 1990s, following the introduction of the prostate-specific antigen (PSA) test.

Colon: Falling slightly

Breast: Stable

Rectum: Falling

Cervix: Falling

Most Recent Estimates

In 1998, these major cancers were diagnosed at a late stage at the following rates:

Prostate: 8 new cases per 100,000 people

Colon: 7 new cases per 100,000 people

Breast (female): 7 new cases per 100,000 people

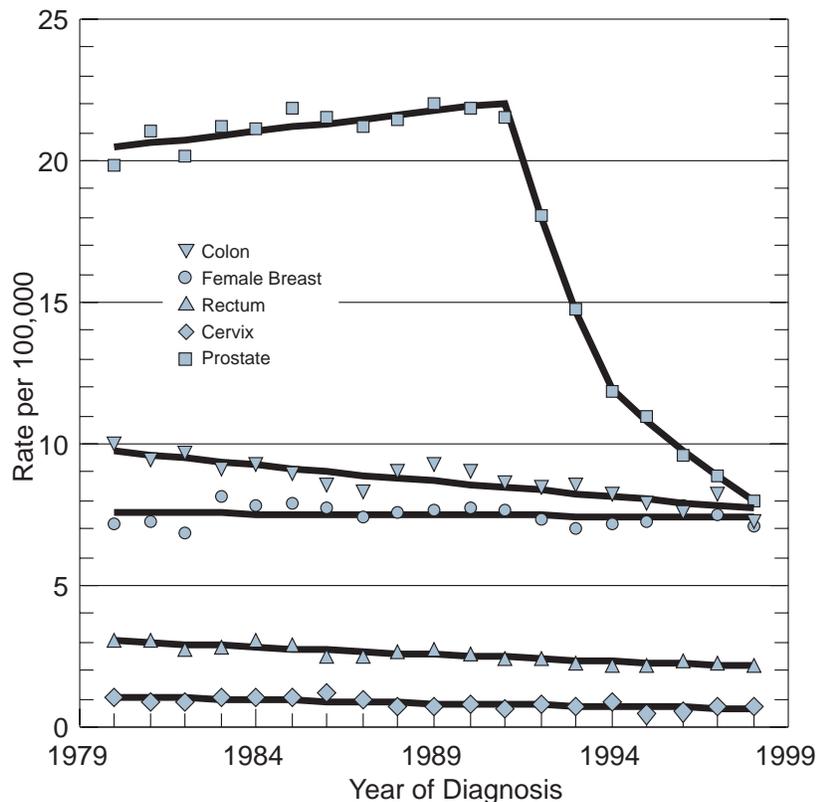
Rectum: 2 new cases per 100,000 people

Cervix: 0.7 new cases per 100,000 people

Healthy People 2010 Target

There is no Healthy People 2010 target for this measure.

Figure 22: Rates of New Cases of Late-Stage Disease, by Site—1980-1998



Source: SEER Program, National Cancer Institute. Rates are per 100,000 population and age-adjusted by 5-year age groups to the 2000 U.S. standard million.

DIAGNOSIS

Key Word: Stage

Stage at Diagnosis (continued)

Groups at High Risk for Late-Stage Diagnosis

People who do not have regular, recommended cancer screening tests are at highest risk of being diagnosed with late-stage cancer.

Key Issues

A lower rate of diagnosis at late stages is an early sign of the effectiveness of screening efforts. These lower rates can be expected to occur before decreases in death rates are seen. For example, the drop in new cases of late-stage prostate cancer probably was an early indicator of lower death rates observed for this disease.

Important differences that exist among racial and ethnic groups in the percent of cases diagnosed at a late stage contribute to disparities in cancer mortality.