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NATIONAL CANCER INSTITUTE

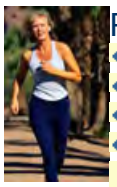
CANCER PROGRESS REPORT - 2003 Update

The *Cancer Progress Report* is about our nation's progress against cancer. The information presented on this site was gathered through a collaborative effort with other key agencies and groups, such as the Centers for Disease Control and Prevention and the American Cancer Society. The report was first issued in 2001, and will be updated again in late 2005. The 2003 update is available online only.

Suggested Citation

Report-at-a-Glance

- Overview of major conclusions
- Summary tables and trends for all measures
- Comparisons to Healthy People 2010 objectives



Prevention

- Tobacco & alcohol use
- Diet & nutrition, weight
- Sun protection
- Environment

Treatment

- Clinical trials
- Outcomes research

Early Detection

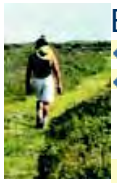
- Breast cancer screening
- Cervical cancer screening
- Colorectal cancer screening

Life After Cancer

- Survival
- Costs of cancer care

Diagnosis

- Incidence
- Stage at diagnosis



End of Life

- Mortality
- Person-years of life lost

Suggested Citation: *Cancer Progress Report - 2003 Update*, National Cancer Institute, NIH, DHHS, Bethesda, MD, February 2004, http://progressreport.cancer.gov/2003/.

Additional Contents

- Director's Message
- Introduction
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Related Resources

- FAQs
- Fact Sheet (PDF)
- Links
- Dictionary
- *Cancer Progress Report 2001*
- ***Cancer Progress Report - 2005 Update***

We welcome your feedback on the *Cancer Progress Report - 2003 Update* Web site. To submit feedback, please contact us. Thank you for helping to improve this site.

Note: This web site is best viewed in **Internet Explorer** (version 5.0 or higher) or **Netscape** (version 7.0 or higher) at a **screen resolution** of 1024 by 768 or more.

CANCER PROGRESS REPORT: 2003 UPDATE

The Cancer Progress Report updates our nation's progress against cancer. The information presented was gathered through a collaborative effort with other key agencies and groups, such as the Centers for Disease Control and Prevention and the American Cancer Society. The report was first issued in print in 2001, and will be updated again in 2005.

Visit http://progressreport.cancer.gov for:

Report-at-a-Glance

- Overview of major conclusions
- Summary tables and trends for all measures
- Comparisons to Healthy People 2010 objectives

Includes charts which summarize measures described throughout the report, and provides conclusions about the nation's progress against cancer

Prevention

- Tobacco & alcohol use
- Diet & nutrition, weight
- Sun protection
- Environment

Focuses on two kinds of factors that have been observed to affect a person's risk of getting cancer: behaviors and exposures to chemicals in the environment

Early Detection

- Breast cancer screening
- Cervical cancer screening
- Colorectal cancer screening

Describes trends in the use of mammography, pap smear, fecal occult blood test, and colorectal endoscopy

Diagnosis

- Incidence
- Stage at diagnosis

Provides data on the rates of new cancers, based on the NCI Surveillance, Epidemiology, and End Results (SEER) Program, by cancer site and by racial and ethnic group

Treatment

- Clinical trials
- Outcomes research

Summarizes trends in quality of care, clinical trials, and patterns of care

Life after Cancer

- Survival
- Costs of cancer care

Explores survival rates for cancer by each stage at diagnosis as well as the economic impact of cancer

End of Life

- Mortality
- Person-years of life lost

Provides national data not only on cancer mortality by major sites, but also in terms of years of life lost to cancer — a measure that emphasizes the tragedy of common cancers that strike people at a relatively young age

DEPARTMENT OF HEALTH & HUMAN SERVICES USA
NATIONAL INSTITUTES OF HEALTH
NATIONAL CANCER INSTITUTE

Director's Message

One important leadership function of the National Cancer Institute is to ensure that information on the nation's progress against cancer is widely disseminated to the public. The 2003 update to the *Cancer Progress Report*, first published in 2001, is a critical part of that process. This single Web site provides up-to-date information on topics across the cancer continuum—from disease prevention to the impact of deaths from cancer—and tracks the successful application of cancer research into practice. This reference is unique in the data it reports, and the comparisons it provides to the nation's Healthy People 2010 goals.

While presented in a manner that is accessible to the public, the *Cancer Progress Report - 2003 Update* is also designed to be useful to decision and policy makers. NCI has revamped the online version of the *Cancer Progress Report - 2003 Update* to make it easier to read and navigate, and we will regularly update the online report with new data.

One of my goals as NCI Director is to foster the many key partnerships that underlie this country's fight against cancer. The *Cancer Progress Report - 2003 Update* draws on data from many Federal agencies, including the Centers for Disease Control and Prevention, Department of Agriculture, Environmental Protection Agency, National Institute on Alcohol Abuse and Alcoholism, Office of Disease Prevention and Health Promotion, and Substance Abuse and Mental Health Administration. Furthermore, an external working group composed of Federal and State partners, consumer advocates, the American Cancer Society, and others oversaw the report's content, design, and production.

The overall message of the report is positive. Cancer mortality continues its gradual decline since the mid-1990s, and many preventive and early detection practices have improved. Notably, screening rates for colorectal, breast, and cervical cancer are rising, albeit modestly. The smoking rate among adolescents now appears to be heading downward, but this recent trend must be accelerated. More intense research and interventions are needed for several cancers whose death rates are on the rise, including esophageal cancer and non-Hodgkin lymphoma.

Unacceptable disparities in cancer incidence and outcomes among major racial and ethnic groups pose a difficult challenge

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against which we as a nation have invested substantial resources. Also, we still require reliable and accurate ways to measure and track the delivery of quality care to all, and we look forward to a time when progress can be reported in this area as well. Recent analyses have shown that the overall number of cancers will increase with the aging and growth of our nation's population. We are making progress, but there is much to be done before our goals are met.

The evidence that I have seen convinces me that we are poised to make dramatic gains against cancer in the near future. For example, we are currently making important gains in developing new, highly effective approaches for cancer detection, diagnosis, treatment, and prediction. These advances will, in turn, soon greatly enhance our ability to successfully preempt the suffering and death caused by cancer.

We at NCI, along with our *Cancer Progress Report - 2003 Update* partners, hope that you will find the report to be a valuable reference tool and a stimulus for action. We must not forget that numbers in this report are not just dry statistics, but reflections of the lives, suffering, and untimely deaths of millions of people. NCI remains committed to leading the way, but success against the suffering caused by cancer will always be a team effort. We all must do our part if we as a nation are to achieve the challenge goal I issued to the cancer community earlier this year: to eliminate the suffering and death caused by cancer, and to do so by the year 2015.

Andrew C. von Eschenbach, M.D.
Director, National Cancer Institute

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NATIONAL CANCER INSTITUTE CANCER PROGRESS REPORT - 2003 Update

Introduction

The nation's investment in cancer research is making a difference.

- Many people are adopting good health habits that reduce the chances of getting cancer.
- The U.S. cancer death rate began to drop for the first time in 1994.
- Many people who have had cancer live longer, and enjoy a better quality of life, than was possible years ago.

Yet cancer remains a major public health problem—one that profoundly affects the more than 1 million people diagnosed each year, as well as their families and friends.

- The decline in incidence rates of all new cancers combined has slowed with evidence of a recent rise after adjusting for delayed reporting.
- Overall, declining death rates have slowed.
- Not all cancer death rates are going down. For example, the death rate for lung cancer in females has continued to rise.
- The rates of cancer of the liver and esophagus have continued to rise, as have the rates of new cases of melanoma.
- The burden of some types of cancer weighs more heavily on some groups than others. The rates of both new cases and deaths from cancer vary by socioeconomic status, sex, and racial and ethnic group, as well as by cancer site.
- The economic burden of cancer also is taking its toll. As our nation's population grows and ages, more people will get cancer. Meanwhile, the costs of cancer diagnosis and treatment are on the rise. The combination of these trends will accelerate the overall national costs of cancer treatment.

Why a Progress Report Is Needed

For the past 32 years, our country has vigorously fought the devastating effects of cancer. Now it is time to see how far we have come. The *Cancer Progress Report - 2003 Update* is the second in a series of reports describing the nation's progress against cancer through research and related efforts. The report is based on the most recent data from the National Cancer Institute,

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the Centers for Disease Control and Prevention, other Federal agencies, professional groups, and cancer researchers.

The *Cancer Progress Report - 2003 Update* was designed to help the nation review past efforts and plan future ones. The public can use the report to better understand the nature and results of strategies to fight cancer. Researchers, clinicians, and public health providers can focus on the gaps and opportunities identified in the report, paving the way toward future progress against cancer. Policymakers can use the report to evaluate our progress relative to our investment in cancer research discovery, program development, and service delivery.

What's in the Report

The *Cancer Progress Report - 2003 Update* includes key measures of progress along the cancer continuum.

- **Prevention.** The measures in this section cover behaviors that can help people prevent cancer—the most important of which is avoiding tobacco. This section also covers exposures to chemicals in the environment.
- **Early Detection.** Screening tests provide ways to find cancers early, when there is the best chance for cure. This section describes the proportion and types of people using recommended screening tests.
- **Diagnosis.** We can learn much about progress against cancer by looking at the rates of new cancer cases (incidence) and of cancers diagnosed at late stages. This section describes both.
- **Treatment.** Few treatment measures have been tracked at a national level. This section explains the current status of treatment measures and describes the kinds of measures that are emerging from ongoing research and monitoring activities.
- **Life After Cancer.** Trends in the proportion of cancer patients alive 5 years after their diagnosis and the costs of cancer care are addressed in this section.
- **End of Life.** This section includes the rate of deaths (mortality) from cancer and the estimated number of years of life lost (person-years of life lost) due to cancer.

Where possible, the *Cancer Progress Report - 2003 Update* shows changes in these data over time (trends). All trends have been evaluated statistically and are significant, unless stable or otherwise specified. When there were sufficient numbers of data points in a series (i.e. 5 or more), the trend graphs were made using a statistical method that illustrates changes in direction, instead of merely connecting one data point to the next. This report also shows whether the trends are "rising" or "falling" using standard definitions and tests of the statistical significance of the trend (Appendix D). For some measures, differences in the cancer burden among some U.S. racial and ethnic groups also are presented.

Most of the measures in this report are identical to those in Healthy People 2010, a comprehensive set of 10-year health objectives for the nation sponsored by the U.S. Department of

Health and Human Services. This enabled us to show the nation's progress relative to Healthy People cancer-related targets for 2010.

How Data Were Selected

In selecting measures that would be meaningful to readers of this report, we relied on those measures based on scientific evidence and long-term national, rather than State or local, data collection efforts. The report includes more measures for prevention than for other segments of the continuum because more data on trends are available in that area. Some measures such as "quality of life" were not included in this report, even though they are important in assessing the cancer burden, because there simply is no consensus currently on how to best track these measures.

The data in the *Cancer Progress Report - 2003 Update* comes from a variety of systems and surveys with different collection techniques and reporting times, so time periods may vary. Where possible, 1990 was used as the starting point or baseline against which to measure how well the nation is progressing toward the Healthy People 2010 targets.

Cancer Progress Report - 2003 Update, National Cancer Institute, Bethesda, MD, February 2004, http://progressreport.cancer.gov/.

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Report-at-a-Glance

Major Conclusions

The nation is making progress toward major cancer-related Healthy People 2010 targets.

- Death rates from the four most common cancers continue to decline although the rates for all cancers combined have begun to stabilize.
- The rate of cancer incidence began to stabilize in the middle of the decade with evidence of a recent rise.
- Some prevention behaviors have shown improvement. Adult smoking is down dramatically since the 1960s, although rates fell only slightly in the 1990s. Alcohol and fat consumption are headed down, while fruit and vegetable consumption is up.
- The use of screening tests for breast, cervical, and colorectal cancers is increasing. However, screening for colorectal cancer remains low, despite its proven effectiveness.
- People are doing slightly more to protect themselves from the sun.

The nation is losing ground in other important areas that demand attention.

- The incidence of cancers of the breast and lung in women, as well as non-Hodgkin lymphoma, melanoma of skin, and liver in men and women, is rising.
- Lung cancer death rates in women continue to rise, but not as rapidly as before.
- Youth smoking was on the rise during much of the 1990s, but has shown declines since 1997.
- More people are overweight and obese, and physical activity is increasing only slightly.
- Cancer treatment spending continues to rise along with total health care spending.
- Unexplained cancer-related health disparities remain among population subgroups. For example, Blacks and people with low socioeconomic status have the highest rates of both new cancers and cancer deaths.

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- How to Read the Graphs
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Prevention

This section of the *Cancer Progress Report - 2003 Update* focuses on two kinds of factors that have been observed to affect a person's risk of getting cancer: behaviors and exposures to chemicals in the environment. Choosing the right behaviors and preventing exposure to certain chemicals may help to prevent cancers before they can start.

Behavioral Factors
Scientists estimate that as many as 50 percent to 75 percent of cancer deaths in the United States are caused by human behaviors such as smoking, physical inactivity, and poor dietary choices. The first part of the Prevention section describes trends in the following behaviors that can help to prevent cancer:

- Not using cigarettes or other tobacco products:
  - Adult smoking
    http://progressreport.cancer.gov/doc.asp?pid=1&did=21&chid=9&coid=42&mid=vpco
  - Quitting smoking
    http://progressreport.cancer.gov/doc.asp?pid=1&did=21&chid=9&coid=43&mid=vpco
  - Youth smoking
    http://progressreport.cancer.gov/doc.asp?pid=1&did=21&chid=9&coid=44&mid=vpco
  - Age of smoking initiation
    http://progressreport.cancer.gov/doc.asp?pid=1&did=21&chid=9&coid=45&mid=vpco
- Not drinking too much alcohol
  http://progressreport.cancer.gov/doc.asp?pid=1&did=21&chid=9&coid=46&mid=vpco
- Eating five or more daily servings of fruits and vegetables
  http://progressreport.cancer.gov/doc.asp?pid=1&did=21&chid=9&coid=47&mid=vpco
- Eating a low-fat diet
  http://progressreport.cancer.gov/doc.asp?pid=1&did=21&chid=9&coid=48&mid=vpco
- Eating a diet in which total calories taken in are balanced with calories expended by physical activity

Also in this Section

- Adult Smoking
- Quitting Smoking
- Youth Smoking
- Age of Smoking Initiation
- Alcohol Consumption
- Fruit and Vegetable Consumption
- Fat Consumption
- Weight
- Physical Activity
- Sun Protection
- Secondhand Smoke
- Radon in the Home
- Benzene in the Air

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- Maintaining or reaching a healthy weight
  http://progressreport.cancer.gov/doc.asp?pid=1&did=21&chid=9&coid=49&mid=vpco
- Being physically active
  http://progressreport.cancer.gov/doc.asp?pid=1&did=21&chid=9&coid=50&mid=vpco
- Protecting skin from sunlight
  http://progressreport.cancer.gov/doc.asp?pid=1&did=21&chid=9&coid=51&mid=vpco

Smoking causes about 30 percent of all U.S. deaths from cancer. Avoiding tobacco use is the single most important step Americans can take to reduce the cancer burden in this country.

Additional important steps include maintaining a healthy weight, being physically active, eating a low-fat diet and enough fruits and vegetables, balancing calories with physical activity, avoiding too much alcohol, and protecting skin from sunlight.

Environmental Factors
Certain chemicals in the environment are known to cause cancer. The second part of the Prevention section covers:

- Secondhand smoke (also known as environmental tobacco smoke)
  http://progressreport.cancer.gov/doc.asp?pid=1&did=21&chid=9&coid=52&mid=vpco
- Radon in the home
  http://progressreport.cancer.gov/doc.asp?pid=1&did=21&chid=9&coid=53&mid=vpco
- Benzene in the air
  http://progressreport.cancer.gov/doc.asp?pid=1&did=21&chid=9&coid=54&mid=vpco

These environmental measures were chosen because of the availability of reliable national data showing trends over time. Additional environmental measures will be available for future editions of this report.

Links to additional information on prevention:

- Cancer epidemiology in the last century and the next decade (Nature)
  http://www.nature.com/cgi-taf/DynaPage.taf?file=/nature/journal/v411/n6835/full/411390a0_fs.html

Not on the Web

- Harvard Report on Cancer Prevention, Volume 1: Causes of Human Cancer, Cancer Causes & Control, Volume 7 Supplement, November 1996.
- Harvard Report on Cancer Prevention, Volume 2: Prevention of Human Cancer, Cancer Causes & Control, Volume 8 Supplement, 1 November 1997.
- World Cancer Research Fund in Association with American Institute for Cancer Research. Food, nutrition and the prevention of cancer: a global perspective. Menasha, WI: BANTA Book Group. 1997.

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Prevention: Behavioral

Adult Smoking

Cigarette smoking by adults has fallen slightly since 1990.

On this page:

- Smoking and Cancer
- Measure
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- Trends
- Most Recent Estimates
- Healthy People 2010 Targets
- Groups at High Risk for Smoking
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- Links to Additional Information

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Smoking and Cancer

Cigarette smoking is the most preventable cause of death in the United States. It causes approximately 30 percent (167,000) of all U.S. cancer deaths each year.

Cigarette smoking also causes cancers of the larynx, mouth, esophagus, pharynx, and bladder. In addition, it plays a role in cancers of the pancreas, kidney, and cervix.

Cigar smoking has been found to cause cancers of the larynx, oral cavity (lip, tongue, mouth, and throat), esophagus, and lung.

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Measure

Percent of adults who were current cigarette smokers: Adults ages 18 and older who reported smoking 100 or more cigarettes in their lifetime and who, at the time of the interview, continued to smoke every day or some days.

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Period – 1991-2001

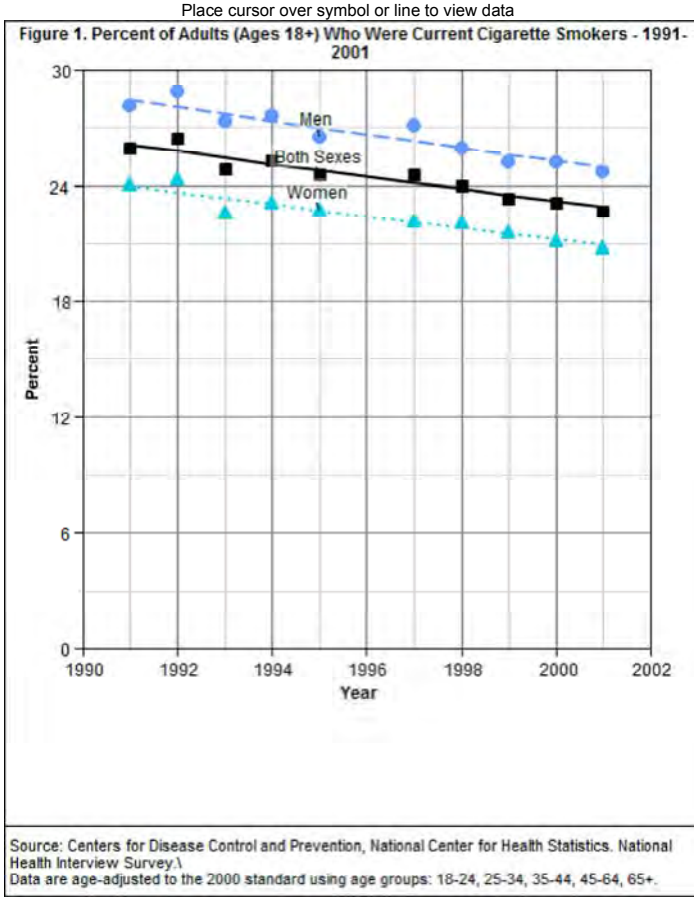
Trends – Falling slightly

Adult cigarette smoking is falling slightly for men and women and for both combined.

Graph image format: ○ [D] ◉ FLASH ○ JPEG

View details for:
Both Sexes Men Women

Place cursor over symbol or line to view data



Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute. (See Methodology for Characterizing Trends)

Download data (Excel)

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Most Recent Estimates

In 2001, 23 percent of adults—25 percent of men and 21 percent of women—were current cigarette smokers.

In 2000, 2.2 percent of adults—4.4 percent of men and 0.2 percent of women—were current cigar smokers, an increase from earlier in the decade (1992), but there is some evidence of stabilization or a slight decrease since 1998. Current cigar smokers have had at least 50 cigars in their lifetime and, at the time of the interview, continued to smoke every day or some days.

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Healthy People 2010 Targets

Reduce to 12 percent the proportion of adult current cigarette smokers.

Reduce to 1.2 percent the proportion of adult current cigar smokers.

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Groups at High Risk for Smoking

Men are more likely than women to smoke cigarettes. American Indian/Alaska Natives smoke more than Whites and Blacks, who smoke more than Hispanics and Asians.

High-risk groups include American Indian/Alaska Native women, people living below the poverty level, and those with 9 to 11 years of education.

Cigar use has increased over the decade among young and middle-aged (ages 18-44) White men with higher than average incomes and education, and among women.

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Key Issues

Although the rate of smoking has dropped by nearly half since the Surgeon General's first report on smoking in 1964 (42 percent of adults were current smokers in 1965), progress has slowed in recent years. Further decreases in tobacco use could vastly improve the public's health.

From 1993 to 1997, U.S. cigar sales soared by almost 50 percent, mostly due to increased sales of large cigars. This followed new cigar marketing approaches that began in 1992.

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Links to additional information on adult smoking:

- Smoking and Tobacco Control Monograph 9 - Cigar Health Effects and Trends (NCI)
  http://cancercontrol.cancer.gov/tcrb/monographs/9/index.html
- National Health Interview Survey (NHIS) (NCHS)
  http://www.cdc.gov/nchs/nhis.htm
- Healthy People 2010, Volume 2, Chapter 27 - Tobacco Use
  http://www.health.gov/healthypeople/Document/html/volume2/27tobacco.htm
- Smoking and Tobacco Control Monograph 9 - Cigar Health Effects and Trends: Chapter 1: Cigar Smoking Overview and Current State of the Science (NCI)
  http://cancercontrol.cancer.gov/tcrb/monographs/9/m9_1.PDF
- Cigar Smoking and Cancer (ACS)
  http://cancer.org/docroot/ped/content/ped_10_2x_cigar_smoking_and_cancer.asp
- 1964 Surgeon General Report: Reducing the Health Consequences of Smoking (CDC)
  http://www.cdc.gov/tobacco/sgr/sgr_1964/sgr64.htm

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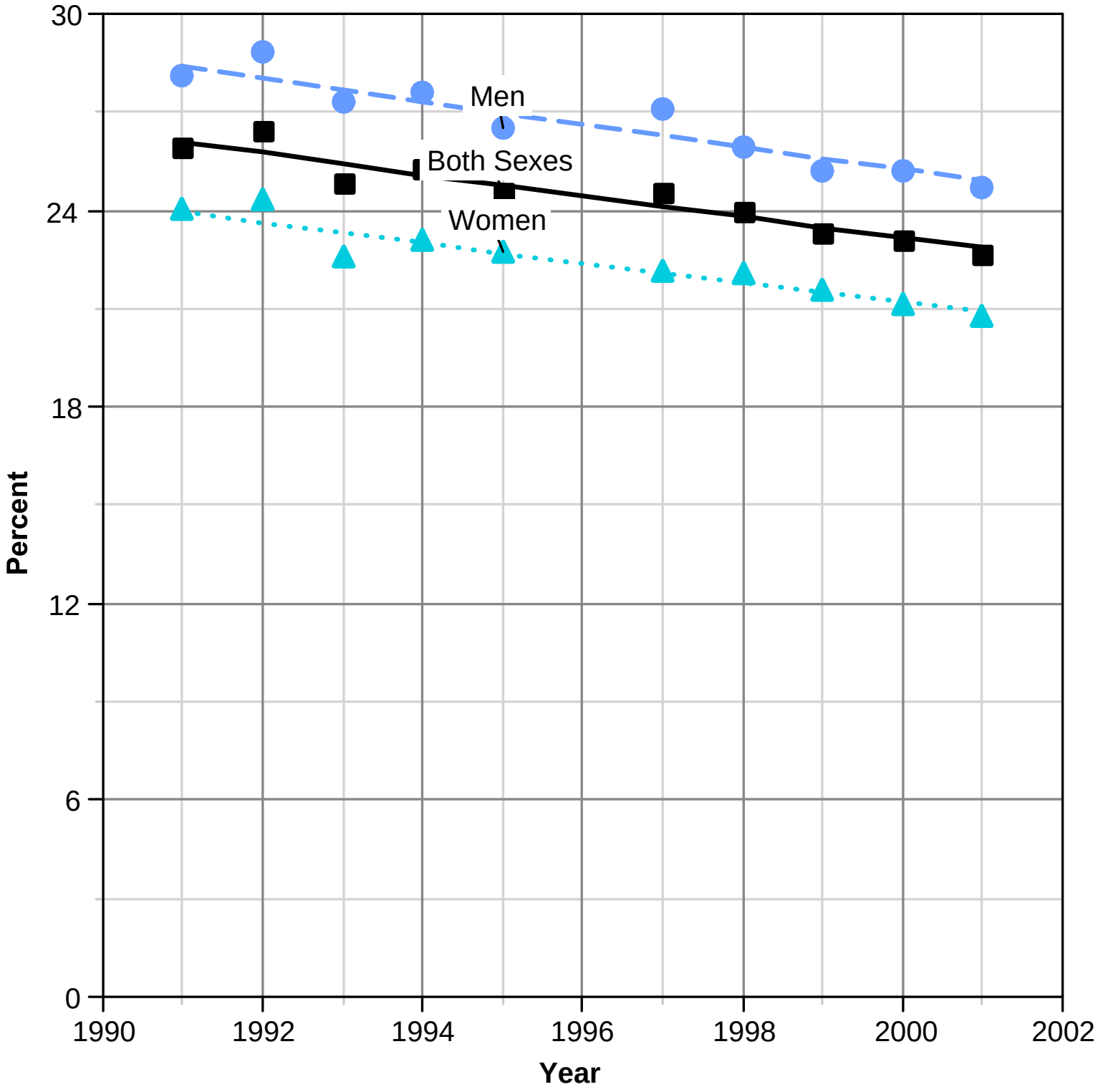
Figure 1. Percent of Adults (Ages 18+) Who Were Current Cigarette Smokers - 1991-2001



Source: Centers for Disease Control and Prevention, National Center for Health Statistics. National Health Interview Survey.\
Data are age-adjusted to the 2000 standard using age groups: 18-24, 25-34, 35-44, 45-64, 65+.

Line graph with 6 lines and 10 points per line.

x-axis title: Year
y-axis title: Percent

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Both Sexes (Scatter).
Point 1, X=1991, Y=25.9671.
Point 2, X=1992, Y=26.4769.
Point 3, X=1993, Y=24.8398.
Point 4, X=1994, Y=25.2726.
Point 5, X=1995, Y=24.5558, Note: Both Sexes.
Point 6, X=1997, Y=24.5739.
Point 7, X=1998, Y=23.9737.
Point 8, X=1999, Y=23.3416.
Point 9, X=2000, Y=23.1279.
Point 10, X=2001, Y=22.6923.
Maximum at X=1992, Y=26.4769 and minimum at X=2001, Y=22.6923.
Data series 2, Both Sexes Joinpoint (Line).
Point 1, X=1991, Y=26.0992.
Point 2, X=1992, Y=25.7588.
Point 3, X=1993, Y=25.4228.
Point 4, X=1994, Y=25.0911.
Point 5, X=1995, Y=24.7638.
Point 6, X=1997, Y=24.122.
Point 7, X=1998, Y=23.8073.
Point 8, X=1999, Y=23.4967.
Point 9, X=2000, Y=23.1902.
Point 10, X=2001, Y=22.8877.
Maximum at X=1991, Y=26.0992 and minimum at X=2001, Y=22.8877.
Data series 3, Men (Scatter).
Point 1, X=1991, Y=28.1011.
Point 2, X=1992, Y=28.8583.
Point 3, X=1993, Y=27.2827.
Point 4, X=1994, Y=27.595.
Point 5, X=1995, Y=26.5435, Note: Men.
Point 6, X=1997, Y=27.094.
Point 7, X=1998, Y=25.9216.
Point 8, X=1999, Y=25.1901.
Point 9, X=2000, Y=25.2377.
Point 10, X=2001, Y=24.7204.
Maximum at X=1992, Y=28.8583 and minimum at X=2001, Y=24.7204.
Data series 4, Men Joinpoint (Line).
Point 1, X=1991, Y=28.4165.
Point 2, X=1992, Y=28.0462.
Point 3, X=1993, Y=27.6807.
Point 4, X=1994, Y=27.32.
Point 5, X=1995, Y=26.964.
Point 6, X=1997, Y=26.2659.
Point 7, X=1998, Y=25.9236.
Point 8, X=1999, Y=25.5858.
Point 9, X=2000, Y=25.2524.
Point 10, X=2001, Y=24.9234.
Maximum at X=1991, Y=28.4165 and minimum at X=2001, Y=24.9234.
Data series 5, Women (Scatter).
Point 1, X=1991, Y=24.0247.
Point 2, X=1992, Y=24.3107.
Point 3, X=1993, Y=22.5912.
Point 4, X=1994, Y=23.1075.
Point 5, X=1995, Y=22.7239, Note: Women.
Point 6, X=1997, Y=22.1773.
Point 7, X=1998, Y=22.0777.
Point 8, X=1999, Y=21.5772.
Point 9, X=2000, Y=21.1333.
Point 10, X=2001, Y=20.7977.
Maximum at X=1992, Y=24.3107 and minimum at X=2001, Y=20.7977.
Data series 6, Women Joinpoint (Line).
Point 1, X=1991, Y=23.9441.
Point 2, X=1992, Y=23.6267.
Point 3, X=1993, Y=23.3135.
Point 4, X=1994, Y=23.0044.
Point 5, X=1995, Y=22.6995.
Point 6, X=1997, Y=22.1016.
Point 7, X=1998, Y=21.8086.
Point 8, X=1999, Y=21.5195.
Point 9, X=2000, Y=21.2342.
Point 10, X=2001, Y=20.9527.
Maximum at X=1991, Y=23.9441 and minimum at X=2001, Y=20.9527.

Source: Centers for Disease Control and Prevention, National Center for Health Statistics. National Health Interview Survey.\
Data are age-adjusted to the 2000 standard using age groups: 18-24, 25-34, 35-44, 45-64, 65+.

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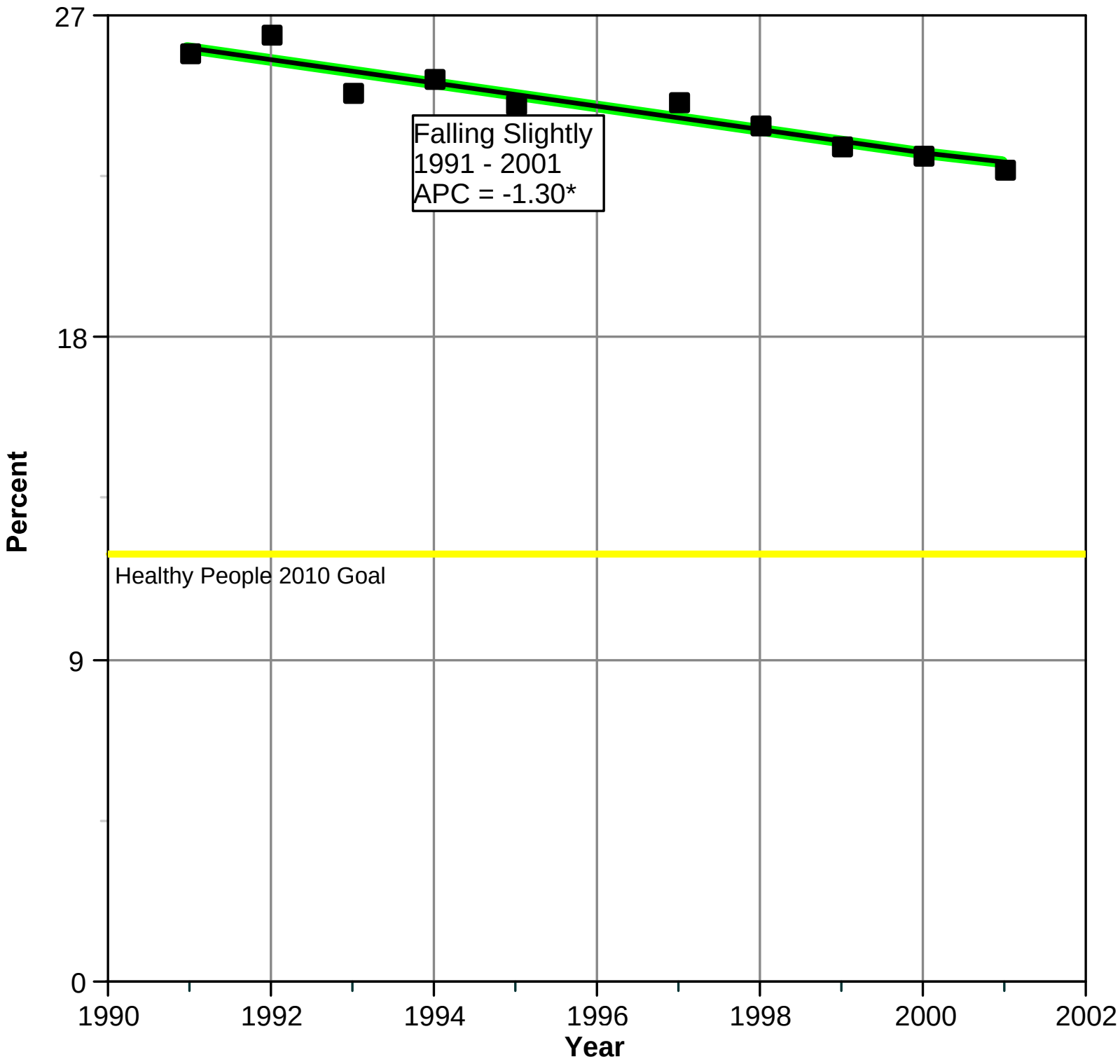
Figure 1a. Percent of Adults (Ages 18+) Who Were Current Cigarette Smokers, Both Sexes - 1991-2001



Healthy People 2010 Goal 27-1a: 12%.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.

Close window

Line graph with 2 lines and 10 points per line.

x-axis title: Year
y-axis title: Percent

X scale titled Scale label.
Y scale titled Scale label.
Scale Marker 1 on Y scale, line at 12. Scale marker text: Healthy People 2010 Goal
Data series 1, Both Sexes (Scatter).
Point 1, X=1991, Y=25.9671.
Point 2, X=1992, Y=26.4769.
Point 3, X=1993, Y=24.8398.
Point 4, X=1994, Y=25.2726.
Point 5, X=1995, Y=24.5558, Note: Falling Slightly 1991 - 2001 APC = -1.30*.
Point 6, X=1997, Y=24.5739.
Point 7, X=1998, Y=23.9737.
Point 8, X=1999, Y=23.3416.
Point 9, X=2000, Y=23.1279.
Point 10, X=2001, Y=22.6923.
Maximum at X=1992, Y=26.4769 and minimum at X=2001, Y=22.6923.
Data series 2, Both Sexes Joinpoint (Line).
Point 1, X=1991, Y=26.0992.
Point 2, X=1992, Y=25.7588.
Point 3, X=1993, Y=25.4228.
Point 4, X=1994, Y=25.0911.
Point 5, X=1995, Y=24.7638.
Point 6, X=1997, Y=24.122.
Point 7, X=1998, Y=23.8073.
Point 8, X=1999, Y=23.4967.
Point 9, X=2000, Y=23.1902.
Point 10, X=2001, Y=22.8877.
Maximum at X=1991, Y=26.0992 and minimum at X=2001, Y=22.8877.

Healthy People 2010 Goal 27-1a: 12%.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.

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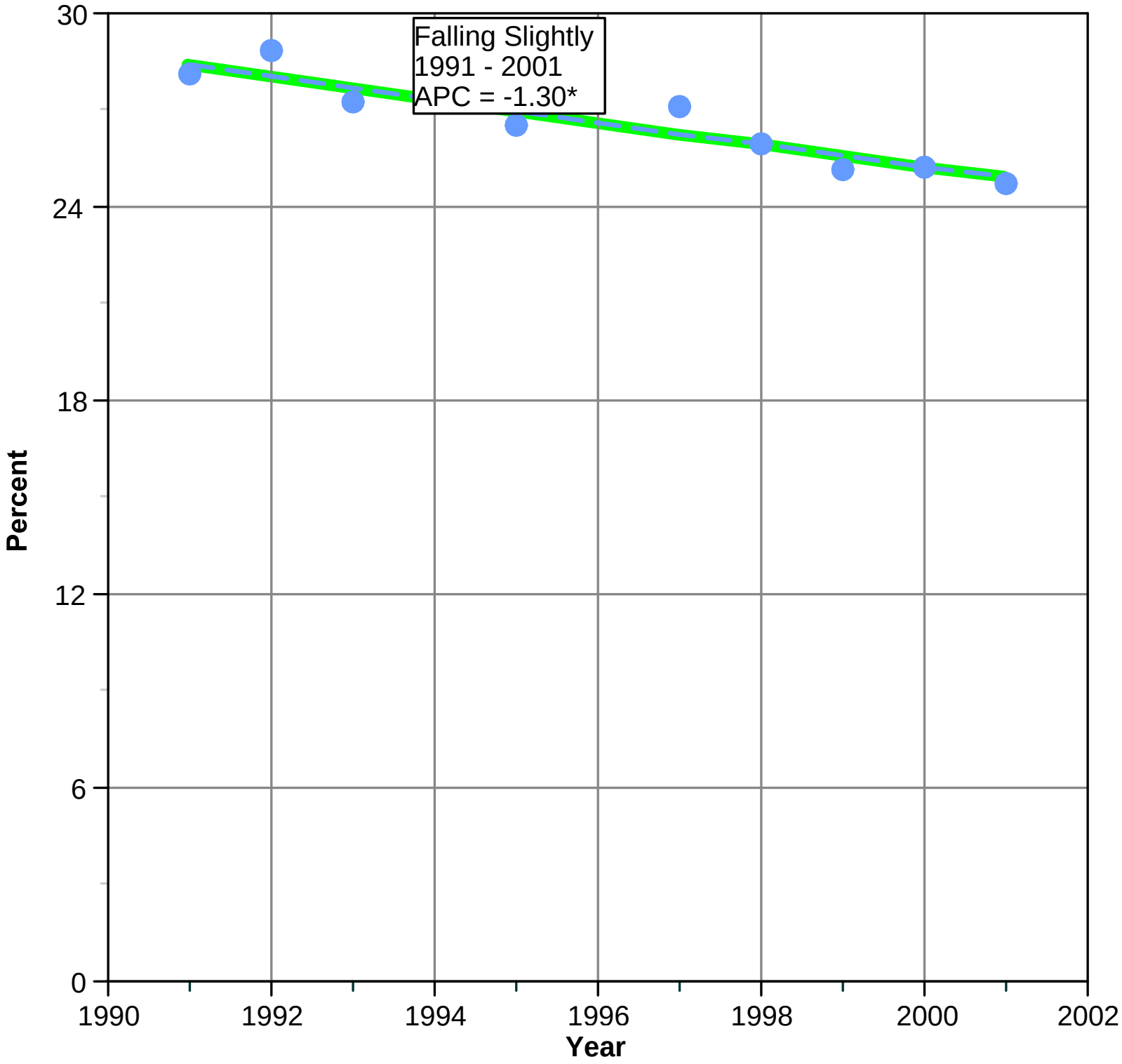
Close window

Figure 1b. Percent of Adults (Ages 18+) Who Were Current Cigarette Smokers, Men - 1991-2001



No Healthy People 2010 Target Goal for men.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.

Close window

Line graph with 2 lines and 10 points per line.

x-axis title: Year
y-axis title: Percent

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Men (Scatter).
Point 1, X=1991, Y=28.1011.
Point 2, X=1992, Y=28.8583.
Point 3, X=1993, Y=27.2827.
Point 4, X=1994, Y=27.595.
Point 5, X=1995, Y=26.5435, Note: Falling Slightly 1991 - 2001 APC = -1.30*.
Point 6, X=1997, Y=27.094.
Point 7, X=1998, Y=25.9216.
Point 8, X=1999, Y=25.1901.
Point 9, X=2000, Y=25.2377.
Point 10, X=2001, Y=24.7204.
Maximum at X=1992, Y=28.8583 and minimum at X=2001, Y=24.7204.
Data series 2, Men Joinpoint (Line).
Point 1, X=1991, Y=28.4165.
Point 2, X=1992, Y=28.0462.
Point 3, X=1993, Y=27.6807.
Point 4, X=1994, Y=27.32.
Point 5, X=1995, Y=26.964.
Point 6, X=1997, Y=26.2659.
Point 7, X=1998, Y=25.9236.
Point 8, X=1999, Y=25.5858.
Point 9, X=2000, Y=25.2524.
Point 10, X=2001, Y=24.9234.
Maximum at X=1991, Y=28.4165 and minimum at X=2001, Y=24.9234.

No Healthy People 2010 Target Goal for men.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.

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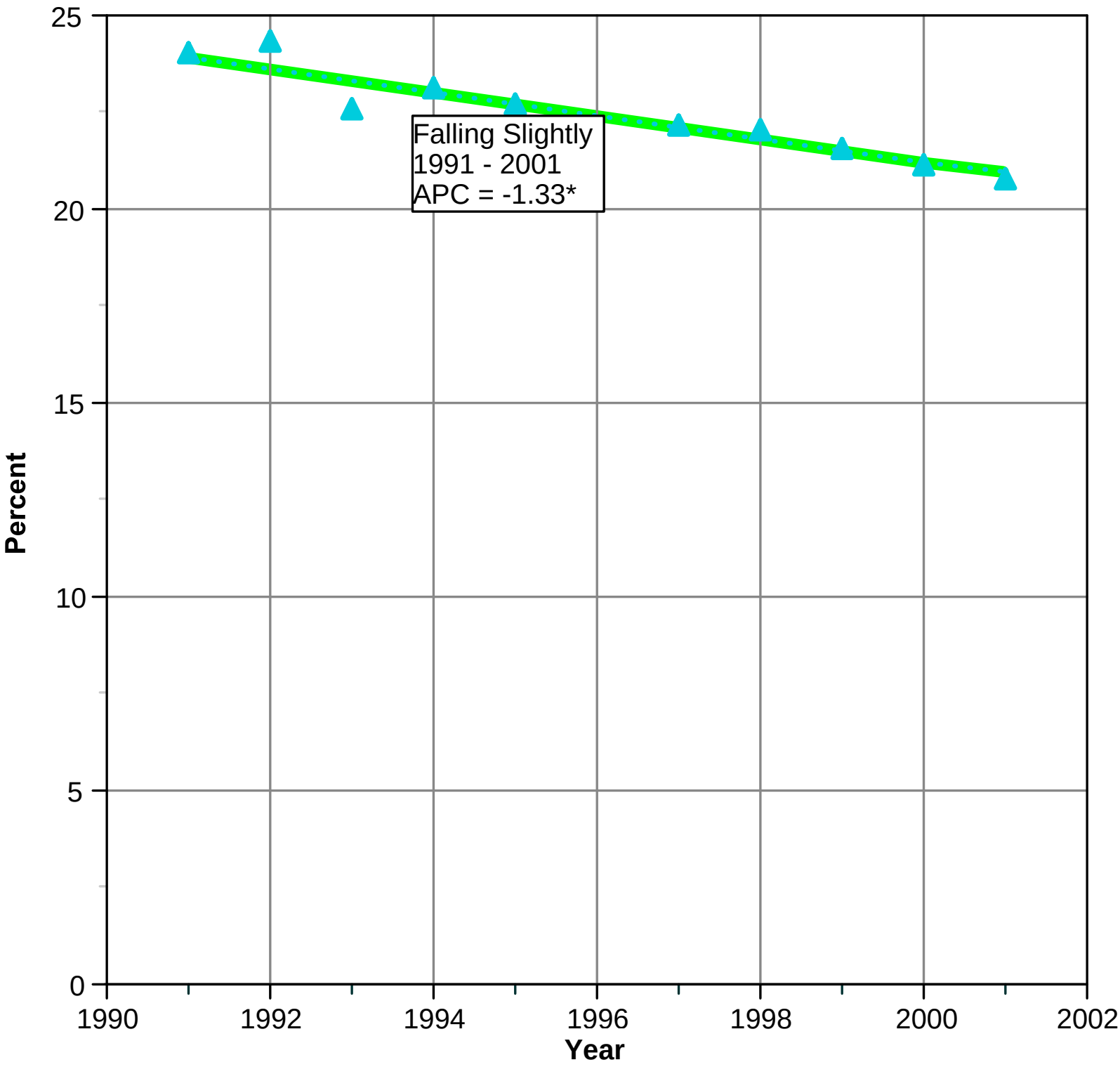
Close window

Figure 1c. Percent of Adults (Ages 18+) Who Were Current Cigarette Smokers, Women - 1991-2001



No Healthy People 2010 Target Goal for women.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.

Close window

Line graph with 2 lines and 10 points per line.

x-axis title: Year
y-axis title: Percent

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Women (Scatter).
Point 1, X=1991, Y=24.0247.
Point 2, X=1992, Y=24.3107.
Point 3, X=1993, Y=22.5912.
Point 4, X=1994, Y=23.1075.
Point 5, X=1995, Y=22.7239, Note: Falling Slightly 1991 - 2001 APC = -1.33*.
Point 6, X=1997, Y=22.1773.
Point 7, X=1998, Y=22.0777.
Point 8, X=1999, Y=21.5772.
Point 9, X=2000, Y=21.1333.
Point 10, X=2001, Y=20.7977.
Maximum at X=1992, Y=24.3107 and minimum at X=2001, Y=20.7977.
Data series 2, Women Joinpoint (Line).
Point 1, X=1991, Y=23.9441.
Point 2, X=1992, Y=23.6267.
Point 3, X=1993, Y=23.3135.
Point 4, X=1994, Y=23.0044.
Point 5, X=1995, Y=22.6995.
Point 6, X=1997, Y=22.1016.
Point 7, X=1998, Y=21.8086.
Point 8, X=1999, Y=21.5195.
Point 9, X=2000, Y=21.2342.
Point 10, X=2001, Y=20.9527.
Maximum at X=1991, Y=23.9441 and minimum at X=2001, Y=20.9527.

No Healthy People 2010 Target Goal for women.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.

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Close window

Prevention: Behavioral

Quitting Smoking

Adult quitting rates are improving after a decline in the early 1990s.

On this page:

- The Effects of Quitting Smoking on Cancer
- Measures
- Period
- Trends
- Most Recent Estimate
- Healthy People 2010 Target
- Groups at High Risk for Not Quitting
- Key Issues

Also in this Section
- Adult Smoking
- **Quitting Smoking**
- Youth Smoking
- Age of Smoking Initiation
- Alcohol Consumption
- Fruit and Vegetable Consumption
- Fat Consumption
- Weight
- Physical Activity
- Sun Protection
- Secondhand Smoke
- Radon in the Home
- Benzene in the Air

Also in the *Report*
- Report-at-a-Glance
- Prevention
- Early Detection
- Diagnosis
- Treatment
- Life After Cancer
- End of Life

The Effects of Quitting Smoking on Cancer

Ten years after quitting smoking, a person's risk of getting lung cancer is about one-third to one-half that of people who continue to smoke. The longer the time off cigarettes, the lower the risk. Quitting also reduces the risk of getting cancers of the larynx, esophagus, pancreas, bladder, and cervix.

The sooner one quits smoking, the better. Long-term smokers who stop smoking at around 50 or 60 years of age are less likely to get lung cancer than are people who continue to smoke. Quitting at around age 30 lowers this risk even more.

The quickest non-cancer health benefit of quitting is a lower risk of coronary heart disease. This risk is cut in half within 1 year after quitting. After 15 years, the chance of getting the disease is similar to that of people who never smoked.

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Measures

Those persons (ages 25 and older) who attempted to quit during the past year, among those who reported being a daily cigarette smoker about a year ago.

Those persons (ages 25 and older) who successfully quit smoking cigarettes for 3 months or longer in the past year, among those who reported being a daily smoker about a year ago.

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Period – 1992-1993, 1995-1996, and 1998-1999

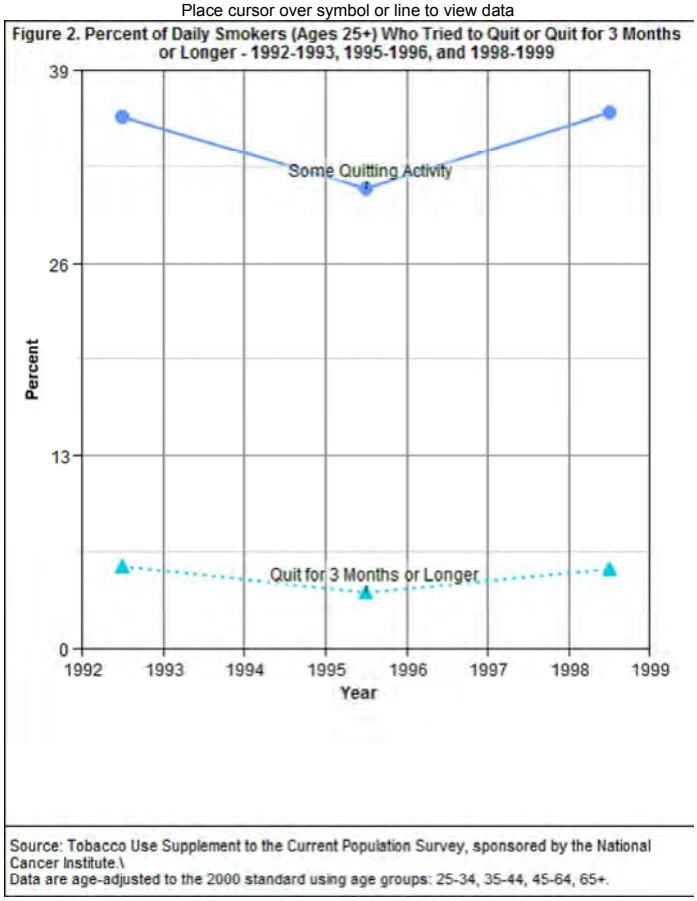
Trends – Falling, then rising

Between 1992-1993 and 1995-1996, there was a clear decline in attempts to quit smoking, as well as in successful longer-term quitting. From 1995-1996 to 1998-1999, both quit attempts and successes increased.

Graph image format: ○ [D] ◉ FLASH ○ JPEG

View details for:
Some Quitting Activity Quit for 3 Months or Longer

Place cursor over symbol or line to view data



Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.

Download data (Excel)

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Most Recent Estimates

In 1998-1999, at least 36 percent of those who reported daily smoking a year ago made some attempt to quit in the past year. Five percent of those reporting daily smoking a year ago were able to stay off cigarettes for 3 months or longer at the time of the survey.

In 2001, 42 percent of adult smokers (ages 18 and older) stopped smoking for a day or longer because they were trying to quit.

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Healthy People 2010 Target

Increase to 75 percent the proportion of adult smokers (ages 18 and older) who stopped smoking for a day or longer because they were trying to quit.

There are no targets in Healthy People 2010 for the other quit measures in this report.

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Groups at High Risk for Not Quitting

Older smokers (ages 65 years and older) are much less likely to try to quit. However, once they do quit, this group is more likely to be successful for 3 months or longer.

Blacks have higher rates of trying to quit than Whites, but lower rates of successfully quitting for 3 months or longer.

Smokers with lower levels of education and income are less likely to be successful quitters.

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Key Issues

Studies show that most smokers want to quit.

Efforts to reduce smoking are most effective when multiple techniques are used, including educational, clinical, regulatory, and economic interventions (for example, increasing excise taxes), along with media campaigns and other social strategies.

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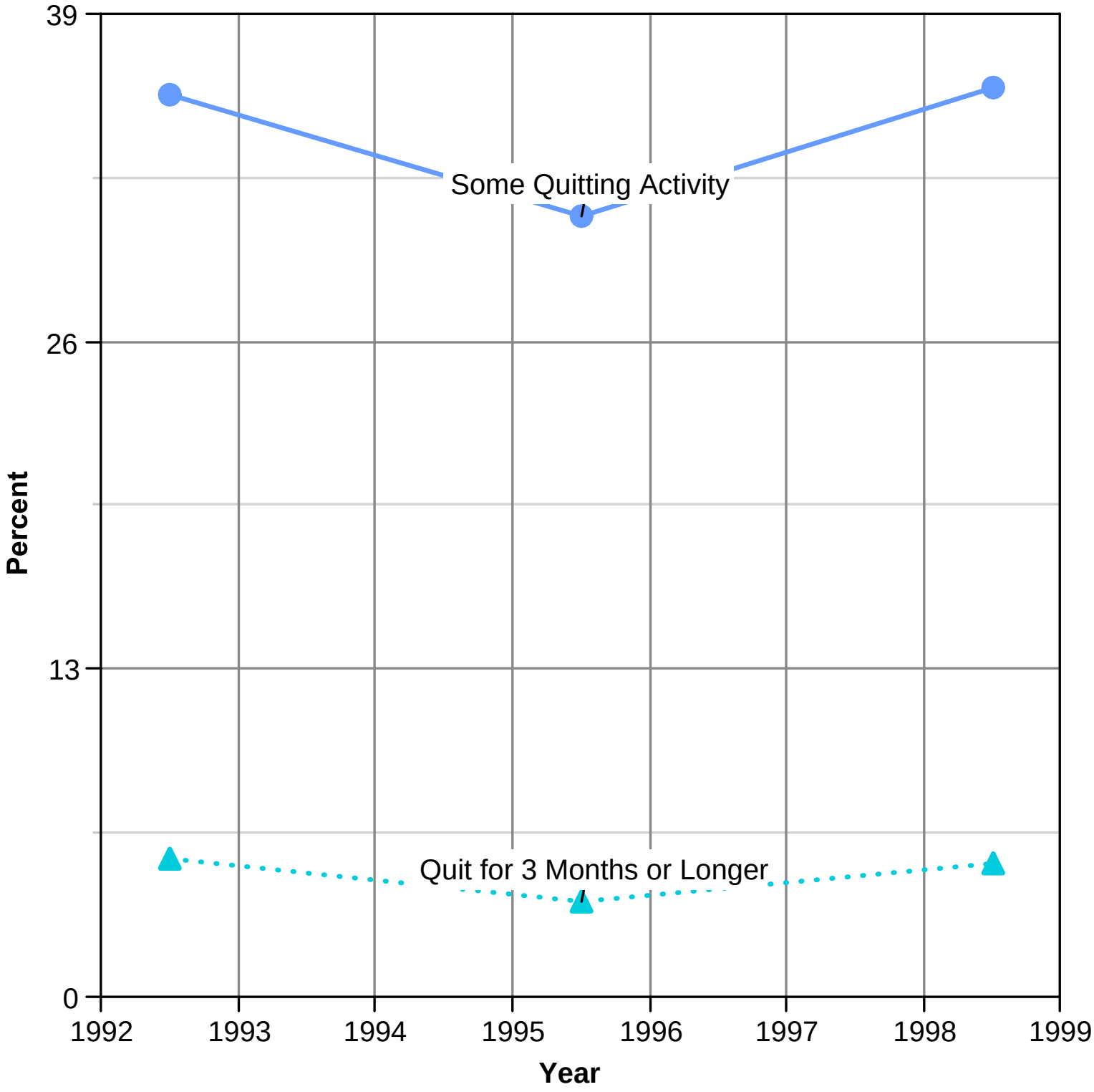
Figure 2. Percent of Daily Smokers (Ages 25+) Who Tried to Quit or Quit for 3 Months or Longer - 1992-1993, 1995-1996, and 1998-1999



Source: Tobacco Use Supplement to the Current Population Survey, sponsored by the National Cancer Institute.\
Data are age-adjusted to the 2000 standard using age groups: 25-34, 35-44, 45-64, 65+.

Line graph with 2 lines and 3 points per line.

x-axis title: Year
y-axis title: Percent

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Some Quitting Activity (Line).
Point 1, X=1992.5, Y=35.76121.
Point 2, X=1995.5, Y=30.99326, Note: Some Quitting Activity.
Point 3, X=1998.5, Y=36.11015.
Maximum at X=1998.5, Y=36.11015 and minimum at X=1995.5, Y=30.99326.
Data series 2, Quit for 3 Months or Longer (Line).
Point 1, X=1992.5, Y=5.44996.
Point 2, X=1995.5, Y=3.80029, Note: Quit for 3 Months or Longer.
Point 3, X=1998.5, Y=5.27571.
Maximum at X=1992.5, Y=5.44996 and minimum at X=1995.5, Y=3.80029.

Source: Tobacco Use Supplement to the Current Population Survey, sponsored by the National Cancer Institute.\
Data are age-adjusted to the 2000 standard using age groups: 25-34, 35-44, 45-64, 65+.

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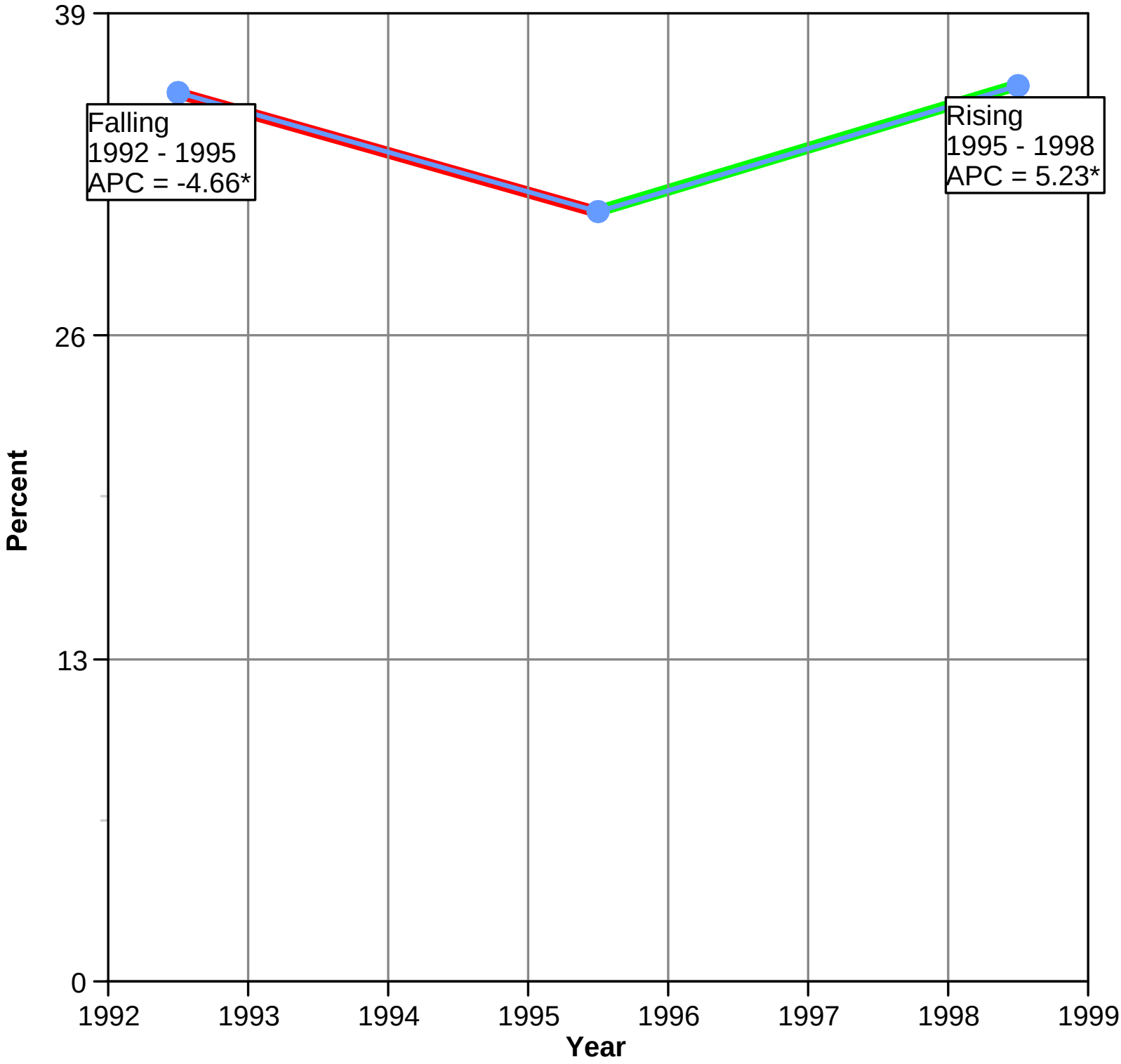
Figure 2a. Percent of Daily Smokers (Ages 25+) Who Tried to Quit - 1992-1993, 1995-1996, and 1998-1999



No Healthy People 2010 Target Goal for people who tried to quit.\
Graph is similar to Healthy People 2010 Goal 27-5: Increase to 75% the proportion of adult smokers (ages 18 and older) who stopped smoking for a day or longer because they were trying to quit. Data in this graph are for a 25+ age range, which differs from the 18+ age range for Healthy People 2010 goal 27-5.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.\
* The Annual Percent Change (APC) is statistically significant.

Close window

Line graph with 1 lines and 3 points per line.

x-axis title: Year
y-axis title: Percent

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Some Quitting Activity (Line).
Point 1, X=1992.5, Y=35.76121, Note: Falling 1992 - 1995 APC = -4.66*.
Point 2, X=1995.5, Y=30.99326.
Point 3, X=1998.5, Y=36.11015, Note: Rising 1995 - 1998 APC = 5.23*.
Maximum at X=1998.5, Y=36.11015 and minimum at X=1995.5, Y=30.99326.

No Healthy People 2010 Target Goal for people who tried to quit.\
Graph is similar to Healthy People 2010 Goal 27-5: Increase to 75% the proportion of adult smokers (ages 18 and older) who stopped smoking for a day or longer because they were trying to quit. Data in this graph are for a 25+ age range, which differs from the 18+ age range for Healthy People 2010 goal 27-5.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.\
* The Annual Percent Change (APC) is statistically significant.

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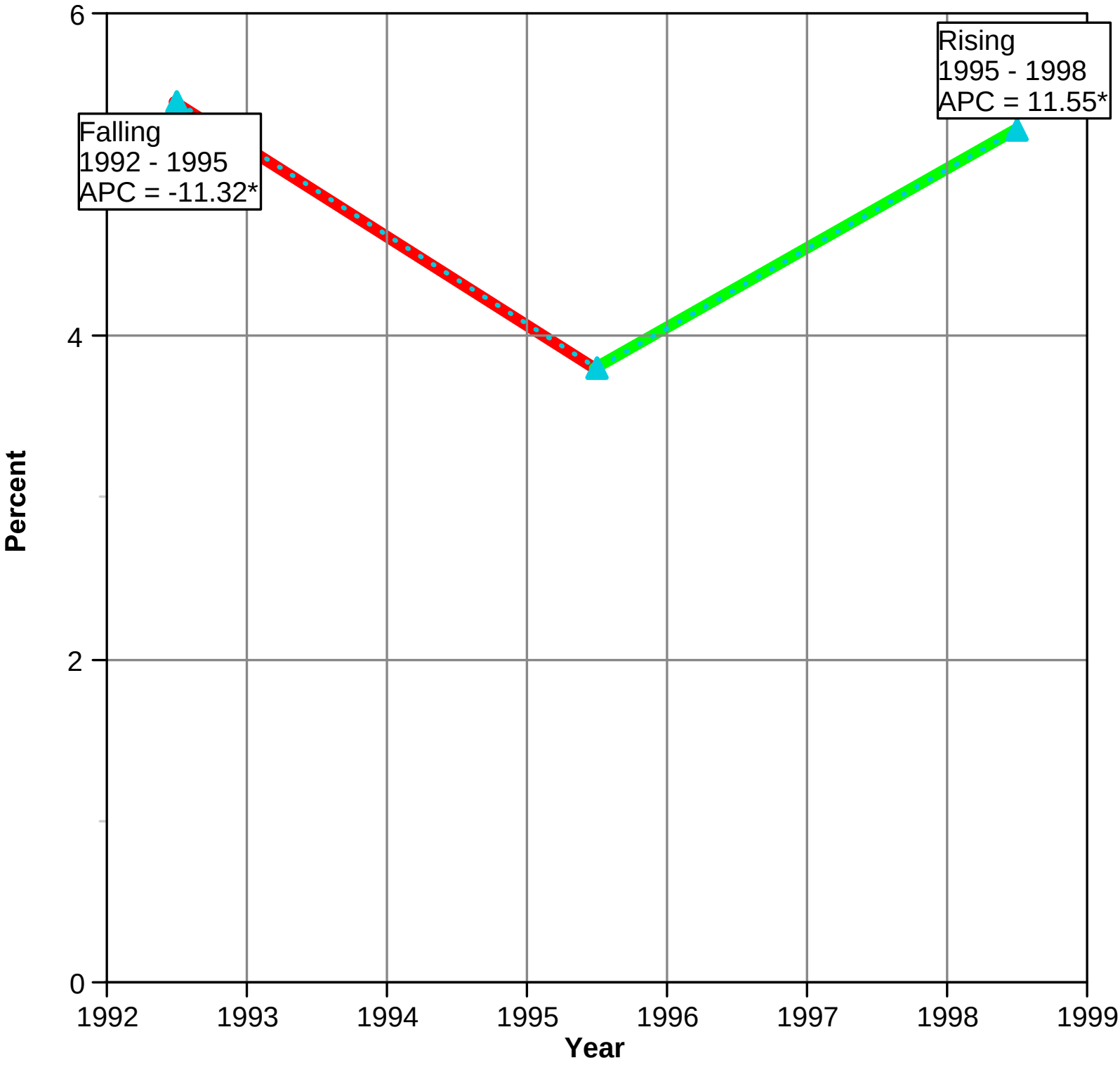
Close window

Figure 2b. Percent of Daily Smokers (Ages 25+) Who Quit for 3 Months or Longer - 1992-1993, 1995-1996, and 1998-1999



No Healthy People 2010 Target Goal for people who quit for 3 months or longer.\
Graph is similar to Healthy People 2010 Goal 27-5: Increase to 75% the proportion of adult smokers (ages 18 and older) who stopped smoking for a day or longer because they were trying to quit. Data in this graph are for a 25+ age range, which differs from the 18+ age range for Healthy People 2010 goal 27-5.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.\
* The Annual Percent Change (APC) is statistically significant.

Close window

Line graph with 1 lines and 3 points per line.

x-axis title: Year
y-axis title: Percent

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Quit for 3 Months or Longer (Line).
Point 1, X=1992.5, Y=5.44996, Note: Falling 1992 - 1995 APC = -11.32*.
Point 2, X=1995.5, Y=3.80029.
Point 3, X=1998.5, Y=5.27571, Note: Rising 1995 - 1998 APC = 11.55*.
Maximum at X=1992.5, Y=5.44996 and minimum at X=1995.5, Y=3.80029.

No Healthy People 2010 Target Goal for people who quit for 3 months or longer.\
Graph is similar to Healthy People 2010 Goal 27-5: Increase to 75% the proportion of adult smokers (ages 18 and older) who stopped smoking for a day or longer because they were trying to quit. Data in this graph are for a 25+ age range, which differs from the 18+ age range for Healthy People 2010 goal 27-5.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.\
* The Annual Percent Change (APC) is statistically significant.

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Close window

Prevention: Behavioral

Youth Smoking

Cigarette smoking by high school students rose earlier in the 1990s, but has fallen more recently. Smokeless tobacco use appears to be falling.

On this page:

- Youth Tobacco Use and Cancer
- Measure
- Period
- Trends
- Most Recent Estimates
- Healthy People 2010 Targets
- Groups at High Risk for Tobacco Use
- Key Issues
- Links to Additional Information

Also in this Section
- Adult Smoking
- Quitting Smoking
- **Youth Smoking**
- Age of Smoking Initiation
- Alcohol Consumption
- Fruit and Vegetable Consumption
- Fat Consumption
- Weight
- Physical Activity
- Sun Protection
- Secondhand Smoke
- Radon in the Home
- Benzene in the Air

Also in the *Report*
- Report-at-a-Glance
- Prevention
- Early Detection
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Youth Tobacco Use and Cancer

For most of the 1990s, about 3,000 youth under 18 became regular cigarette smokers each day. This has declined recently to just over 2,000 each day. Of these 2,000, nearly 700 will die early due to lung cancer or other tobacco-related diseases.

Other forms of tobacco used by young people include smokeless tobacco (chewing tobacco and snuff, also known as spit tobacco), cigars, and bidis (small, brown, hand-rolled, flavored cigarettes). Each of these also can cause cancer.

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Measure

Percent of high school students who were current cigarette or smokeless tobacco users: Students (grades 9 to 12) who reported having used cigarettes or smokeless tobacco in the 30 days before the survey.

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Period – 1991-2001

Trends

Cigarettes:
The data show that after a rise from 1991 to 1997 current cigarette smoking among youth has fallen since 1997, although this more recent trend is not statistically significant.

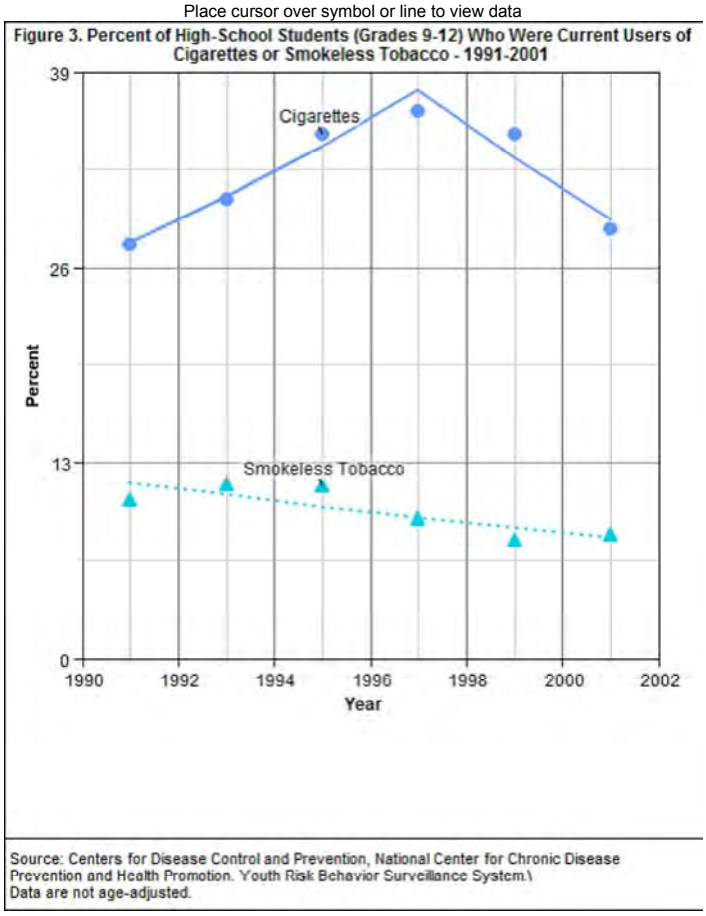
Smokeless tobacco:
Current smokeless tobacco use is falling.

The source of trend data used in this report does not provide data for use of either "any tobacco" or cigars before 1997.

Graph image format: ○ [D] ◉ FLASH ○ JPEG

View details for:
Cigarettes Smokeless Tobacco

Place cursor over symbol or line to view data



Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute. (See Methodology for Characterizing Trends)

Download data (Excel)

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Most Recent Estimates

Among high school students in 2001:

- 29 percent were current cigarette smokers.
- 8 percent were current users of smokeless tobacco.
- 15 percent were current cigar smokers.
- 34 percent were current users of "any tobacco."

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Healthy People 2010 Targets

Decrease the proportion of high school students who currently:

- Smoke cigarettes to 16 percent.
- Use smokeless tobacco to 1 percent.
- Smoke cigars to 8 percent.
- Use any tobacco to 21 percent.

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Groups at High Risk for Tobacco Use

White, non-Hispanic students are more likely to smoke cigarettes than are Hispanic students, who in turn are more likely to smoke than Black, non-Hispanic students.

High school boys are much more likely than girls to use smokeless tobacco, cigars, pipes, and bidis. Overall, White high school students are much more likely than Black high school students to report current cigar use.

In 1999, among middle school students, Blacks were much more likely than Whites to smoke cigars.

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Key Issues

Since 1997, current smoking began to decline among 9th-11th graders. However, it has risen steadily among 12th graders until more recently, when it has shown some decline.

In 1999, 13 percent of middle school students (grades 6 to 8) reported using some form of tobacco in the past month. Cigarettes were the most popular, followed by cigars.

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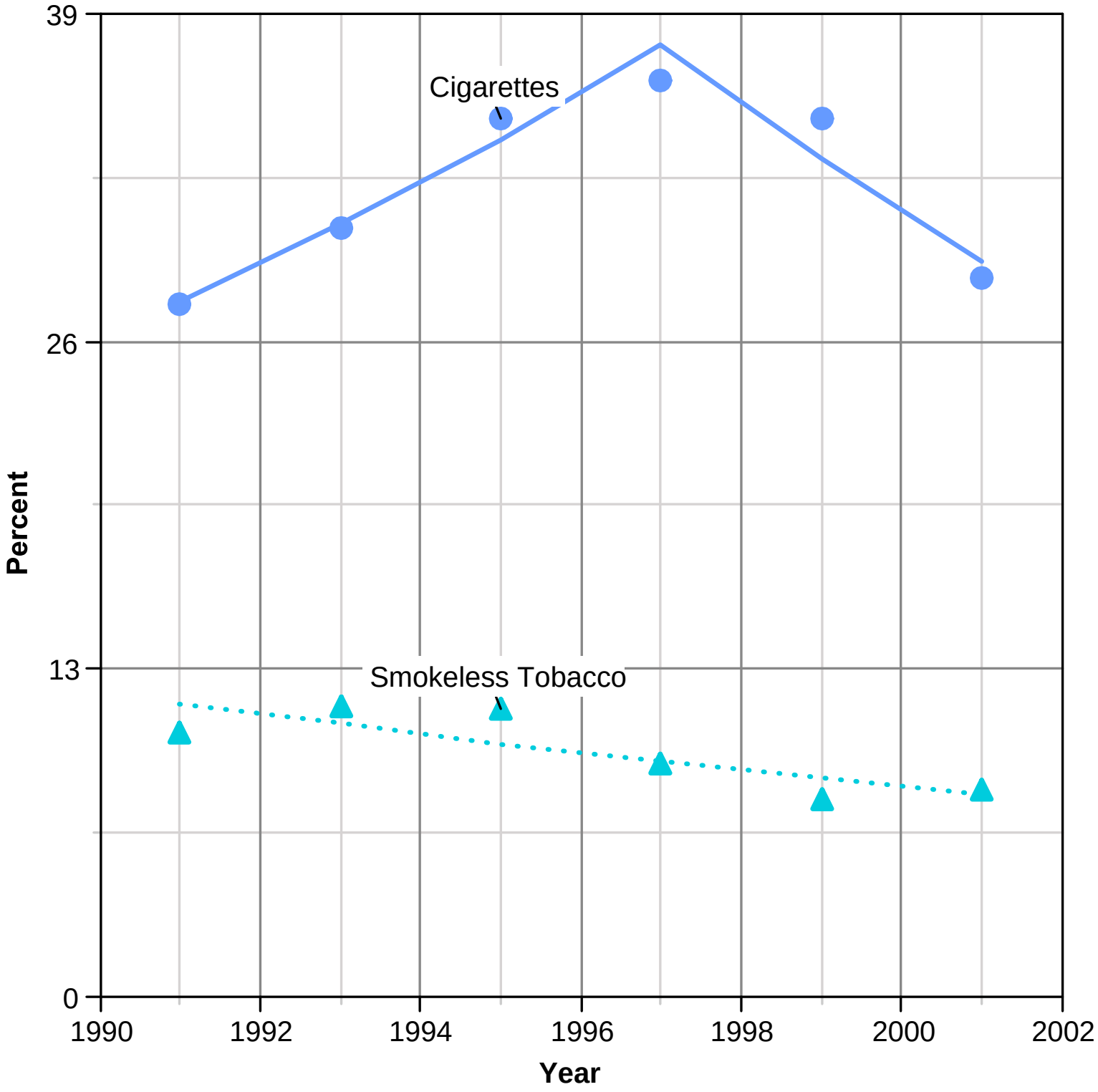
Links to additional information on youth smoking:

- Morbidity and Mortality Weekly Report (MMWR)
  http://www.cdc.gov/mmwr/
- Substance Abuse and Mental Health Services Administration (SAMHSA)
  http://www.samhsa.gov/news/news.html
- Youth Risk Behavior Surveillance System (YRBSS) (CDC)
  http://www.cdc.gov/nccdphp/dash/yrbs/index.htm
- Healthy People 2010, Volume 2, Chapter 27 - Tobacco Use
  http://www.health.gov/healthypeople/Document/html/volume2/27tobacco.htm
- Youth Risk Behavior Surveillance - United States, 1999 (MMWR)
  http://www.cdc.gov/mmwr/preview/mmwrhtml/ss4905a1.htm
- Tobacco Use Among Middle and High School Students - United States, 1999 (MMWR)
  http://www.cdc.gov/mmwr/preview/mmwrhtml/mm4903a1.htm
- Trends in Cigarette Smoking Among High School Students - United States, 1991-1999 (MMWR)
  http://www.cdc.gov/mmwr/preview/mmwrhtml/mm4933a3.htm
- Bidi Use Among Urban Youth - Massachusetts, March-April 1999 (MMWR)
  http://www.cdc.gov/mmwr/preview/mmwrhtml/mm4836a2.htm

Page last modified: 11/08/2005

Figure 3. Percent of High-School Students (Grades 9-12) Who Were Current Users of Cigarettes or Smokeless Tobacco - 1991-2001



Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. Youth Risk Behavior Surveillance System.\
Data are not age-adjusted.

Line graph with 4 lines and 6 points per line.

x-axis title: Year
y-axis title: Percent

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Cigarettes (Scatter).
Point 1, X=1991, Y=27.5.
Point 2, X=1993, Y=30.5.
Point 3, X=1995, Y=34.8, Note: Cigarettes.
Point 4, X=1997, Y=36.4.
Point 5, X=1999, Y=34.8.
Point 6, X=2001, Y=28.5.
Maximum at X=1997, Y=36.4 and minimum at X=1991, Y=27.5.
Data series 2, Cigarettes Joinpoint (Line).
Point 1, X=1991, Y=27.6149.
Point 2, X=1993, Y=30.653.
Point 3, X=1995, Y=34.0253.
Point 4, X=1997, Y=37.7687.
Point 5, X=1999, Y=33.1976.
Point 6, X=2001, Y=29.1797.
Maximum at X=1997, Y=37.7687 and minimum at X=1991, Y=27.6149.
Data series 3, Smokeless Tobacco (Scatter).
Point 1, X=1991, Y=10.5.
Point 2, X=1993, Y=11.5.
Point 3, X=1995, Y=11.4, Note: Smokeless Tobacco.
Point 4, X=1997, Y=9.3.
Point 5, X=1999, Y=7.8.
Point 6, X=2001, Y=8.2.
Maximum at X=1993, Y=11.5 and minimum at X=1999, Y=7.8.
Data series 4, Smokeless Tobacco Joinpoint (Line).
Point 1, X=1991, Y=11.6499.
Point 2, X=1993, Y=10.8145.
Point 3, X=1995, Y=10.039.
Point 4, X=1997, Y=9.31905.
Point 5, X=1999, Y=8.65076.
Point 6, X=2001, Y=8.0304.
Maximum at X=1991, Y=11.6499 and minimum at X=2001, Y=8.0304.

Source: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion. Youth Risk Behavior Surveillance System.\
Data are not age-adjusted.

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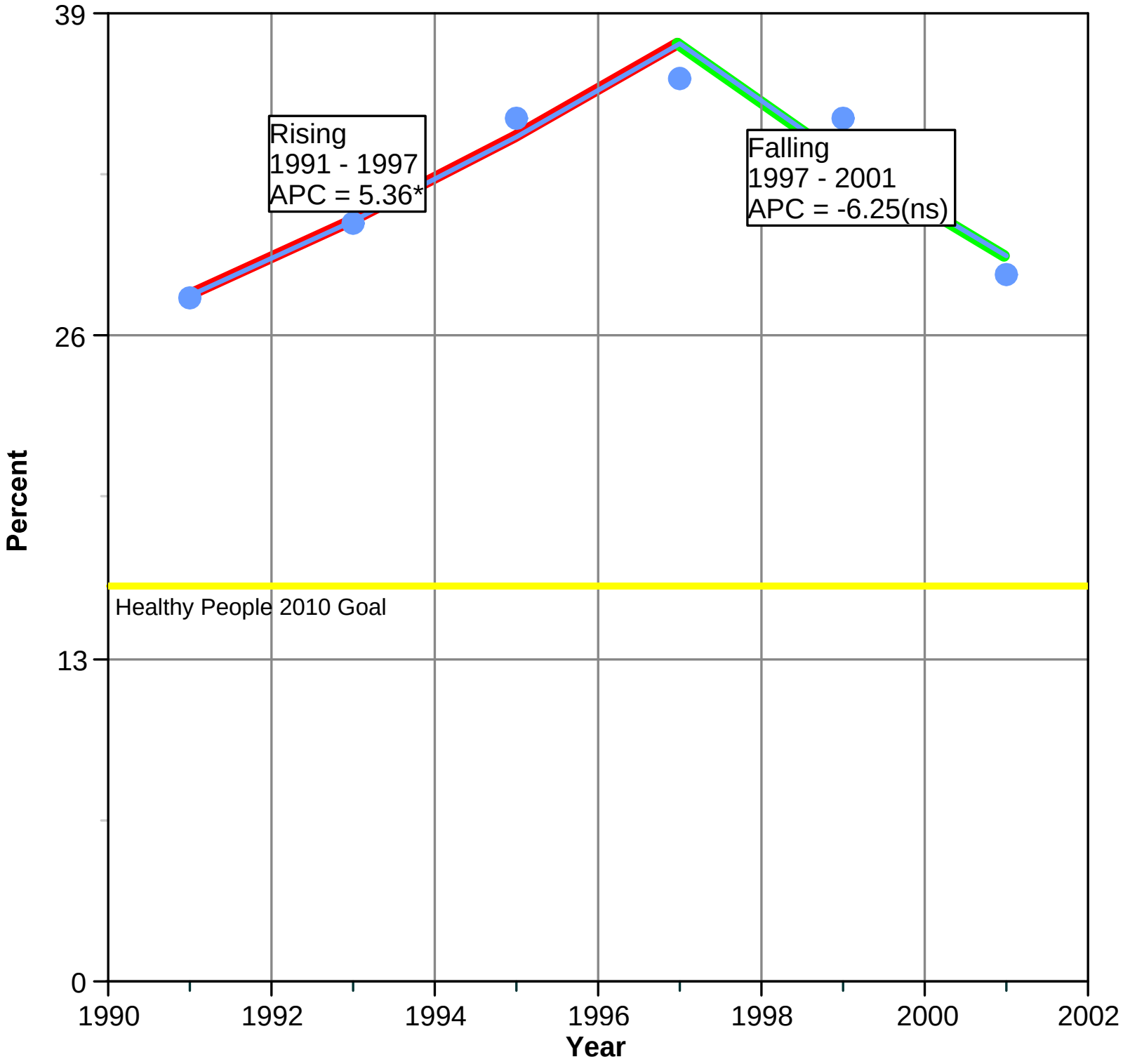
Figure 3a. Percent of High-School Students (Grades 9-12) Who Were Current Users of Cigarettes - 1991-2001



Healthy People 2010 Goal 27-2b: 16%.\
Regression lines are calculated using the Joinpoint Regression Program, Version 2.7. Sept 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

Close window

Line graph with 2 lines and 6 points per line.

x-axis title: Year
y-axis title: Percent

X scale titled Scale label.
Y scale titled Scale label.
Scale Marker 1 on Y scale, line at 16. Scale marker text: Healthy People 2010 Goal
Data series 1, Cigarettes (Scatter).
Point 1, X=1991, Y=27.5.
Point 2, X=1993, Y=30.5, Note: Rising 1991 - 1997 APC = 5.36*.
Point 3, X=1995, Y=34.8.
Point 4, X=1997, Y=36.4.
Point 5, X=1999, Y=34.8, Note: Falling 1997 - 2001 APC = -6.25(ns).
Point 6, X=2001, Y=28.5.
Maximum at X=1997, Y=36.4 and minimum at X=1991, Y=27.5.
Data series 2, Cigarettes Joinpoint (Line).
Point 1, X=1991, Y=27.6149.
Point 2, X=1993, Y=30.653.
Point 3, X=1995, Y=34.0253.
Point 4, X=1997, Y=37.7687.
Point 5, X=1999, Y=33.1976.
Point 6, X=2001, Y=29.1797.
Maximum at X=1997, Y=37.7687 and minimum at X=1991, Y=27.6149.

Healthy People 2010 Goal 27-2b: 16%.\
Regression lines are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

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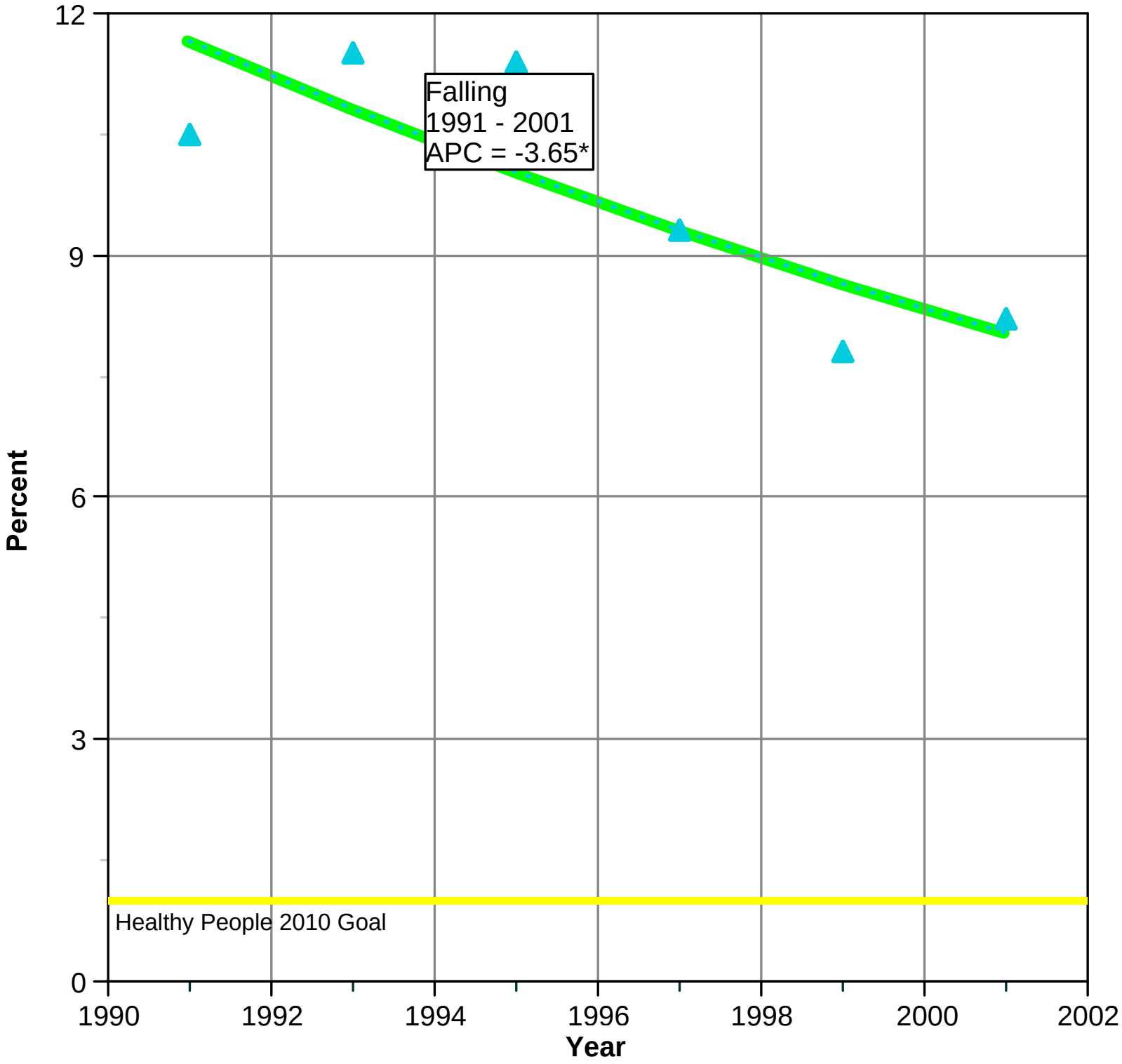
Close window

Figure 3b. Percent of High-School Students (Grades 9-12) Who Were Current Users of Smokeless Tobacco - 1991-2001



Healthy People 2010 Goal 27-2c: 1%.\
* The Annual Percent Change (APC) is statistically significant.

Close window

Line graph with 2 lines and 6 points per line.

x-axis title: Year
y-axis title: Percent

X scale titled Scale label.
Y scale titled Scale label.
Scale Marker 1 on Y scale, line at 1. Scale marker text: Healthy People 2010 Goal
Data series 1, Smokeless Tobacco (Scatter).
Point 1, X=1991, Y=10.5.
Point 2, X=1993, Y=11.5.
Point 3, X=1995, Y=11.4, Note: Falling 1991 - 2001 APC = -3.65*.
Point 4, X=1997, Y=9.3.
Point 5, X=1999, Y=7.8.
Point 6, X=2001, Y=8.2.
Maximum at X=1993, Y=11.5 and minimum at X=1999, Y=7.8.
Data series 2, Smokeless Tobacco Joinpoint (Line).
Point 1, X=1991, Y=11.6499.
Point 2, X=1993, Y=10.8145.
Point 3, X=1995, Y=10.039.
Point 4, X=1997, Y=9.31905.
Point 5, X=1999, Y=8.65076.
Point 6, X=2001, Y=8.0304.
Maximum at X=1991, Y=11.6499 and minimum at X=2001, Y=8.0304.

Healthy People 2010 Goal 27-2c: 1%.\
* The Annual Percent Change (APC) is statistically significant.

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Prevention: Behavioral

Age of Smoking Initiation

The average age at which people first begin smoking has been relatively stable in recent years.

On this page:

- Age of Smoking Initiation and Cancer
- Measure
- Period
- Trends
- Most Recent Estimates
- Healthy People 2010 Targets
- Groups at High Risk for Beginning Smoking
- Key Issues
- Links to Additional Information

Also in this Section
- Adult Smoking
- Quitting Smoking
- Youth Smoking
- **Age of Smoking Initiation**
- Alcohol Consumption
- Fruit and Vegetable Consumption
- Fat Consumption
- Weight
- Physical Activity
- Sun Protection
- Secondhand Smoke
- Radon in the Home
- Benzene in the Air

Age of Smoking Initiation and Cancer

The younger a person starts smoking, the greater the lifelong risk of developing smoking-related cancers. That is because young smokers are more likely to become addicted, and the more years a person smokes, the greater the risk of cancer.

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Measure

Average age of first use of cigarettes, based on responses from people ages 12 and older, 12 to 17, and 18 to 25.

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Period - 1990-2001

Trends

12 +: Rising slightly in the early 1990s, then stable

12-17: Rising in the early 1990s, then stable

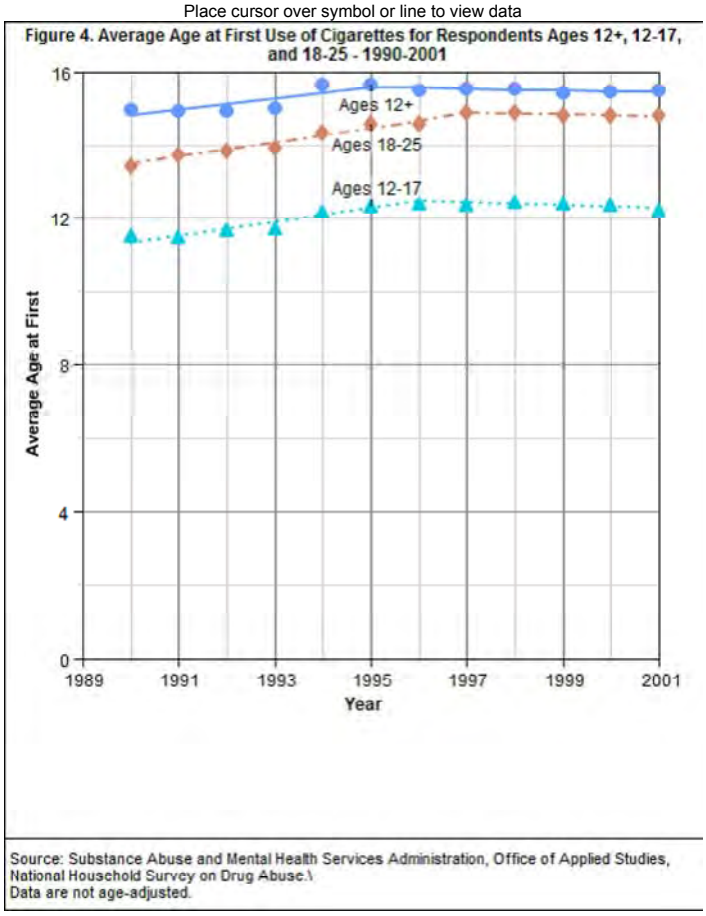
18-25: Rising slightly until 1997, then stable

Also in the *Report*
- Report-at-a-Glance
- Prevention
- Early Detection
- Diagnosis
- Treatment
- Life After Cancer
- End of Life

Graph image format: ○ [D] ◉ FLASH ○ JPEG

View details for:
Ages 12+ Ages 12-17 Ages 18-25

Place cursor over symbol or line to view data



Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute. (See Methodology for Characterizing Trends)

Download data (Excel)

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Most Recent Estimates

In 2001, the average age at first use among people ages 12 and older was 15.5 years. Among 12- to 17-year-olds, the average age was 12.2. Among those 18 to 25, the average age was 14.8.

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Healthy People 2010 Targets

Increase the average age at first use of cigarettes to:

- 14 years of age for 12- to 17-year-olds.
- 17 years of age for 18- to 25-year-olds.

There is no Healthy People 2010 target for ages 12 and older as a group.

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Groups at High Risk for Beginning Smoking

Young people who come from low-income families with less education are more likely to smoke. So are those who have less success and involvement in school and fewer

skills to resist the pervasive pressures to use tobacco. Tendencies to take risks and rebel are among the other risk factors for beginning smoking.

Back to Top

Key Issues

Most smokers try their first cigarette before the age of 18 and become addicted during adolescence.

Efforts to help young people delay or avoid smoking may help to prevent some cancers.

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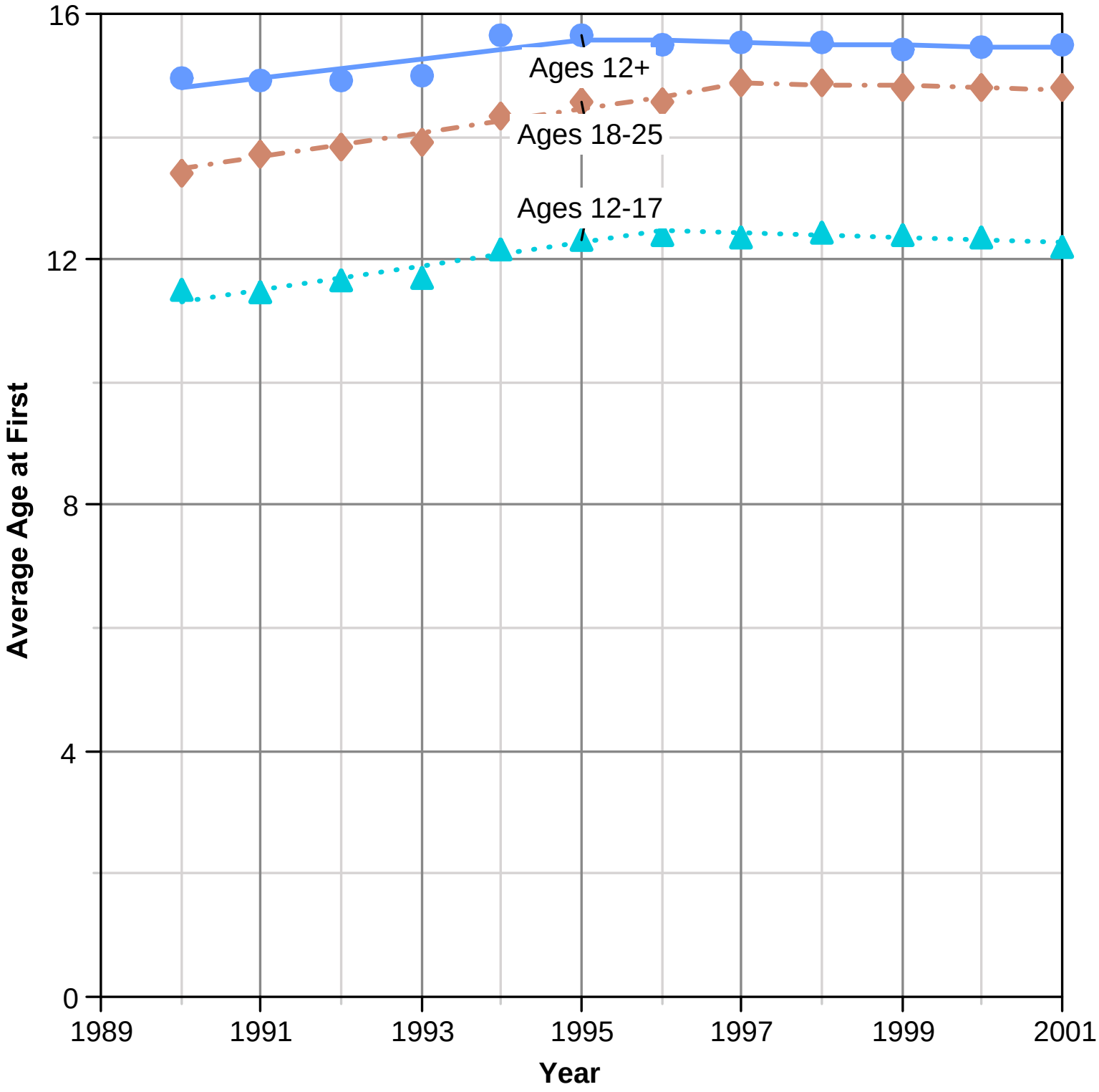
Links to additional information on age of smoking initiation:

- A Report of the Surgeon General (1994) (CDC)
  http://www.cdc.gov/tobacco/sgr/sgr_1994/index.htm
- Substance Abuse and Mental Health Services Administration (SAMHSA)
  http://oas.samhsa.gov/
- Healthy People 2010, Volume 2, Chapter 27 - Tobacco Use
  http://www.health.gov/healthypeople/Document/html/volume2/27tobacco.htm
- Preventing Tobacco Use Among Young People: A Report of the Surgeon General, 1994 (CDC)
  http://www.cdc.gov/tobacco/sgr/sgr_1994/index.htm
- Smoking and Tobacco Control Monograph 9 - Changes in Cigarette-Related Disease Risks and their Implication for Prevention and Control (NCI)
  http://cancercontrol.cancer.gov/tcrb/monographs/8/index.html
- National Cancer Institute, Applied Research Program - Tobacco Use Supplement to the Current Population Survey
  http://riskfactor.cancer.gov/studies/tus-cps/
- Population-Based Smoking Cessation: Smoking and Tobacco Control Monograph #12 (NCI) (how to order)
  https://cissecure.nci.nih.gov/ncipubs/details.asp?pid=250
- Tobacco Cessation Guideline (The Surgeon General)
  http://surgeongeneral.gov/tobacco/
- Reducing Tobacco Use: A Report of the Surgeon General (Tobacco Information and Prevention Source, CDC)
  http://www.cdc.gov/tobacco/sgr/sgr_2000/index.htm

Page last modified: 11/08/2005

Figure 4. Average Age at First Use of Cigarettes for Respondents Ages 12+, 12-17, and 18-25 - 1990-2001



Source: Substance Abuse and Mental Health Services Administration, Office of Applied Studies, National Household Survey on Drug Abuse.\
Data are not age-adjusted.

Line graph with 6 lines and 12 points per line.

x-axis title: Year
y-axis title: Average Age at First

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Ages 12+ (Scatter).
Point 1, X=1990, Y=14.938.
Point 2, X=1991, Y=14.9346.
Point 3, X=1992, Y=14.9288.
Point 4, X=1993, Y=14.9796.
Point 5, X=1994, Y=15.6426.
Point 6, X=1995, Y=15.6357, Note: Ages 12+.
Point 7, X=1996, Y=15.4979.
Point 8, X=1997, Y=15.5166.
Point 9, X=1998, Y=15.543.
Point 10, X=1999, Y=15.4072.
Point 11, X=2000, Y=15.4613.
Point 12, X=2001, Y=15.478.
Maximum at X=1994, Y=15.6426 and minimum at X=1992, Y=14.9288.
Data series 2, Ages 12+ Joinpoint (Line).
Point 1, X=1990, Y=14.8009.
Point 2, X=1991, Y=14.9533.
Point 3, X=1992, Y=15.1072.
Point 4, X=1993, Y=15.2628.
Point 5, X=1994, Y=15.4199.
Point 6, X=1995, Y=15.5786.
Point 7, X=1996, Y=15.5565.
Point 8, X=1997, Y=15.5344.
Point 9, X=1998, Y=15.5124.
Point 10, X=1999, Y=15.4903.
Point 11, X=2000, Y=15.4683.
Point 12, X=2001, Y=15.4464.
Maximum at X=1995, Y=15.5786 and minimum at X=1990, Y=14.8009.
Data series 3, Ages 12-17 (Scatter).
Point 1, X=1990, Y=11.4952.
Point 2, X=1991, Y=11.4717.
Point 3, X=1992, Y=11.673.
Point 4, X=1993, Y=11.7017.
Point 5, X=1994, Y=12.1718.
Point 6, X=1995, Y=12.3186, Note: Ages 12-17.
Point 7, X=1996, Y=12.3929.
Point 8, X=1997, Y=12.3733.
Point 9, X=1998, Y=12.429.
Point 10, X=1999, Y=12.4114.
Point 11, X=2000, Y=12.3668.
Point 12, X=2001, Y=12.2147.
Maximum at X=1998, Y=12.429 and minimum at X=1991, Y=11.4717.
Data series 4, Ages 12-17 Joinpoint (Line).
Point 1, X=1990, Y=11.3227.
Point 2, X=1991, Y=11.5078.
Point 3, X=1992, Y=11.6959.
Point 4, X=1993, Y=11.8871.
Point 5, X=1994, Y=12.0814.
Point 6, X=1995, Y=12.2789.
Point 7, X=1996, Y=12.4796.
Point 8, X=1997, Y=12.4418.
Point 9, X=1998, Y=12.404.
Point 10, X=1999, Y=12.3664.
Point 11, X=2000, Y=12.3288.
Point 12, X=2001, Y=12.2914.
Maximum at X=1996, Y=12.4796 and minimum at X=1990, Y=11.3227.
Data series 5, Ages 18-25 (Scatter).
Point 1, X=1990, Y=13.3883.
Point 2, X=1991, Y=13.7282.
Point 3, X=1992, Y=13.8408.
Point 4, X=1993, Y=13.8981.
Point 5, X=1994, Y=14.3498.
Point 6, X=1995, Y=14.5722, Note: Ages 18-25.
Point 7, X=1996, Y=14.5634.
Point 8, X=1997, Y=14.877.
Point 9, X=1998, Y=14.8803.
Point 10, X=1999, Y=14.7942.
Point 11, X=2000, Y=14.803.
Point 12, X=2001, Y=14.782.
Maximum at X=1998, Y=14.8803 and minimum at X=1990, Y=13.3883.
Data series 6, Ages 18-25 Joinpoint (Line).
Point 1, X=1990, Y=13.4825.
Point 2, X=1991, Y=13.6717.

Point 3, X=1992, Y=13.8635.
Point 4, X=1993, Y=14.0581.
Point 5, X=1994, Y=14.2554.
Point 6, X=1995, Y=14.4554.
Point 7, X=1996, Y=14.6583.
Point 8, X=1997, Y=14.864.
Point 9, X=1998, Y=14.8416.
Point 10, X=1999, Y=14.8193.
Point 11, X=2000, Y=14.797.
Point 12, X=2001, Y=14.7748.
Maximum at X=1997, Y=14.864 and minimum at X=1990, Y=13.4825.

Source: Substance Abuse and Mental Health Services Administration, Office of Applied Studies, National Household Survey on Drug Abuse.\
Data are not age-adjusted.

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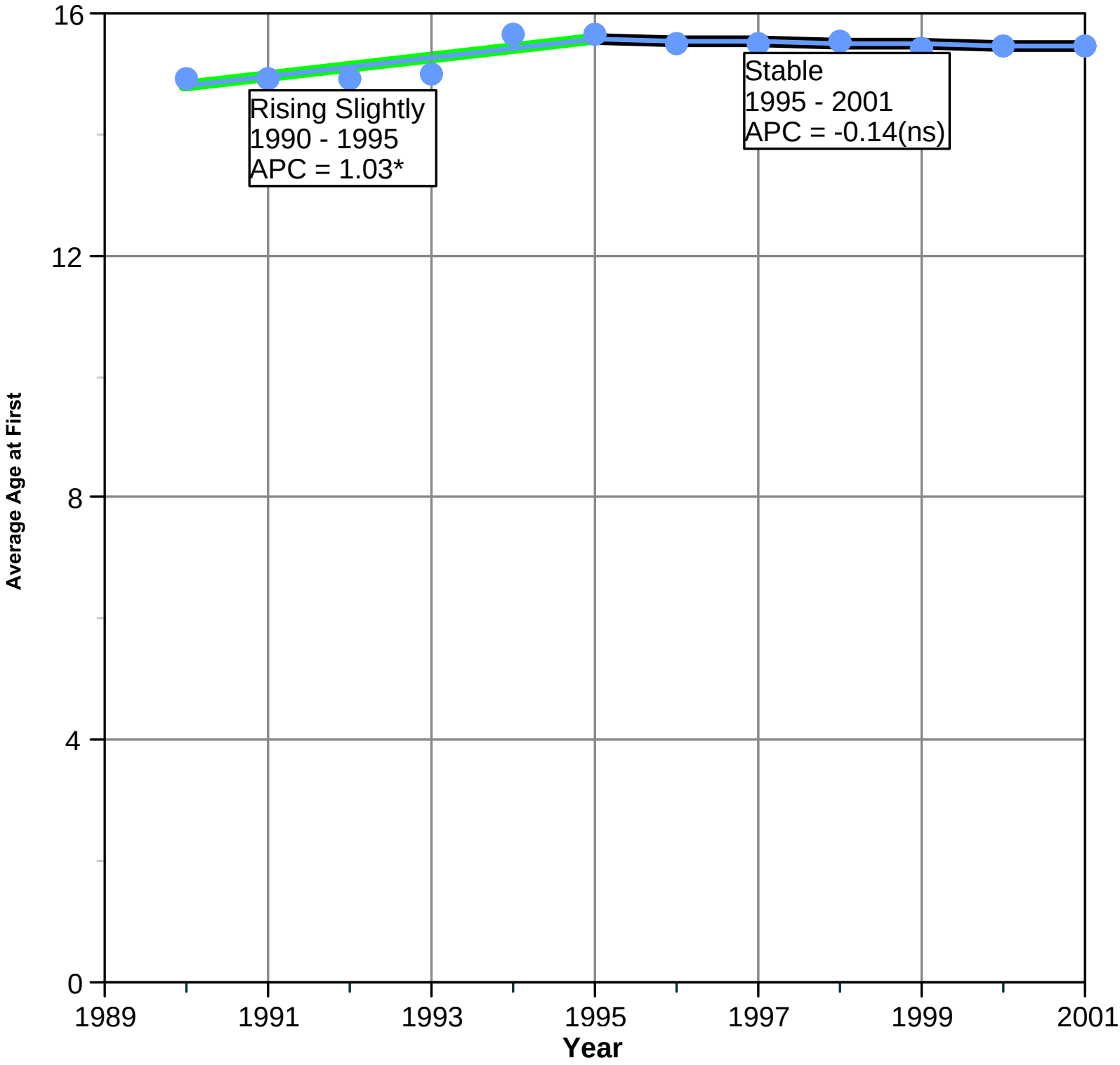
Figure 4a. Average Age at First Use of Cigarettes for Respondents Ages 12+ - 1990-2001



No Healthy People 2010 Target Goal for ages 12 and older as a group.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

Close window

Line graph with 2 lines and 12 points per line.

x-axis title: Year
y-axis title: Average Age at First

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Ages 12+ (Scatter).
Point 1, X=1990, Y=14.938.
Point 2, X=1991, Y=14.9346.
Point 3, X=1992, Y=14.9288, Note: Rising Slightly 1990 - 1995 APC = 1.03*.
Point 4, X=1993, Y=14.9796.
Point 5, X=1994, Y=15.6426.
Point 6, X=1995, Y=15.6357.
Point 7, X=1996, Y=15.4979.
Point 8, X=1997, Y=15.5166.
Point 9, X=1998, Y=15.543, Note: Stable 1995 - 2001 APC = -0.14(ns).
Point 10, X=1999, Y=15.4072.
Point 11, X=2000, Y=15.4613.
Point 12, X=2001, Y=15.478.
Maximum at X=1994, Y=15.6426 and minimum at X=1992, Y=14.9288.
Data series 2, Ages 12+ Joinpoint (Line).
Point 1, X=1990, Y=14.8009.
Point 2, X=1991, Y=14.9533.
Point 3, X=1992, Y=15.1072.
Point 4, X=1993, Y=15.2628.
Point 5, X=1994, Y=15.4199.
Point 6, X=1995, Y=15.5786.
Point 7, X=1996, Y=15.5565.
Point 8, X=1997, Y=15.5344.
Point 9, X=1998, Y=15.5124.
Point 10, X=1999, Y=15.4903.
Point 11, X=2000, Y=15.4683.
Point 12, X=2001, Y=15.4464.
Maximum at X=1995, Y=15.5786 and minimum at X=1990, Y=14.8009.

No Healthy People 2010 Target Goal for ages 12 and older as a group.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

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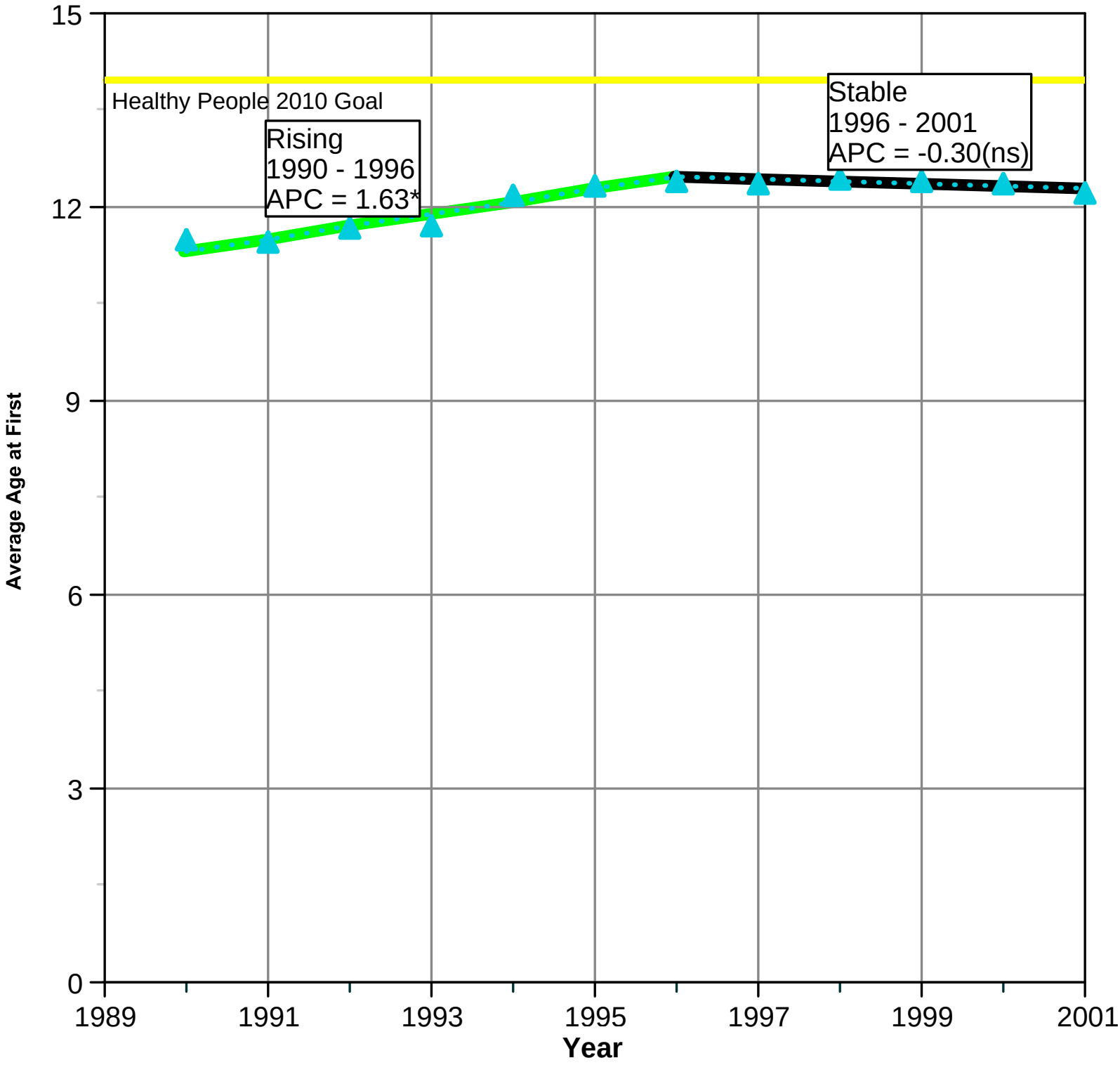
Close window

Figure 4b. Average Age at First Use of Cigarettes for Respondents Ages 12-17 - 1990-2001



Healthy People 2010 Goal 27-4a: 14 years of age.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

Close window

Line graph with 2 lines and 12 points per line.

x-axis title: Year
y-axis title: Average Age at First

X scale titled Scale label.
Y scale titled Scale label.
Scale Marker 1 on Y scale, line at 14. Scale marker text: Healthy People 2010 Goal
Data series 1, Ages 12-17 (Scatter).
Point 1, X=1990, Y=11.4952.
Point 2, X=1991, Y=11.4717.
Point 3, X=1992, Y=11.673, Note: Rising 1990 - 1996 APC = 1.63*.
Point 4, X=1993, Y=11.7017.
Point 5, X=1994, Y=12.1718.
Point 6, X=1995, Y=12.3186.
Point 7, X=1996, Y=12.3929.
Point 8, X=1997, Y=12.3733.
Point 9, X=1998, Y=12.429.
Point 10, X=1999, Y=12.4114, Note: Stable 1996 - 2001 APC = -0.30(ns).
Point 11, X=2000, Y=12.3668.
Point 12, X=2001, Y=12.2147.
Maximum at X=1998, Y=12.429 and minimum at X=1991, Y=11.4717.
Data series 2, Ages 12-17 Joinpoint (Line).
Point 1, X=1990, Y=11.3227.
Point 2, X=1991, Y=11.5078.
Point 3, X=1992, Y=11.6959.
Point 4, X=1993, Y=11.8871.
Point 5, X=1994, Y=12.0814.
Point 6, X=1995, Y=12.2789.
Point 7, X=1996, Y=12.4796.
Point 8, X=1997, Y=12.4418.
Point 9, X=1998, Y=12.404.
Point 10, X=1999, Y=12.3664.
Point 11, X=2000, Y=12.3288.
Point 12, X=2001, Y=12.2914.
Maximum at X=1996, Y=12.4796 and minimum at X=1990, Y=11.3227.

Healthy People 2010 Goal 27-4a: 14 years of age.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

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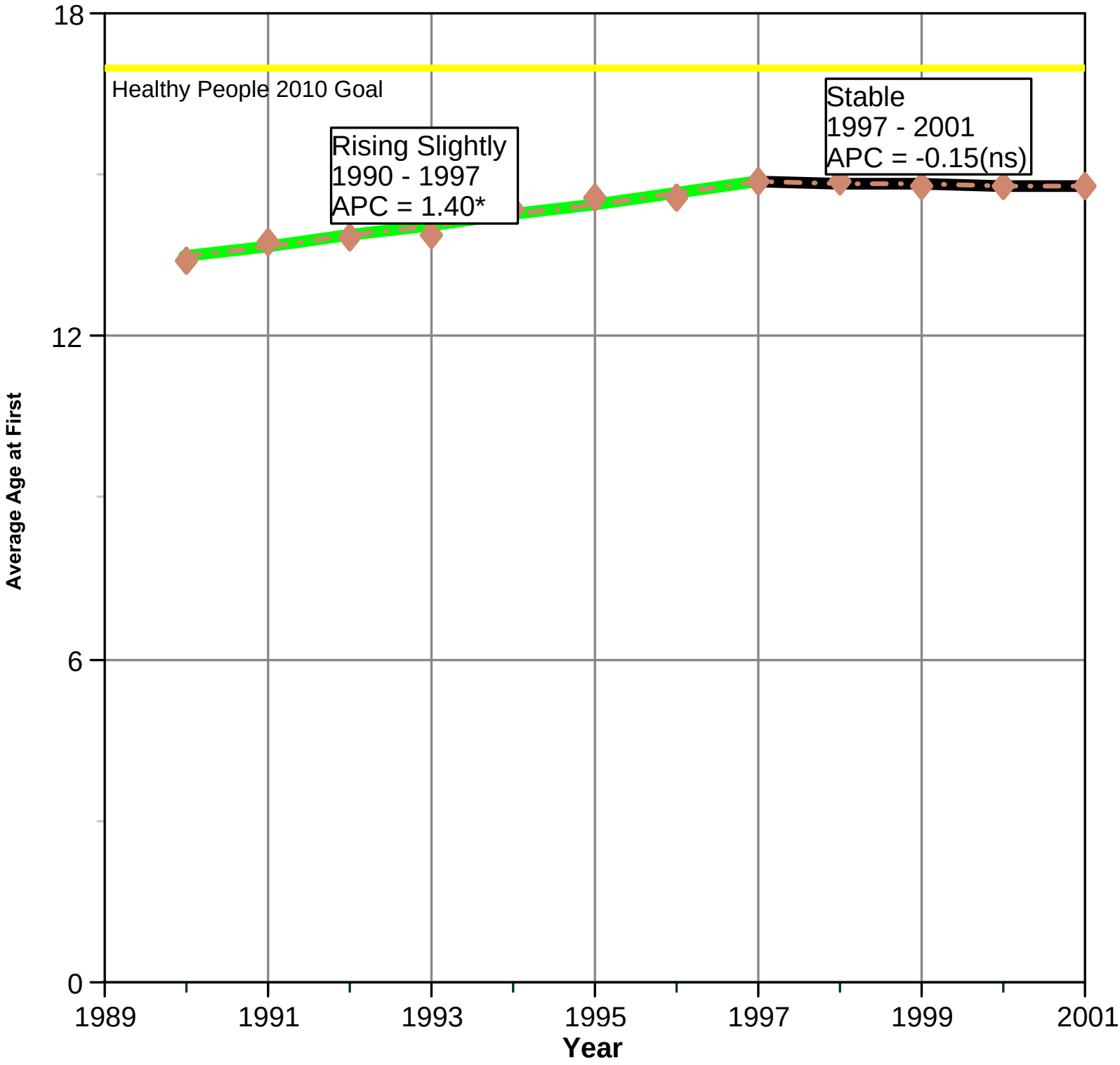
Close window

Figure 4c. Average Age at First Use of Cigarettes for Respondents Ages 18-25 - 1990-2001



Healthy People 2010 Goal 27-4b: 17 years of age.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

Close window

Line graph with 2 lines and 12 points per line.

x-axis title: Year
y-axis title: Average Age at First

X scale titled Scale label.
Y scale titled Scale label.
Scale Marker 1 on Y scale, line at 17. Scale marker text: Healthy People 2010 Goal
Data series 1, Ages 18-25 (Scatter).
Point 1, X=1990, Y=13.3883.
Point 2, X=1991, Y=13.7282.
Point 3, X=1992, Y=13.8408.
Point 4, X=1993, Y=13.8981, Note: Rising Slightly 1990 - 1997 APC = 1.40*.
Point 5, X=1994, Y=14.3498.
Point 6, X=1995, Y=14.5722.
Point 7, X=1996, Y=14.5634.
Point 8, X=1997, Y=14.877.
Point 9, X=1998, Y=14.8803.
Point 10, X=1999, Y=14.7942, Note: Stable 1997 - 2001 APC = -0.15(ns).
Point 11, X=2000, Y=14.803.
Point 12, X=2001, Y=14.782.
Maximum at X=1998, Y=14.8803 and minimum at X=1990, Y=13.3883.
Data series 2, Ages 18-25 Joinpoint (Line).
Point 1, X=1990, Y=13.4825.
Point 2, X=1991, Y=13.6717.
Point 3, X=1992, Y=13.8635.
Point 4, X=1993, Y=14.0581.
Point 5, X=1994, Y=14.2554.
Point 6, X=1995, Y=14.4554.
Point 7, X=1996, Y=14.6583.
Point 8, X=1997, Y=14.864.
Point 9, X=1998, Y=14.8416.
Point 10, X=1999, Y=14.8193.
Point 11, X=2000, Y=14.797.
Point 12, X=2001, Y=14.7748.
Maximum at X=1997, Y=14.864 and minimum at X=1990, Y=13.4825.

Healthy People 2010 Goal 27-4b: 17 years of age.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

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Close window

Prevention: Behavioral

Alcohol Consumption

Per capita alcohol consumption has stabilized since 1995.

On this page:

- Alcohol and Cancer
- Measure
- Period
- Trend
- Most Recent Estimate
- Healthy People 2010 Target
- Groups at High Risk for Using Alcohol
- Key Issues
- Links to Additional Information

Also in this Section
- Adult Smoking
- Quitting Smoking
- Youth Smoking
- Age of Smoking Initiation
- **Alcohol Consumption**
- Fruit and Vegetable Consumption
- Fat Consumption
- Weight
- Physical Activity
- Sun Protection
- Secondhand Smoke
- Radon in the Home
- Benzene in the Air

Also in the *Report*
- Report-at-a-Glance
- Prevention
- Early Detection
- Diagnosis
- Treatment
- Life After Cancer
- End of Life

Alcohol and Cancer

Drinking alcohol increases the risk of cancers of the mouth, esophagus, pharynx, larynx, and liver in men and women, and of breast cancer in women. In general, these risks increase after about one daily drink for women and two daily drinks for men. (A drink is defined as 12 ounces of regular beer, 5 ounces of wine, or 1.5 ounces of 80-proof liquor.)

Two drinks daily increase the risk of getting breast cancer by about 25 percent. The chances of getting liver cancer increase markedly with five or more drinks per day.

Heavy alcohol use may also increase the risk of ovarian cancer in women and possibly colorectal cancer in men and women, and leads to greater increases in risk for most of the alcohol-related cancers. The earlier that long-term, heavy alcohol use begins, the greater the cancer risk. Also, using alcohol with tobacco is riskier than using either one alone, because it further increases the chances of getting cancers of the mouth, throat, and esophagus.

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Measure

Per capita alcohol consumption: The estimated number of gallons of pure alcohol drunk per person (ages 14 and older), per year. This measure accounts for the varying alcohol content of wine, beer, and liquor. People as young as 14 are included because a large number of adolescents begin drinking at an early age.

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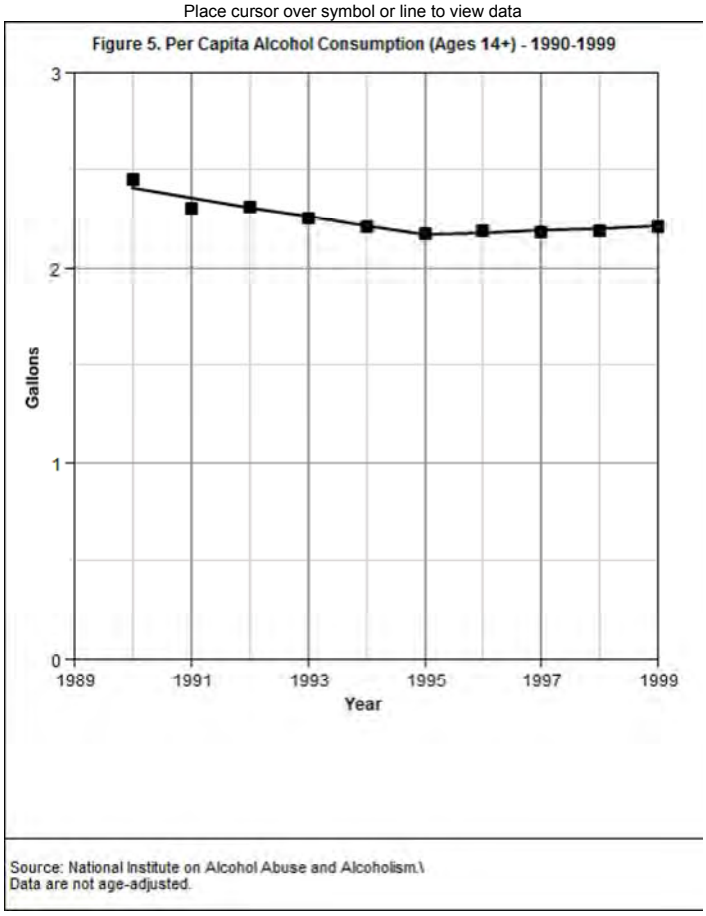
Period – 1990-1999

Trend – Falling from 1990 to 1995, then stable from 1995 to 1999

Graph image format: ○ [D] ◉ FLASH ○ JPEG

View details for:
Total

Place cursor over symbol or line to view data



Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute. (See Methodology for Characterizing Trends)

Download data (Excel)

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Most Recent Estimate

In 1999, per capita alcohol consumption was 2.21 gallons for all beverages, including beer, wine, and liquor.

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Healthy People 2010 Target

Reduce per capita alcohol consumption to 2 gallons.

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Groups at High Risk for Using Alcohol

Many people start drinking as early as middle school (13- to 14-year-olds).

Among 12- to 17-year-olds, Whites and Hispanics are more likely than Blacks to use alcohol.

Among alcohol drinkers, those ages 18 to 25 consume greater quantities than any other group.

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Key Issues

People who drink and smoke may find it harder to stop either of these behaviors.

Drinking low levels of alcohol can have both negative and positive health effects: It raises the risk of getting breast cancer and lowers the risk of getting heart disease. Therefore, women who already are at low risk for heart disease could reduce their risk of breast cancer by avoiding regular alcohol use.

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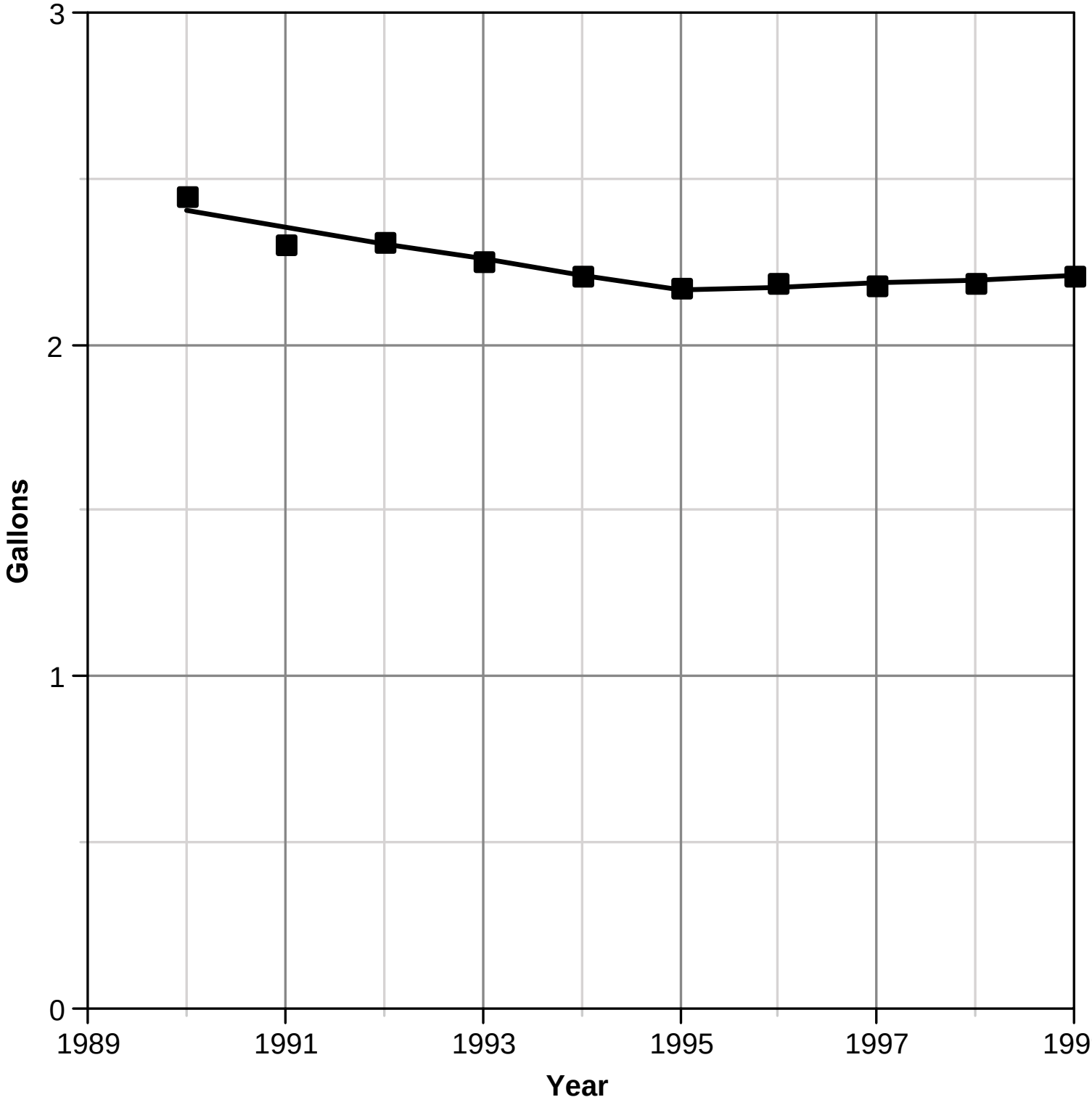
Links to additional information on alcohol consumption:

- Food, Nutrition and the Prevention of Cancer: A Global Perspective, (AICR)
  http://www.aicr.org/research/report.lasso
- What is Moderate Drinking? Defining "Drinks" and Drinking Levels (NIAA)
  http://www.niaaa.nih.gov/publications/arh23-1/05-14.pdf
- Alcohol Alert (NIAAA)
  http://www.niaaa.nih.gov/publications/aa39.htm
- Apparent per capita ethanol consumption for the United States, 1850-1998 (NIAAA)
  http://www.niaaa.nih.gov/databases/consum01.txt
- Healthy People 2010, Volume 2, Chapter 28 - Substance Abuse
  http://www.health.gov/healthypeople/Document/html/volume2/26Substance.htm
- Alcohol and Youth (NIAAA)
  http://www.niaaa.nih.gov/publications/arh22-2/toc22-2.htm
- Alcohol Increases Hormone Levels, Raising Breast Cancer Risk (ACS)
  http://www.cancer.org/docroot/nws/content/update/nws_1_1xu_alcohol_increases_hormone_levels__raising_breast_cancer_risk.asp

Page last modified: 11/08/2005

Figure 5. Per Capita Alcohol Consumption (Ages 14+) - 1990-1999



Source: National Institute on Alcohol Abuse and Alcoholism.\
Data are not age-adjusted.

Line graph with 2 lines and 10 points per line.

x-axis title: Year
y-axis title: Gallons

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Total (Scatter).
Point 1, X=1990, Y=2.45.
Point 2, X=1991, Y=2.3.
Point 3, X=1992, Y=2.31.
Point 4, X=1993, Y=2.25.
Point 5, X=1994, Y=2.21.
Point 6, X=1995, Y=2.17.
Point 7, X=1996, Y=2.19.
Point 8, X=1997, Y=2.18.
Point 9, X=1998, Y=2.19.
Point 10, X=1999, Y=2.21.
Maximum at X=1990, Y=2.45 and minimum at X=1995, Y=2.17.
Data series 2, Total Joinpoint (Line).
Point 1, X=1990, Y=2.40439.
Point 2, X=1991, Y=2.35433.
Point 3, X=1992, Y=2.30532.
Point 4, X=1993, Y=2.25733.
Point 5, X=1994, Y=2.21033.
Point 6, X=1995, Y=2.16432.
Point 7, X=1996, Y=2.17482.
Point 8, X=1997, Y=2.18537.
Point 9, X=1998, Y=2.19597.
Point 10, X=1999, Y=2.20662.
Maximum at X=1990, Y=2.40439 and minimum at X=1995, Y=2.16432.

Source: National Institute on Alcohol Abuse and Alcoholism.\
Data are not age-adjusted.

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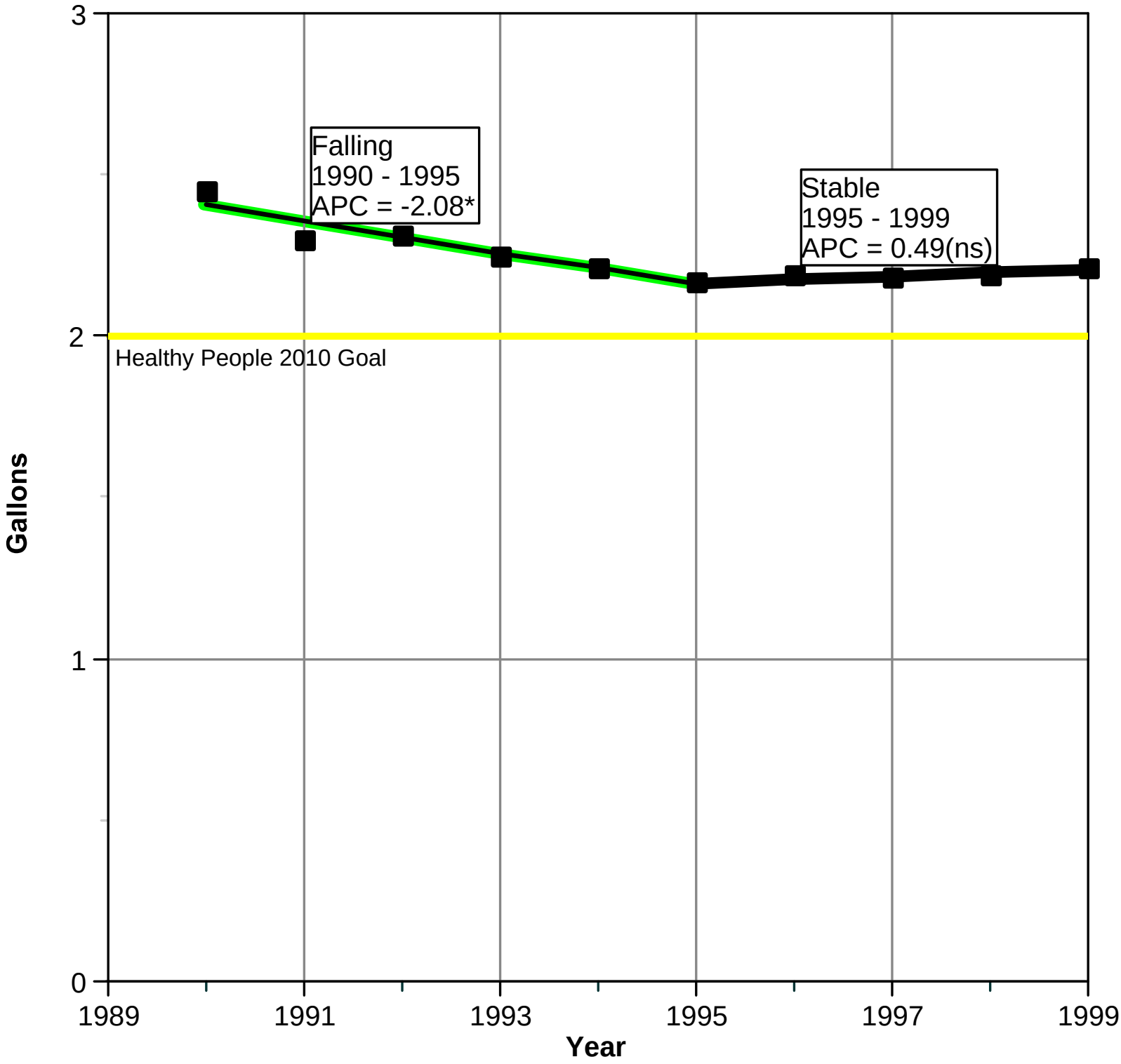
Figure 5a. Per Capita Alcohol Consumption (Ages 14+) - 1990-1999



Healthy People 2010 Goal 26-12: 2 Gallons\
Regression lines are calculated using the Joinpoint Regression Program, Version 2.7. Sept 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

Close window

Line graph with 2 lines and 10 points per line.

x-axis title: Year
y-axis title: Gallons

X scale titled Scale label.
Y scale titled Scale label.
Scale Marker 1 on Y scale, line at 2. Scale marker text: Healthy People 2010 Goal
Data series 1, Total (Scatter).
Point 1, X=1990, Y=2.45.
Point 2, X=1991, Y=2.3.
Point 3, X=1992, Y=2.31, Note: Falling 1990 - 1995 APC = -2.08*.
Point 4, X=1993, Y=2.25.
Point 5, X=1994, Y=2.21.
Point 6, X=1995, Y=2.17.
Point 7, X=1996, Y=2.19.
Point 8, X=1997, Y=2.18, Note: Stable 1995 - 1999 APC = 0.49(ns).
Point 9, X=1998, Y=2.19.
Point 10, X=1999, Y=2.21.
Maximum at X=1990, Y=2.45 and minimum at X=1995, Y=2.17.
Data series 2, Total Joinpoint (Line).
Point 1, X=1990, Y=2.40439.
Point 2, X=1991, Y=2.35433.
Point 3, X=1992, Y=2.30532.
Point 4, X=1993, Y=2.25733.
Point 5, X=1994, Y=2.21033.
Point 6, X=1995, Y=2.16432.
Point 7, X=1996, Y=2.17482.
Point 8, X=1997, Y=2.18537.
Point 9, X=1998, Y=2.19597.
Point 10, X=1999, Y=2.20662.
Maximum at X=1990, Y=2.40439 and minimum at X=1995, Y=2.16432.

Healthy People 2010 Goal 26-12: 2 Gallons\
Regression lines are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

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Close window

Prevention: Behavioral

Fruit and Vegetable Consumption

Americans are eating only slightly more vegetables and slightly less fruit than in the 1990s.

On this page:

- Fruits and Vegetables and Other Cancer Risks
- Measure
- Period
- Trends
- Most Recent Estimates
- Healthy People 2010 Targets
- Groups at High Risk for Not Eating Enough Fruits and Vegetables
- Key Issues
- Links to Additional Information

Also in this Section
- Adult Smoking
- Quitting Smoking
- Youth Smoking
- Age of Smoking Initiation
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- **Fruit and Vegetable Consumption**
- Fat Consumption
- Weight
- Physical Activity
- Sun Protection
- Secondhand Smoke
- Radon in the Home
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Also in the *Report*
- Report-at-a-Glance
- Prevention
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- Life After Cancer
- End of Life

Fruits and Vegetables and Other Cancer Risks

People whose diets are rich in fruits and vegetables are likely to have a lower risk of getting cancers of the colon, mouth, pharynx, esophagus, stomach, and lung, and may reduce their risk of prostate cancer. They are also less likely to get diabetes, heart disease, and hypertension.

To help prevent these cancers and other chronic diseases, experts recommend 5 to 9 servings of fruits and vegetables daily. This includes 2 to 4 servings of fruits and 3 to 5 servings of vegetables, with dark-green and deep-yellow vegetables making up about one-third (about 1 to 2 servings) of the vegetable servings. There is no direct evidence that the popular white potato protects against cancer.

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Measure

Average daily servings of fruits and vegetables for people ages 2 and older. This measure includes fruits and vegetables from all sources.

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Period – 1989-1991, 1994-1996, and 1999-2000

Trends

Fruits: Rising then falling slightly, although the latest trend is not statistically significant

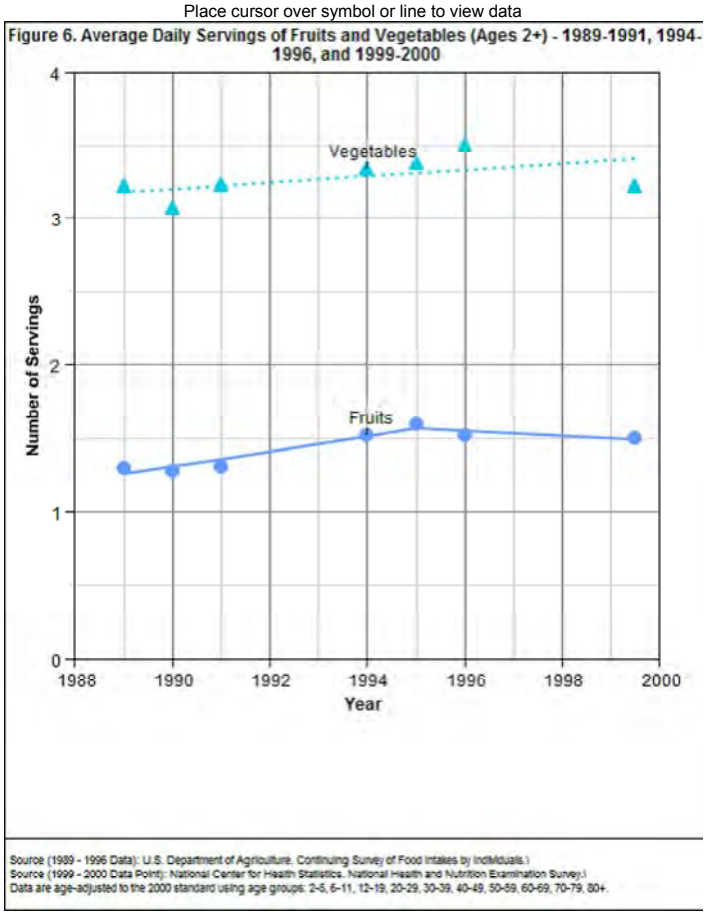
Vegetables: Rising slightly, but not statistically significant

Total average daily servings of fruits and vegetables increased from 4.5 servings in 1989-1991 to 4.9 servings in 1994-1996, then dropped slightly to 4.7 servings in 1999-2000. Fruit servings rose from 1.3 to 1.5 servings over the same period. Vegetable servings rose from 3.2 to 3.4, then dropped back to 3.2.

Graph image format: ○ [D] ◉ FLASH ○ JPEG

View details for:
Fruits Vegetables

Place cursor over symbol or line to view data



Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute. (See Methodology for Characterizing Trends)

Download data (Excel)

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Most Recent Estimates

In 1999-2000, people ages 2 and older had, on average, 1.5 servings of fruits and 3.2 servings of vegetables, for a total of 4.7 servings of fruits and vegetables. Total vegetable servings included:

- Dark-green/deep-yellow: 0.3 servings.
- Starchy: 1.4 servings (mostly fried potatoes).
- Tomatoes and other vegetables: 1.5 servings.

Among racial and ethnic groups, Blacks had 4.3 total servings of fruits and vegetables, while Whites and Mexican-Americans had 4.8.

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Healthy People 2010 Targets

At least two daily servings of fruits.

At least three daily servings of vegetables, with at least one-third being dark-green/deep-yellow.

(The Healthy People 2010 targets call for 75 percent of the population to consume the

minimum servings of fruits and 50 percent to consume the minimum servings of vegetables.)

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Groups at High Risk for Not Eating Enough Fruits and Vegetables

Fruit consumption is highest among the youngest and oldest segments of the population, while vegetable consumption tends to increase with age. People with lower levels of income and education tend to eat fewer fruits and vegetables. Among racial and ethnic groups, Blacks have the lowest intake.

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Key Issues

Although, on average, people consume more than the recommended three daily servings of vegetables, they do not consume enough dark-green/deep-yellow varieties such as broccoli or carrots.

Consumers—especially those living in low-income and urban areas—need access to affordable fruits and vegetables. However, between 1982 and 1997, fruits and vegetables had more retail price increases than all other food categories.

While five servings of fruits and vegetables is the minimum daily recommendation, estimates based on caloric needs suggest that Americans actually need an average of seven daily servings. These additional servings should replace sources of "empty calories" in the diet, such as added sugars (honey, syrup, soft drinks) and fats (butter, sour cream), to avoid taking in too many calories.

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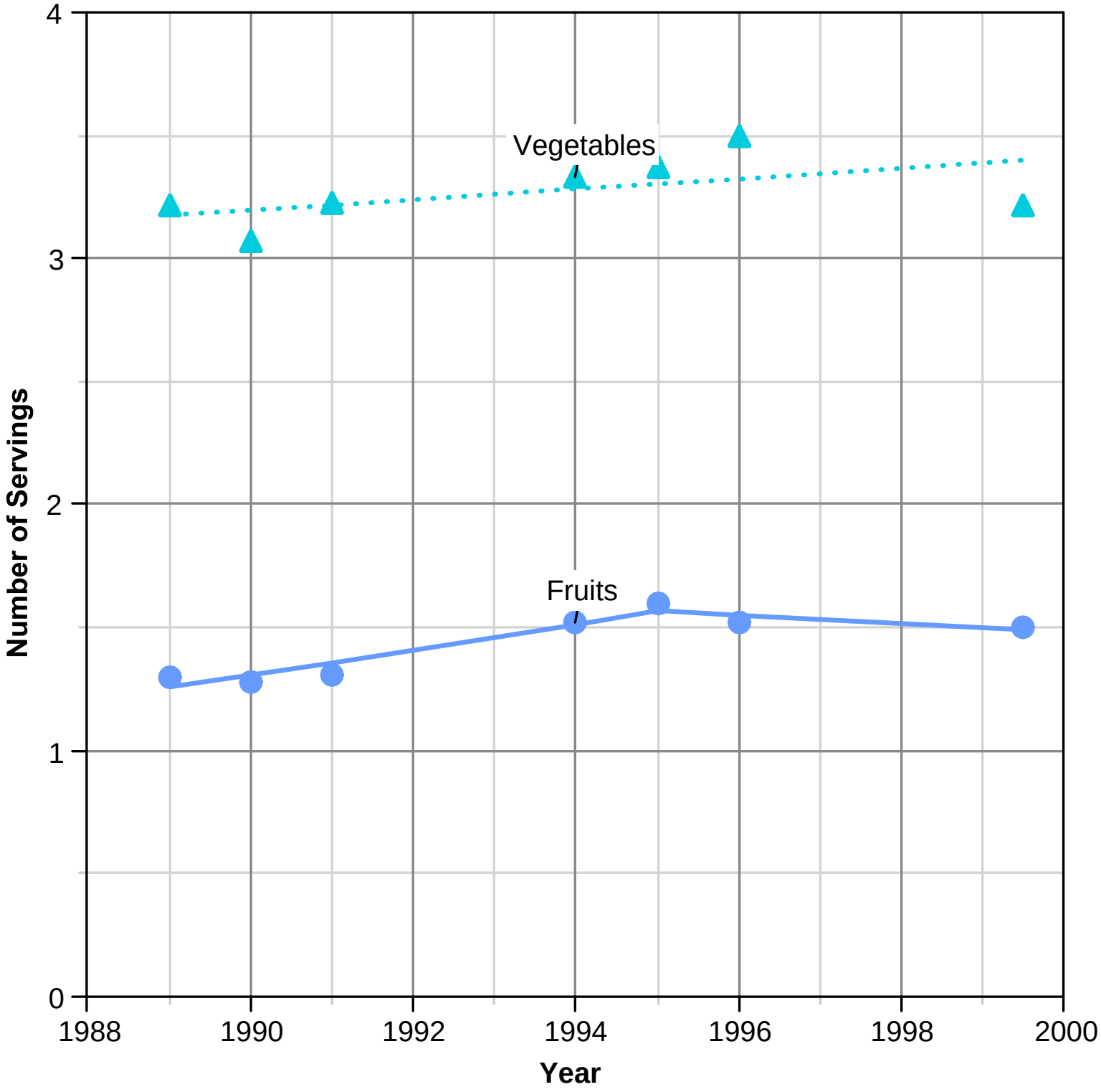
Links to additional information on fruit and vegetable consumption

- Food, Nutrition and the Prevention of Cancer: A Global Perspective (AICR)
  http://www.aicr.org/research/report.lasso
- The Food Guide Pyramid (Federal Consumer Information Center)
  http://www.pueblo.gsa.gov/cic_text/food/food-pyramid/main.htm
- Choose a Variety of Fruits and Vegetables Daily: Understanding the Complexities
  http://www.nutrition.org/cgi/content/full/131/2/487S?maxtoshow=&HITS=10&hits=
- Healthy People 2010, Volume 2, Chapter 19 - Nutrition and Overweight
  http://www.health.gov/healthypeople/Document/html/volume2/19Nutrition.htm

Page last modified: 11/08/2005

Figure 6. Average Daily Servings of Fruits and Vegetables (Ages 2+) - 1989-1991, 1994 1996, and 1999-2000



Source (1989 - 1996 Data): U.S. Department of Agriculture. Continuing Survey of Food Intakes by Individuals.\
Source (1999 - 2000 Data Point): National Center for Health Statistics. National Health and Nutrition Examination Survey.\
Data are age-adjusted to the 2000 standard using age groups: 2-5, 6-11, 12-19, 20-29, 30-39, 40-49, 50-59, 60-69, 70-79, 80+

Line graph with 4 lines and 7 points per line.

x-axis title: Year
y-axis title: Number of Servings

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Fruits (Scatter).
Point 1, X=1989, Y=1.29368.
Point 2, X=1990, Y=1.27393.
Point 3, X=1991, Y=1.31167.
Point 4, X=1994, Y=1.52523, Note: Fruits.
Point 5, X=1995, Y=1.59437.
Point 6, X=1996, Y=1.52027.
Point 7, X=1999.5, Y=1.49876.
Maximum at X=1995, Y=1.59437 and minimum at X=1990, Y=1.27393.
Data series 2, Fruits Joinpoint (Line).
Point 1, X=1989, Y=1.25718.
Point 2, X=1990, Y=1.30443.
Point 3, X=1991, Y=1.35344.
Point 4, X=1994, Y=1.51183.
Point 5, X=1995, Y=1.56864.
Point 6, X=1996, Y=1.55006.
Point 7, X=1999.5, Y=1.48675.
Maximum at X=1995, Y=1.56864 and minimum at X=1989, Y=1.25718.
Data series 3, Vegetables (Scatter).
Point 1, X=1989, Y=3.21666.
Point 2, X=1990, Y=3.06588.
Point 3, X=1991, Y=3.22427.
Point 4, X=1994, Y=3.32786, Note: Vegetables.
Point 5, X=1995, Y=3.37057.
Point 6, X=1996, Y=3.4991.
Point 7, X=1999.5, Y=3.21847.
Maximum at X=1996, Y=3.4991 and minimum at X=1990, Y=3.06588.
Data series 4, Vegetables Joinpoint (Line).
Point 1, X=1989, Y=3.17649.
Point 2, X=1990, Y=3.19711.
Point 3, X=1991, Y=3.21786.
Point 4, X=1994, Y=3.28093.
Point 5, X=1995, Y=3.30223.
Point 6, X=1996, Y=3.32367.
Point 7, X=1999.5, Y=3.3998.
Maximum at X=1999.5, Y=3.3998 and minimum at X=1989, Y=3.17649.

Source (1989 - 1996 Data): U.S. Department of Agriculture. Continuing Survey of Food Intakes by Individuals.\
Source (1999 - 2000 Data Point): National Center for Health Statistics. National Health and Nutrition Examination Survey.\
Data are age-adjusted to the 2000 standard using age groups: 2-5, 6-11, 12-19, 20-29, 30-39, 40-49, 50-59, 60-69, 70-79, 80+.

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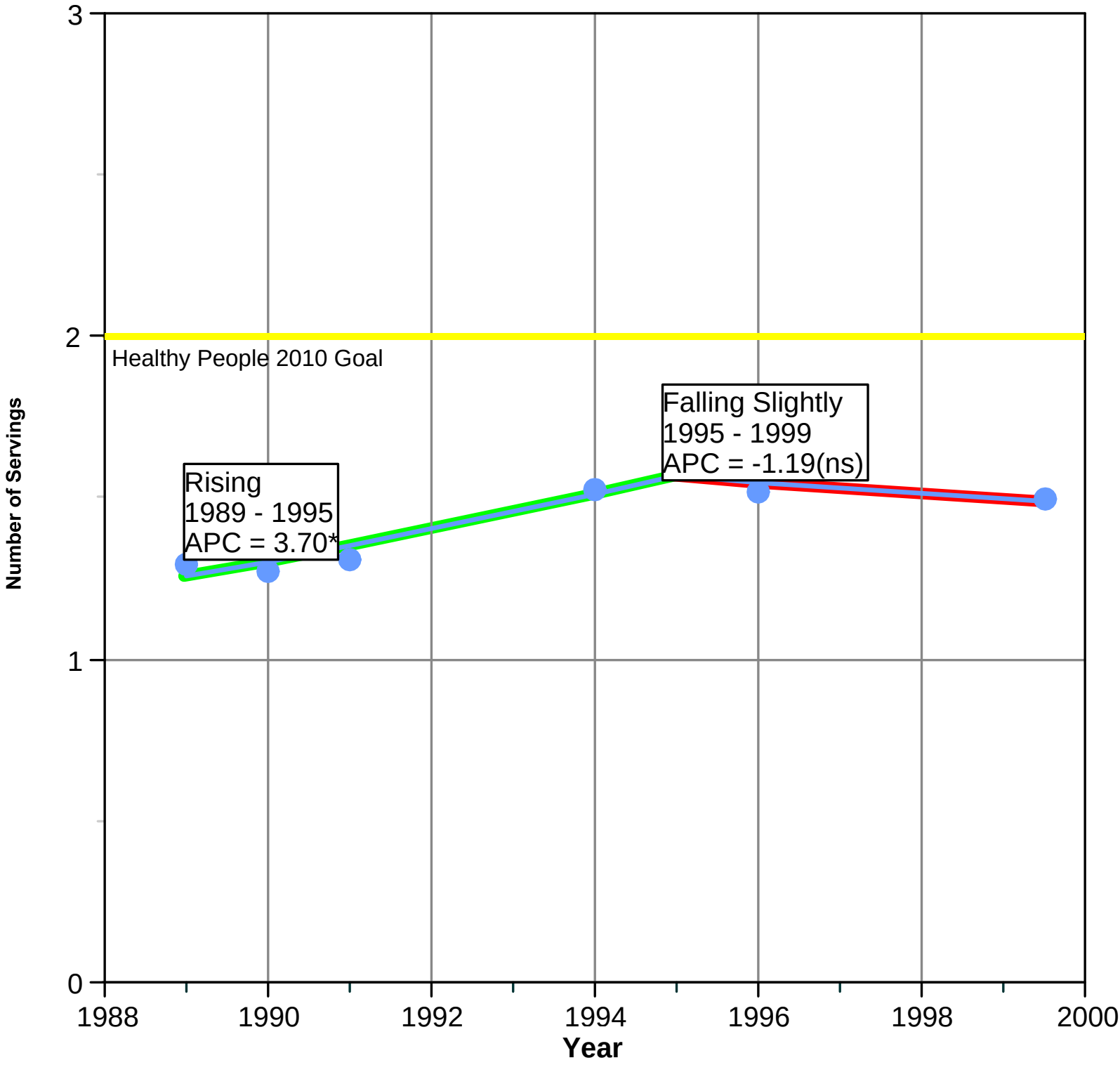
Figure 6a. Average Daily Servings of Fruits (Ages 2+) - 1989-1991, 1994-1996, and 1999-2000



Healthy People 2010 Goal 19-6: 75% of population to have 2+ servings a day.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

Close window

Line graph with 2 lines and 7 points per line.

x-axis title: Year
y-axis title: Number of Servings

X scale titled Scale label.
Y scale titled Scale label.
Scale Marker 1 on Y scale, line at 2. Scale marker text: Healthy People 2010 Goal
Data series 1, Fruits (Scatter).
Point 1, X=1989, Y=1.29368.
Point 2, X=1990, Y=1.27393, Note: Rising 1989 - 1995 APC = 3.70*.
Point 3, X=1991, Y=1.31167.
Point 4, X=1994, Y=1.52523.
Point 5, X=1995, Y=1.59437.
Point 6, X=1996, Y=1.52027, Note: Falling Slightly 1995 - 1999 APC = -1.19(ns).
Point 7, X=1999.5, Y=1.49876.
Maximum at X=1995, Y=1.59437 and minimum at X=1990, Y=1.27393.
Data series 2, Fruits Joinpoint (Line).
Point 1, X=1989, Y=1.25718.
Point 2, X=1990, Y=1.30443.
Point 3, X=1991, Y=1.35344.
Point 4, X=1994, Y=1.51183.
Point 5, X=1995, Y=1.56864.
Point 6, X=1996, Y=1.55006.
Point 7, X=1999.5, Y=1.48675.
Maximum at X=1995, Y=1.56864 and minimum at X=1989, Y=1.25718.

Healthy People 2010 Goal 19-6: 75% of population to have 2+ servings a day.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

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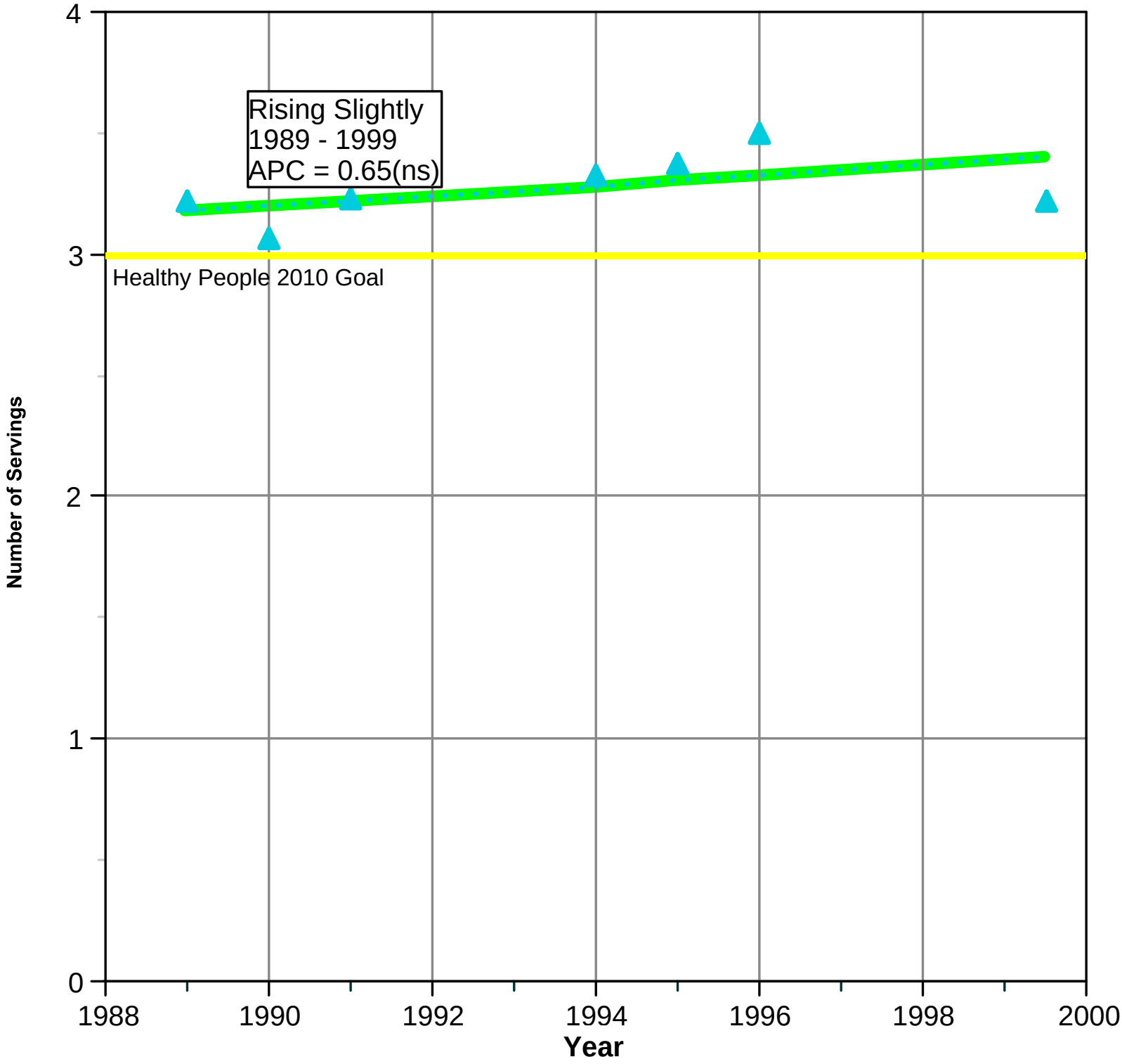
Close window

Figure 6b. Average Daily Servings of Vegetables (Ages 2+) - 1989-1991, 1994-1996, an 1999-2000



Healthy People 2010 Goal 19-5: 50% of population to have at least 3 servings a day with at least 1/3 being dark green or deep yellow.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

Close window

Line graph with 2 lines and 7 points per line.

x-axis title: Year
y-axis title: Number of Servings

X scale titled Scale label.
Y scale titled Scale label.
Scale Marker 1 on Y scale, line at 3. Scale marker text: Healthy People 2010 Goal
Data series 1, Vegetables (Scatter).
Point 1, X=1989, Y=3.21666.
Point 2, X=1990, Y=3.06588.
Point 3, X=1991, Y=3.22427, Note: Rising Slightly 1989 - 1999 APC = 0.65(ns).
Point 4, X=1994, Y=3.32786.
Point 5, X=1995, Y=3.37057.
Point 6, X=1996, Y=3.4991.
Point 7, X=1999.5, Y=3.21847.
Maximum at X=1996, Y=3.4991 and minimum at X=1990, Y=3.06588.
Data series 2, Vegetables Joinpoint (Line).
Point 1, X=1989, Y=3.17649.
Point 2, X=1990, Y=3.19711.
Point 3, X=1991, Y=3.21786.
Point 4, X=1994, Y=3.28093.
Point 5, X=1995, Y=3.30223.
Point 6, X=1996, Y=3.32367.
Point 7, X=1999.5, Y=3.3998.
Maximum at X=1999.5, Y=3.3998 and minimum at X=1989, Y=3.17649.

Healthy People 2010 Goal 19-5: 50% of population to have at least 3 servings a day with at least 1/3 being dark green or deep yellow.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

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Prevention: Behavioral

Fat Consumption

Americans are getting a smaller portion of their calories from fat.

On this page:

- Fat Consumption and Cancer
- Measure
- Period
- Trends
- Most Recent Estimate
- Healthy People 2010 Targets
- Groups at High Risk for Eating Too Much Fat
- Key Issues
- Links to Additional Information

Also in this Section
- Adult Smoking
- Quitting Smoking
- Youth Smoking
- Age of Smoking Initiation
- Alcohol Consumption
- Fruit and Vegetable Consumption
- **Fat Consumption**
- Weight
- Physical Activity
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- Secondhand Smoke
- Radon in the Home
- Benzene in the Air

Also in the *Report*
- Report-at-a-Glance
- Prevention
- Early Detection
- Diagnosis
- Treatment
- Life After Cancer
- End of Life

Fat Consumption and Cancer

Some studies have linked high-fat diets and different types of fat in the diet to several cancers, including cancers of the colon, prostate, lung, and endometrium. Saturated fatty acids are thought to be the most harmful kind. While earlier studies suggested similar results for breast cancer, more recent evidence has raised doubts about the importance of dietary fat in the development of breast cancer.

More research is needed to better understand which types of fat and what amounts alter cancer risk. Although monounsaturated and polyunsaturated fatty acids have been studied for a number of years, their effects are still unclear. More recent research on the effects of trans fatty acids also has yet to reach definite conclusions.

The U.S. Dietary Guidelines recommend getting less than 10 percent of calories from saturated fatty acids for general health and the prevention of chronic disease, including cancer and heart disease. The Guidelines also recommend getting no more than 30 percent of calories from total fat.

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Measure

Intakes of total fat, and of the major fatty acids-saturated, monounsaturated, and polyunsaturated-all as a percentage of total calories.

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Period – 1989-1991, 1994-1996, and 1999-2000

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Trends – Relatively stable overall

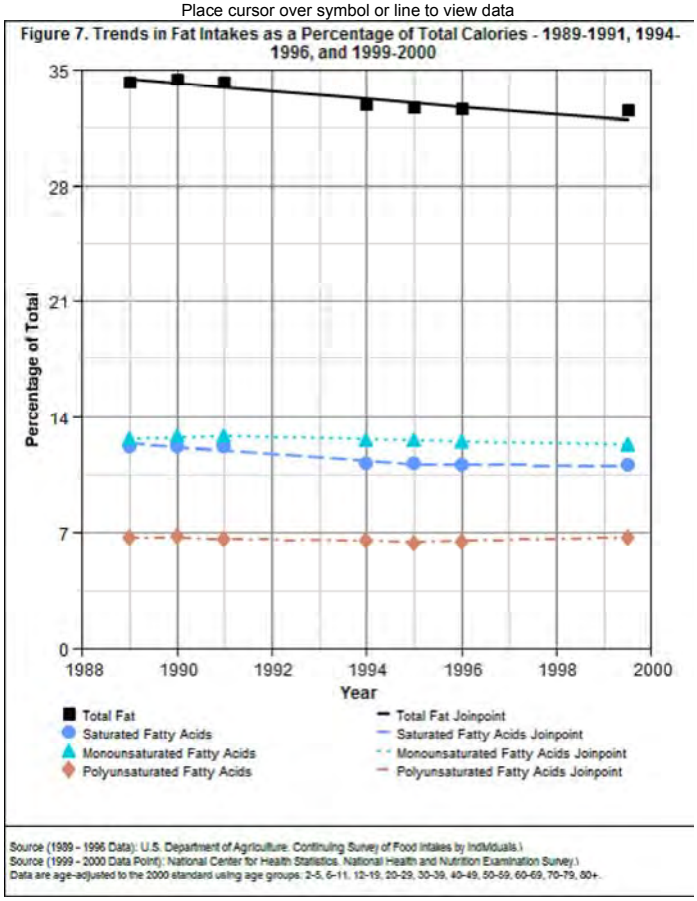
Total fat: Falling slightly
Saturated: Falling, then stable
Monounsaturated: Rising slightly (but not statistically significantly), then minimally falling
Polyunsaturated: Falling slightly, then rising slightly with neither trend statistically

significant

Graph image format: ○ [D] ◉ FLASH ○ JPEG

View details for:
Total Fat | Saturated Fatty Acids | Monounsaturated Fatty Acids | Polyunsaturated Fatty Acids

Place cursor over symbol or line to view data



Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute. (See Methodology for Characterizing Trends)

Download data (Excel)

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Most Recent Estimates

Data collected in 1999-2000 show that total fat made up one-third (33 percent) of the calories people consumed, a slightly higher level than recommended. In the same period, saturated fatty acids accounted for 11 percent of calories; monounsaturated, 12 percent; and polyunsaturated, 7 percent.

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Healthy People 2010 Target

No more than 30 percent of daily calories from fat.

(The Healthy People 2010 target calls for 75 percent of the population to reach this level.)

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Groups at High Risk for Eating Too Much Fat

Intake of fat and the major fatty acids does not vary in the U.S. population by major racial or ethnic groups. Polyunsaturated fat intakes tend to increase as education levels increase.

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Key Issues

Researchers are studying how fat and fatty acids alter cancer risk. Precise and reliable measures of the amount and type of fat are needed—especially biological indicators of fat intake that might be determined from a blood test.

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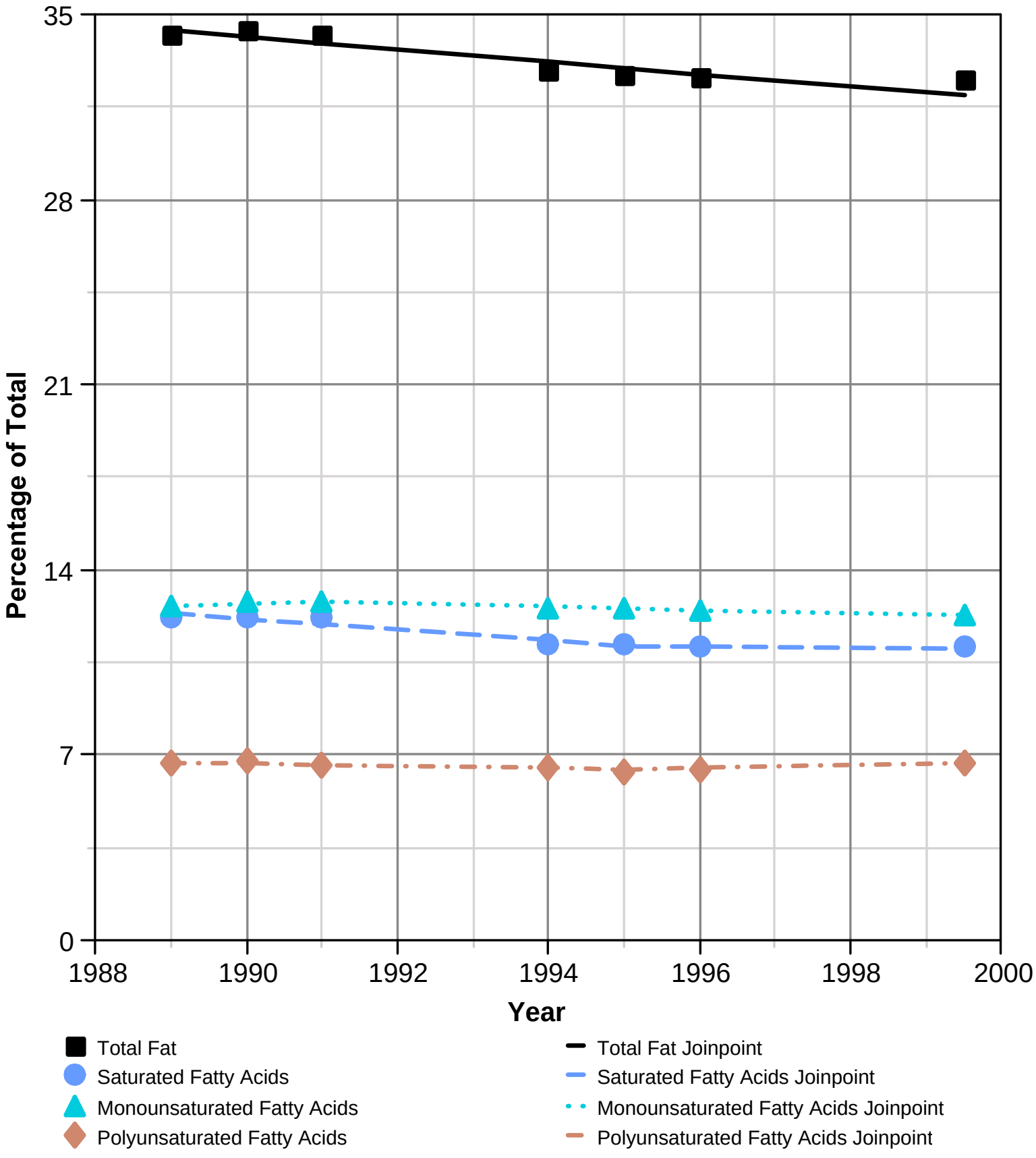
Links to additional information on fat consumption:

- Food, Nutrition and the Prevention of Cancer: A Global Perspective (AICR)
  http://www.aicr.org/research/report.lasso
- Nutrition and Your Health: Dietary Guidelines for Americans (USDHHS & USDA)
  http://www.health.gov/dietaryguidelines/
- Choose a Diet That Is Low in Saturated Fat and Cholesterol and Moderate in Total Fat: Subtle Changes to a Familiar Message
  http://www.nutrition.org/cgi/content/full/131/2/510S?maxtoshow=&HITS=10&hits=
- Healthy People 2010, Volume 2, Chapter 19 - Nutrition and Overweight
  http://www.health.gov/healthypeople/Document/html/volume2/19Nutrition.htm
- Products from the CSFII / DHKS 1994-96, 1998 (U.S. Department of Agriculture)
  http://www.barc.usda.gov/bhnrc/foodsurvey/Products9496.html#table

Page last modified: 11/08/2005

Figure 7. Trends in Fat Intakes as a Percentage of Total Calories - 1989-1991, 1994-1996, and 1999-2000



Source (1989 - 1996 Data): U.S. Department of Agriculture. Continuing Survey of Food Intakes by Individuals.\
Source (1999 - 2000 Data Point): National Center for Health Statistics. National Health and Nutrition Examination Survey.\
Data are age-adjusted to the 2000 standard using age groups: 2-5, 6-11, 12-19, 20-29, 30-39, 40-49, 50-59, 60-69, 70-79, 80+

Line graph with 8 lines and 7 points per line.

x-axis title: Year
y-axis title: Percentage of Total

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Total Fat (Scatter).
Point 1, X=1989, Y=34.1988.
Point 2, X=1990, Y=34.4353.
Point 3, X=1991, Y=34.2725.
Point 4, X=1994, Y=32.9231.
Point 5, X=1995, Y=32.7046.
Point 6, X=1996, Y=32.5973.
Point 7, X=1999.5, Y=32.5787.
Maximum at X=1990, Y=34.4353 and minimum at X=1999.5, Y=32.5787.
Data series 2, Total Fat Joinpoint (Line).
Point 1, X=1989, Y=34.3688.
Point 2, X=1990, Y=34.128.
Point 3, X=1991, Y=33.889.
Point 4, X=1994, Y=33.1819.
Point 5, X=1995, Y=32.9494.
Point 6, X=1996, Y=32.7187.
Point 7, X=1999.5, Y=31.9236.
Maximum at X=1989, Y=34.3688 and minimum at X=1999.5, Y=31.9236.
Data series 3, Saturated Fatty Acids (Scatter).
Point 1, X=1989, Y=12.2094.
Point 2, X=1990, Y=12.2054.
Point 3, X=1991, Y=12.1828.
Point 4, X=1994, Y=11.2205.
Point 5, X=1995, Y=11.1857.
Point 6, X=1996, Y=11.0764.
Point 7, X=1999.5, Y=11.0612.
Maximum at X=1989, Y=12.2094 and minimum at X=1999.5, Y=11.0612.
Data series 4, Saturated Fatty Acids Joinpoint (Line).
Point 1, X=1989, Y=12.3525.
Point 2, X=1990, Y=12.1404.
Point 3, X=1991, Y=11.932.
Point 4, X=1994, Y=11.328.
Point 5, X=1995, Y=11.1336.
Point 6, X=1996, Y=11.1141.
Point 7, X=1999.5, Y=11.0462.
Maximum at X=1989, Y=12.3525 and minimum at X=1999.5, Y=11.0462.
Data series 5, Monounsaturated Fatty Acids (Scatter).
Point 1, X=1989, Y=12.6325.
Point 2, X=1990, Y=12.7762.
Point 3, X=1991, Y=12.8063.
Point 4, X=1994, Y=12.5771.
Point 5, X=1995, Y=12.5513.
Point 6, X=1996, Y=12.4768.
Point 7, X=1999.5, Y=12.3116.
Maximum at X=1991, Y=12.8063 and minimum at X=1999.5, Y=12.3116.
Data series 6, Monounsaturated Fatty Acids Joinpoint (Line).
Point 1, X=1989, Y=12.6603.
Point 2, X=1990, Y=12.7285.
Point 3, X=1991, Y=12.7971.
Point 4, X=1994, Y=12.6094.
Point 5, X=1995, Y=12.5474.
Point 6, X=1996, Y=12.4858.
Point 7, X=1999.5, Y=12.2724.
Maximum at X=1991, Y=12.7971 and minimum at X=1999.5, Y=12.2724.
Data series 7, Polyunsaturated Fatty Acids (Scatter).
Point 1, X=1989, Y=6.65478.
Point 2, X=1990, Y=6.73899.
Point 3, X=1991, Y=6.61712.
Point 4, X=1994, Y=6.55013.
Point 5, X=1995, Y=6.38662.
Point 6, X=1996, Y=6.48287.
Point 7, X=1999.5, Y=6.70601.
Maximum at X=1990, Y=6.73899 and minimum at X=1995, Y=6.38662.
Data series 8, Polyunsaturated Fatty Acids Joinpoint (Line).
Point 1, X=1989, Y=6.73366.
Point 2, X=1990, Y=6.68471.
Point 3, X=1991, Y=6.63611.
Point 4, X=1994, Y=6.49242.
Point 5, X=1995, Y=6.44522.
Point 6, X=1996, Y=6.50118.
Point 7, X=1999.5, Y=6.7009.
Maximum at X=1989, Y=6.73366 and minimum at X=1995, Y=6.44522.

Source (1989 - 1996 Data): U.S. Department of Agriculture. Continuing Survey of Food Intakes by Individuals.\
Source (1999 - 2000 Data Point): National Center for Health Statistics. National Health and Nutrition Examination Survey.\
Data are age-adjusted to the 2000 standard using age groups: 2-5, 6-11, 12-19, 20-29, 30-39, 40-49, 50-59, 60-69, 70-79, 80+.

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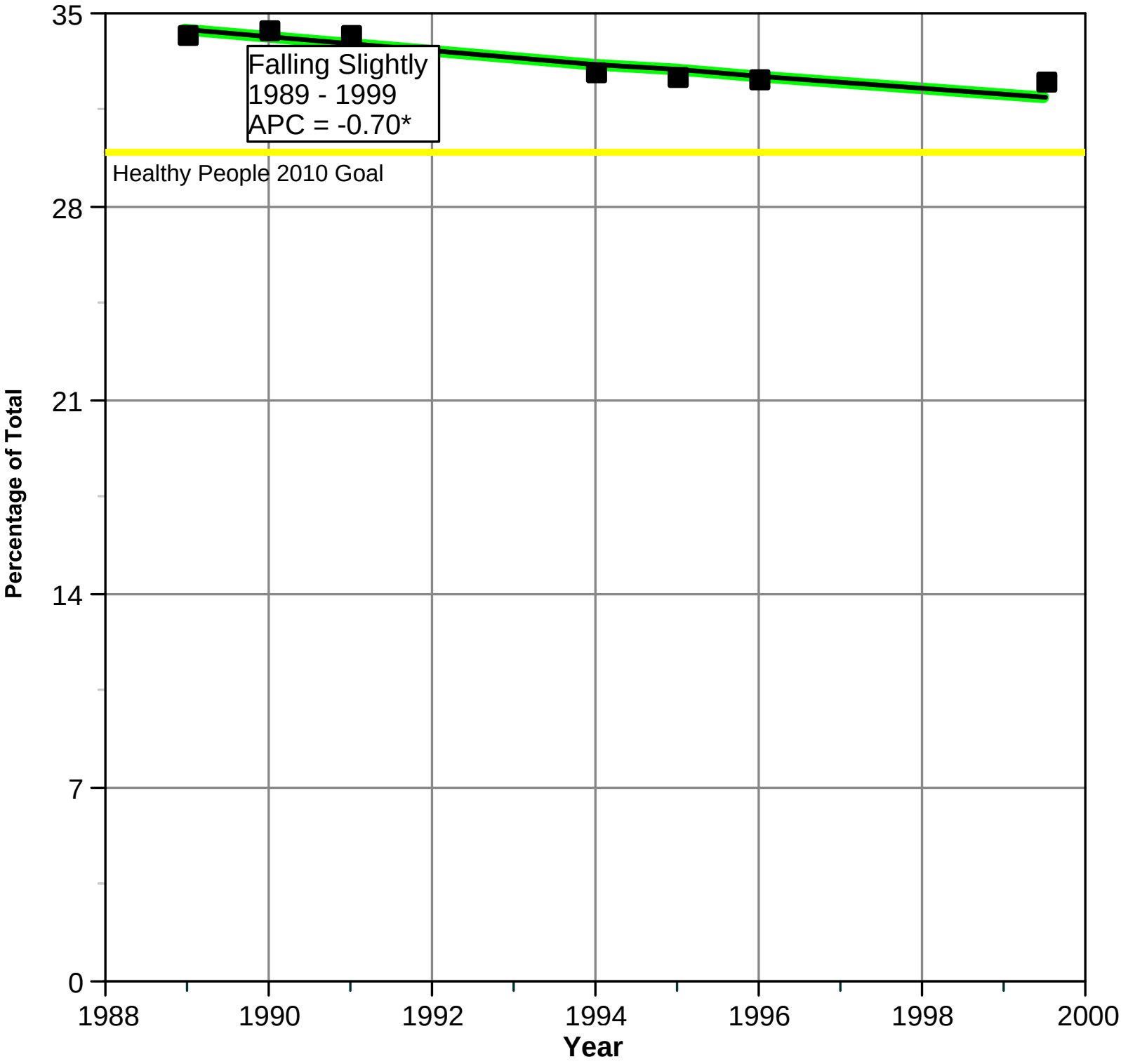
Figure 7a. Trends in Fat Intakes as a Percentage of Total Calories, Total Fat - 1989-1991, 1994-1996, and 1999-2000



Healthy People 2010 Goal 19-9: 75% of population to reach the level of total fat Intake to be no more than 30% of caloric intake.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.

Close window

Line graph with 2 lines and 7 points per line.

x-axis title: Year
y-axis title: Percentage of Total

X scale titled Scale label.
Y scale titled Scale label.
Scale Marker 1 on Y scale, line at 30. Scale marker text: Healthy People 2010 Goal
Data series 1, Total Fat (Scatter).
Point 1, X=1989, Y=34.1988.
Point 2, X=1990, Y=34.4353.
Point 3, X=1991, Y=34.2725, Note: Falling Slightly 1989 - 1999 APC = -0.70*.
Point 4, X=1994, Y=32.9231.
Point 5, X=1995, Y=32.7046.
Point 6, X=1996, Y=32.5973.
Point 7, X=1999.5, Y=32.5787.
Maximum at X=1990, Y=34.4353 and minimum at X=1999.5, Y=32.5787.
Data series 2, Total Fat Joinpoint (Line).
Point 1, X=1989, Y=34.3688.
Point 2, X=1990, Y=34.128.
Point 3, X=1991, Y=33.889.
Point 4, X=1994, Y=33.1819.
Point 5, X=1995, Y=32.9494.
Point 6, X=1996, Y=32.7187.
Point 7, X=1999.5, Y=31.9236.
Maximum at X=1989, Y=34.3688 and minimum at X=1999.5, Y=31.9236.

Healthy People 2010 Goal 19-9: 75% of population to reach the level of total fat Intake to be no more than 30% of caloric intake.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.

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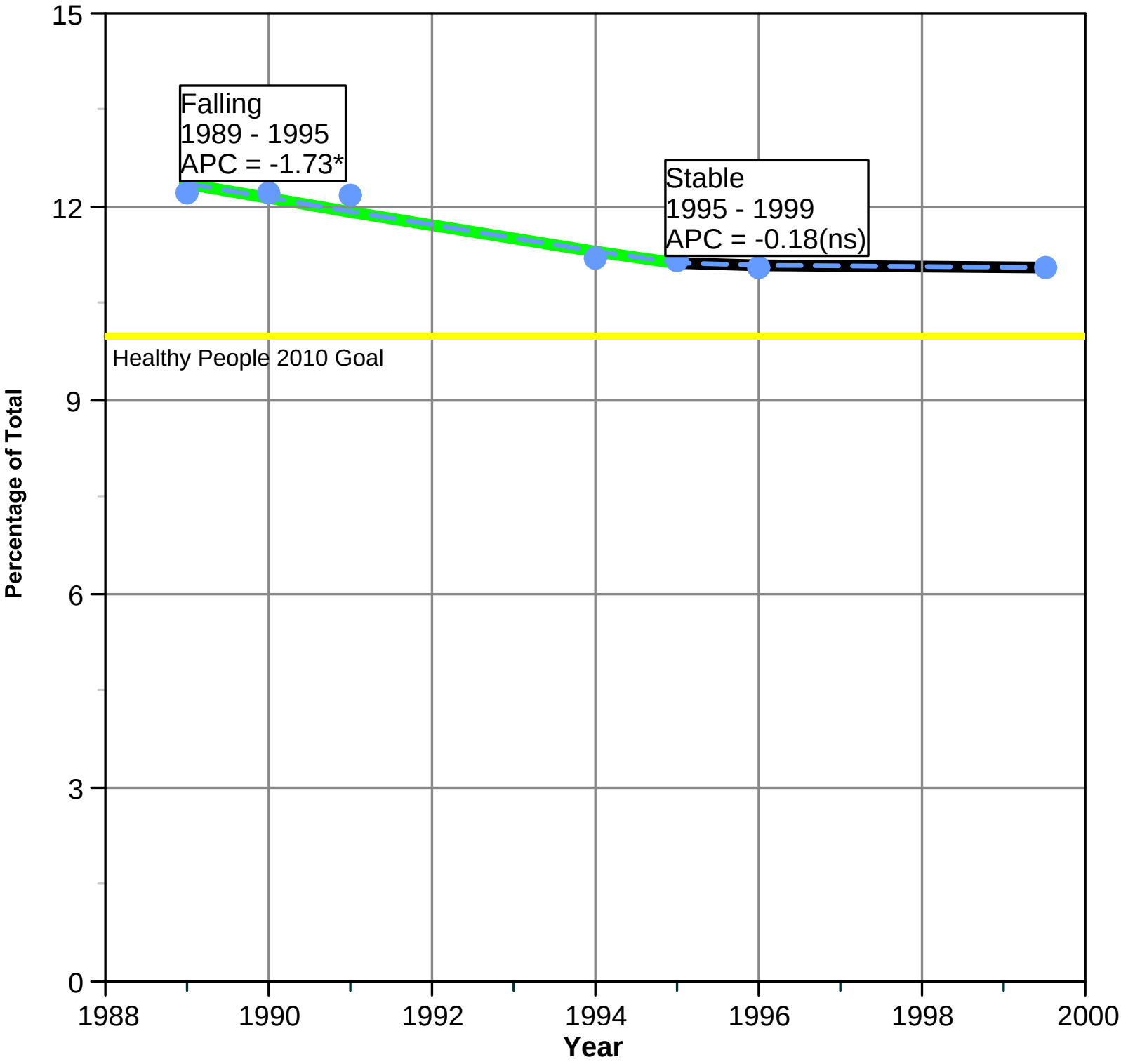
Close window

Figure 7b. Trends in Fat Intakes as a Percentage of Total Calories, Saturated Fatty Acids - 1989-1991, 1994-1996, and 1999-2000



Healthy People 2010 Goal 19-8: 75% of population to reach the level of saturated fat Intake to be no more than 10% of caloric intake.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

Close window

Line graph with 2 lines and 7 points per line.

x-axis title: Year
y-axis title: Percentage of Total

X scale titled Scale label.
Y scale titled Scale label.
Scale Marker 1 on Y scale, line at 10. Scale marker text: Healthy People 2010 Goal
Data series 1, Saturated Fatty Acids (Scatter).
Point 1, X=1989, Y=12.2094.
Point 2, X=1990, Y=12.2054, Note: Falling 1989 - 1995 APC = -1.73*.
Point 3, X=1991, Y=12.1828.
Point 4, X=1994, Y=11.2205.
Point 5, X=1995, Y=11.1857.
Point 6, X=1996, Y=11.0764, Note: Stable 1995 - 1999 APC = -0.18(ns).
Point 7, X=1999.5, Y=11.0612.
Maximum at X=1989, Y=12.2094 and minimum at X=1999.5, Y=11.0612.
Data series 2, Saturated Fatty Acids Joinpoint (Line).
Point 1, X=1989, Y=12.3525.
Point 2, X=1990, Y=12.1404.
Point 3, X=1991, Y=11.932.
Point 4, X=1994, Y=11.328.
Point 5, X=1995, Y=11.1336.
Point 6, X=1996, Y=11.1141.
Point 7, X=1999.5, Y=11.0462.
Maximum at X=1989, Y=12.3525 and minimum at X=1999.5, Y=11.0462.

Healthy People 2010 Goal 19-8: 75% of population to reach the level of saturated fat Intake to be no more than 10% of caloric intake.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

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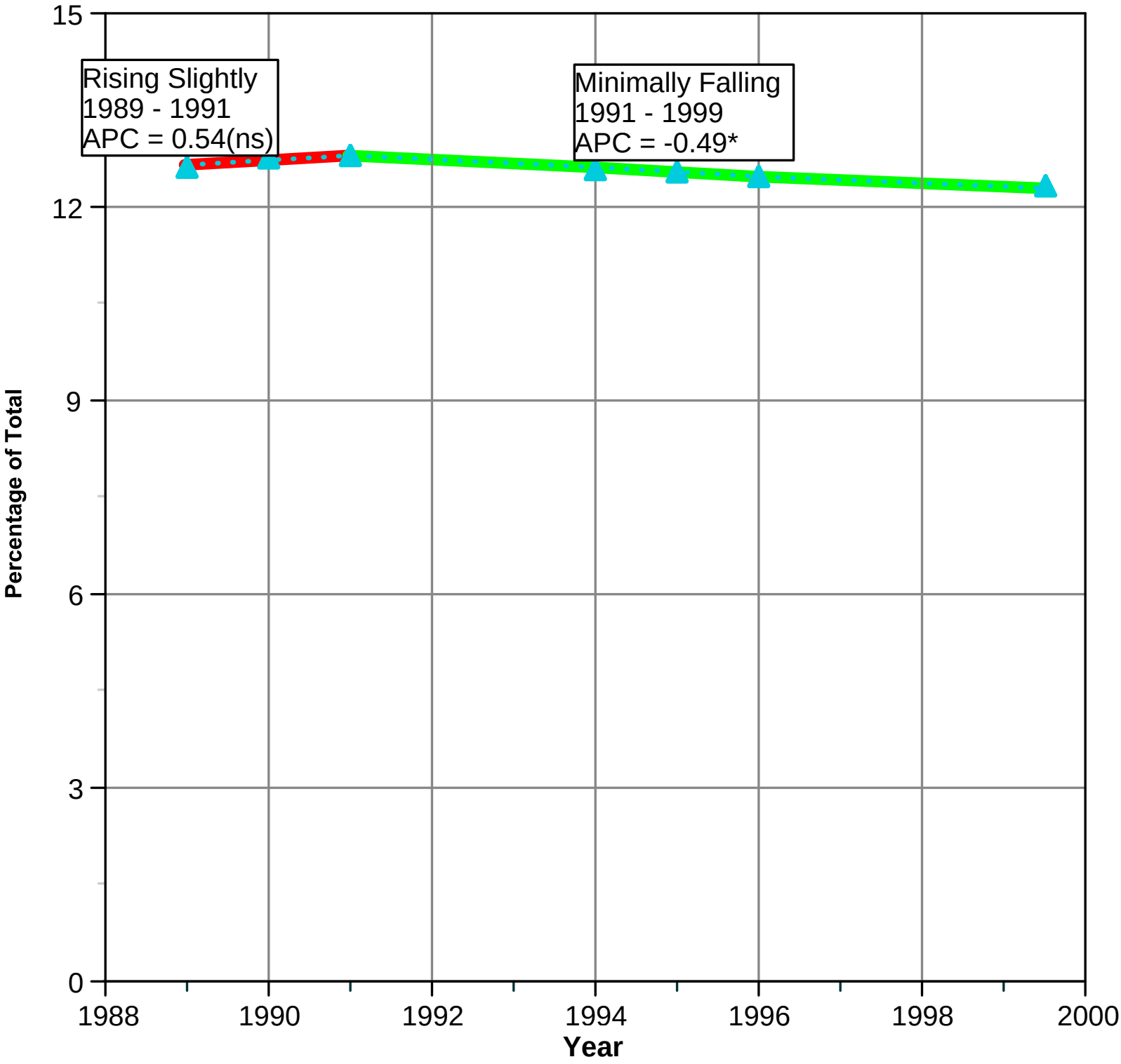
Close window

Figure 7c. Trends in Fat Intakes as a Percentage of Total Calories, Monounsaturated Fatty Acids - 1989-1991, 1994-1996, and 1999-2000



No Healthy People 2010 Target Goal for monounsaturated fatty acids.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

Close window

Line graph with 2 lines and 7 points per line.

x-axis title: Year
y-axis title: Percentage of Total

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Monounsaturated Fatty Acids (Scatter).
Point 1, X=1989, Y=12.6325, Note: Rising Slightly 1989 - 1991 APC = 0.54(ns).
Point 2, X=1990, Y=12.7762.
Point 3, X=1991, Y=12.8063.
Point 4, X=1994, Y=12.5771.
Point 5, X=1995, Y=12.5513, Note: Minimally Falling 1991 - 1999 APC = -0.49*.
Point 6, X=1996, Y=12.4768.
Point 7, X=1999.5, Y=12.3116.
Maximum at X=1991, Y=12.8063 and minimum at X=1999.5, Y=12.3116.
Data series 2, Monounsaturated Fatty Acids Joinpoint (Line).
Point 1, X=1989, Y=12.6603.
Point 2, X=1990, Y=12.7285.
Point 3, X=1991, Y=12.7971.
Point 4, X=1994, Y=12.6094.
Point 5, X=1995, Y=12.5474.
Point 6, X=1996, Y=12.4858.
Point 7, X=1999.5, Y=12.2724.
Maximum at X=1991, Y=12.7971 and minimum at X=1999.5, Y=12.2724.

No Healthy People 2010 Target Goal for monounsaturated fatty acids.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

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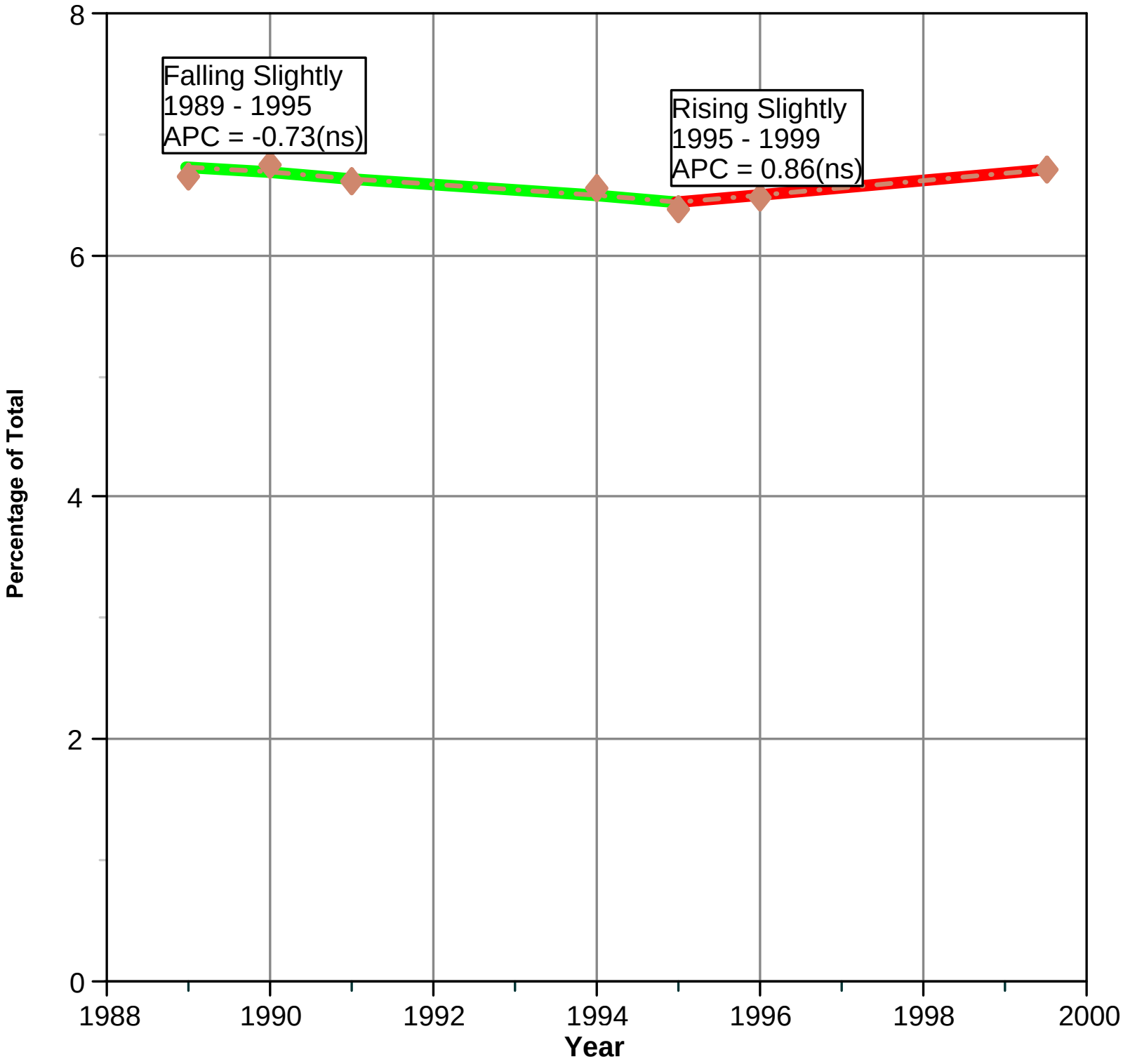
Close window

Figure 7d. Trends in Fat Intakes as a Percentage of Total Calories, Polyunsaturated Fatty Acids - 1989-1991, 1994-1996, and 1999-2000



No HP2010 Target Goal for polyunsaturated fatty acids.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

Close window

Line graph with 2 lines and 7 points per line.

x-axis title: Year
y-axis title: Percentage of Total

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Polyunsaturated Fatty Acids (Scatter).
Point 1, X=1989, Y=6.65478.
Point 2, X=1990, Y=6.73899, Note: Falling Slightly 1989 - 1995 APC = -0.73(ns).
Point 3, X=1991, Y=6.61712.
Point 4, X=1994, Y=6.55013.
Point 5, X=1995, Y=6.38662.
Point 6, X=1996, Y=6.48287, Note: Rising Slightly 1995 - 1999 APC = 0.86(ns).
Point 7, X=1999.5, Y=6.70601.
Maximum at X=1990, Y=6.73899 and minimum at X=1995, Y=6.38662.
Data series 2, Polyunsaturated Fatty Acids Joinpoint (Line).
Point 1, X=1989, Y=6.73366.
Point 2, X=1990, Y=6.68471.
Point 3, X=1991, Y=6.63611.
Point 4, X=1994, Y=6.49242.
Point 5, X=1995, Y=6.44522.
Point 6, X=1996, Y=6.50118.
Point 7, X=1999.5, Y=6.7009.
Maximum at X=1989, Y=6.73366 and minimum at X=1995, Y=6.44522.

No HP2010 Target Goal for polyunsaturated fatty acids.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

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Prevention: Behavioral

Weight

More adults are becoming overweight and obese.

On this page:

- Overweight, Obesity, and Cancer
- Measure
- Period
- Trends
- Most Recent Estimates
- Healthy People 2010 Targets
- Groups at High Risk for Being Overweight or Obese
- Key Issues
- Links to Additional Information

Also in this Section
- Adult Smoking
- Quitting Smoking
- Youth Smoking
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- Physical Activity
- Sun Protection
- Secondhand Smoke
- Radon in the Home
- Benzene in the Air

Also in the *Report*
- Report-at-a-Glance
- Prevention
- Early Detection
- Diagnosis
- Treatment
- Life After Cancer
- End of Life

Overweight, Obesity, and Cancer

Compelling evidence exists that prevention of obesity reduces the risk for many of the most common cancers, such as colon, postmenopausal breast, uterine, and renal cell cancers. It is estimated that 20 to 30 percent of some of the most common cancers in the United States, including breast, prostate, colon, kidney, and uterine cancers, may be related to overweight and/or physical inactivity.

Recent studies indicate that overweight and obesity may increase the risk of death from many cancers, accounting for up to 14 percent of cancer deaths in men and 20 percent of cancer deaths in women.

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Measure

Percent of adults (ages 20-74) who are at a healthy weight, overweight, or obese.

These weight groups are defined by a measurement called body mass index (BMI). BMI is found by dividing weight (in kilograms) by height (in meters) squared.

Healthy weight: Stable, then falling slightly, then falling
Overweight: Stable, then rising slightly, then rising
Obesity: Stable, then rising

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Period – 1971-1974, 1976-1980, 1988-1994, and 1999-2000

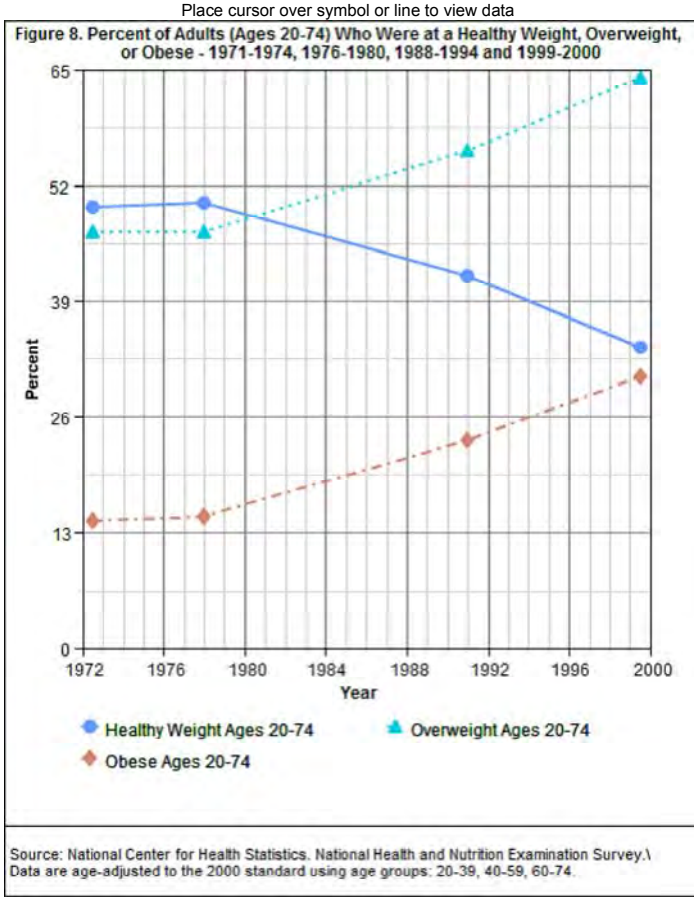
Trends

Healthy weight: Stable, then falling slightly, then falling
Overweight: Stable, then rising slightly, then rising
Obesity: Stable, then rising

Graph image format: ○ [D] ◉ FLASH ○ JPEG

View details for:
Healthy Weight Ages 20-74 Overweight Ages 20-74 Obese Ages 20-74

Place cursor over symbol or line to view data



Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.

Download data (Excel)

Most Recent Estimates

Among adults in 1999-2000:

- 34 percent were at a healthy weight.
- 64 percent were overweight.
- 30 percent were obese.

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Healthy People 2010 Targets

Increase to 60 percent the proportion of adults who are at a healthy weight.

There is no Healthy People 2010 target for overweight.

Decrease to 15 percent the proportion of obese adults.

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Groups at High Risk for Being Overweight or Obese

Overweight and obesity are most common among Black and Mexican- American women. The same patterns are seen for children and teens in these groups.

Overweight children are more likely to become overweight adults and to suffer from

associated illnesses, as well as premature death. As with adults, the trend toward excess weight among children has greatly increased in recent years.

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Key Issues

Daily physical activity, balanced with appropriate calorie intake, is one of the most effective ways to avoid weight gain. Lack of activity is believed to be one of the major reasons for the increase in overweight among U.S. youth and adults.

Increased TV watching is linked with excess weight.

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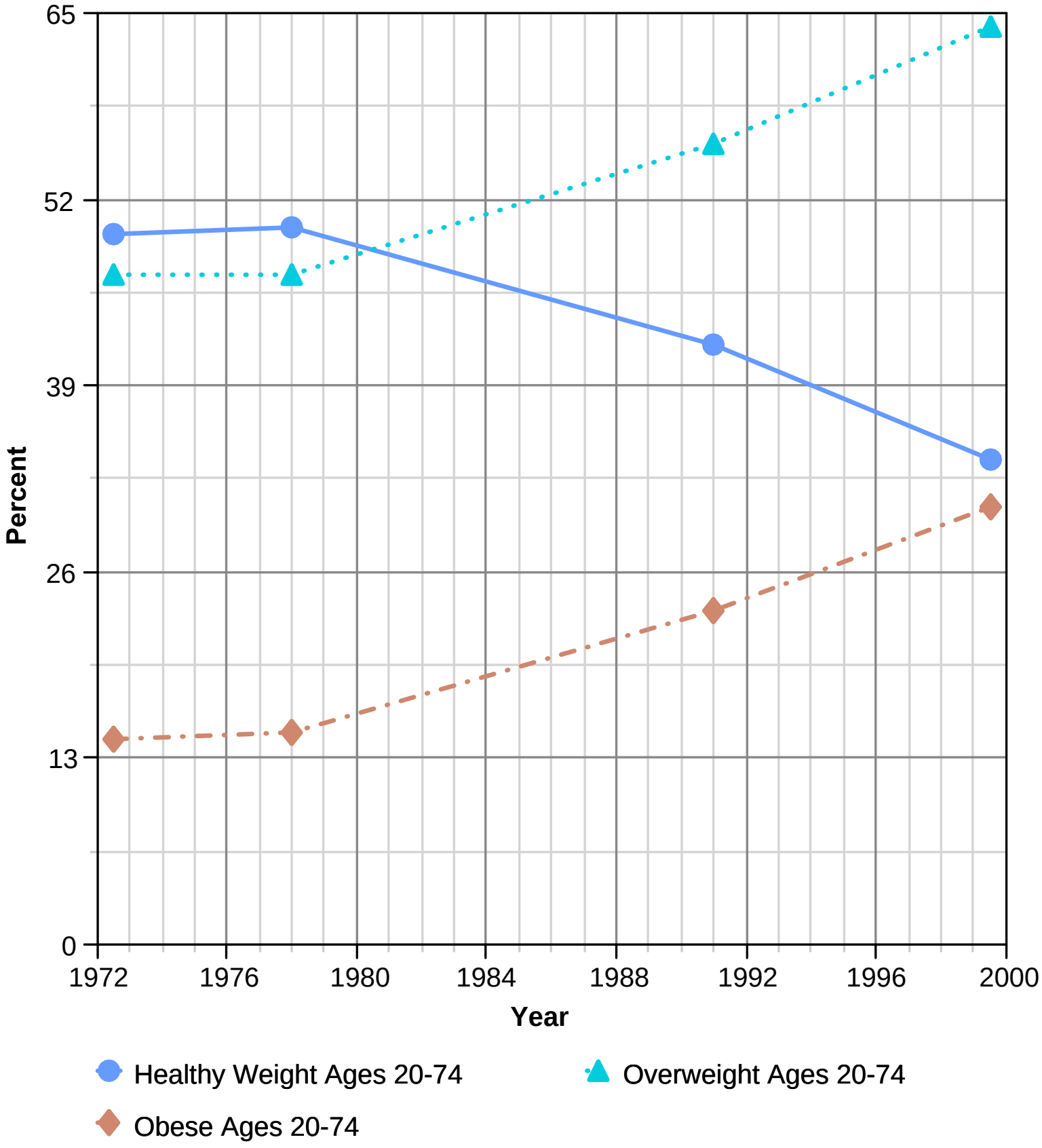
See Physical Activity for trends in physical activity.

Links to additional information on weight

- International Agency for Research on Cancer (IARC)
  http://www.iarc.fr/
- Body Mass Index Table (National Heart, Lung, and Blood Institute)
  http://www.nhlbi.nih.gov/guidelines/obesity/bmi_tbl.htm
- National Health and Nutrition Examination Survey (NHANES) (NCHS)
  http://www.cdc.gov/nchs/nhanes.htm
- Healthy People 2010, Volume 2, Chapter 19 - Nutrition and Overweight
  http://www.health.gov/healthypeople/Document/html/volume2/19Nutrition.htm
- Physical Activity and Health: A Report of the Surgeon General - Chapter 4: The Effects of Physical Activity on Health and Disease (CDC)
  http://www.cdc.gov/nccdphp/sgr/chap4.htm
- Relationship of Physical Activity and Television Watching With Body Weight and Level of Fatness Among Children: Results From the Third National Health and Nutrition Examination Survey
  http://jama.ama-assn.org/cgi/content/abstract/279/12/938

Page last modified: 11/08/2005

Figure 8. Percent of Adults (Ages 20-74) Who Were at a Healthy Weight, Overweight, or Obese - 1971-1974, 1976-1980, 1988-1994 and 1999-2000



Source: National Center for Health Statistics. National Health and Nutrition Examination Survey.\
Data are age-adjusted to the 2000 standard using age groups: 20-39, 40-59, 60-74.

Line graph with 3 lines and 4 points per line.

x-axis title: Year
y-axis title: Percent

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Healthy Weight Ages 20-74 (Line).
Point 1, X=1972.5, Y=49.5.
Point 2, X=1978, Y=50.1.
Point 3, X=1991, Y=41.8.
Point 4, X=1999.5, Y=33.9.
Maximum at X=1978, Y=50.1 and minimum at X=1999.5, Y=33.9.
Data series 2, Overweight Ages 20-74 (Line).
Point 1, X=1972.5, Y=46.8.
Point 2, X=1978, Y=46.7.
Point 3, X=1991, Y=55.9.
Point 4, X=1999.5, Y=64.
Maximum at X=1999.5, Y=64 and minimum at X=1978, Y=46.7.
Data series 3, Obese Ages 20-74 (Line).
Point 1, X=1972.5, Y=14.4.
Point 2, X=1978, Y=14.8.
Point 3, X=1991, Y=23.3.
Point 4, X=1999.5, Y=30.5.
Maximum at X=1999.5, Y=30.5 and minimum at X=1972.5, Y=14.4.

Source: National Center for Health Statistics. National Health and Nutrition Examination Survey.\
Data are age-adjusted to the 2000 standard using age groups: 20-39, 40-59, 60-74.

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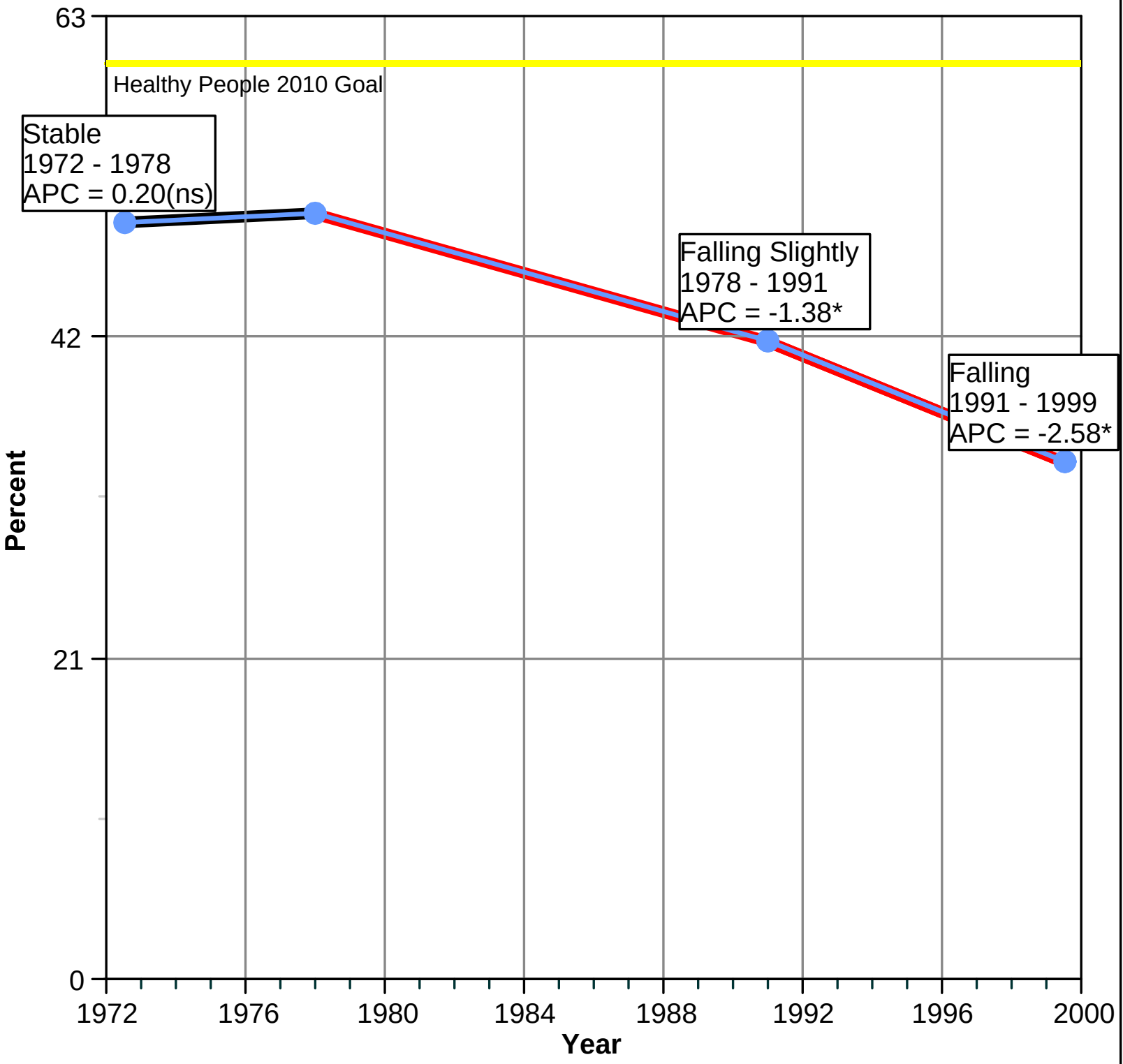
Figure 8a. Percent of Adults (Ages 20-74) Who Were at a Healthy Weight - 1971-1974, 1976-1980, 1988-1994 and 1999-2000



Healthy People 2010 Goal 19-1: 60%.\
HP2010 Goals 19-1 and 19-2 are based on ages 20+. NHANES 1 and NHANES 2 used an age cut-off of 74; therefore both ages 20-74 and ages 20+ were plotted on the graph.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

Close window

Line graph with 2 lines and 4 points per line.

x-axis title: Year
y-axis title: Percent

X scale titled Scale label.
Y scale titled Scale label.
Scale Marker 1 on Y scale, line at 60. Scale marker text: Healthy People 2010 Goal
Data series 1, Healthy Weight Ages 20-74 (Line).
Point 1, X=1972.5, Y=49.5, Note: Stable 1972 - 1978 APC = 0.20(ns).
Point 2, X=1978, Y=50.1.
Point 3, X=1991, Y=41.8, Note: Falling Slightly 1978 - 1991 APC = -1.38*.
Point 4, X=1999.5, Y=33.9, Note: Falling 1991 - 1999 APC = -2.58*.
Maximum at X=1978, Y=50.1 and minimum at X=1999.5, Y=33.9.
Data series 2, Healthy Weight Ages 20+ (Line).
Point 1, X=1991, Y=41.7.
Point 2, X=1999.5, Y=33.9.
Maximum at X=1991, Y=41.7 and minimum at X=1999.5, Y=33.9.

Healthy People 2010 Goal 19-1: 60%.\
HP2010 Goals 19-1 and 19-2 are based on ages 20+. NHANES 1 and NHANES 2 used an age cut-off of 74; therefore both ages 20-74 and ages 20+ were plotted on the graph.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

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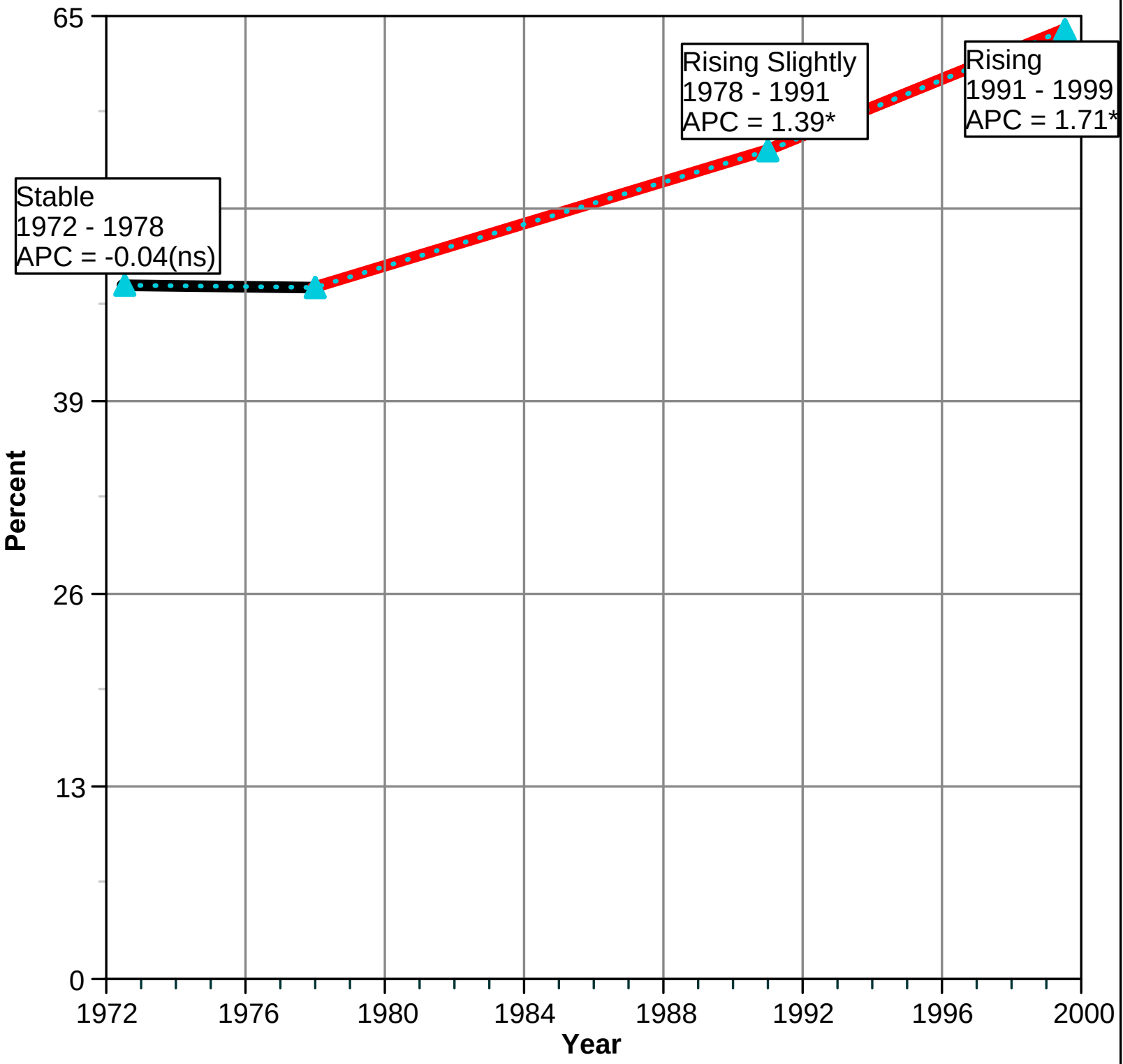
Close window

Figure 8b. Percent of Adults (Ages 20-74) Who Were Overweight - 1971-1974, 1976-1980, 1988-1994 and 1999-2000



No Healthy People 2010 Target Goal for Overweight.\
HP2010 Goals 19-1 and 19-2 are based on ages 20+. NHANES 1 and NHANES 2 used an age cut-off of 74; therefore both ages 20-74 and ages 20+ were plotted on the graph.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

Close window

Line graph with 2 lines and 4 points per line.

x-axis title: Year
y-axis title: Percent

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Overweight Ages 20-74 (Line).
Point 1, X=1972.5, Y=46.8, Note: Stable 1972 - 1978 APC = -0.04(ns).
Point 2, X=1978, Y=46.7.
Point 3, X=1991, Y=55.9, Note: Rising Slightly 1978 - 1991 APC = 1.39*.
Point 4, X=1999.5, Y=64, Note: Rising 1991 - 1999 APC = 1.71*.
Maximum at X=1999.5, Y=64 and minimum at X=1978, Y=46.7.
Data series 2, Overweight Ages 20+ (Line).
Point 1, X=1991, Y=55.9.
Point 2, X=1999.5, Y=64.
Maximum at X=1999.5, Y=64 and minimum at X=1991, Y=55.9.

No Healthy People 2010 Target Goal for Overweight.\
HP2010 Goals 19-1 and 19-2 are based on ages 20+. NHANES 1 and NHANES 2 used an age cut-off of 74; therefore both ages 20-74 and ages 20+ were plotted on the graph.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

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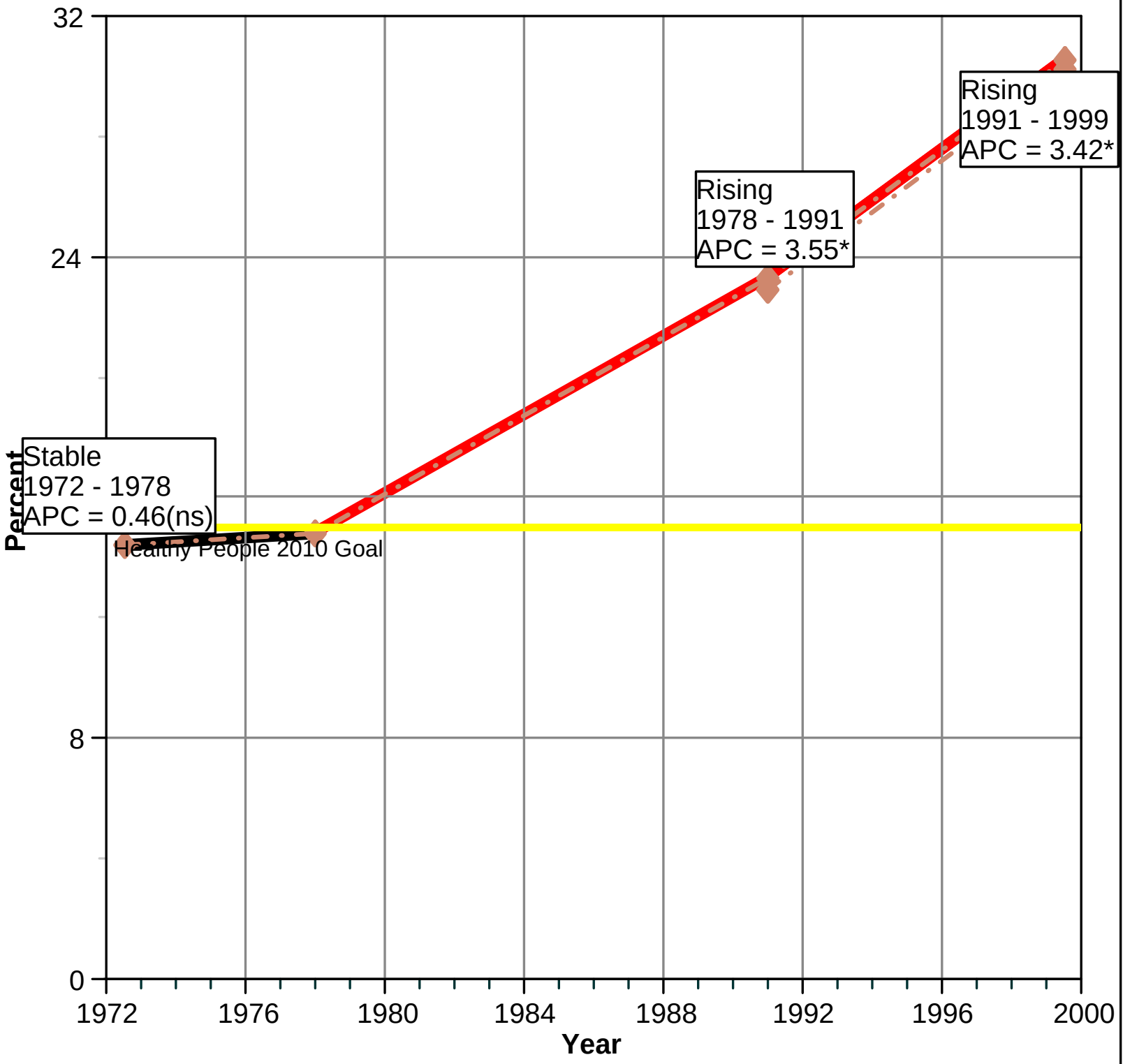
Figure 8c. Percent of Adults (Ages 20-74) Who Were Obese - 1971-1974, 1976-1980, 1988-1994 and 1999-2000



Healthy People 2010 Goal 19-2: 15%.\
HP2010 Goals 19-1 and 19-2 are based on ages 20+. NHANES 1 and NHANES 2 used an age cut-off of 74; therefore both ages 20-74 and ages 20+ were plotted on the graph.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

Close window

Line graph with 2 lines and 4 points per line.

x-axis title: Year
y-axis title: Percent

X scale titled Scale label.
Y scale titled Scale label.
Scale Marker 1 on Y scale, line at 15. Scale marker text: Healthy People 2010 Goal
Data series 1, Obese Ages 20-74 (Line).
Point 1, X=1972.5, Y=14.4, Note: Stable 1972 - 1978 APC = 0.46(ns).
Point 2, X=1978, Y=14.8.
Point 3, X=1991, Y=23.3, Note: Rising 1978 - 1991 APC = 3.55*.
Point 4, X=1999.5, Y=30.5, Note: Rising 1991 - 1999 APC = 3.42*.
Maximum at X=1999.5, Y=30.5 and minimum at X=1972.5, Y=14.4.
Data series 2, Obese Ages 20+ (Line).
Point 1, X=1991, Y=22.9.
Point 2, X=1999.5, Y=30.2.
Maximum at X=1999.5, Y=30.2 and minimum at X=1991, Y=22.9.

Healthy People 2010 Goal 19-2: 15%.\
HP2010 Goals 19-1 and 19-2 are based on ages 20+. NHANES 1 and NHANES 2 used an age cut-off of 74; therefore both ages 20-74 and ages 20+ were plotted on the graph.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

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Prevention: Behavioral

Physical Activity

Only about two-thirds of adults get any physical activity in their leisure time.

On this page:

- Physical Activity and Cancer
- Measure
- Period
- Trend
- Most Recent Estimates
- Healthy People 2010 Target
- Groups at High Risk for Being Inactive in Their Leisure Time
- Key Issues
- Links to Additional Information

Also in this Section
- Adult Smoking
- Quitting Smoking
- Youth Smoking
- Age of Smoking Initiation
- Alcohol Consumption
- Fruit and Vegetable Consumption
- Fat Consumption
- Weight
- **Physical Activity**
- Sun Protection
- Secondhand Smoke
- Radon in the Home
- Benzene in the Air

Also in the *Report*
- Report-at-a-Glance
- Prevention
- Early Detection
- Diagnosis
- Treatment
- Life After Cancer
- End of Life

Physical Activity and Cancer

Physical activity at work or during leisure time is linked to a 50 percent lower risk of getting colon cancer. Both vigorous and moderate levels of physical activity appear to reduce this risk. Physical activity probably is connected with a lower risk of breast cancer and possibly prostate and endometrial cancers. Studies continue to look at whether physical activity has a role in reducing the chances of getting other cancers.

Several national groups have recommended that people engage in regular physical activity. Recommendations within the 1997 Surgeon General's Report on Physical Activity and Health and the CDC/American College of Sports Medicine suggest engaging in at least 30 minutes per day of moderate physical activity for most days of the week. Recently, an IOM committee recommended that adults and children should obtain at least 60 minutes of moderately intense physical activity every day. The higher time recommendation has been noted to be important for weight maintenance, beyond the health effects achieved with 30 minutes of activity per day.

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Measure

Percent of adults ages 18 and older who had no leisure-time physical activity during the past month.

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Period – 1990-2001

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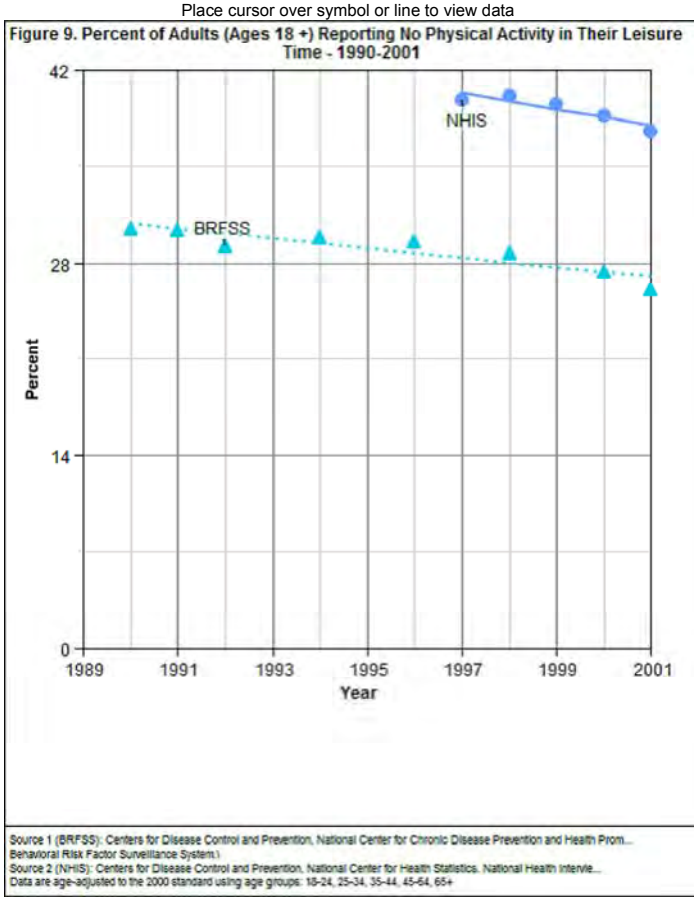
Trend – Falling slightly

Graph image format: ○ [D] ◉ FLASH ○ JPEG

View details for:
BRFSS NHIS

Place cursor over symbol or line to view data



Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute. (See Methodology for Characterizing Trends)

Download data (Excel)

This means that only slightly more adults have any physical activity in their leisure time.

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Most Recent Estimates

Results from the Behavioral Risk Factor Surveillance System (BRFSS) show that in 2001, 26 percent of adults ages 18 and older reported no physical activity in their leisure time. BRFSS, a telephone survey, was used for the *Cancer Progress Report - 2003 Update* because data have been available in a consistent form over time.

The 2001 National Health Interview Survey (NHIS), an in-person household survey that used different questions to assess physical activity, indicates that 38 percent of adults 18 and older reported no physical activity in their leisure time.

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Healthy People 2010 Target

Reduce to 20 percent the percent of adults who engage in no leisure-time physical activity (based on NHIS data).

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Groups at High Risk for Being Inactive in Their Leisure Time

Women are more likely than men, and Blacks and Hispanics are more likely than Whites, to report no leisure-time physical activity. Lack of physical activity also is more common among those with less education.

For youth, physical activity is lower among females, especially Blacks. Also, physical activity decreases as children get older.

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Key Issues

Since the mid-1980s, fewer high school students have taken part in physical education classes.

Removing barriers (such as lack of physical education classes) and setting up supports (such as bicycle and walking paths) can help to promote physically active lifestyles.

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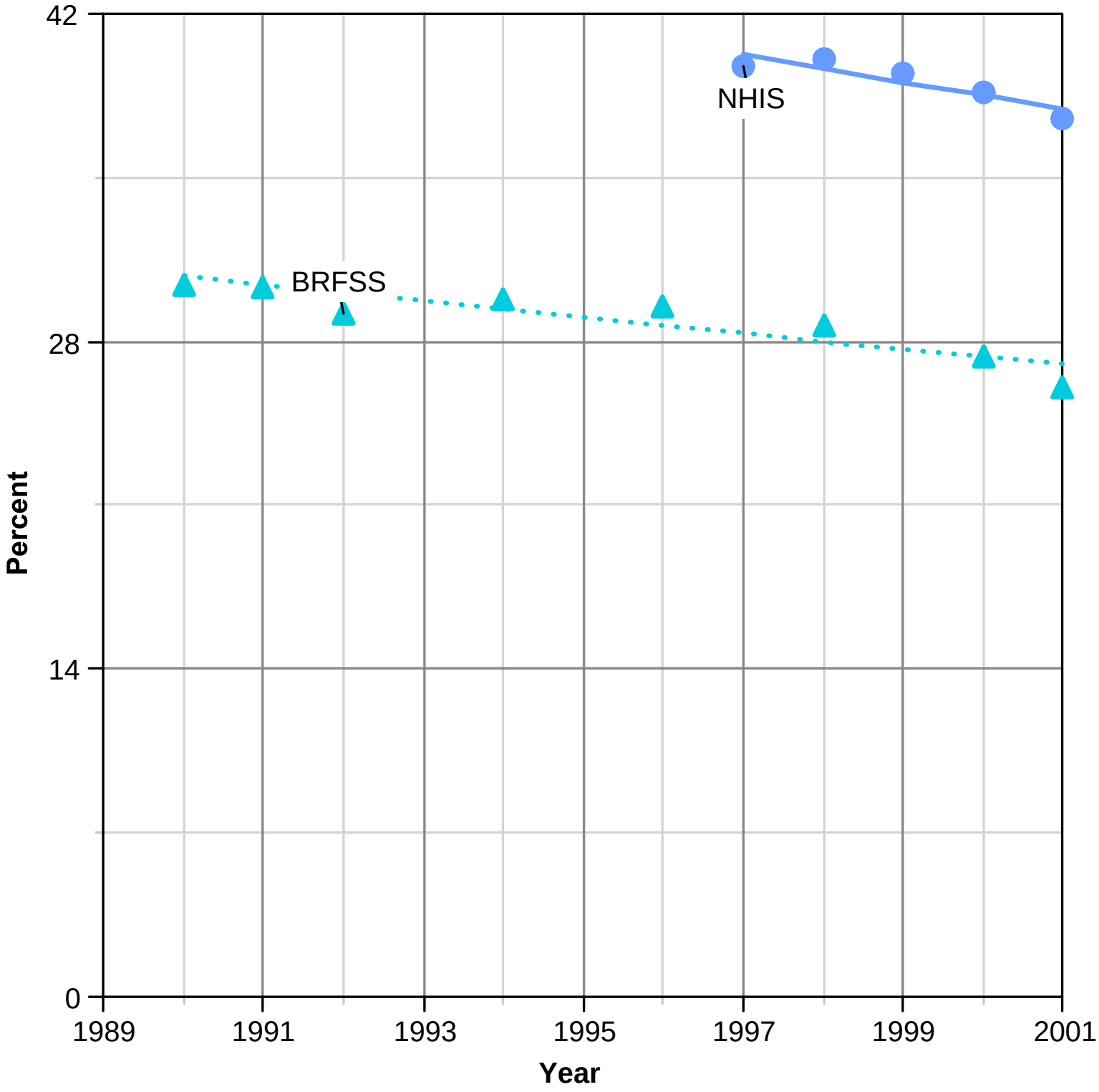
Links to additional information on physical activity:

- Morbidity and Mortality Weekly Report (MMWR)
  http://www.cdc.gov/mmwr/
- Physical Activity Trends -- United States, 1990-1998 (MMWR)
  http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5009a3.htm
- National Health Interview Survey (NHIS) (NCHS)
  http://www.cdc.gov/nchs/nhis.htm
- CDC, Behavioral Risk Factor Surveillance System (BRFSS)
  http://www.cdc.gov/brfss
- Healthy People 2010, Volume 2, Chapter 22 - Physical Activity and Fitness
  http://www.health.gov/healthypeople/Document/HTML/Volume2/22Physical.htm

Page last modified: 11/08/2005

Figure 9. Percent of Adults (Ages 18 +) Reporting No Physical Activity in Their Leisure Time - 1990-2001



Source 1 (BRFSS): Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health P
Behavioral Risk Factor Surveillance System.\
Source 2 (NHIS): Centers for Disease Control and Prevention, National Center for Health Statistics. National Health Intervie...
Data are age-adjusted to the 2000 standard using age groups: 18-24, 25-34, 35-44, 45-64, 65+

Line graph with 4 lines and 10 points per line.

x-axis title: Year
y-axis title: Percent

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, BRFSS (Scatter).
Point 1, X=1990, Y=30.4.
Point 2, X=1991, Y=30.3.
Point 3, X=1992, Y=29.2, Note: BRFSS.
Point 4, X=1994, Y=29.8.
Point 5, X=1996, Y=29.5.
Point 6, X=1998, Y=28.7.
Point 7, X=2000, Y=27.4.
Point 8, X=2001, Y=26.
Maximum at X=1990, Y=30.4 and minimum at X=2001, Y=26.
Data series 2, BRFSS Joinpoint (Line).
Point 1, X=1990, Y=30.7747.
Point 2, X=1991, Y=30.4125.
Point 3, X=1992, Y=30.0546.
Point 4, X=1994, Y=29.3513.
Point 5, X=1996, Y=28.6645.
Point 6, X=1997, Y=28.32715.
Point 7, X=1998, Y=27.9938.
Point 8, X=1999, Y=27.66432.
Point 9, X=2000, Y=27.3388.
Point 10, X=2001, Y=27.017.
Maximum at X=1990, Y=30.7747 and minimum at X=2001, Y=27.017.
Data series 3, NHIS (Scatter).
Point 1, X=1997, Y=39.8097, Note: NHIS.
Point 2, X=1998, Y=40.0634.
Point 3, X=1999, Y=39.4455.
Point 4, X=2000, Y=38.6931.
Point 5, X=2001, Y=37.5521.
Maximum at X=1998, Y=40.0634 and minimum at X=2001, Y=37.5521.
Data series 4, NHIS Joinpoint (Line).
Point 1, X=1997, Y=40.2621.
Point 2, X=1998, Y=39.6765.
Point 3, X=1999, Y=39.0994.
Point 4, X=2000, Y=38.5307.
Point 5, X=2001, Y=37.9703.
Maximum at X=1997, Y=40.2621 and minimum at X=2001, Y=37.9703.

Source 1 (BRFSS): Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System.\
Source 2 (NHIS): Centers for Disease Control and Prevention, National Center for Health Statistics. National Health Interview Survey.\
Data are age-adjusted to the 2000 standard using age groups: 18-24, 25-34, 35-44, 45-64, 65+

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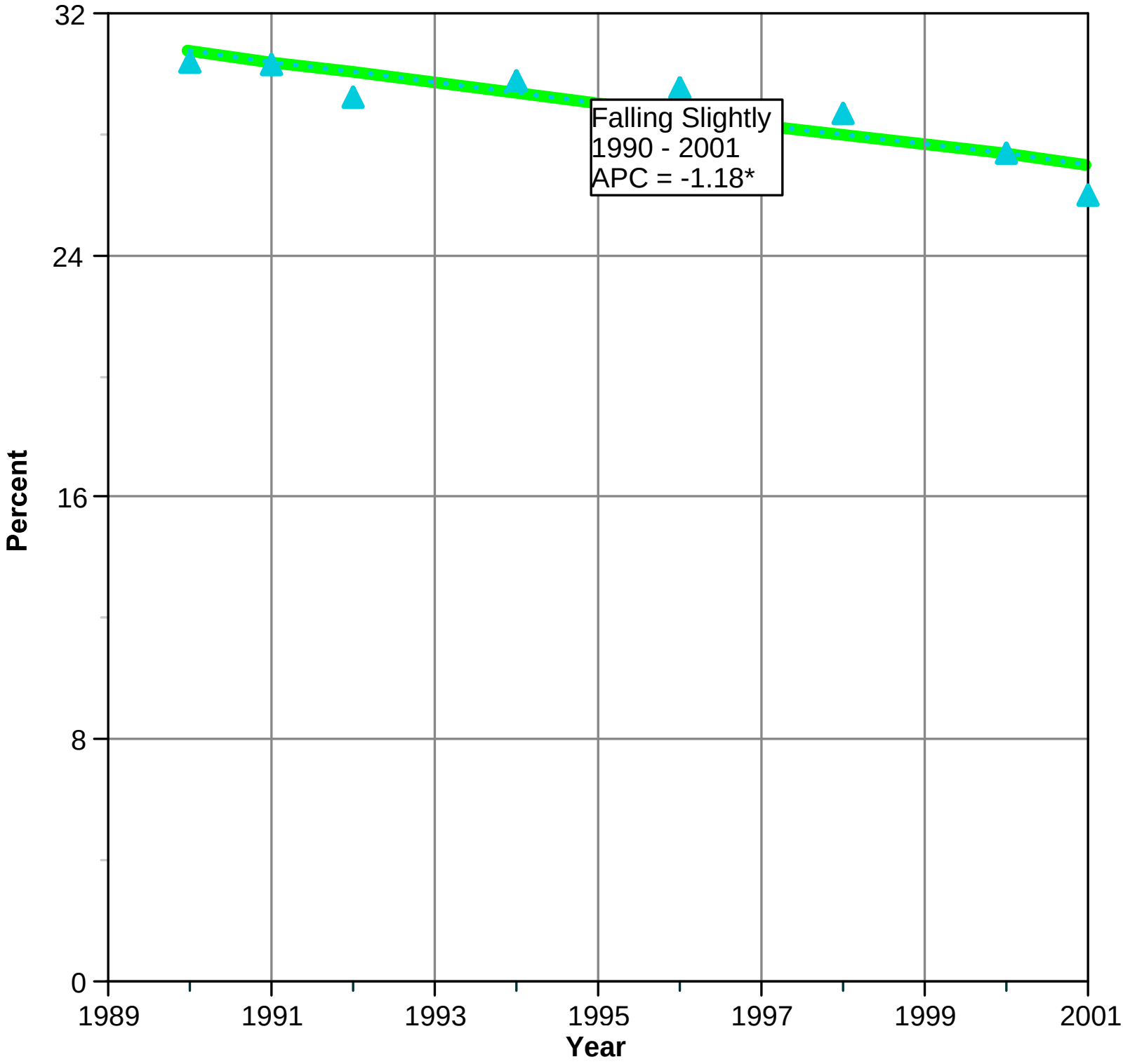
Figure 9a. Percent of Adults (Ages 18 +) Reporting No Physical Activity in Their Leisure Time - 1990-2001 (BRFSS)



Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint (JP) Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.

Close window

Line graph with 2 lines and 10 points per line.

x-axis title: Year
y-axis title: Percent

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, BRFSS (Scatter).
Point 1, X=1990, Y=30.4.
Point 2, X=1991, Y=30.3.
Point 3, X=1992, Y=29.2.
Point 4, X=1994, Y=29.8.
Point 5, X=1996, Y=29.5, Note: Falling Slightly 1990 - 2001 APC = -1.18*.
Point 6, X=1998, Y=28.7.
Point 7, X=2000, Y=27.4.
Point 8, X=2001, Y=26.
Maximum at X=1990, Y=30.4 and minimum at X=2001, Y=26.
Data series 2, BRFSS Joinpoint (Line).
Point 1, X=1990, Y=30.7747.
Point 2, X=1991, Y=30.4125.
Point 3, X=1992, Y=30.0546.
Point 4, X=1994, Y=29.3513.
Point 5, X=1996, Y=28.6645.
Point 6, X=1997, Y=28.32715.
Point 7, X=1998, Y=27.9938.
Point 8, X=1999, Y=27.66432.
Point 9, X=2000, Y=27.3388.
Point 10, X=2001, Y=27.017.
Maximum at X=1990, Y=30.7747 and minimum at X=2001, Y=27.017.

Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint (JP) Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.

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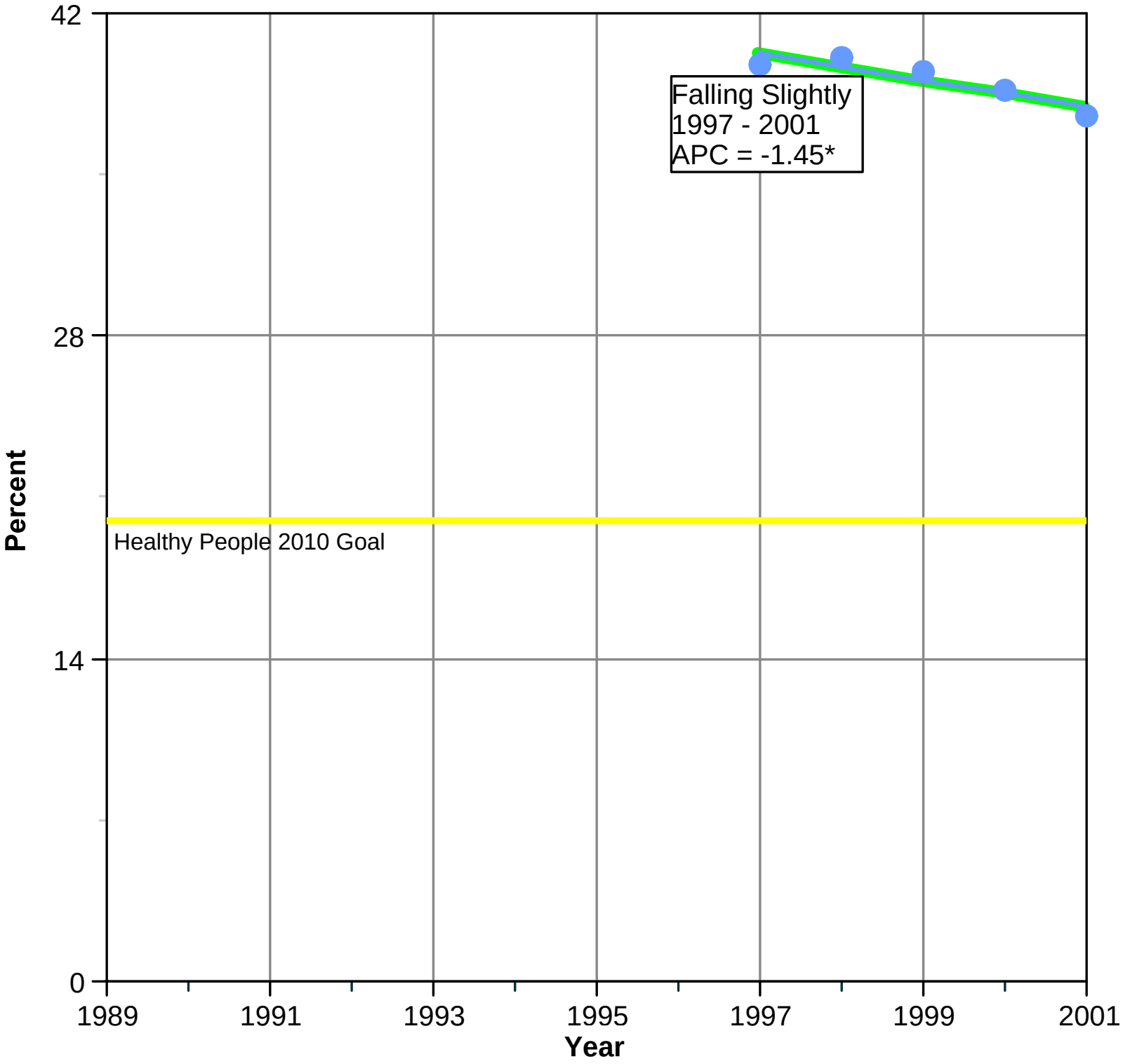
Close window

Figure 9b. Percent of Adults (Ages 18 +) Reporting No Physical Activity in Their Leisure Time - 1990-2001 (NHIS)



Healthy People 2010 Goal 22-1: 20%. (Data Source for HP2010 goal is NHIS.)\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint (JP) Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.

Close window

Line graph with 2 lines and 10 points per line.

x-axis title: Year
y-axis title: Percent

X scale titled Scale label.
Y scale titled Scale label.
Scale Marker 1 on Y scale, line at 20. Scale marker text: Healthy People 2010 Goal
Data series 1, NHIS (Scatter).
Point 1, X=1997, Y=39.8097, Note: Falling Slightly 1997 - 2001 APC = -1.45*.
Point 2, X=1998, Y=40.0634.
Point 3, X=1999, Y=39.4455.
Point 4, X=2000, Y=38.6931.
Point 5, X=2001, Y=37.5521.
Maximum at X=1998, Y=40.0634 and minimum at X=2001, Y=37.5521.
Data series 2, NHIS Joinpoint (Line).
Point 1, X=1997, Y=40.2621.
Point 2, X=1998, Y=39.6765.
Point 3, X=1999, Y=39.0994.
Point 4, X=2000, Y=38.5307.
Point 5, X=2001, Y=37.9703.
Maximum at X=1997, Y=40.2621 and minimum at X=2001, Y=37.9703.

Healthy People 2010 Goal 22-1: 20%. (Data Source for HP2010 goal is NHIS.)\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint (JP) Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.

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Prevention: Behavioral

Sun Protection

Only 60 percent of adults say they are likely to protect themselves from the sun.

On this page:

- Sun Protection and Cancer
- Measure
- Period
- Trends
- Most Recent Estimates
- Healthy People 2010 Target
- Groups at High Risk for Getting Too Much Sun
- Key Issues
- Links to Additional Information

Also in this Section
- Adult Smoking
- Quitting Smoking
- Youth Smoking
- Age of Smoking Initiation
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- Secondhand Smoke
- Radon in the Home
- Benzene in the Air

Also in the *Report*
- Report-at-a-Glance
- Prevention
- Early Detection
- Diagnosis
- Treatment
- Life After Cancer
- End of Life

Sun Protection and Cancer

Skin cancers are most common in light-skinned people, although they also occur in people with darker skin. Studies suggest that reducing long-term exposure to the sun, and to artificial light from tanning beds, booths, and sun lamps, can lower the risk of non-melanoma skin cancer. Avoiding burns and other damage from these sources—especially in children and teens—may reduce the chances of getting melanoma skin cancer. The rate of new cases of melanoma increased from 1973 to 2000, although the rate of increase has slowed since 1981.

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Measure

Percent of adults ages 18 and older who reported they were "very likely" to practice at least one of three sun protection behaviors—use sunscreen, wear protective clothing, or seek shade—if they were outside on a sunny day for more than 1 hour.

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Period – 1992, 1998, and 2000

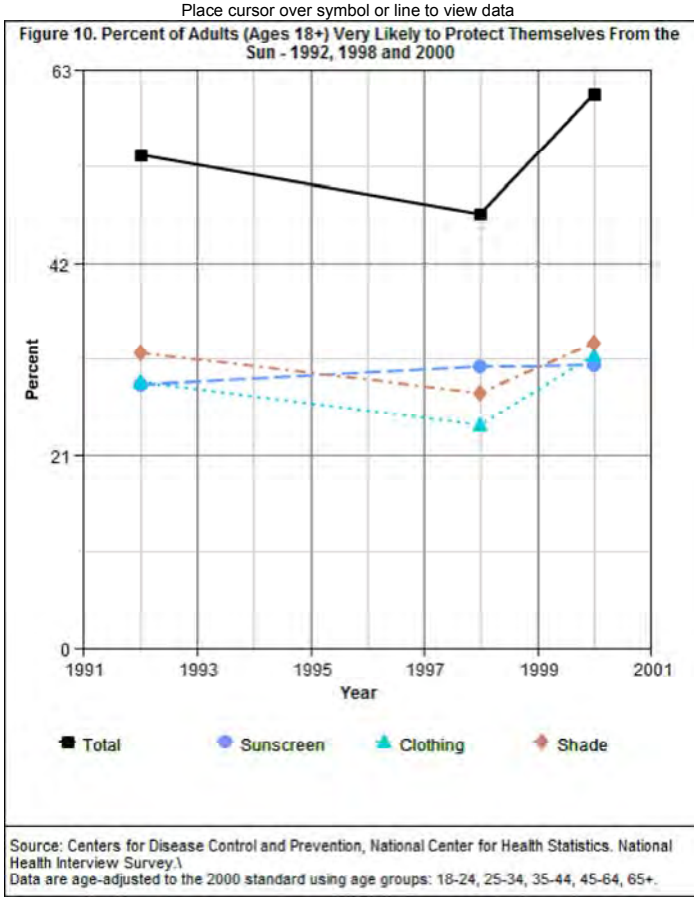
Trends – Falling from 1992-1998 and then rising more recently, between 1998 and 2000.

The percent of people very likely to use at least one sun protection method is rising after falling earlier in the 1990s, as are the percent of people very likely to wear protective clothing and the percent very likely to seek shade. The percent of people very likely to use sunscreen rose slightly after 1992 and appears stable from 1998 to 2000.

Graph image format: ○ [D] ◉ FLASH ○ JPEG

View details for:
Total Sunscreen Clothing Shade

Place cursor over symbol or line to view data



Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.

Download data (Excel)

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Most Recent Estimates

In 2000, 60 percent of adults said they were very likely to practice at least one of three sun protection behaviors:

- 31 percent were very likely to use sunscreen, and 26 percent were very likely to use sunscreen with a sun protection factor (SPF) of 15 or greater.
- 32 percent were very likely to wear protective clothing.
- 33 percent were very likely to seek shade.

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Healthy People 2010 Target

Increase to 75 percent the proportion of adults who are very likely to use sunscreen with an SPF of 15 or higher, wear protective clothing, or seek shade.

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Groups at High Risk for Getting Too Much Sun

Younger adults and men are less likely to use some form of sun protection. Adults with lower incomes and less education are less likely to use sunscreen.

Youths (ages 11 to 18) also are less likely to protect themselves from the sun. A 1998 survey found that on sunny days, few young people routinely practiced these behaviors: wearing long pants (21 percent), staying in the shade (22 percent), and using sunscreen (31 percent).

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Key Issues

In general, increased exposure to the sun—especially without adequate use of sunscreen and protective clothing—increases the chances of getting skin cancer.

Some research suggests that people apply less than an adequate amount of sunscreen and fail to reapply it appropriately.

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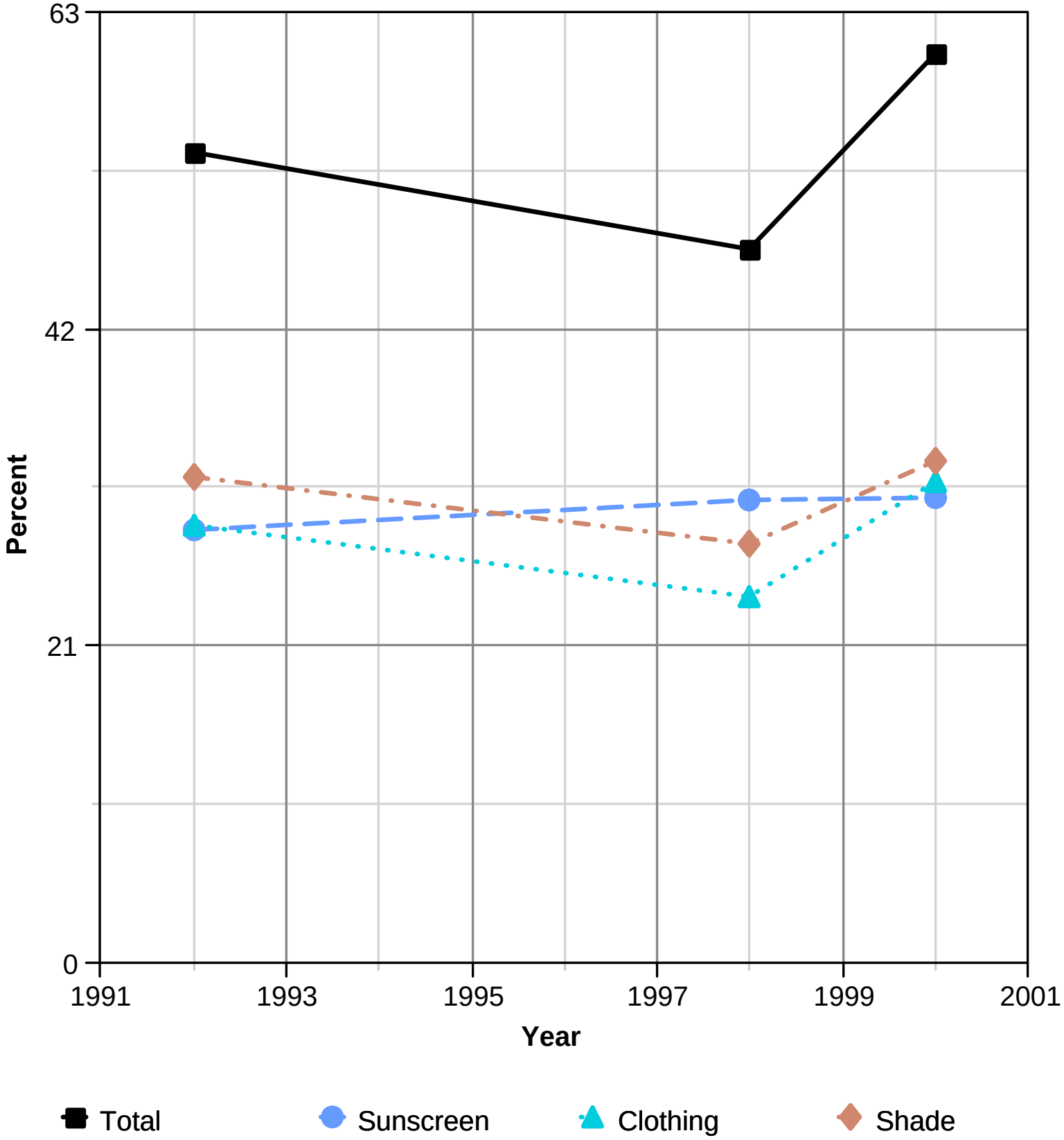
Links to additional information on sun protection

- Intersun: The Global UV Project (World Health Organization)
  http://www.who.int/docstore/peh-uv/pub/who-ehg-95-16.htm
- SEER Cancer Statistics Review, 1973-1999 (NCI)
  http://seer.cancer.gov/csr/1973_1999/
- National Health Interview Survey (NHIS) (NCHS)
  http://www.cdc.gov/nchs/nhis.htm
- Healthy People 2010, Volume 1, Chapter 3 - Cancer
  http://www.health.gov/healthypeople/Document/HTML/Volume1/03Cancer.htm

Page last modified: 11/08/2005

Figure 10. Percent of Adults (Ages 18+) Very Likely to Protect Themselves From the Sun - 1992, 1998 and 2000



Source: Centers for Disease Control and Prevention, National Center for Health Statistics. National Health Interview Survey.\
Data are age-adjusted to the 2000 standard using age groups: 18-24, 25-34, 35-44, 45-64, 65+.

Line graph with 4 lines and 3 points per line.

x-axis title: Year
y-axis title: Percent

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Total (Line).
Point 1, X=1992, Y=53.64986.
Point 2, X=1998, Y=47.3128.
Point 3, X=2000, Y=60.23545.
Maximum at X=2000, Y=60.23545 and minimum at X=1998, Y=47.3128.
Data series 2, Sunscreen (Line).
Point 1, X=1992, Y=28.66698.
Point 2, X=1998, Y=30.60457.
Point 3, X=2000, Y=30.88502.
Maximum at X=2000, Y=30.88502 and minimum at X=1992, Y=28.66698.
Data series 3, Clothing (Line).
Point 1, X=1992, Y=29.00925.
Point 2, X=1998, Y=24.28467.
Point 3, X=2000, Y=31.84337.
Maximum at X=2000, Y=31.84337 and minimum at X=1998, Y=24.28467.
Data series 4, Shade (Line).
Point 1, X=1992, Y=32.24702.
Point 2, X=1998, Y=27.7656.
Point 3, X=2000, Y=33.2626.
Maximum at X=2000, Y=33.2626 and minimum at X=1998, Y=27.7656.

Source: Centers for Disease Control and Prevention, National Center for Health Statistics. National Health Interview Survey.\
Data are age-adjusted to the 2000 standard using age groups: 18-24, 25-34, 35-44, 45-64, 65+.

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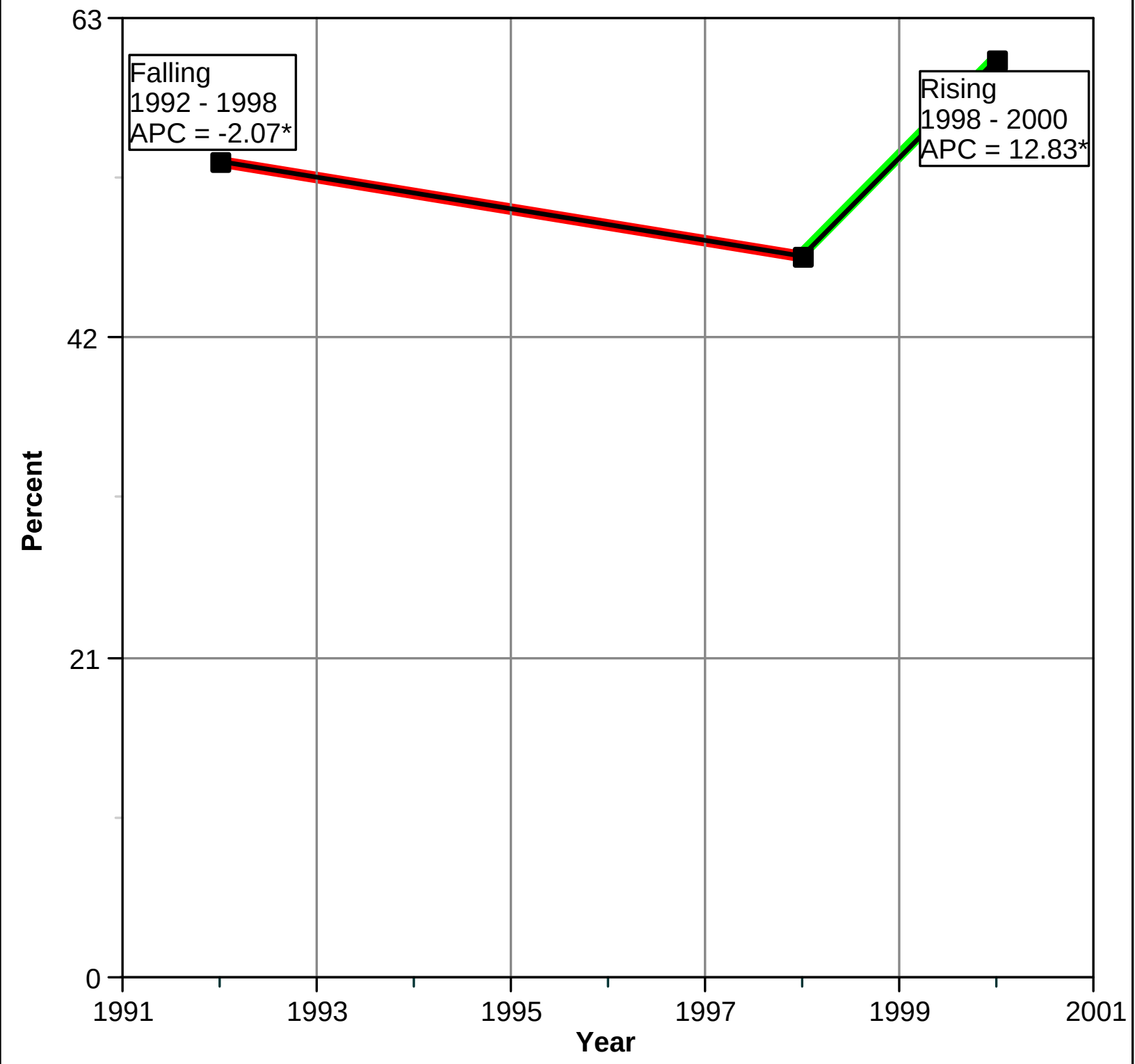
Figure 10a. Percent of Adults (Ages 18+) Very Likely to Protect Themselves From the Sun: Very to Use Sunscreen, Wear Protective Clothing, or Seek Shade - 1992, 1998 and 2000



Healthy People 2010 Goal 3-9b: 75%.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.\
* The Annual Percent Change (APC) is statistically significant.

Close window

Line graph with 1 lines and 3 points per line.

x-axis title: Year
y-axis title: Percent

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Total (Line).
Point 1, X=1992, Y=53.64986, Note: Falling 1992 - 1998 APC = -2.07*.
Point 2, X=1998, Y=47.3128.
Point 3, X=2000, Y=60.23545, Note: Rising 1998 - 2000 APC = 12.83*.
Maximum at X=2000, Y=60.23545 and minimum at X=1998, Y=47.3128.

Healthy People 2010 Goal 3-9b: 75%.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.\
* The Annual Percent Change (APC) is statistically significant.

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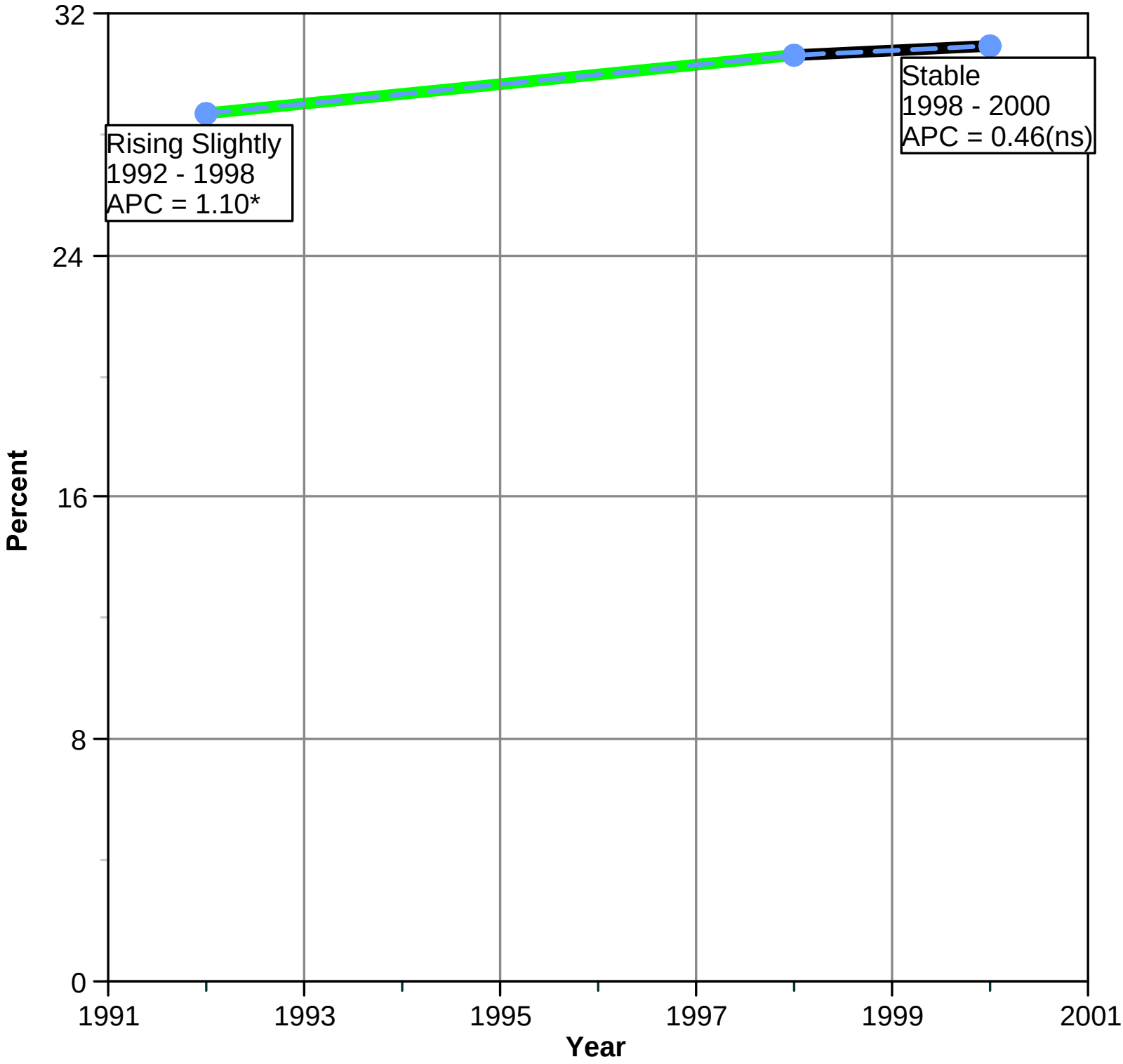
Close window

Figure 10b. Percent of Adults (Ages 18+) Very Likely to Protect Themselves From the Sun: Very Likely to Use Sunscreen - 1992, 1998 and 2000



No Healthy People 2010 Target Goal for Very Likely to Use Sunscreen.\
Trend lines connect sequential data points. Statistical significance of difference between sequ
points was determined using a two-sample test incorporating the standard errors of the estima
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

Close window

Line graph with 1 lines and 3 points per line.

x-axis title: Year
y-axis title: Percent

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Sunscreen (Line).
Point 1, X=1992, Y=28.66698, Note: Rising Slightly 1992 - 1998 APC = 1.10*.
Point 2, X=1998, Y=30.60457.
Point 3, X=2000, Y=30.88502, Note: Stable 1998 - 2000 APC = 0.46(ns).
Maximum at X=2000, Y=30.88502 and minimum at X=1992, Y=28.66698.

No Healthy People 2010 Target Goal for Very Likely to Use Sunscreen.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

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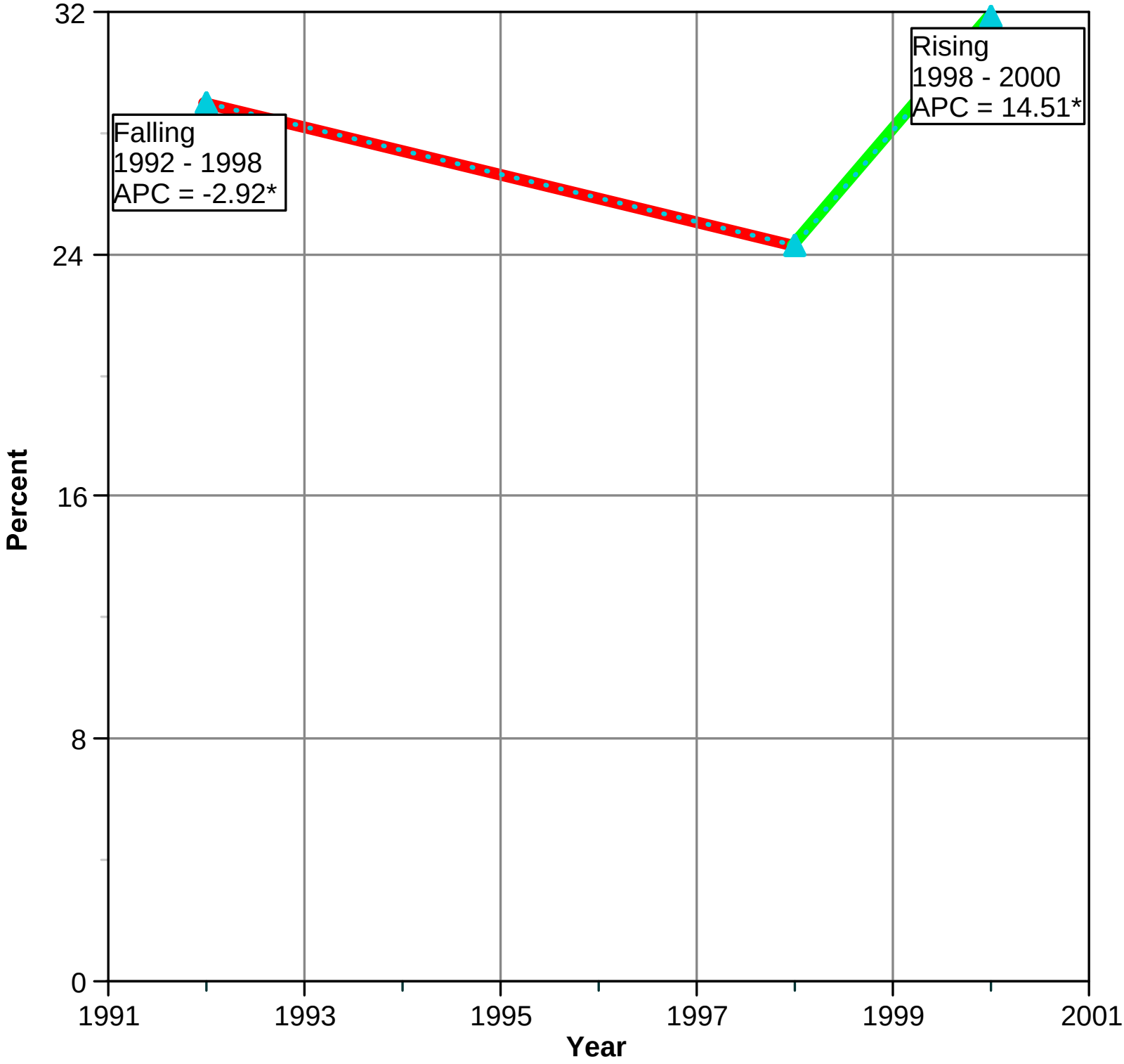
Close window

Figure 10c. Percent of Adults (Ages 18+) Very Likely to Protect Themselves From the Sun: Wear Protective Clothing - 1992, 1998 and 2000



No Healthy People 2010 Target Goal for Very Likely to Wear Protective Clothing.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.\
* The Annual Percent Change (APC) is statistically significant.

Close window

Line graph with 1 lines and 3 points per line.

x-axis title: Year
y-axis title: Percent

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Clothing (Line).
Point 1, X=1992, Y=29.00925, Note: Falling 1992 - 1998 APC = -2.92*.
Point 2, X=1998, Y=24.28467.
Point 3, X=2000, Y=31.84337, Note: Rising 1998 - 2000 APC = 14.51*.
Maximum at X=2000, Y=31.84337 and minimum at X=1998, Y=24.28467.

No Healthy People 2010 Target Goal for Very Likely to Wear Protective Clothing.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.\
* The Annual Percent Change (APC) is statistically significant.

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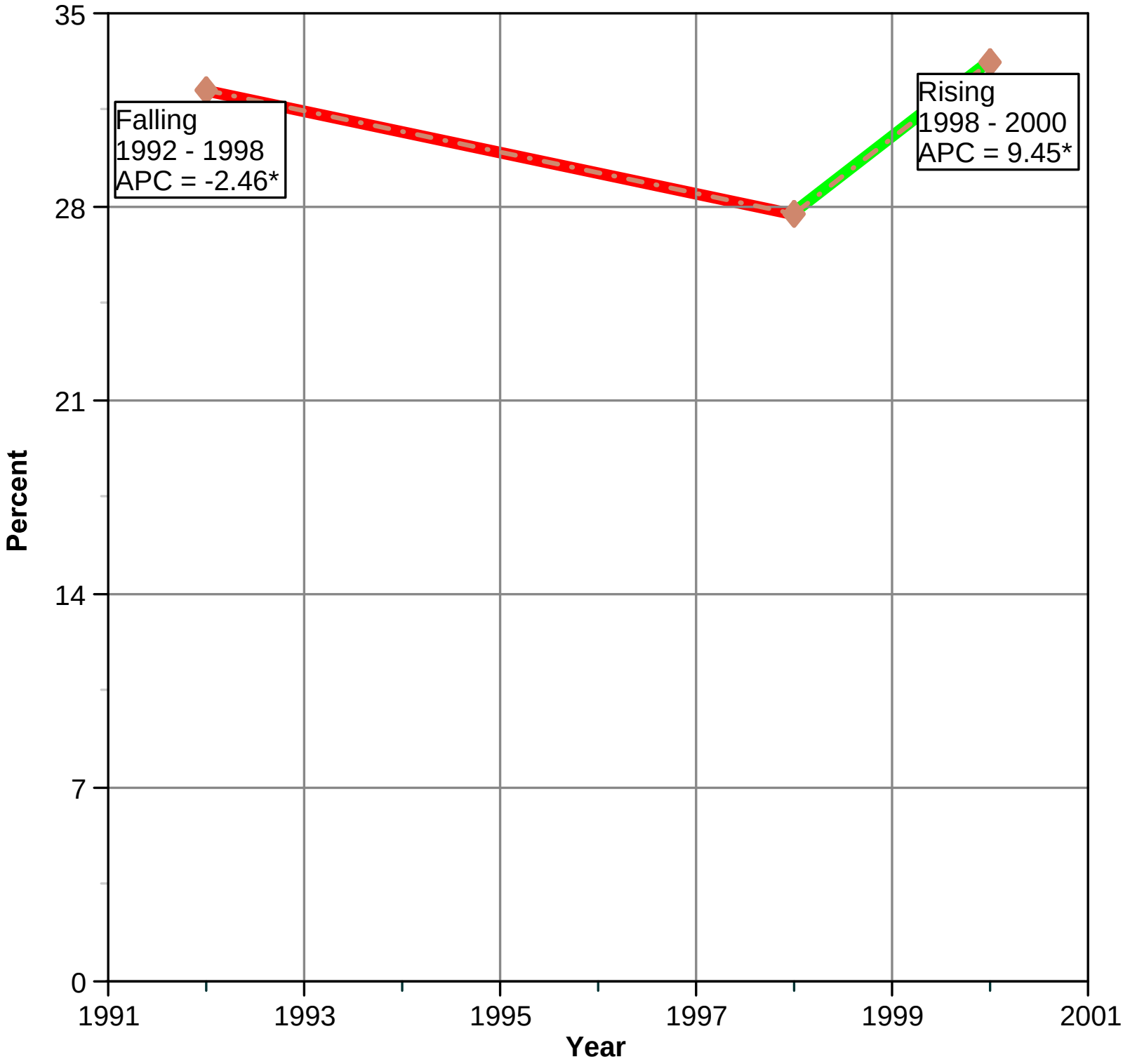
Figure 10d. Percent of Adults (Ages 18+) Very Likely to Protect Themselves From the Sun: Seek Shade - 1992, 1998 and 2000



No Healthy People 2010 Target Goal for Very Likely to Seek Shade.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.\
* The Annual Percent Change (APC) is statistically significant.

Close window

Line graph with 1 lines and 3 points per line.

x-axis title: Year
y-axis title: Percent

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Shade (Line).
Point 1, X=1992, Y=32.24702, Note: Falling 1992 - 1998 APC = -2.46*.
Point 2, X=1998, Y=27.7656.
Point 3, X=2000, Y=33.2626, Note: Rising 1998 - 2000 APC = 9.45*.
Maximum at X=2000, Y=33.2626 and minimum at X=1998, Y=27.7656.

No Healthy People 2010 Target Goal for Very Likely to Seek Shade.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.\
* The Annual Percent Change (APC) is statistically significant.

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Prevention: Environmental

Secondhand Smoke

Progress is slow in efforts to enact State laws on smoke-free air.

On this page:

- Secondhand Smoke and Cancer
- Measure
- Period
- Trends
- Most Recent Estimates
- Healthy People 2010 Target
- Groups at High Risk for Exposure to Secondhand Smoke
- Key Issues
- Links to Additional Information

Also in this Section
- Adult Smoking
- Quitting Smoking
- Youth Smoking
- Age of Smoking Initiation
- Alcohol Consumption
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- Fat Consumption
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- Sun Protection
- **Secondhand Smoke**
- Radon in the Home
- Benzene in the Air

Also in the *Report*
- Report-at-a-Glance
- Prevention
- Early Detection
- Diagnosis
- Treatment
- Life After Cancer
- End of Life

Secondhand Smoke and Cancer

Secondhand smoke—also known as environmental tobacco smoke—comes from a burning cigarette, pipe, or cigar, and is also emitted when a smoker exhales. Tobacco smoke is known to contain at least 60 carcinogens. People who are exposed to secondhand smoke inhale these chemicals, just as smokers do, although at lower levels.

In 1993, the U.S. Environmental Protection Agency (EPA) reported that secondhand smoke is a "known human carcinogen." The EPA also reported that secondhand smoke causes some 3,000 lung cancer deaths each year among U.S. nonsmokers.

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Measure

States (and the District of Columbia) with laws on smoke-free air in State government worksites, private worksites, restaurants, and day care centers.

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Period – 1990-2002

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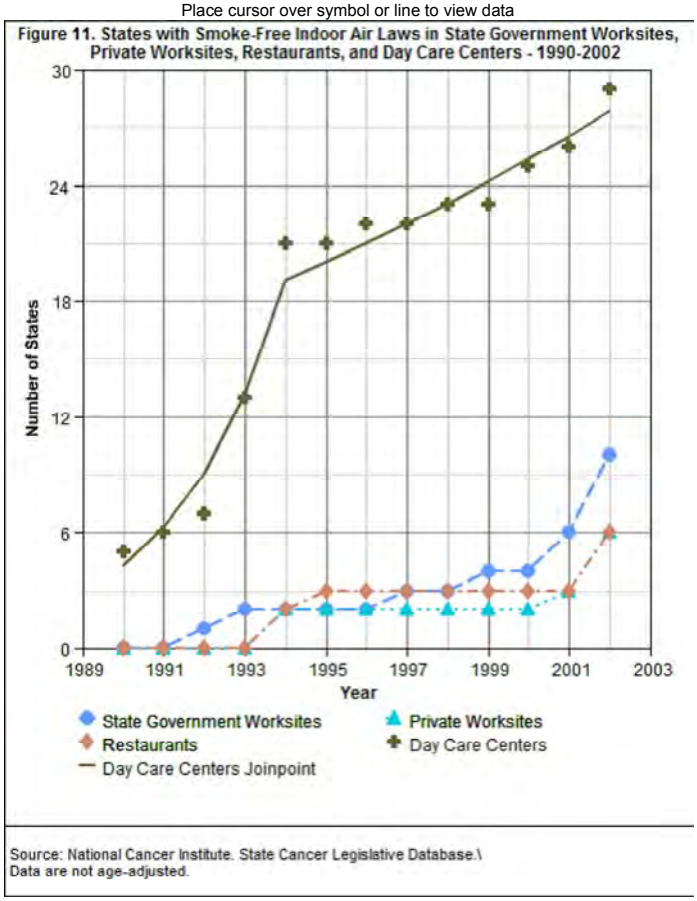
Trends – Rising in day care centers, but still below goal of 100 percent. Other sites have been very low and stable over most of the 1990s, with possible, but not statistically significant, slight increases since 2000.

Graph image format: ○ [D] ◉ FLASH ○ JPEG

View details for:
State Government Worksites Private Worksites Restaurants Day Care Centers

Place cursor over symbol or line to view data



Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute. (See Methodology for Characterizing Trends)

Download data (Excel)

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Most Recent Estimates

As of 2002, the number of States with smoke-free indoor air laws, as measured in four types of sites, were as follows:

1. State government worksites: 10
2. Private worksites: 6
3. Restaurants: 6
4. Day care centers: 27

Results of another survey show that in 1998-1999, 69 percent of the workforce (ages 18 and older) reported there was a smoke-free policy at their workplace. Also during that time, 61 percent of people ages 18 and older reported that smoking is not allowed in their home. These figures represent significant increases since 1992-1993.

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Healthy People 2010 Target

Increase to 51 the number of jurisdictions (States and the District of Columbia) with smoke-free indoor air laws for public places and worksites.

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Groups at High Risk for Exposure to Secondhand Smoke

People with lower income and education levels are more likely to be exposed to smoking in their workplaces and homes. Men and younger adults are more likely to work in places that allow smoking.

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Key Issues

Although secondhand smoke remains a major public health concern, nonsmoker exposure to tobacco smoke declined more than 70 percent from 1988-1991 to 1999-2000.

In 1999-2000, cotinine levels in children were more than double those of adults.

In 1999, nearly 7 out of 10 U.S. workers reported a smoke-free policy in their workplace.

State laws that protect against secondhand smoke gradually became more common in the 1990s. It appears that additional improvement has come from voluntary or local efforts during this period.

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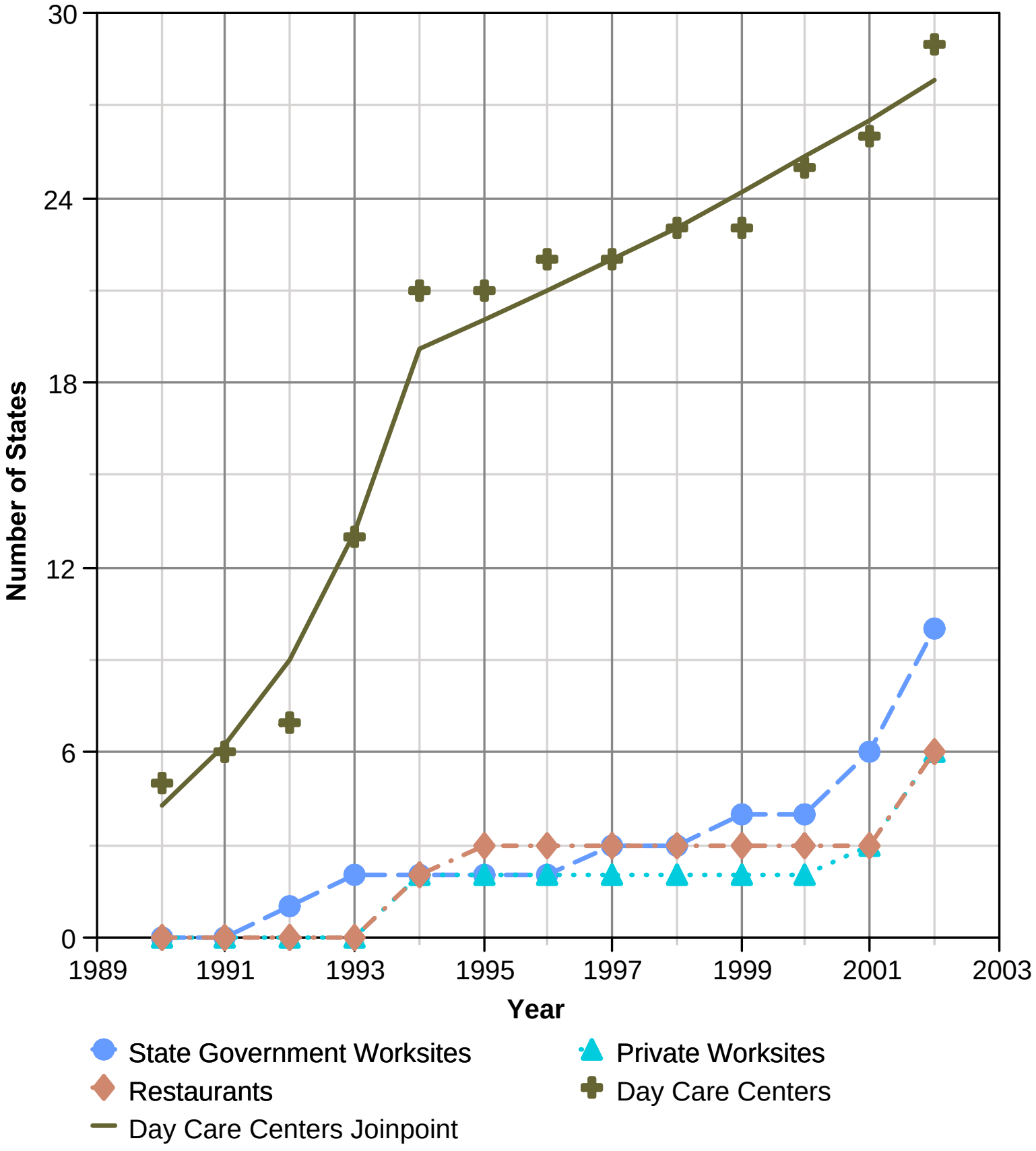
Links to additional information on secondhand smoke:

- Cancer Facts: Environmental Tobacco Smoke (February 14, 2000) (NCI)
  http://cis.nci.nih.gov/fact/3_9.htm
- Environmental Protection Agency (EPA))
  http://www.epa.gov/
- Respiratory Health Effects of Passive Smoking, January 1993 (EPA Fact Sheet))
  http://www.epa.gov/iaq/pubs/etsfs.html
- State Cancer Legislative Database Program (NCI))
  http://www.scld-nci.net/
- Healthy People 2010, Volume 2, Chapter 27 - Tobacco Use)
  http://www.health.gov/healthypeople/Document/html/volume2/27tobacco.htm
- National Report on Human Exposure to Environmental Chemicals. Results: Cotinine (National Center for Environmental Health, CDC))
  http://www.cdc.gov/nceh/dls/report/results/Cotinine.htm

Page last modified: 11/08/2005

Figure 11. States with Smoke-Free Indoor Air Laws in State Government Worksites, Private Worksites, Restaurants, and Day Care Centers - 1990-2002



Source: National Cancer Institute. State Cancer Legislative Database.\
Data are not age-adjusted.

Line graph with 5 lines and 13 points per line.

x-axis title: Year
y-axis title: Number of States

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, State Government Worksites (Line).
Point 1, X=1990, Y=0.
Point 2, X=1991, Y=0.
Point 3, X=1992, Y=1.
Point 4, X=1993, Y=2.
Point 5, X=1994, Y=2.
Point 6, X=1995, Y=2.
Point 7, X=1996, Y=2.
Point 8, X=1997, Y=3.
Point 9, X=1998, Y=3.
Point 10, X=1999, Y=4.
Point 11, X=2000, Y=4.
Point 12, X=2001, Y=6.
Point 13, X=2002, Y=10.
Maximum at X=2002, Y=10 and minimum at X=1990, Y=0.
Data series 2, Private Worksites (Line).
Point 1, X=1990, Y=0.
Point 2, X=1991, Y=0.
Point 3, X=1992, Y=0.
Point 4, X=1993, Y=0.
Point 5, X=1994, Y=2.
Point 6, X=1995, Y=2.
Point 7, X=1996, Y=2.
Point 8, X=1997, Y=2.
Point 9, X=1998, Y=2.
Point 10, X=1999, Y=2.
Point 11, X=2000, Y=2.
Point 12, X=2001, Y=3.
Point 13, X=2002, Y=6.
Maximum at X=2002, Y=6 and minimum at X=1990, Y=0.
Data series 3, Restaurants (Line).
Point 1, X=1990, Y=0.
Point 2, X=1991, Y=0.
Point 3, X=1992, Y=0.
Point 4, X=1993, Y=0.
Point 5, X=1994, Y=2.
Point 6, X=1995, Y=3.
Point 7, X=1996, Y=3.
Point 8, X=1997, Y=3.
Point 9, X=1998, Y=3.
Point 10, X=1999, Y=3.
Point 11, X=2000, Y=3.
Point 12, X=2001, Y=3.
Point 13, X=2002, Y=6.
Maximum at X=2002, Y=6 and minimum at X=1990, Y=0.
Data series 4, Day Care Centers (Scatter).
Point 1, X=1990, Y=5.
Point 2, X=1991, Y=6.
Point 3, X=1992, Y=7.
Point 4, X=1993, Y=13.
Point 5, X=1994, Y=21.
Point 6, X=1995, Y=21.
Point 7, X=1996, Y=22.
Point 8, X=1997, Y=22.
Point 9, X=1998, Y=23.
Point 10, X=1999, Y=23.
Point 11, X=2000, Y=25.
Point 12, X=2001, Y=26.
Point 13, X=2002, Y=29.
Maximum at X=2002, Y=29 and minimum at X=1990, Y=5.
Data series 5, Day Care Centers Joinpoint (Line).
Point 1, X=1990, Y=4.27365.
Point 2, X=1991, Y=6.21509.
Point 3, X=1992, Y=9.03848.
Point 4, X=1993, Y=13.1445.
Point 5, X=1994, Y=19.1158.
Point 6, X=1995, Y=20.0328.
Point 7, X=1996, Y=20.9938.
Point 8, X=1997, Y=22.001.
Point 9, X=1998, Y=23.0564.
Point 10, X=1999, Y=24.1625.
Point 11, X=2000, Y=25.3217.
Point 12, X=2001, Y=26.5364.

Point 13, X=2002, Y=27.8095.
Maximum at X=2002, Y=27.8095 and minimum at X=1990, Y=4.27365.

Source: National Cancer Institute. State Cancer Legislative Database.\
Data are not age-adjusted.

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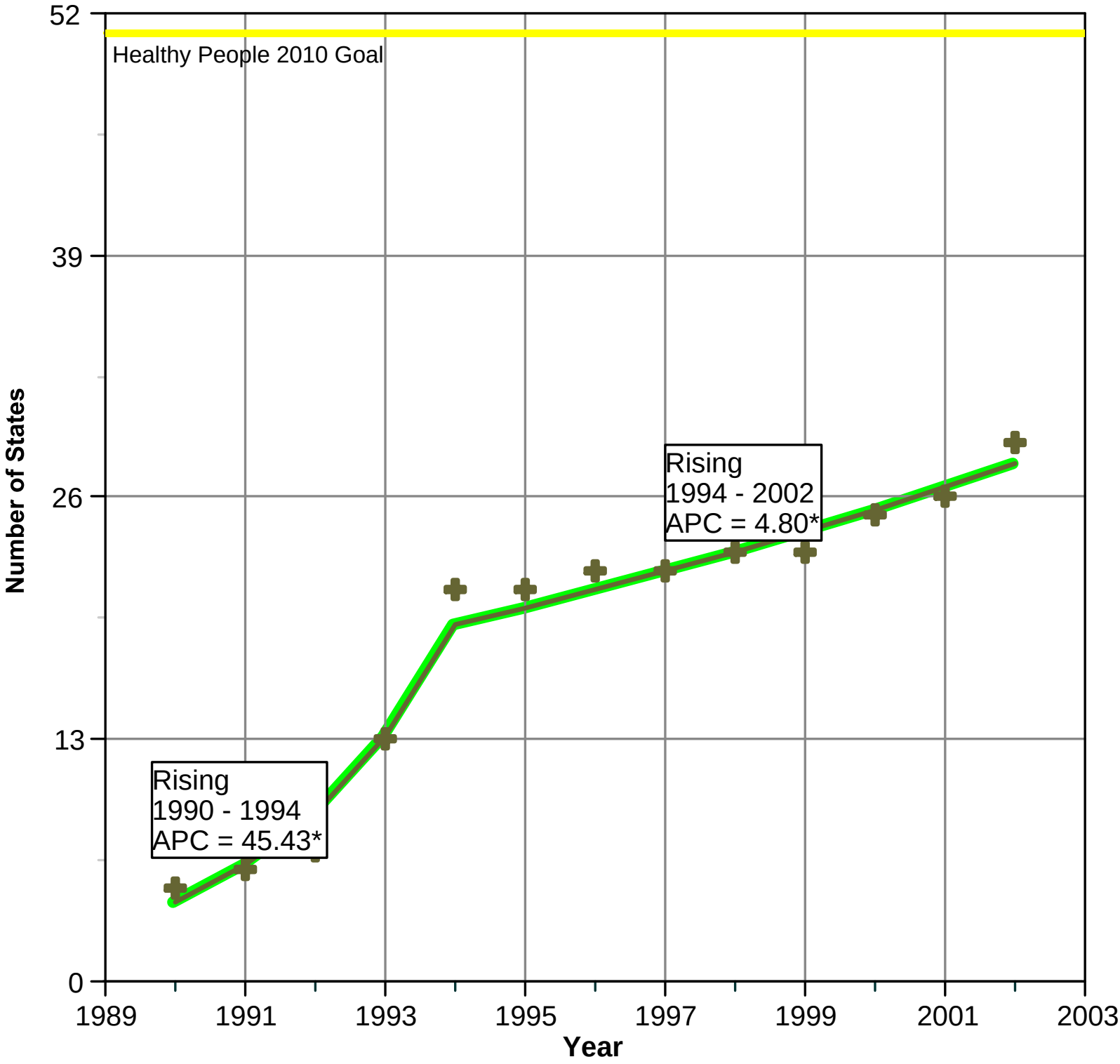
Figure 11d. States with Smoke-Free Indoor Air Laws in Day Care Centers - 1990-2002



Healthy People 2010 Target Goal for Day Care Centers: 51 states\
Regression line for Day Care Centers is calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.

Close window

Line graph with 2 lines and 13 points per line.

x-axis title: Year
y-axis title: Number of States

X scale titled Scale label.
Y scale titled Scale label.
Scale Marker 1 on Y scale, line at 51. Scale marker text: Healthy People 2010 Goal
Data series 1, Day Care Centers (Scatter).
Point 1, X=1990, Y=5.
Point 2, X=1991, Y=6, Note: Rising 1990 - 1994 APC = 45.43*.
Point 3, X=1992, Y=7.
Point 4, X=1993, Y=13.
Point 5, X=1994, Y=21.
Point 6, X=1995, Y=21.
Point 7, X=1996, Y=22.
Point 8, X=1997, Y=22.
Point 9, X=1998, Y=23, Note: Rising 1994 - 2002 APC = 4.80*.
Point 10, X=1999, Y=23.
Point 11, X=2000, Y=25.
Point 12, X=2001, Y=26.
Point 13, X=2002, Y=29.
Maximum at X=2002, Y=29 and minimum at X=1990, Y=5.
Data series 2, Day Care Centers Joinpoint (Line).
Point 1, X=1990, Y=4.27365.
Point 2, X=1991, Y=6.21509.
Point 3, X=1992, Y=9.03848.
Point 4, X=1993, Y=13.1445.
Point 5, X=1994, Y=19.1158.
Point 6, X=1995, Y=20.0328.
Point 7, X=1996, Y=20.9938.
Point 8, X=1997, Y=22.001.
Point 9, X=1998, Y=23.0564.
Point 10, X=1999, Y=24.1625.
Point 11, X=2000, Y=25.3217.
Point 12, X=2001, Y=26.5364.
Point 13, X=2002, Y=27.8095.
Maximum at X=2002, Y=27.8095 and minimum at X=1990, Y=4.27365.

Healthy People 2010 Target Goal for Day Care Centers: 51 states\
Regression line for Day Care Centers is calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.

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Prevention: Environmental

Radon in the Home

More people live in homes tested for radon.

On this page:

- Radon and Cancer
- Measure
- Period
- Trend
- Most Recent Estimate
- Healthy People 2010 Target
- Groups at High Risk for Not Testing for Radon
- Key Issues
- Links to Additional Information

Also in this Section

- Adult Smoking
- Quitting Smoking
- Youth Smoking
- Age of Smoking Initiation
- Alcohol Consumption
- Fruit and Vegetable Consumption
- Fat Consumption
- Weight
- Physical Activity
- Sun Protection
- Secondhand Smoke
- **Radon in the Home**
- Benzene in the Air

Also in the *Report*

- Report-at-a-Glance
- Prevention
- Early Detection
- Diagnosis
- Treatment
- Life After Cancer
- End of Life

Radon and Cancer

Radon—an invisible, odorless, tasteless gas that is released from rocks and soil—enters homes through cracks and holes in the foundation. Indoor radon is the most serious environmental cancer-causing agent to which the general public is exposed. The Environmental Protection Agency estimates that as many as 8 million homes in the United States have high levels of radon. State surveys show that one out of five homes have high levels.

Radon is second only to tobacco as the leading cause of lung cancer. Radon found in homes may contribute to as many as 20,000 lung cancer deaths each year. It is a more serious health threat to under-ground miners.

People who are exposed to both radon gas and tobacco smoke are more likely to get lung cancer than are people who are exposed to either one alone. Most radon-related deaths from lung cancer occur among smokers.

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Measure

The percent of people who live in homes tested for radon concentrations, among those who have heard of radon.

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Period –1991-1998

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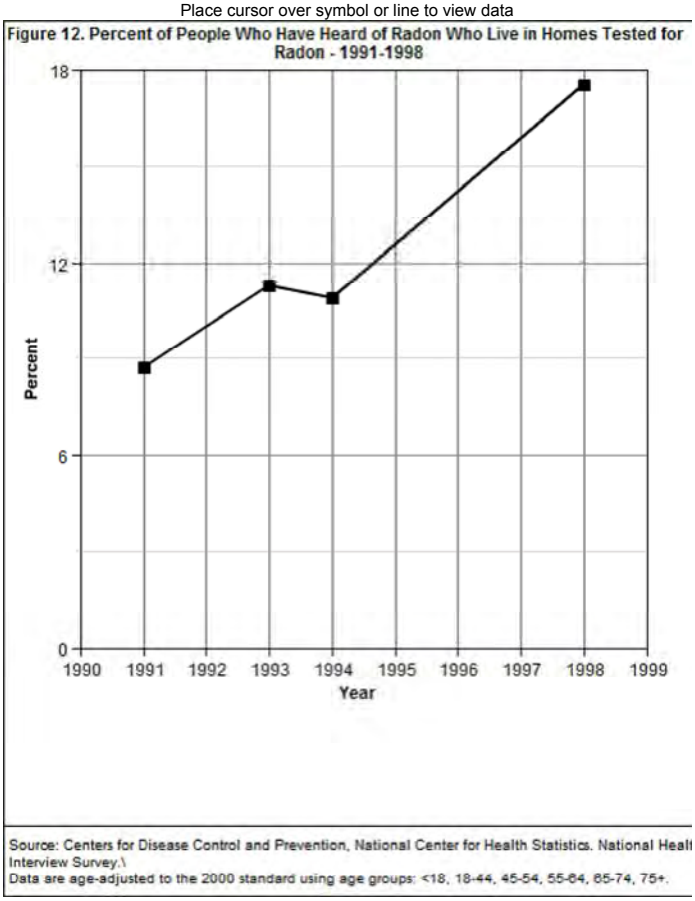
Trend – Rising then falling (but not statistically significantly), then rising

Graph image format: ○ [D] ◉ FLASH ○ JPEG

View details for:
People Living in Homes Tested for Radon

Place cursor over symbol or line to view data



Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute. (See Methodology for Characterizing Trends)

Download data (Excel)

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Most Recent Estimate

In 1998, 17.5 percent of Americans who have heard of radon lived in homes tested for radon.

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Healthy People 2010 Target

Increase to 20 percent the proportion of people who have heard of radon who live in homes tested for radon.

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Groups at High Risk for Not Testing for Radon

People who live in homes with a smoker are less likely to test for radon than are those who live in homes without smokers.

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Key Issues

Researchers estimate that lowering indoor radon exposure would prevent about 30 percent of lung cancer deaths from radon. Of these, 86 percent would be among smokers or former smokers.

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Links to additional information on radon in the home:

- Morbidity and Mortality Weekly Report (MMWR)
  http://www.cdc.gov/mmwr/
- Tenth Report on Carcinogens: Radon (National Toxicology Program)
  http://ehis.niehs.nih.gov/roc/ninth/known/radon.pdf
- Cancer Facts: Questions and Answers About Radon and Cancer, January, 1998 (NCI)
  http://cis.nci.nih.gov/fact/3_52.htm
- National Health Interview Survey (NHIS) (NCHS)
  http://www.cdc.gov/nchs/nhis.htm
- Healthy People 2010, Volume 1, Chapter 8 - Environmental Health
  http://www.health.gov/healthypeople/Document/HTML/Volume1/08environmental.htm
- Radon Testing in Households with a Residential Smoker -- United States, 1993-1994 (MMWR)
  http://www.cdc.gov/mmwr/preview/mmwrhtml/mm4831a2.htm

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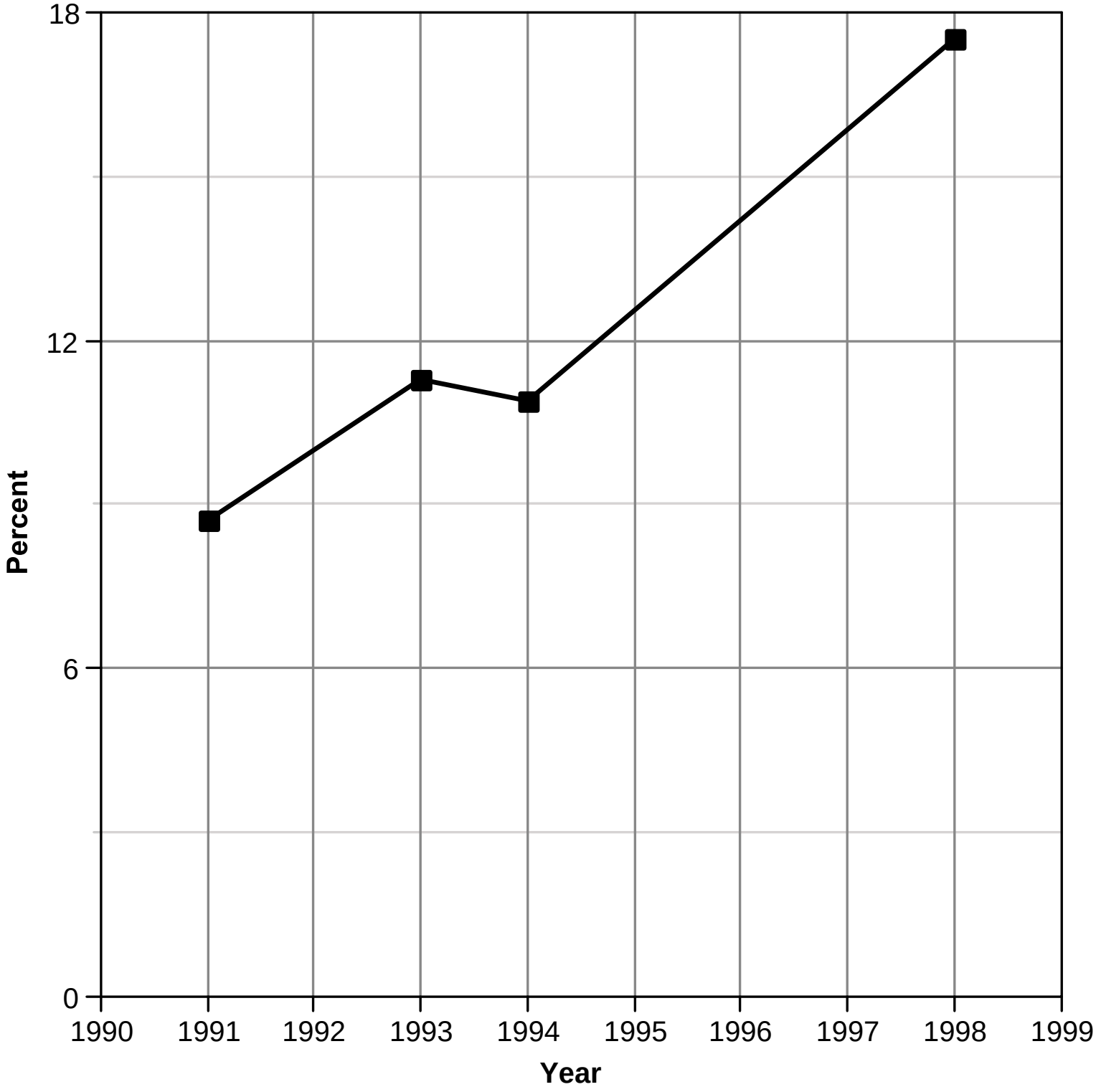
Figure 12. Percent of People Who Have Heard of Radon Who Live in Homes Tested for Radon - 1991-1998



Source: Centers for Disease Control and Prevention, National Center for Health Statistics. National He
Interview Survey.\
Data are age-adjusted to the 2000 standard using age groups: <18, 18-44, 45-54, 55-64, 65-74, 75+.

Line graph with 1 lines and 4 points per line.

x-axis title: Year
y-axis title: Percent

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, People Living in Homes Tested for Radon (Line).
Point 1, X=1991, Y=8.7.
Point 2, X=1993, Y=11.3.
Point 3, X=1994, Y=10.9.
Point 4, X=1998, Y=17.5.
Maximum at X=1998, Y=17.5 and minimum at X=1991, Y=8.7.

Source: Centers for Disease Control and Prevention, National Center for Health Statistics. National Health Interview Survey.\
Data are age-adjusted to the 2000 standard using age groups: <18, 18-44, 45-54, 55-64, 65-74, 75+.

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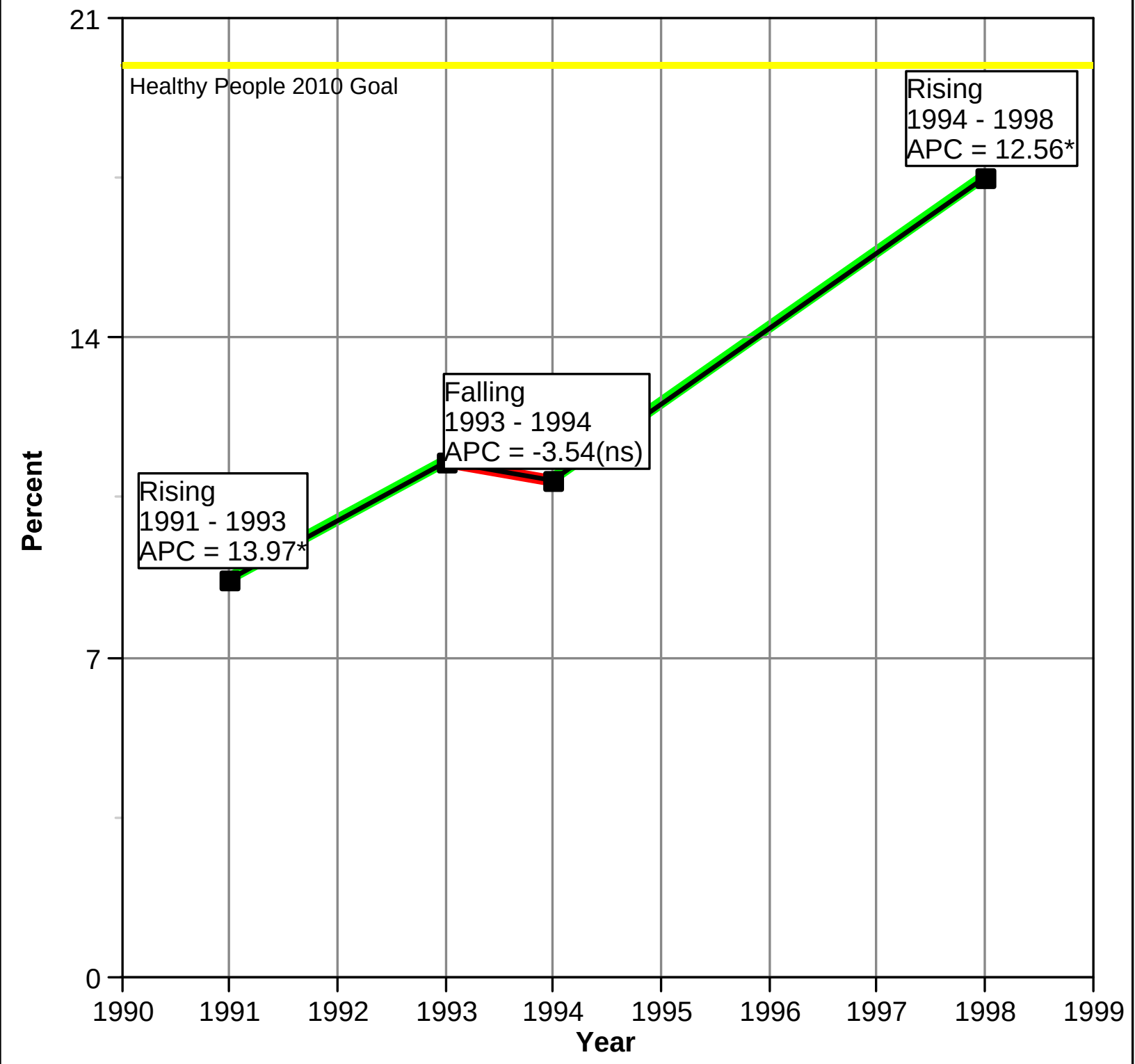
Figure 12a. Percent of People Who Have Heard of Radon Who Live in Homes Tested for Radon - 1991-1998



Healthy People 2010 Goal 8-18: 20%.\
Trend lines connect sequential data points. Statistical significance of difference between sequ
points was determined using a two-sample test incorporating the standard errors of the estima
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

Close window

Line graph with 1 lines and 4 points per line.

x-axis title: Year
y-axis title: Percent

X scale titled Scale label.
Y scale titled Scale label.
Scale Marker 1 on Y scale, line at 20. Scale marker text: Healthy People 2010 Goal
Data series 1, People Living in Homes Tested for Radon (Line).
Point 1, X=1991, Y=8.7, Note: Rising 1991 - 1993 APC = 13.97*.
Point 2, X=1993, Y=11.3.
Point 3, X=1994, Y=10.9, Note: Falling 1993 - 1994 APC = -3.54(ns).
Point 4, X=1998, Y=17.5, Note: Rising 1994 - 1998 APC = 12.56*.
Maximum at X=1998, Y=17.5 and minimum at X=1991, Y=8.7.

Healthy People 2010 Goal 8-18: 20%.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

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Prevention: Environmental

Benzene in the Air

Benzene concentrations in the air are going down.

On this page:

- Benzene and Cancer
- Measure
- Period
- Trend
- Most Recent Estimate
- Healthy People 2010 Target
- Groups at High Risk for Benzene Exposure
- Key Issues
- Links to Additional Information

Also in this Section
- Adult Smoking
- Quitting Smoking
- Youth Smoking
- Age of Smoking Initiation
- Alcohol Consumption
- Fruit and Vegetable Consumption
- Fat Consumption
- Weight
- Physical Activity
- Sun Protection
- Secondhand Smoke
- Radon in the Home
- **Benzene in the Air**

Also in the *Report*
- Report-at-a-Glance
- Prevention
- Early Detection
- Diagnosis
- Treatment
- Life After Cancer
- End of Life

Benzene and Cancer

Benzene is a natural part of crude oil, gasoline, and cigarette smoke. It is also used as a gasoline additive and in the manufacture of a number of products.

The general population's main exposure to benzene is inhaling air that contains it. About half of human exposures to benzene come from smoking and secondhand smoke. Other sources include vapors from heavy traffic and gas stations. Long-term exposure to high levels of benzene in the air can cause leukemia.

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Measure

National yearly average concentrations of benzene in the air in metropolitan areas, measured in micrograms per cubic meter.

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Period – 1993-1998

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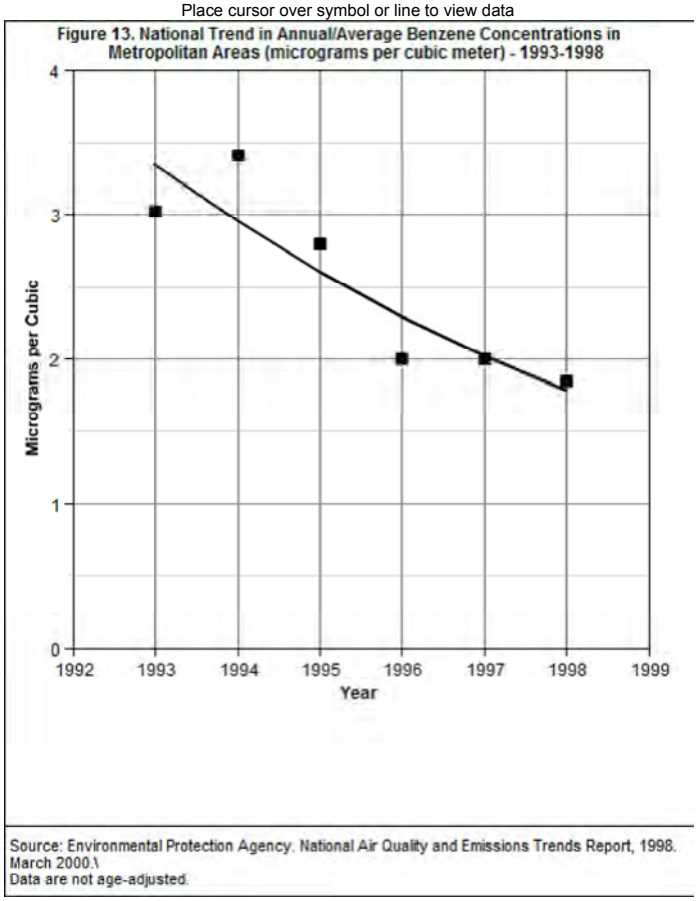
Trend – Falling

Graph image format: ○ [D] ◉ FLASH ○ JPEG

View details for:
Total

Place cursor over symbol or line to view data



Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute. (See Methodology for Characterizing Trends)

Download data (Excel)

From 1993 to 1998, the average yearly concentrations of benzene declined by 37 percent.

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Most Recent Estimate

In 1998, the average concentration of benzene was 1.85 micrograms per cubic meter.

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Healthy People 2010 Target

There is no Healthy People 2010 target for this measure.

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Groups at High Risk for Benzene Exposure

People who are exposed to benzene include those who work around or with benzene, smokers, and people who are exposed to secondhand smoke.

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Key Issues

The Environmental Protection Agency says that benzene concentrations in the air have declined because reformulated gasoline is being used in many parts of the United States. This is an example of how changes to the environment can help to lower cancer risk.

More measures of environmental chemical carcinogen exposures—such as those reported by the National Center for Environmental Health, Centers for Disease Control and Prevention—need to be tracked over time.

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Links to additional information on benzene in the air:

- Tenth Report on Carcinogens, Revised January 2001 (EHIS)
  http://ehis.niehs.nih.gov/roc/
- Agency for Toxic Substances and Disease Registry (ATSDR
  http://www.atsdr.cdc.gov/tfacts3.html
- National Air Quality and Emissions Trends Report, 1998 (EPA Office of Air Quality Planning and Standards)
  http://www.epa.gov/oar/aqtrnd98/toc.html
- National Report on Human Exposure to Environmental Chemicals. Results by Category (National Center for Environmental Health, CDC)
  http://www.cdc.gov/nceh/dls/report/results/categorylist.htm

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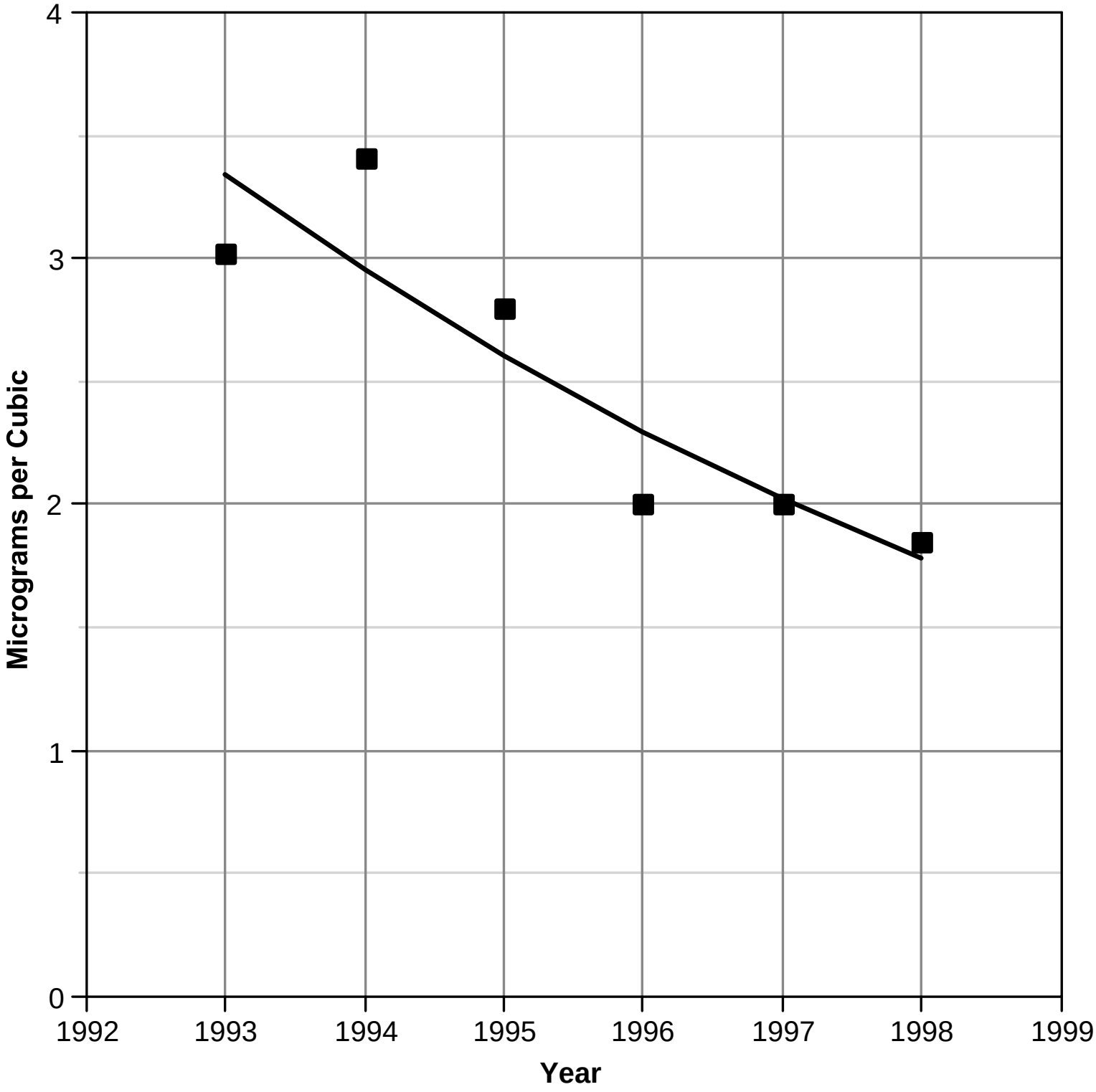
Figure 13. National Trend in Annual/Average Benzene Concentrations in Metropolitan Areas (micrograms per cubic meter) - 1993-1998



Source: Environmental Protection Agency. National Air Quality and Emissions Trends Report, 1998. March 2000.\
Data are not age-adjusted.

Line graph with 2 lines and 6 points per line.

x-axis title: Year
y-axis title: Micrograms per Cubic

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Total (Scatter).
Point 1, X=1993, Y=3.02.
Point 2, X=1994, Y=3.41.
Point 3, X=1995, Y=2.8.
Point 4, X=1996, Y=2.
Point 5, X=1997, Y=2.
Point 6, X=1998, Y=1.85.
Maximum at X=1994, Y=3.41 and minimum at X=1998, Y=1.85.
Data series 2, Total Joinpoint (Line).
Point 1, X=1993, Y=3.34424.
Point 2, X=1994, Y=2.95023.
Point 3, X=1995, Y=2.60263.
Point 4, X=1996, Y=2.29599.
Point 5, X=1997, Y=2.02548.
Point 6, X=1998, Y=1.78684.
Maximum at X=1993, Y=3.34424 and minimum at X=1998, Y=1.78684.

Source: Environmental Protection Agency. National Air Quality and Emissions Trends Report, 1998. March 2000.\
Data are not age-adjusted.

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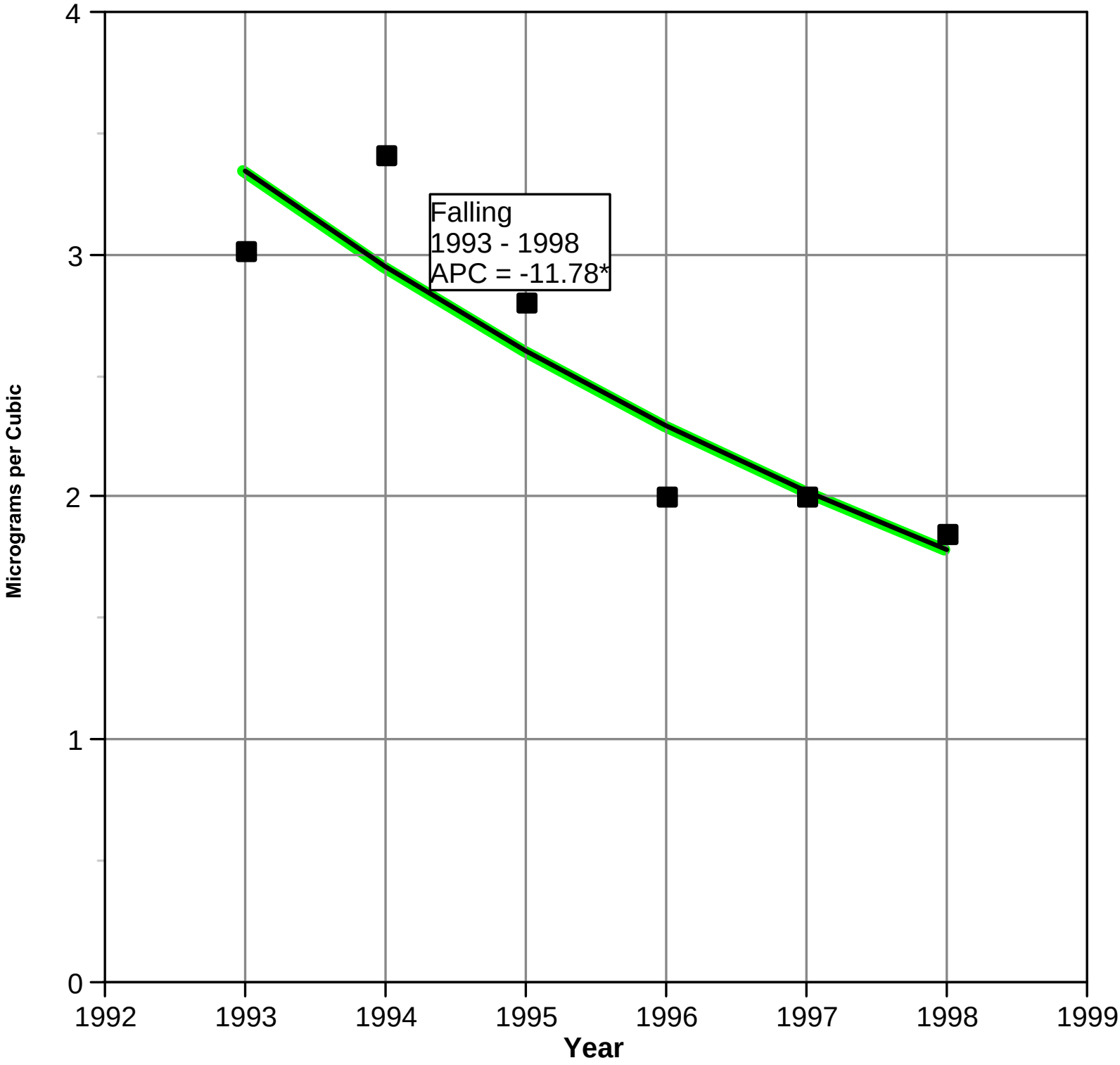
Figure 13a. National Trend in Annual/Average Benzene Concentrations in Metropolitan Areas (micrograms per cubic meter) - 1993-1998



No Healthy People 2010 Target Goal for benzene concentrations.\
Regression lines are calculated using the Joinpoint Regression Program, Version 2.7. Sept 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.

Close window

Line graph with 2 lines and 6 points per line.

x-axis title: Year
y-axis title: Micrograms per Cubic

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Total (Scatter).
Point 1, X=1993, Y=3.02.
Point 2, X=1994, Y=3.41.
Point 3, X=1995, Y=2.8, Note: Falling 1993 - 1998 APC = -11.78*.
Point 4, X=1996, Y=2.
Point 5, X=1997, Y=2.
Point 6, X=1998, Y=1.85.
Maximum at X=1994, Y=3.41 and minimum at X=1998, Y=1.85.
Data series 2, Total Joinpoint (Line).
Point 1, X=1993, Y=3.34424.
Point 2, X=1994, Y=2.95023.
Point 3, X=1995, Y=2.60263.
Point 4, X=1996, Y=2.29599.
Point 5, X=1997, Y=2.02548.
Point 6, X=1998, Y=1.78684.
Maximum at X=1993, Y=3.34424 and minimum at X=1998, Y=1.78684.

No Healthy People 2010 Target Goal for benzene concentrations.\
Regression lines are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.

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Early Detection

The use of screening tests to detect cancers early often leads to more effective treatment with fewer side effects. Patients whose cancers are found early also are more likely to survive these cancers than are those whose cancers are not found until symptoms appear. This section describes trends in the use of the following screening tests, each of which has been found to detect cancers accurately and to decrease the chances of dying from cancer (except colonoscopy where evidence remains insufficient):

- Mammography (for breast cancer)
- Pap smear (for cervical cancer)
- Fecal occult blood test (for colorectal cancer)
- Colorectal endoscopy (sigmoidoscopy or colonoscopy for colorectal cancer)

Trends for newer ways to detect cancer, such as the prostate-specific antigen (PSA) test, may be included in future editions of the *Cancer Progress Report*. PSA use has not yet been shown to reduce deaths from prostate cancer. There is also concern about possible harm caused by unnecessary treatments, because the test can find very early cancers that might not cause any harm if left untreated—especially in older men. Other screening methods, such as new imaging techniques to detect lung cancer and ways to detect early cancer in the blood, also require more research.

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Also in this Section

- Breast Cancer Screening
- Cervical Cancer Screening
- Colorectal Cancer Screening

Also in the *Report*

- Report-at-a-Glance
- Prevention
- **Early Detection**
- Diagnosis
- Treatment
- Life After Cancer
- End of Life

Early Detection

Breast Cancer Screening

Mammography use has increased steadily in women ages 40 and older. The 2010 goal for all women had been met by 2000, though disparities remain among racial/ethnic, geographic, and low-income groups.

Also in this Section
- **Breast Cancer Screening**
- Cervical Cancer Screening
- Colorectal Cancer Screening

Also in the *Report*
- Report-at-a-Glance
- Prevention
- Early Detection
- Diagnosis
- Treatment
- Life After Cancer
- End of Life

On this page:

- Benefits of Screening Mammography
- Measure
- Period
- Trends
- Most Recent Estimates
- Healthy People 2010 Target
- Groups at High Risk for Not Being Screened
- Key Issues
- Links to Additional Information

Benefits of Screening Mammography

Regular use of screening mammograms, followed by timely treatment when breast cancer is diagnosed, can help reduce the chances of dying from breast cancer. For women between the ages of 50 and 69, there is strong evidence that screening lowers this risk by 30 percent. For women in their 40s, the risk can be reduced by about 17 percent. For women ages 70 and older, mammography may be helpful, although firm evidence is lacking.

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Measure

Percent of women ages 40 and older, by racial/ethnic, geographic, and low-income groups, who reported they had a mammogram within the past 2 years.

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Period – 1987, 1992, 1998, and 2000

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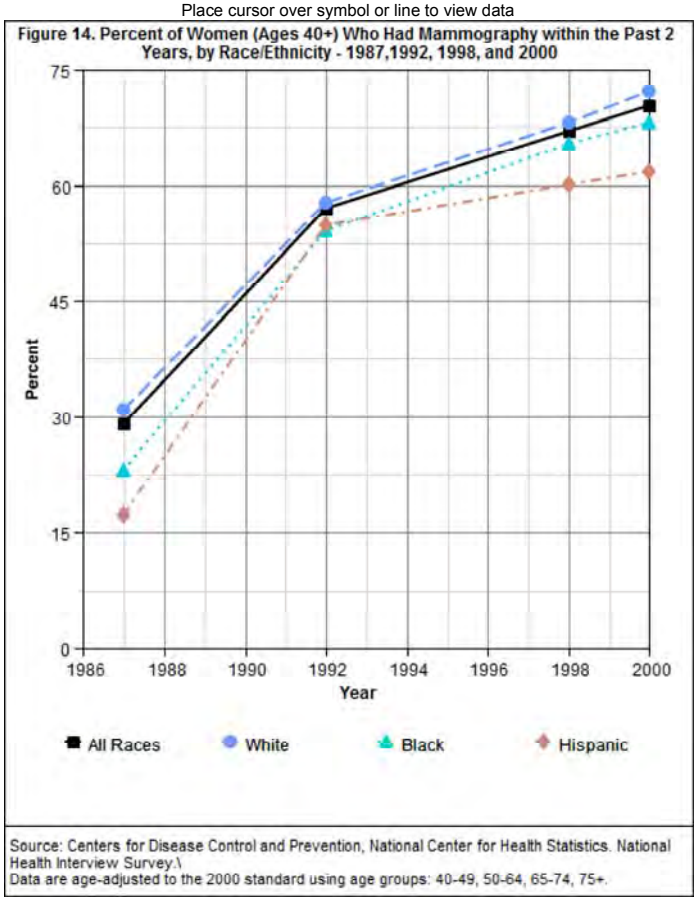
Trends – Rising

Mammography use is increasing among Hispanic, Black, and White women ages 40 and older.

Graph image format: ○ [D] ◉ FLASH ○ JPEG

View details for:
All Races White Black Hispanic

Place cursor over symbol or line to view data



Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.

Download data (Excel)

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Most Recent Estimates

In 2000, 70 percent of women ages 40 and older had a mammogram within the past 2 years. Among racial and ethnic groups, 60 percent of Hispanics, 68 percent of Blacks, and 71 percent of Whites had a mammogram within the past 2 years. Notably, differences between Blacks and Whites were minimal.

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Healthy People 2010 Target

Increase to 70 percent the proportion of women ages 40 and older who have received a mammogram within the past 2 years.

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Groups at High Risk for Not Being Screened

Poor, less educated women who lack health insurance or a usual source of care are less likely to get screening mammograms.

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Key Issues

The barriers that prevent high-risk groups from getting regular mammograms need to be removed.

While millions of women have had at least one screening mammogram, many women still have not. Also, even among those women who had a recent screening mammogram, many do not do so on a regular basis.

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Links to additional information on breast cancer screening:

- Screening for Breast Cancer (PDQ®) Screening/Detection - Health Professionals (NCI, CancerNet)
  http://cancer.gov/cancerinfo/pdq/screening/breast/healthprofessional
- National Health Interview Survey (NHIS) (NCHS)
  http://www.cdc.gov/nchs/nhis.htm
- Healthy People 2010, Volume 1, Chapter 3 - Cancer
  http://www.health.gov/healthypeople/document/HTML/Volume1/03Cancer.htm
- Factors Associated with Women's Adherence to Mammography Screening Guidelines (Health Services Research)
  http://www.hospitalconnect.com/hsr/database/viewarticle.jsp?articleId=123

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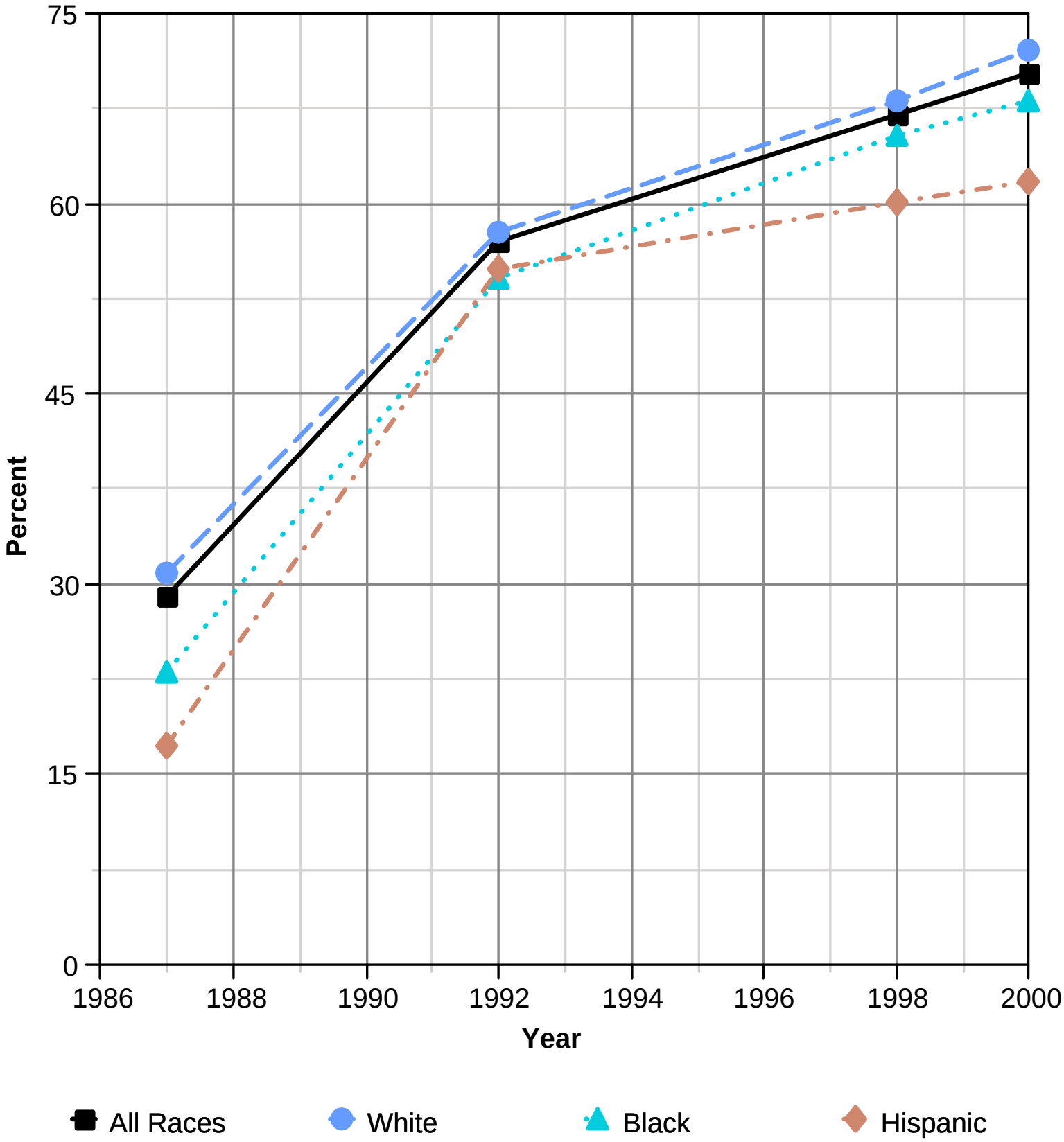
Figure 14. Percent of Women (Ages 40+) Who Had Mammography within the Past 2 Years, by Race/Ethnicity - 1987,1992, 1998, and 2000



Source: Centers for Disease Control and Prevention, National Center for Health Statistics. National Health Interview Survey.\
Data are age-adjusted to the 2000 standard using age groups: 40-49, 50-64, 65-74, 75+.

Line graph with 4 lines and 4 points per line.

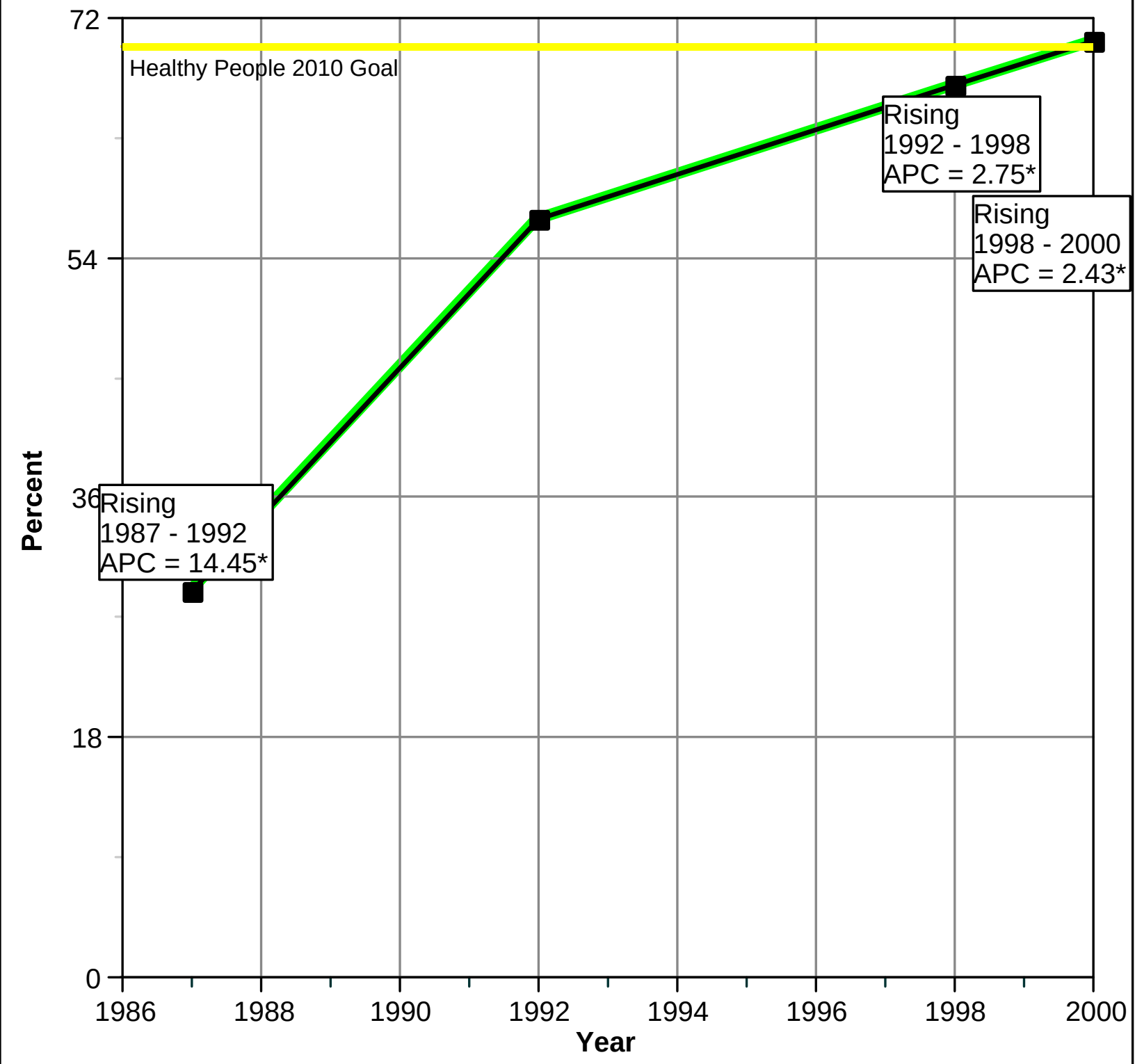
x-axis title: Year
y-axis title: Percent

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, All Races (Line).
Point 1, X=1987, Y=29.00612.
Point 2, X=1992, Y=56.95769.
Point 3, X=1998, Y=67.01533.
Point 4, X=2000, Y=70.30596.
Maximum at X=2000, Y=70.30596 and minimum at X=1987, Y=29.00612.
Data series 2, White (Line).
Point 1, X=1987, Y=30.88513.
Point 2, X=1992, Y=57.81668.
Point 3, X=1998, Y=68.151.
Point 4, X=2000, Y=72.16979.
Maximum at X=2000, Y=72.16979 and minimum at X=1987, Y=30.88513.
Data series 3, Black (Line).
Point 1, X=1987, Y=23.15347.
Point 2, X=1992, Y=54.12443.
Point 3, X=1998, Y=65.46565.
Point 4, X=2000, Y=68.00967.
Maximum at X=2000, Y=68.00967 and minimum at X=1987, Y=23.15347.
Data series 4, Hispanic (Line).
Point 1, X=1987, Y=17.27882.
Point 2, X=1992, Y=54.91901.
Point 3, X=1998, Y=60.17637.
Point 4, X=2000, Y=61.81742.
Maximum at X=2000, Y=61.81742 and minimum at X=1987, Y=17.27882.

Source: Centers for Disease Control and Prevention, National Center for Health Statistics. National Health Interview Survey.\
Data are age-adjusted to the 2000 standard using age groups: 40-49, 50-64, 65-74, 75+.

back

Figure 14a. Percent of Women (Ages 40+) Who Had Mammography within the Past 2 Years, by Race/Ethnicity, All Races - 1987,1992, 1998, and 2000



Healthy People 2010 Goal 3-13: 70%.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.\
* The Annual Percent Change (APC) is statistically significant.

Close window

Line graph with 1 lines and 4 points per line.

x-axis title: Year
y-axis title: Percent

X scale titled Scale label.
Y scale titled Scale label.
Scale Marker 1 on Y scale, line at 70. Scale marker text: Healthy People 2010 Goal
Data series 1, All Races (Line).
Point 1, X=1987, Y=29.00612, Note: Rising 1987 - 1992 APC = 14.45*.
Point 2, X=1992, Y=56.95769.
Point 3, X=1998, Y=67.01533, Note: Rising 1992 - 1998 APC = 2.75*.
Point 4, X=2000, Y=70.30596, Note: Rising 1998 - 2000 APC = 2.43*.
Maximum at X=2000, Y=70.30596 and minimum at X=1987, Y=29.00612.

Healthy People 2010 Goal 3-13: 70%.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.\
* The Annual Percent Change (APC) is statistically significant.

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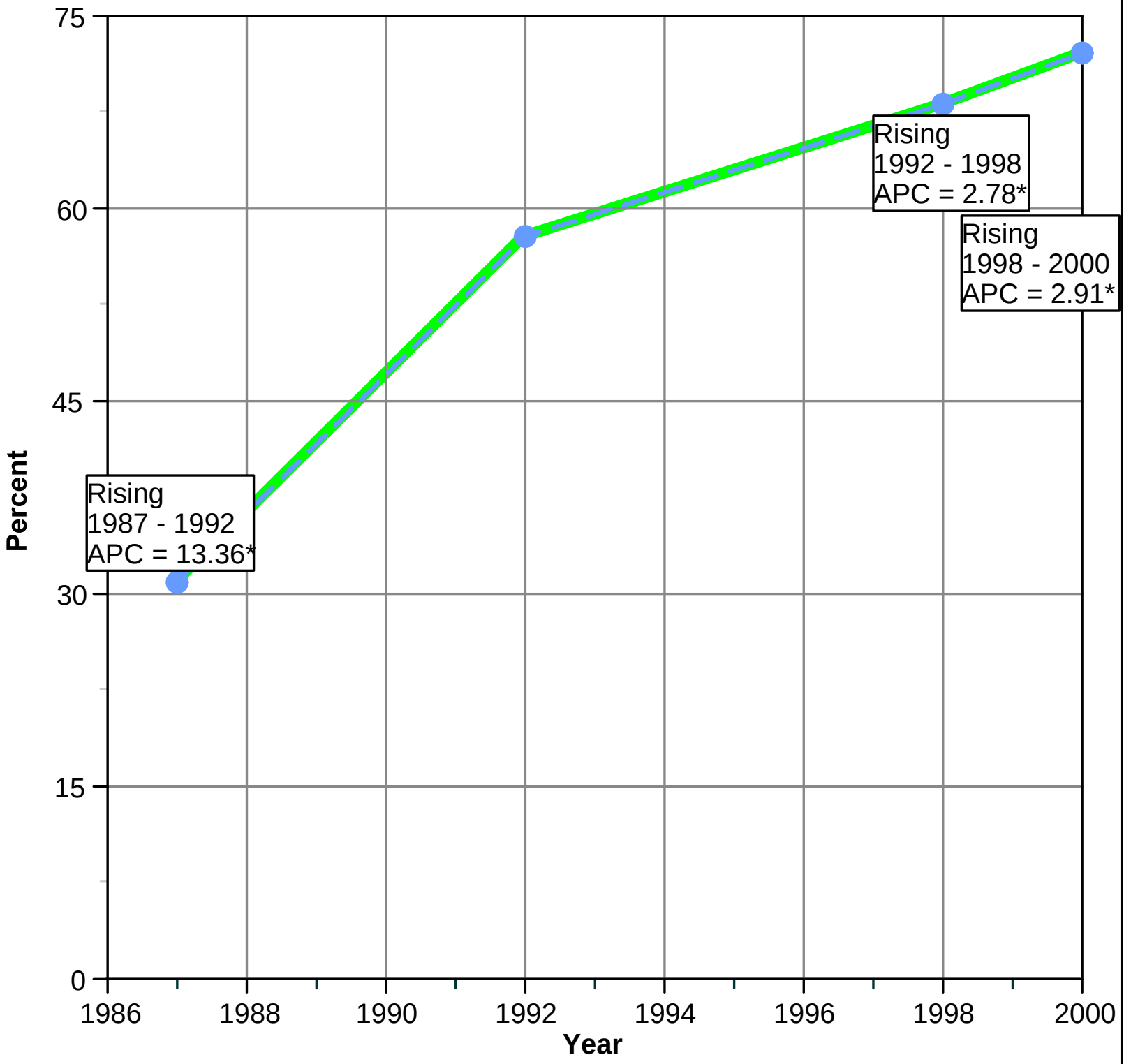
Close window

Figure 14b. Percent of Women (Ages 40+) Who Had Mammography within the Past 2 Years, by Race/Ethnicity, Whites - 1987,1992, 1998, and 2000



No Healthy People 2010 Target Goal for Whites.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.\
* The Annual Percent Change (APC) is statistically significant.

Close window

Line graph with 1 lines and 4 points per line.

x-axis title: Year
y-axis title: Percent

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, White (Line).
Point 1, X=1987, Y=30.88513, Note: Rising 1987 - 1992 APC = 13.36*.
Point 2, X=1992, Y=57.81668.
Point 3, X=1998, Y=68.151, Note: Rising 1992 - 1998 APC = 2.78*.
Point 4, X=2000, Y=72.16979, Note: Rising 1998 - 2000 APC = 2.91*.
Maximum at X=2000, Y=72.16979 and minimum at X=1987, Y=30.88513.

No Healthy People 2010 Target Goal for Whites.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.\
* The Annual Percent Change (APC) is statistically significant.

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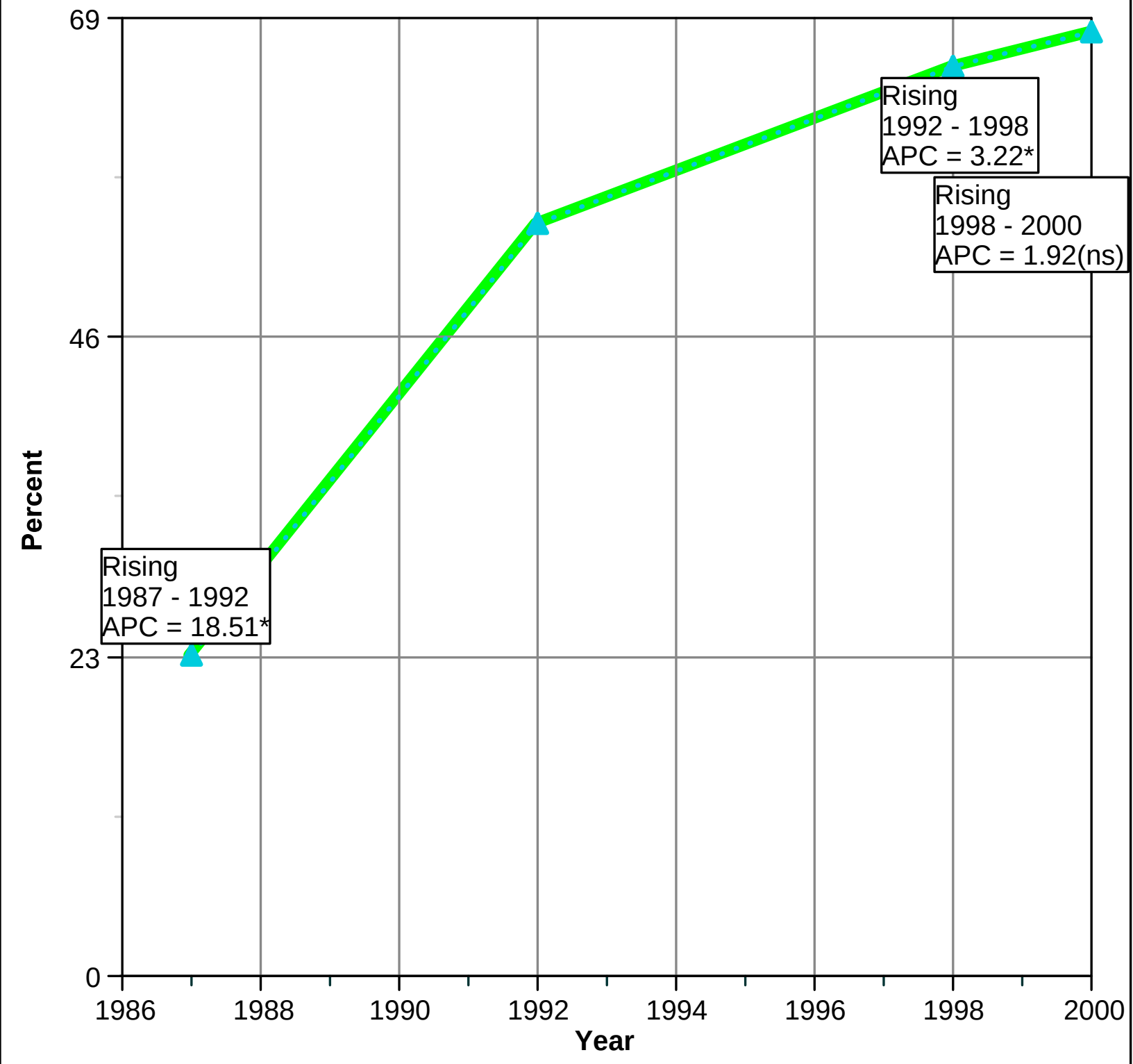
Close window

Figure 14c. Percent of Women (Ages 40+) Who Had Mammography within the Past 2 Years, by Race/Ethnicity, Blacks - 1987,1992, 1998, and 2000



No Healthy People 2010 Target Goal for Blacks.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

Close window

Line graph with 1 lines and 4 points per line.

x-axis title: Year
y-axis title: Percent

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Black (Line).
Point 1, X=1987, Y=23.15347, Note: Rising 1987 - 1992 APC = 18.51*.
Point 2, X=1992, Y=54.12443.
Point 3, X=1998, Y=65.46565, Note: Rising 1992 - 1998 APC = 3.22*.
Point 4, X=2000, Y=68.00967, Note: Rising 1998 - 2000 APC = 1.92(ns).
Maximum at X=2000, Y=68.00967 and minimum at X=1987, Y=23.15347.

No Healthy People 2010 Target Goal for Blacks.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

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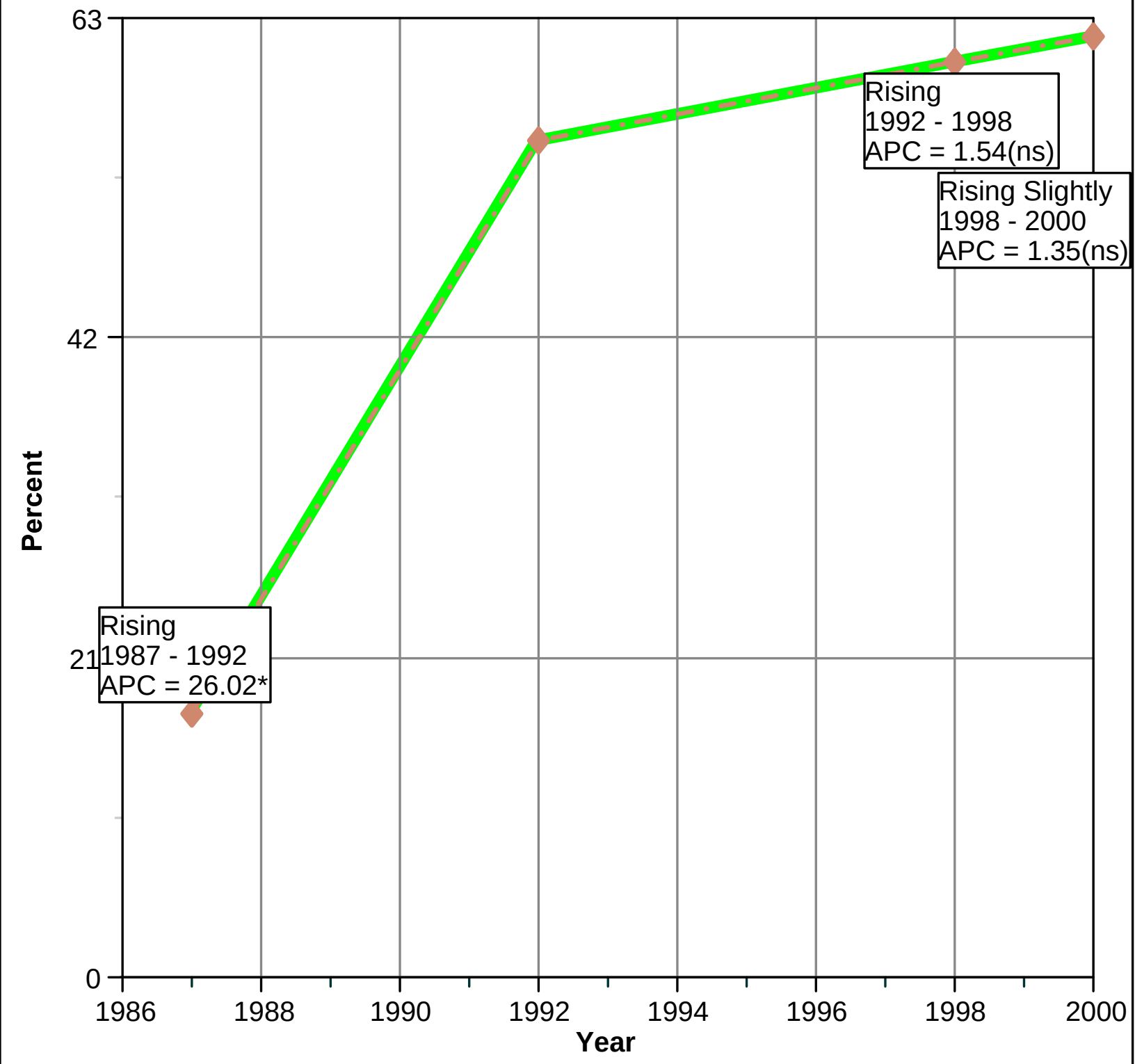
Close window

Figure 14d. Percent of Women (Ages 40+) Who Had Mammography within the Past 2 Years, by Race/Ethnicity, Hispanics - 1987,1992, 1998, and 2000



No Healthy People 2010 Target Goal for Hispanics.\
Trend lines connect sequential data points. Statistical significance of difference between sequ
points was determined using a two-sample test incorporating the standard errors of the estima
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

Close window

Line graph with 1 lines and 4 points per line.

x-axis title: Year
y-axis title: Percent

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Hispanic (Line).
Point 1, X=1987, Y=17.27882, Note: Rising 1987 - 1992 APC = 26.02*.
Point 2, X=1992, Y=54.91901.
Point 3, X=1998, Y=60.17637, Note: Rising 1992 - 1998 APC = 1.54(ns).
Point 4, X=2000, Y=61.81742, Note: Rising Slightly 1998 - 2000 APC = 1.35(ns).
Maximum at X=2000, Y=61.81742 and minimum at X=1987, Y=17.27882.

No Healthy People 2010 Target Goal for Hispanics.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

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Close window

Early Detection

Cervical Cancer Screening

Pap smear use is high and still rising slightly among women ages 18 and older.

On this page:

- Benefits of Pap Smear Testing
- Measure
- Period
- Trend
- Most Recent Estimate
- Healthy People 2010 Target
- Groups at High Risk for Not Being Screened
- Key Issues
- Links to Additional Information

Also in this Section
- Breast Cancer Screening
- **Cervical Cancer Screening**
- Colorectal Cancer Screening

Also in the *Report*
- Report-at-a-Glance
- Prevention
- Early Detection
- Diagnosis
- Treatment
- Life After Cancer
- End of Life

Benefits of Pap Smear Testing

Regular use of the Pap smear test followed by appropriate and timely treatment reduces deaths from cervical cancer. Women who have never been screened or who have not been screened in the past 5 years face a greater risk of developing invasive cervical cancer.

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Measure

Percent of women ages 18 years and older who reported they had a Pap smear within the past 3 years.

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Period – 1987, 1992, 1998, and 2000

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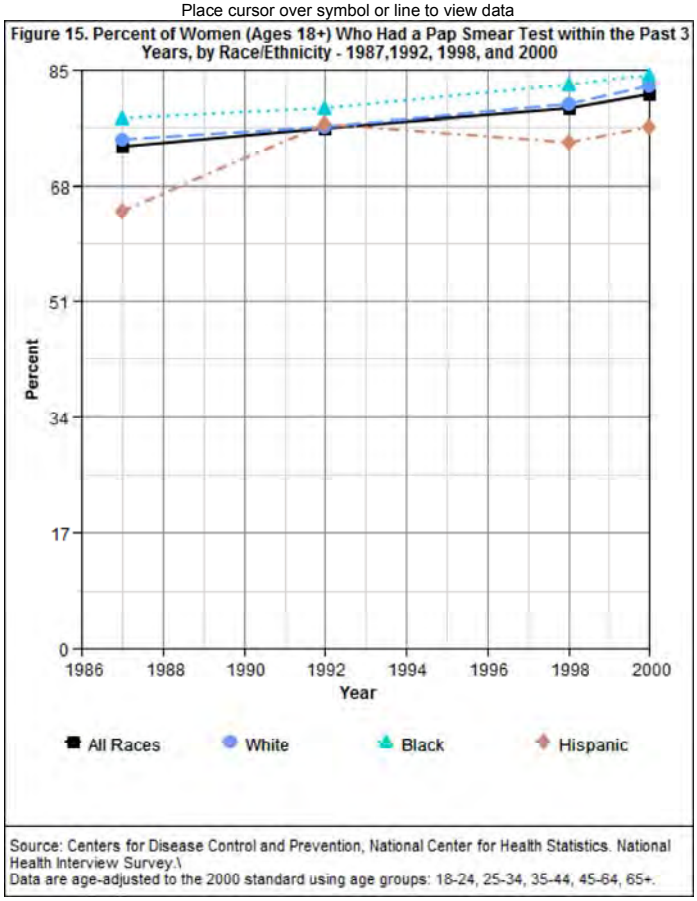
Trend – Rising slightly

Graph image format: ○ [D] ◉ FLASH ○ JPEG

View details for:
All Races White Black Hispanic

Place cursor over symbol or line to view data



Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.

Download data (Excel)

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Most Recent Estimate

In 2000, 81 percent of women ages 18 and older had a Pap smear within the past 3 years. This includes 77 percent of Hispanics, 84 percent of Blacks, and 82 percent of Whites.

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Healthy People 2010 Target

Increase to 90 percent the proportion of women ages 18 and older who have received a Pap smear within the past 3 years.

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Groups at High Risk for Not Being Screened

Older, poor, less educated women are less likely to be screened for cervical cancer. At the same time, older women are at greater risk than younger women of dying from cervical cancer.

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Key Issues

Regular Pap smear testing needs to be encouraged for all women. Special efforts are needed for the following groups: older, poor, less educated women; women who have immigrated to this country; and sexually active women, who are more likely to be exposed to the human papillomavirus (HPV) and the human immunodeficiency virus (HIV), both of which can increase the risk of developing cervical cancer.

HPV testing is a promising new technique; it may improve screening efforts because detection of viruses known to cause cervical cancer may, in turn, increase the chances of detecting cancer among these higher-risk women.

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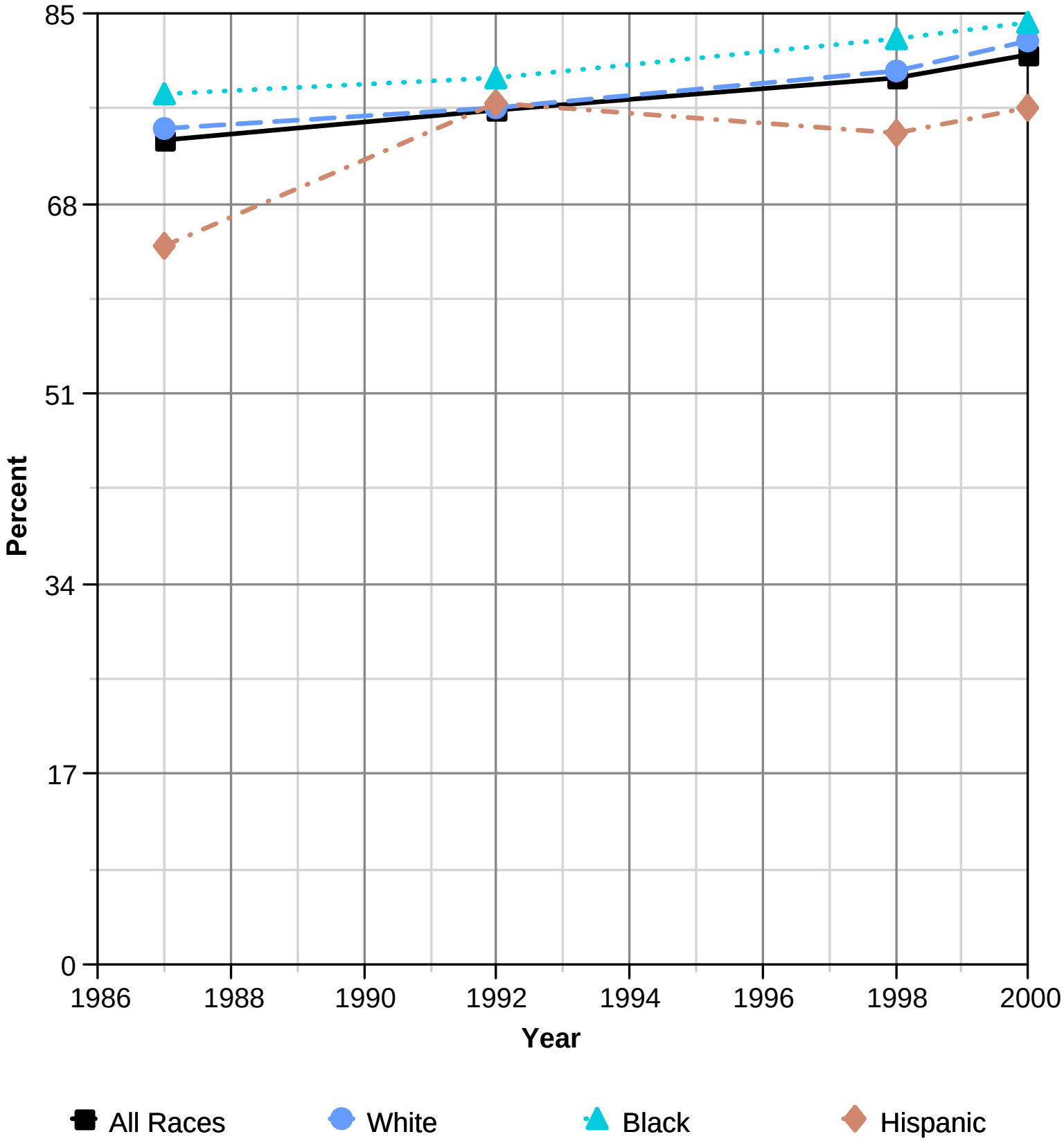
Links to additional information on cervical cancer screening:

- Screening for Cervical Cancer (PDQ®) Screening/Detection - Health Professionals (NCI CancerNet
  http://www.cancer.gov/cancerinfo/pdq/screening/cervical/HealthProfessional
- National Health Interview Survey (NHIS) (NCHS)
  http://www.cdc.gov/nchs/nhis.htm
- Healthy People 2010, Volume 1, Chapter 3 - Cancer
  http://www.health.gov/healthypeople/document/HTML/Volume1/03Cancer.htm"

Page last modified: 11/08/2005

Figure 15. Percent of Women (Ages 18+) Who Had a Pap Smear Test within the Past 3 Years, by Race/Ethnicity - 1987,1992, 1998, and 2000



Source: Centers for Disease Control and Prevention, National Center for Health Statistics. National Health Interview Survey.\
Data are age-adjusted to the 2000 standard using age groups: 18-24, 25-34, 35-44, 45-64, 65+.

Line graph with 4 lines and 4 points per line.

x-axis title: Year
y-axis title: Percent

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, All Races (Line).
Point 1, X=1987, Y=73.73623.
Point 2, X=1992, Y=76.38053.
Point 3, X=1998, Y=79.16859.
Point 4, X=2000, Y=81.36571.
Maximum at X=2000, Y=81.36571 and minimum at X=1987, Y=73.73623.
Data series 2, White (Line).
Point 1, X=1987, Y=74.61162.
Point 2, X=1992, Y=76.48173.
Point 3, X=1998, Y=79.87014.
Point 4, X=2000, Y=82.45342.
Maximum at X=2000, Y=82.45342 and minimum at X=1987, Y=74.61162.
Data series 3, Black (Line).
Point 1, X=1987, Y=77.82816.
Point 2, X=1992, Y=79.31111.
Point 3, X=1998, Y=82.75561.
Point 4, X=2000, Y=84.17306.
Maximum at X=2000, Y=84.17306 and minimum at X=1987, Y=77.82816.
Data series 4, Hispanic (Line).
Point 1, X=1987, Y=64.12005.
Point 2, X=1992, Y=76.87723.
Point 3, X=1998, Y=74.32751.
Point 4, X=2000, Y=76.5244.
Maximum at X=1992, Y=76.87723 and minimum at X=1987, Y=64.12005.

Source: Centers for Disease Control and Prevention, National Center for Health Statistics. National Health Interview Survey.\
Data are age-adjusted to the 2000 standard using age groups: 18-24, 25-34, 35-44, 45-64, 65+.

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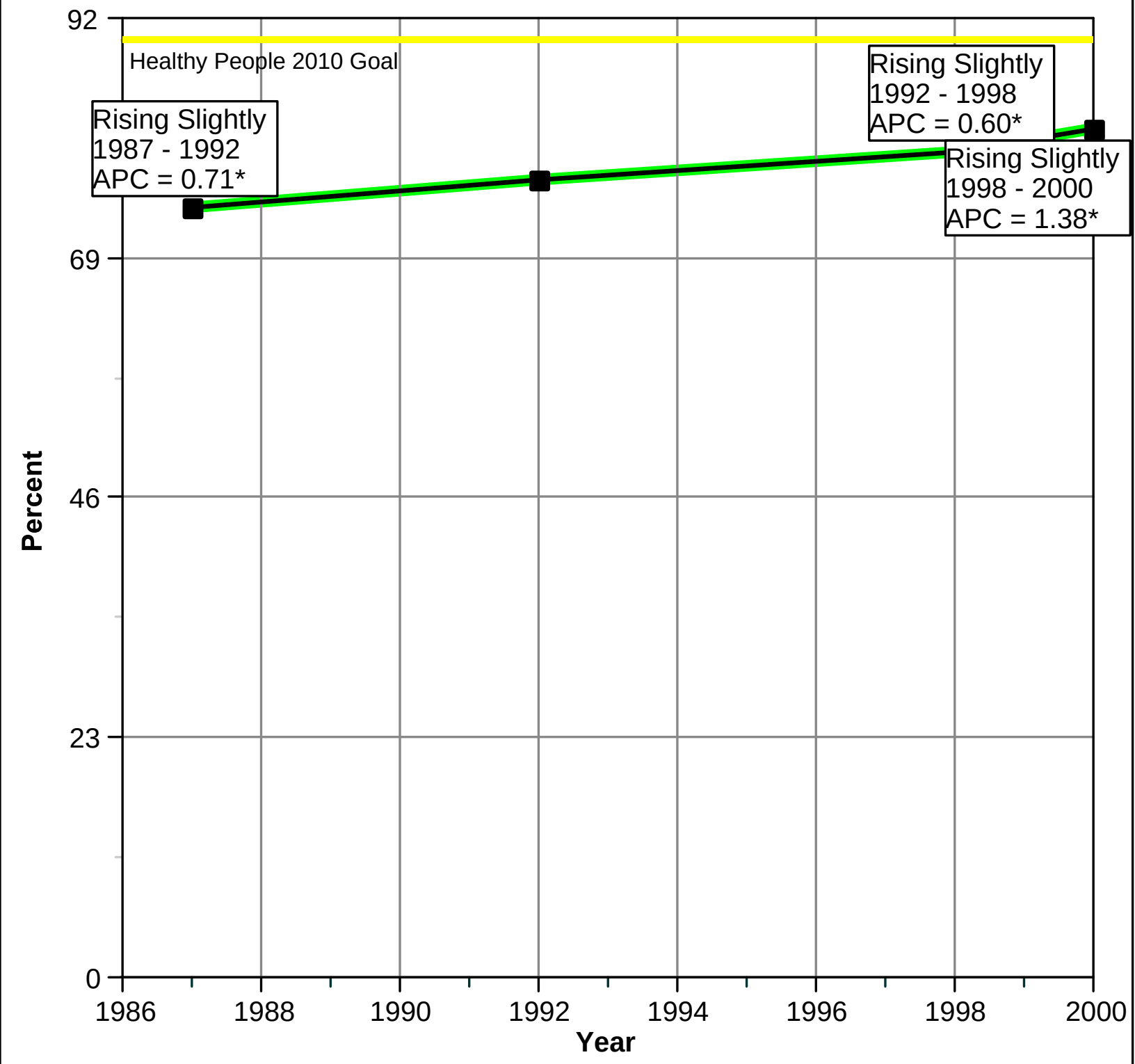
Figure 15a. Percent of Women (Ages 18+) Who Had a Pap Smear Test within the Past 3 Years, by Race/Ethnicity, All Races - 1987,1992, 1998, and 2000



Healthy People 2010 Goal 3-11: 90%.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.\
* The Annual Percent Change (APC) is statistically significant.

Close window

Line graph with 1 lines and 4 points per line.

x-axis title: Year
y-axis title: Percent

X scale titled Scale label.
Y scale titled Scale label.
Scale Marker 1 on Y scale, line at 90. Scale marker text: Healthy People 2010 Goal
Data series 1, All Races (Line).
Point 1, X=1987, Y=73.73623, Note: Rising Slightly 1987 - 1992 APC = 0.71*.
Point 2, X=1992, Y=76.38053.
Point 3, X=1998, Y=79.16859, Note: Rising Slightly 1992 - 1998 APC = 0.60*.
Point 4, X=2000, Y=81.36571, Note: Rising Slightly 1998 - 2000 APC = 1.38*.
Maximum at X=2000, Y=81.36571 and minimum at X=1987, Y=73.73623.

Healthy People 2010 Goal 3-11: 90%.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.\
* The Annual Percent Change (APC) is statistically significant.

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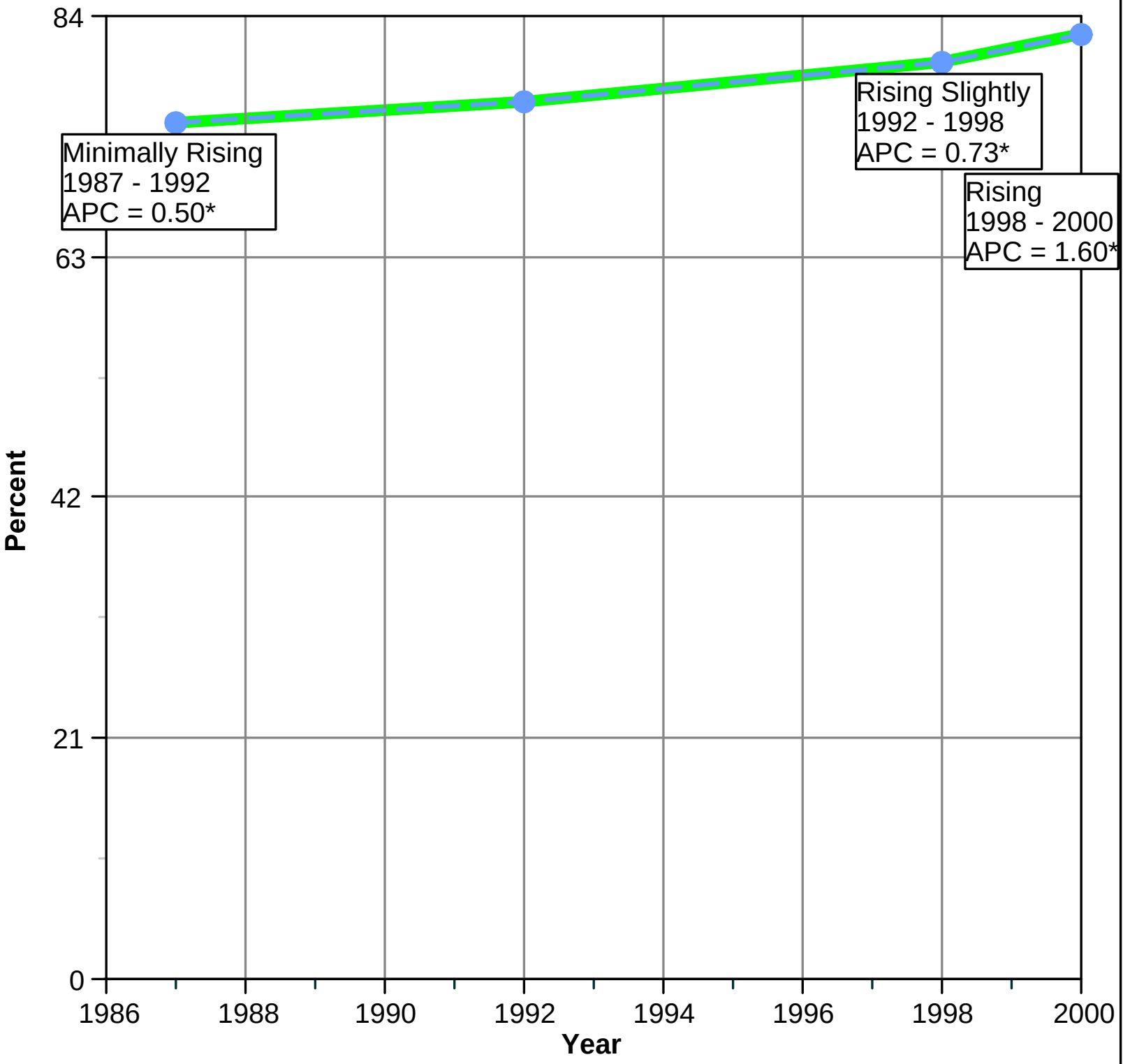
Close window

Figure 15b. Percent of Women (Ages 18+) Who Had a Pap Smear Test within the Past 3 Years, by Race/Ethnicity, White - 1987,1992, 1998, and 2000



No Healthy People 2010 Target Goal for Whites.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.\
* The Annual Percent Change (APC) is statistically significant.

Close window

Line graph with 1 lines and 4 points per line.

x-axis title: Year
y-axis title: Percent

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, White (Line).
Point 1, X=1987, Y=74.61162, Note: Minimally Rising 1987 - 1992 APC = 0.50*.
Point 2, X=1992, Y=76.48173.
Point 3, X=1998, Y=79.87014, Note: Rising Slightly 1992 - 1998 APC = 0.73*.
Point 4, X=2000, Y=82.45342, Note: Rising 1998 - 2000 APC = 1.60*.
Maximum at X=2000, Y=82.45342 and minimum at X=1987, Y=74.61162.

No Healthy People 2010 Target Goal for Whites.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.\
* The Annual Percent Change (APC) is statistically significant.

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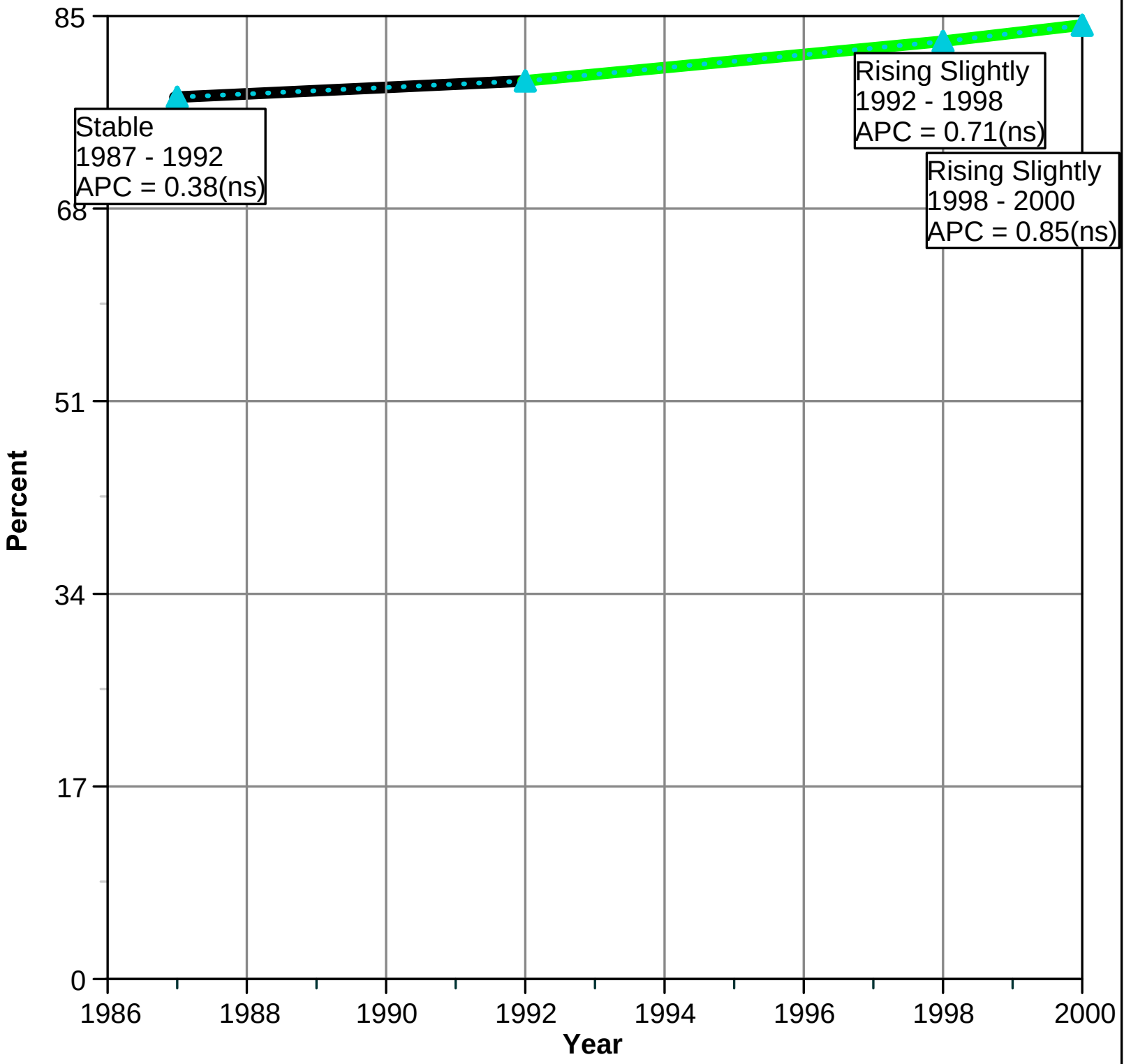
Close window

Figure 15c. Percent of Women (Ages 18+) Who Had a Pap Smear Test within the Past 3 Years, by Race/Ethnicity, Black - 1987,1992, 1998, and 2000



No Healthy People 2010 Target Goal for Blacks.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

Close window

Line graph with 1 lines and 4 points per line.

x-axis title: Year
y-axis title: Percent

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Black (Line).
Point 1, X=1987, Y=77.82816, Note: Stable 1987 - 1992 APC = 0.38(ns).
Point 2, X=1992, Y=79.31111.
Point 3, X=1998, Y=82.75561, Note: Rising Slightly 1992 - 1998 APC = 0.71(ns).
Point 4, X=2000, Y=84.17306, Note: Rising Slightly 1998 - 2000 APC = 0.85(ns).
Maximum at X=2000, Y=84.17306 and minimum at X=1987, Y=77.82816.

No Healthy People 2010 Target Goal for Blacks.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

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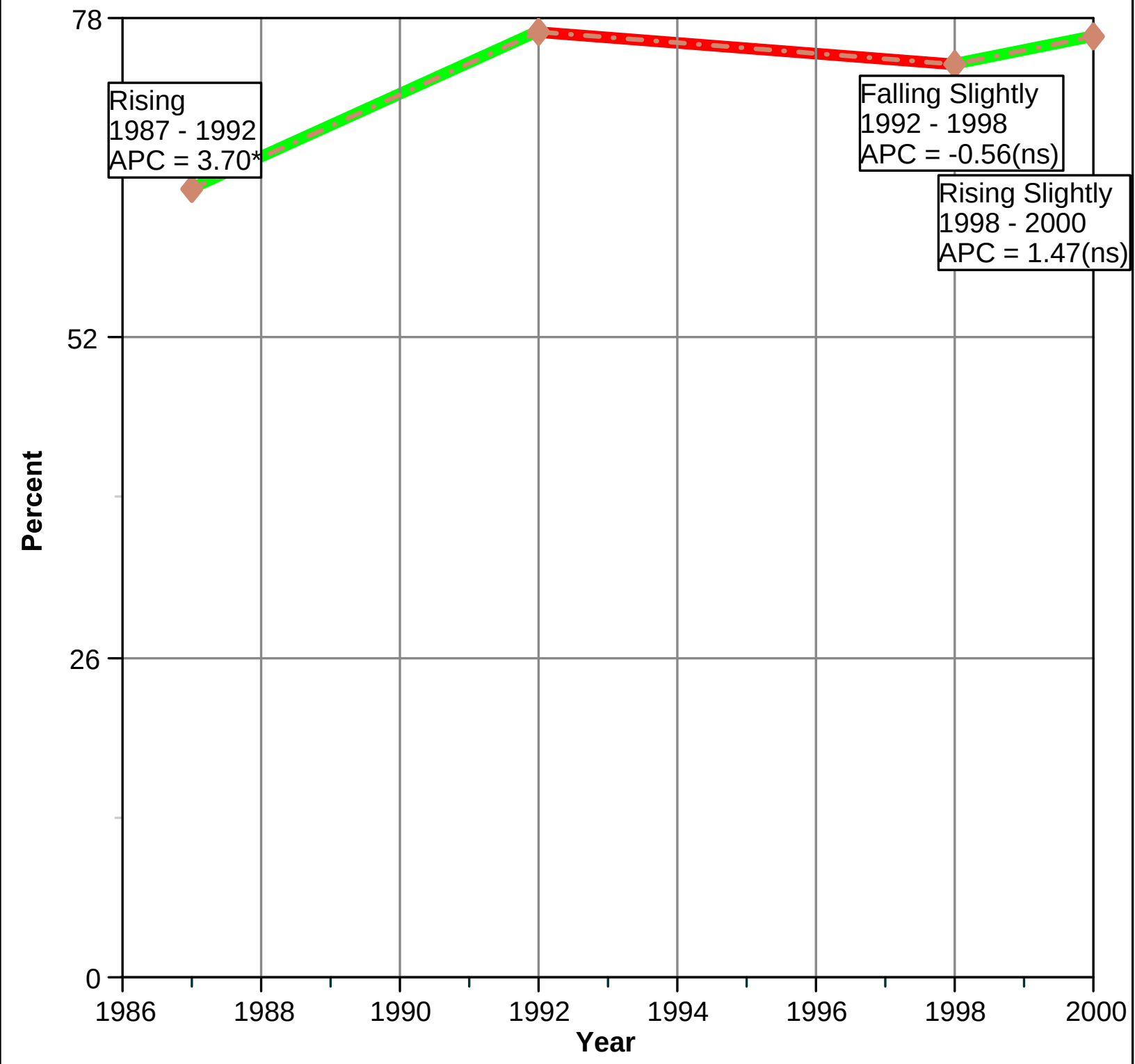
Close window

Figure 15d. Percent of Women (Ages 18+) Who Had a Pap Smear Test within the Past 3 Years, by Race/Ethnicity, Hispanic - 1987,1992, 1998, and 2000



No Healthy People 2010 Target Goal for Hispanics.\
Trend lines connect sequential data points. Statistical significance of difference between sequ
points was determined using a two-sample test incorporating the standard errors of the estima
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

Close window

Line graph with 1 lines and 4 points per line.

x-axis title: Year
y-axis title: Percent

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Hispanic (Line).
Point 1, X=1987, Y=64.12005, Note: Rising 1987 - 1992 APC = 3.70*.
Point 2, X=1992, Y=76.87723.
Point 3, X=1998, Y=74.32751, Note: Falling Slightly 1992 - 1998 APC = -0.56(ns).
Point 4, X=2000, Y=76.5244, Note: Rising Slightly 1998 - 2000 APC = 1.47(ns).
Maximum at X=1992, Y=76.87723 and minimum at X=1987, Y=64.12005.

No Healthy People 2010 Target Goal for Hispanics.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

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Early Detection

Colorectal Cancer Screening

Colorectal cancer screening rates have risen but remain low among people ages 50 and older.

On this page:

- Benefits of Screening Tests for Colorectal Cancer
- Measure
- Period
- Trends
- Most Recent Estimates
- Healthy People 2010 Targets
- Groups at High Risk for Not Being Screened
- Key Issues
- Links to Additional Information

Also in this Section
- Breast Cancer Screening
- Cervical Cancer Screening
- **Colorectal Cancer Screening**

Also in the *Report*
- Report-at-a-Glance
- Prevention
- Early Detection
- Diagnosis
- Treatment
- Life After Cancer
- End of Life

Benefits of Screening Tests for Colorectal Cancer

Research supports the use of two screening tests for colorectal cancer:

- **Fecal occult blood test (FOBT).** When done every 1 to 2 years in people ages 50 to 80, the FOBT can decrease the number of deaths due to colorectal cancer.
- **Colorectal endoscopy (i.e., sigmoidoscopy or colonoscopy).** Regular sigmoidoscopies can reduce colorectal cancer deaths. More research is needed to learn the best timing between exams and to determine the effectiveness of screening by colonoscopy.

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Measures

FOBT: Percent of adults ages 50 and older who reported that they had a fecal occult blood test (FOBT) within the past 2 years, by racial/ethnic group.

Colorectal endoscopy: Percent of adults ages 50 and older who reported that they ever had a sigmoidoscopy.

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Period –1987, 1992, 1998, and 2000

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Trends – Rising overall

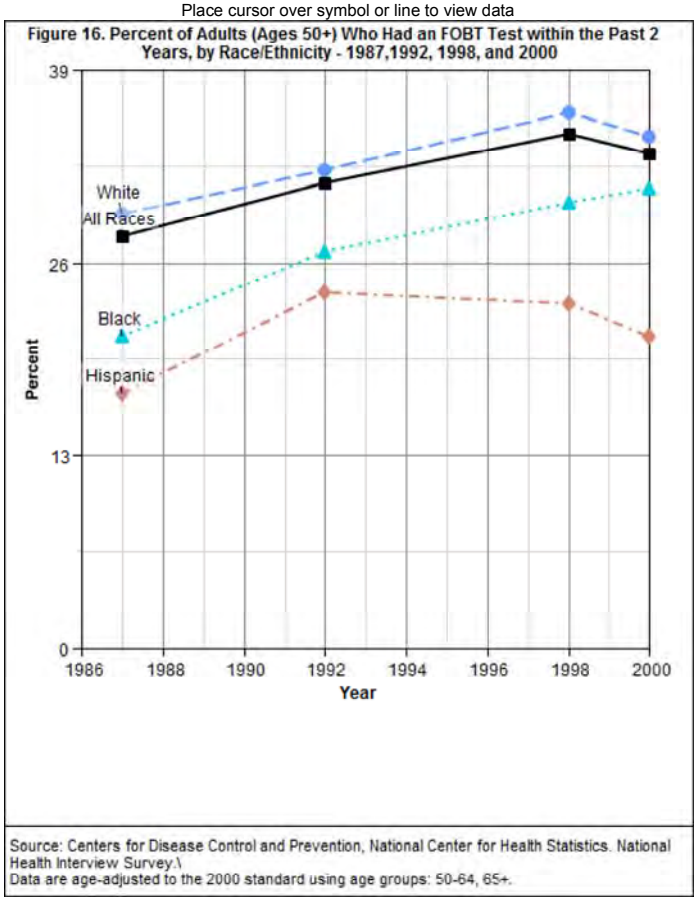
FOBT: Rising overall, although there was a statistically insignificant decrease between 1998 and 2000 that may have resulted from a change in survey methodology in 2000. (In that year, separate questions were asked about use of home and office FOBT.) Similar patterns are seen in Whites. Rising in Blacks, though not statistically significant. In Hispanics, rising, then falling slightly, and falling again between 1998 and 2000, though these trends are not statistically significant. (Figure 16.)

Colorectal endoscopy: Rising overall from 1987-1998, and continuing to rise from 1998-2000 although this latter trend is not statically significant. Rising slightly in Hispanics between 1998 and 2000 (although not statistically significantly), after a rise between 1987 and 1992 and a slight decline between 1992 and 1998. Rising slightly continuously from 1992 to 2000 for Whites and Blacks (although not statistically significantly for Blacks from 1992-2000). (Figure 17.)

Graph image format: ○ [D] ◉ FLASH ○ JPEG

View details for:
All Races White Black Hispanic

Place cursor over symbol or line to view data



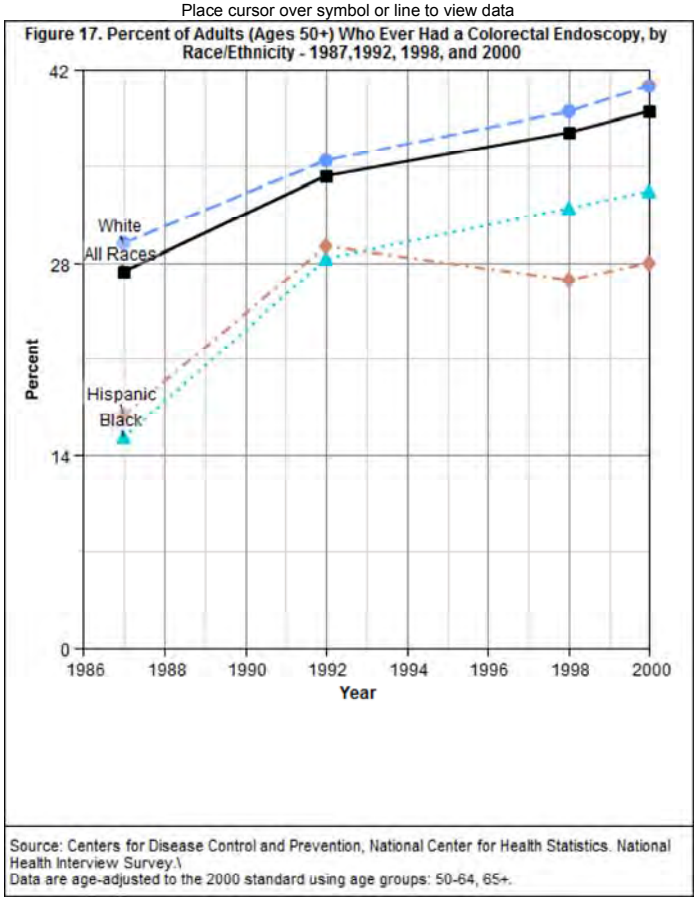
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.

Download data (Excel)

Graph image format: ○ [D] ◉ FLASH ○ JPEG

View details for:
All Races White Black Hispanic

Place cursor over symbol or line to view data



Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.

Download data (Excel)

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Most Recent Estimates

In 2000, 33 percent of people ages 50 and older had an FOBT within the past 2 years. This includes 21 percent of Hispanics, 31 percent of Blacks, and 35 percent of Whites.

Also in 2000, 39 percent of people 50 and older had ever had a colorectal endoscopy. This includes 28 percent of Hispanics, 33 percent of Blacks, and 41 percent of Whites.

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Healthy People 2010 Targets

Increase to 50 percent the proportion of adults ages 50 and older who have had an FOBT within the past 2 years.

Increase to 50 percent the proportion of adults ages 50 and older who have ever had a sigmoidoscopy.

No Healthy People 2010 target has been set for the proportion of adults who receive colonoscopy screenings.

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Groups at High Risk for Not Being Screened

People with lower incomes, less education, and no health care coverage are less likely to be screened for colorectal cancer.

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Key Issues

Despite some improvements over time, colorectal cancer screening rates remain low. It is important to understand and overcome doctor and patient barriers to these life-saving tests.

Newer screening methods, such as virtual colonoscopy and immunochemical FOBT, are promising and need further evaluation.

A substantial proportion of reported FOBT and colorectal endoscopy procedures may be used for diagnostic rather than screening purposes.

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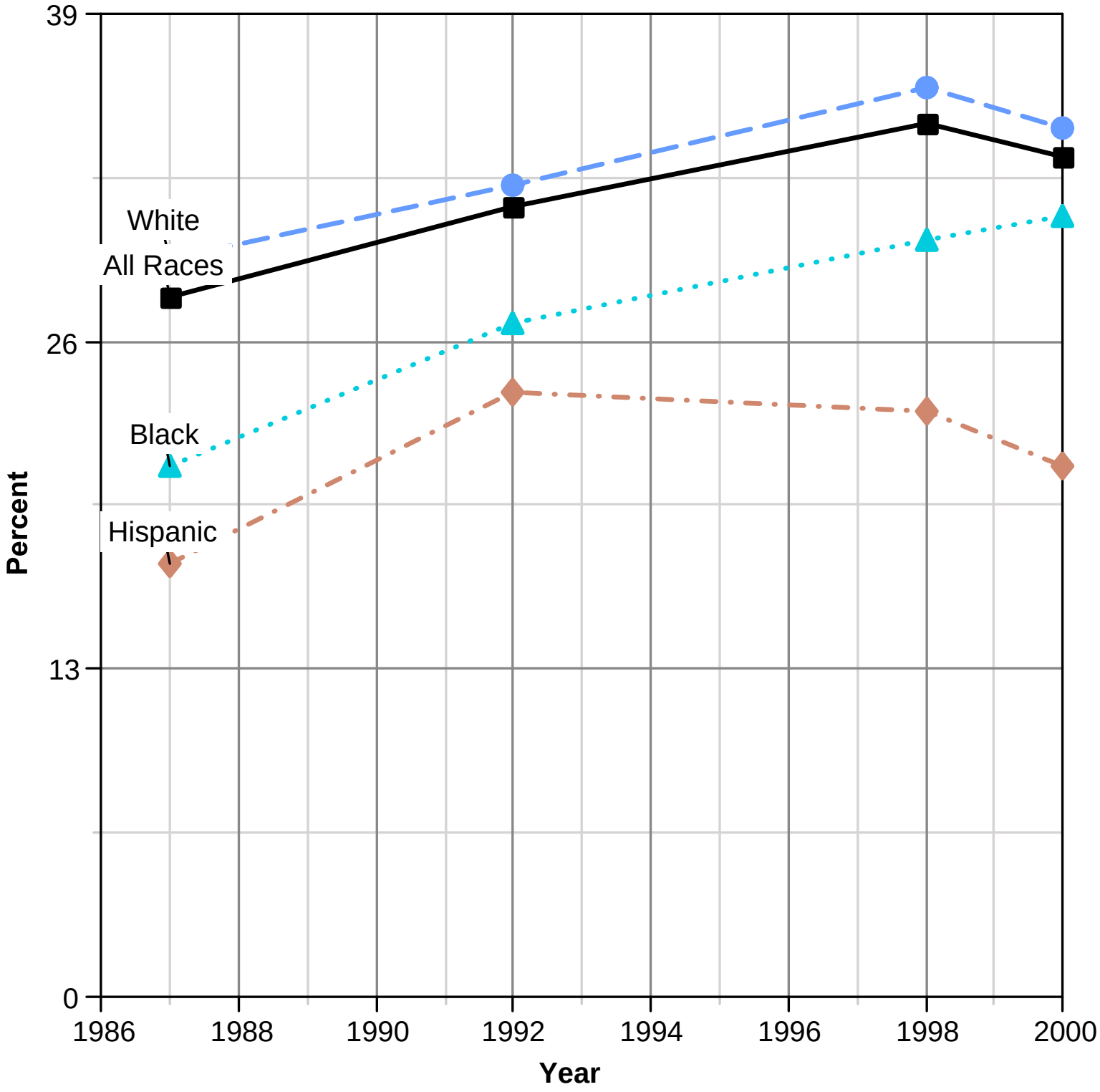
Links to additional information on colorectal cancer screening:

- Screening for Colorectal Cancer (PDQ®) Screening/Detection - Health Professionals (NCI CancerNet)
  http://www.cancer.gov/cancerinfo/pdq/screening/colorectal/healthprofessional
- National Health Interview Survey (NHIS) (NCHS)
  http://www.cdc.gov/nchs/nhis.htm
- Healthy People 2010, Volume 1, Chapter 3 - Cancer
  http://www.health.gov/healthypeople/document/HTML/Volume1/03Cancer.htm
- The annual report to the nation on the status of cancer, 1973-1997, with a special section on colorectal cancer (Cancer)
  http://www3.interscience.wiley.com/cgi-bin/fulltext/75504286/HTMLSTART
- Colon Cancer Screening: More Data for the Debate on Colonoscopy (NCI)
  http://www.cancer.gov/clinicaltrials/results/colonoscopy0700

Page last modified: 11/08/2005

Figure 16. Percent of Adults (Ages 50+) Who Had an FOBT Test within the Past 2 Years, by Race/Ethnicity - 1987,1992, 1998, and 2000



Source: Centers for Disease Control and Prevention, National Center for Health Statistics. National Health Interview Survey.\
Data are age-adjusted to the 2000 standard using age groups: 50-64, 65+.

Line graph with 4 lines and 4 points per line.

x-axis title: Year
y-axis title: Percent

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, All Races (Line).
Point 1, X=1987, Y=27.7788, Note: All Races.
Point 2, X=1992, Y=31.3298.
Point 3, X=1998, Y=34.634.
Point 4, X=2000, Y=33.3201.
Maximum at X=1998, Y=34.634 and minimum at X=1987, Y=27.7788.
Data series 2, White (Line).
Point 1, X=1987, Y=29.3124, Note: White.
Point 2, X=1992, Y=32.1988.
Point 3, X=1998, Y=36.1023.
Point 4, X=2000, Y=34.4309.
Maximum at X=1998, Y=36.1023 and minimum at X=1987, Y=29.3124.
Data series 3, Black (Line).
Point 1, X=1987, Y=21.054, Note: Black.
Point 2, X=1992, Y=26.6988.
Point 3, X=1998, Y=30.0218.
Point 4, X=2000, Y=30.9711.
Maximum at X=2000, Y=30.9711 and minimum at X=1987, Y=21.054.
Data series 4, Hispanic (Line).
Point 1, X=1987, Y=17.1804, Note: Hispanic.
Point 2, X=1992, Y=24.0292.
Point 3, X=1998, Y=23.2341.
Point 4, X=2000, Y=21.0572.
Maximum at X=1992, Y=24.0292 and minimum at X=1987, Y=17.1804.

Source: Centers for Disease Control and Prevention, National Center for Health Statistics. National Health Interview Survey.\
Data are age-adjusted to the 2000 standard using age groups: 50-64, 65+.

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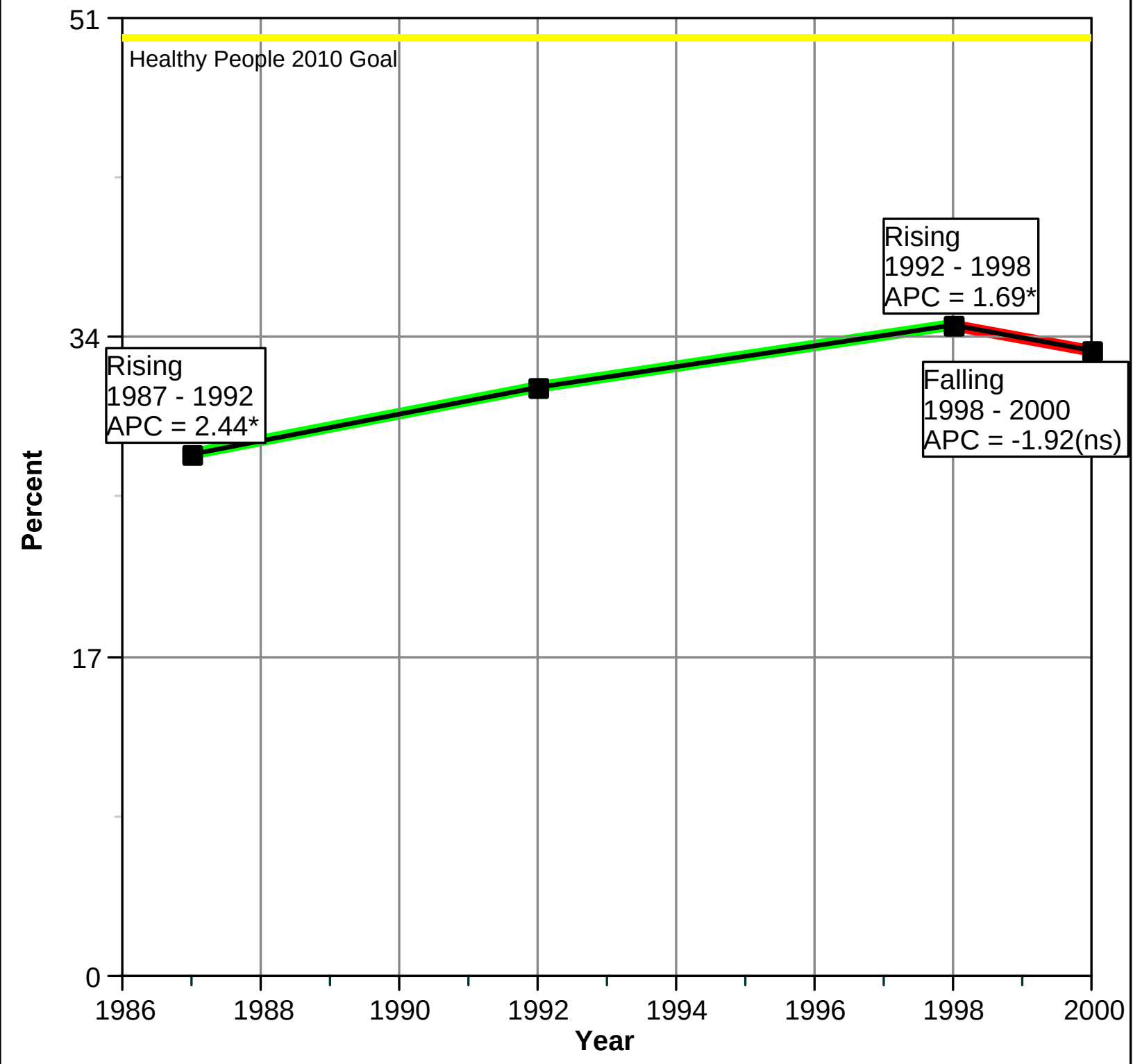
Figure 16a. Percent of Adults (Ages 50+) Who Had an FOBT Test within the Past 2 Years, by Race/Ethnicity, All Races - 1987,1992, 1998, and 2000



Healthy People 2010 Goal 3-12a: 50%.\
Trend lines connect sequential data points. Statistical significance of difference between sequ
points was determined using a two-sample test incorporating the standard errors of the estima
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

Close window

Line graph with 1 lines and 4 points per line.

x-axis title: Year
y-axis title: Percent

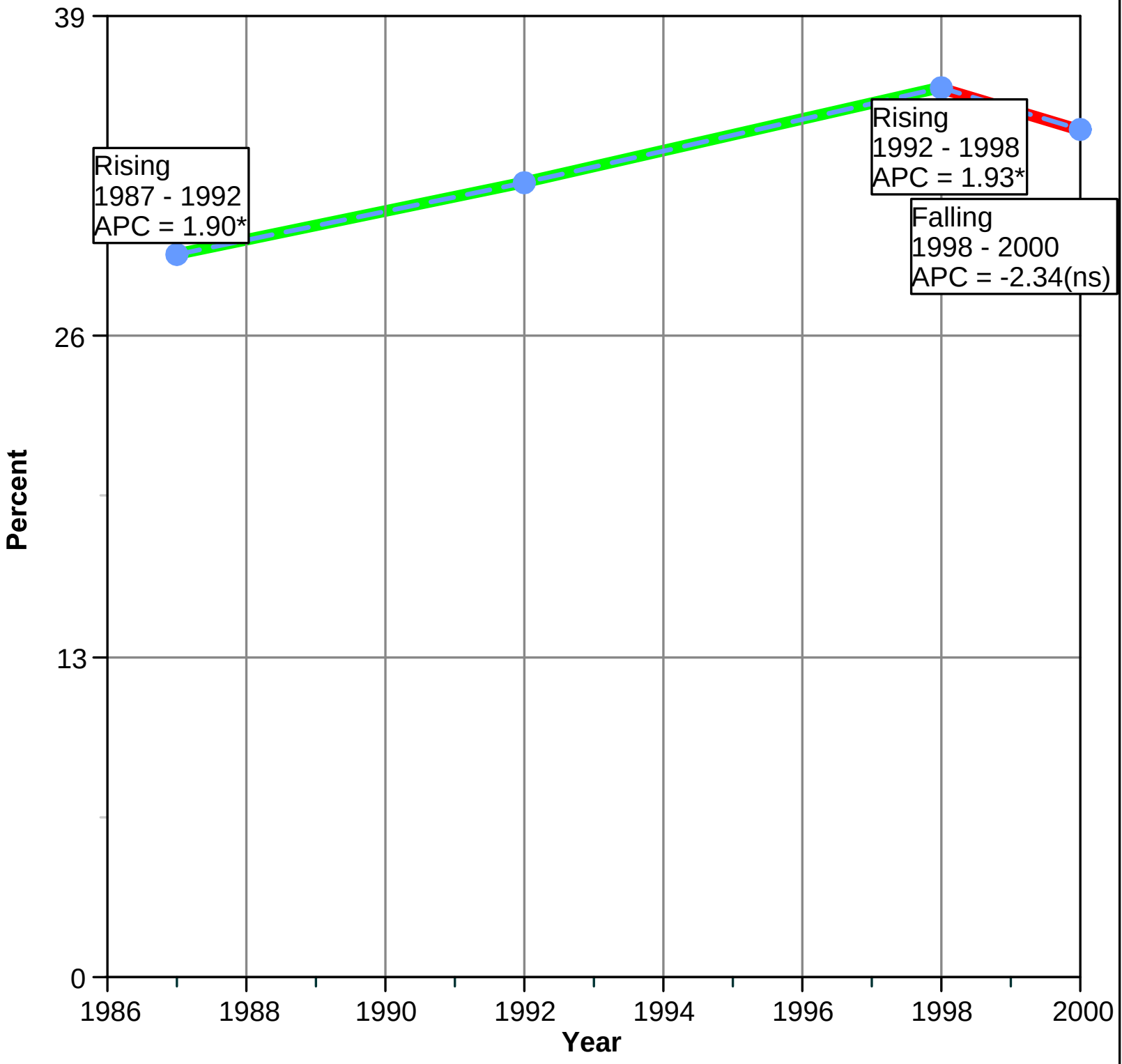
X scale titled Scale label.
Y scale titled Scale label.
Scale Marker 1 on Y scale, line at 50. Scale marker text: Healthy People 2010 Goal
Data series 1, All Races (Line).
Point 1, X=1987, Y=27.7788, Note: Rising 1987 - 1992 APC = 2.44*.
Point 2, X=1992, Y=31.3298.
Point 3, X=1998, Y=34.634, Note: Rising 1992 - 1998 APC = 1.69*.
Point 4, X=2000, Y=33.3201, Note: Falling 1998 - 2000 APC = -1.92(ns).
Maximum at X=1998, Y=34.634 and minimum at X=1987, Y=27.7788.

Healthy People 2010 Goal 3-12a: 50%.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

back

Close window

Figure 16b. Percent of Adults (Ages 50+) Who Had an FOBT Test within the Past 2 Years, by Race/Ethnicity, White - 1987,1992, 1998, and 2000



No Healthy People 2010 target Goal for Whites.\
Trend lines connect sequential data points. Statistical significance of difference between sequ
points was determined using a two-sample test incorporating the standard errors of the estima
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, p < 0.05

Close window

Line graph with 1 lines and 4 points per line.

x-axis title: Year
y-axis title: Percent

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, White (Line).
Point 1, X=1987, Y=29.3124, Note: Rising 1987 - 1992 APC = 1.90*.
Point 2, X=1992, Y=32.1988.
Point 3, X=1998, Y=36.1023, Note: Rising 1992 - 1998 APC = 1.93*.
Point 4, X=2000, Y=34.4309, Note: Falling 1998 - 2000 APC = -2.34(ns).
Maximum at X=1998, Y=36.1023 and minimum at X=1987, Y=29.3124.

No Healthy People 2010 target Goal for Whites.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

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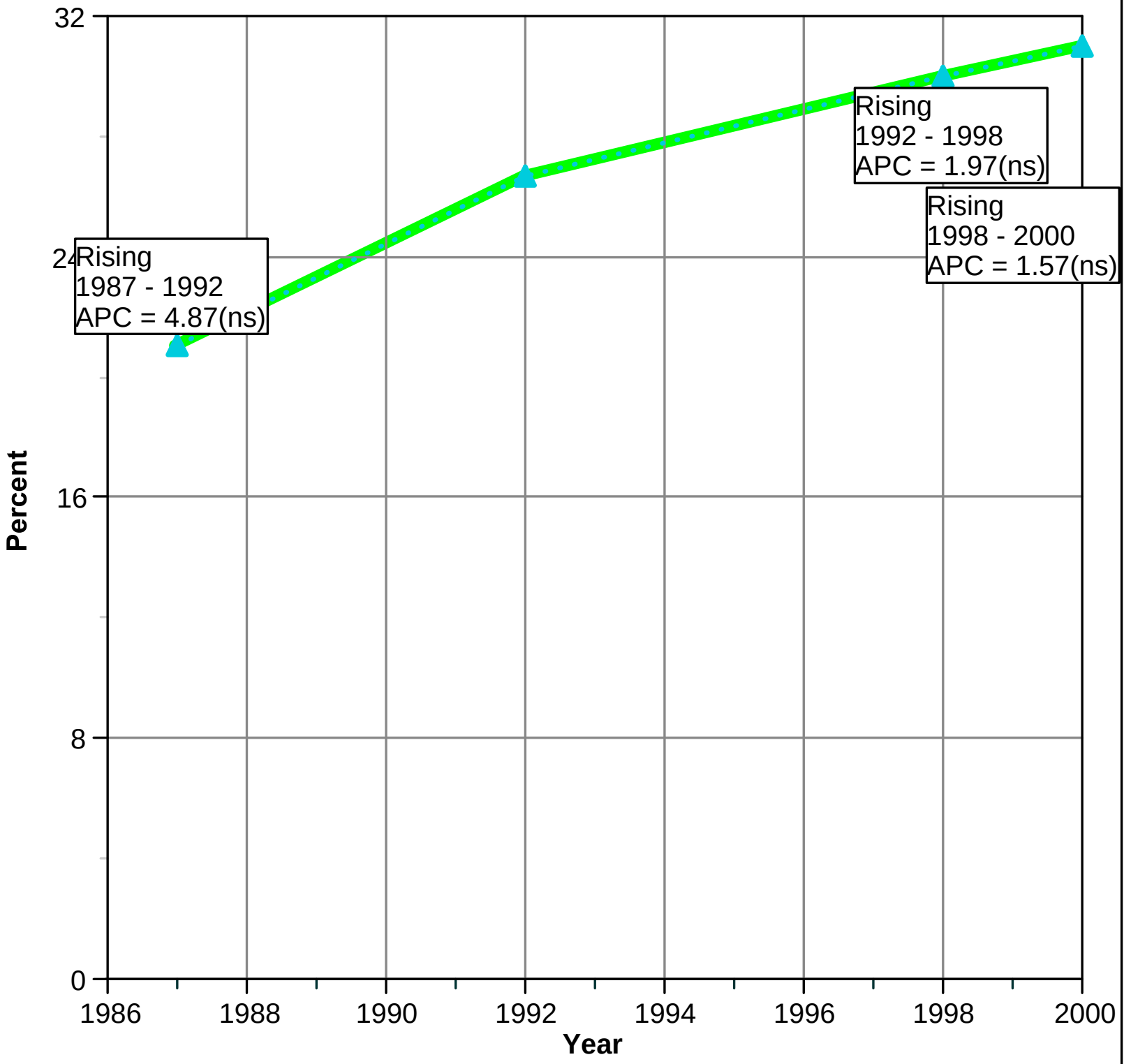
Close window

Figure 16c. Percent of Adults (Ages 50+) Who Had an FOBT Test within the Past 2 Years, by Race/Ethnicity, Black - 1987,1992, 1998, and 2000



No Healthy People 2010 Target Goal for Blacks.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates..\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

Close window

Line graph with 1 lines and 4 points per line.

x-axis title: Year
y-axis title: Percent

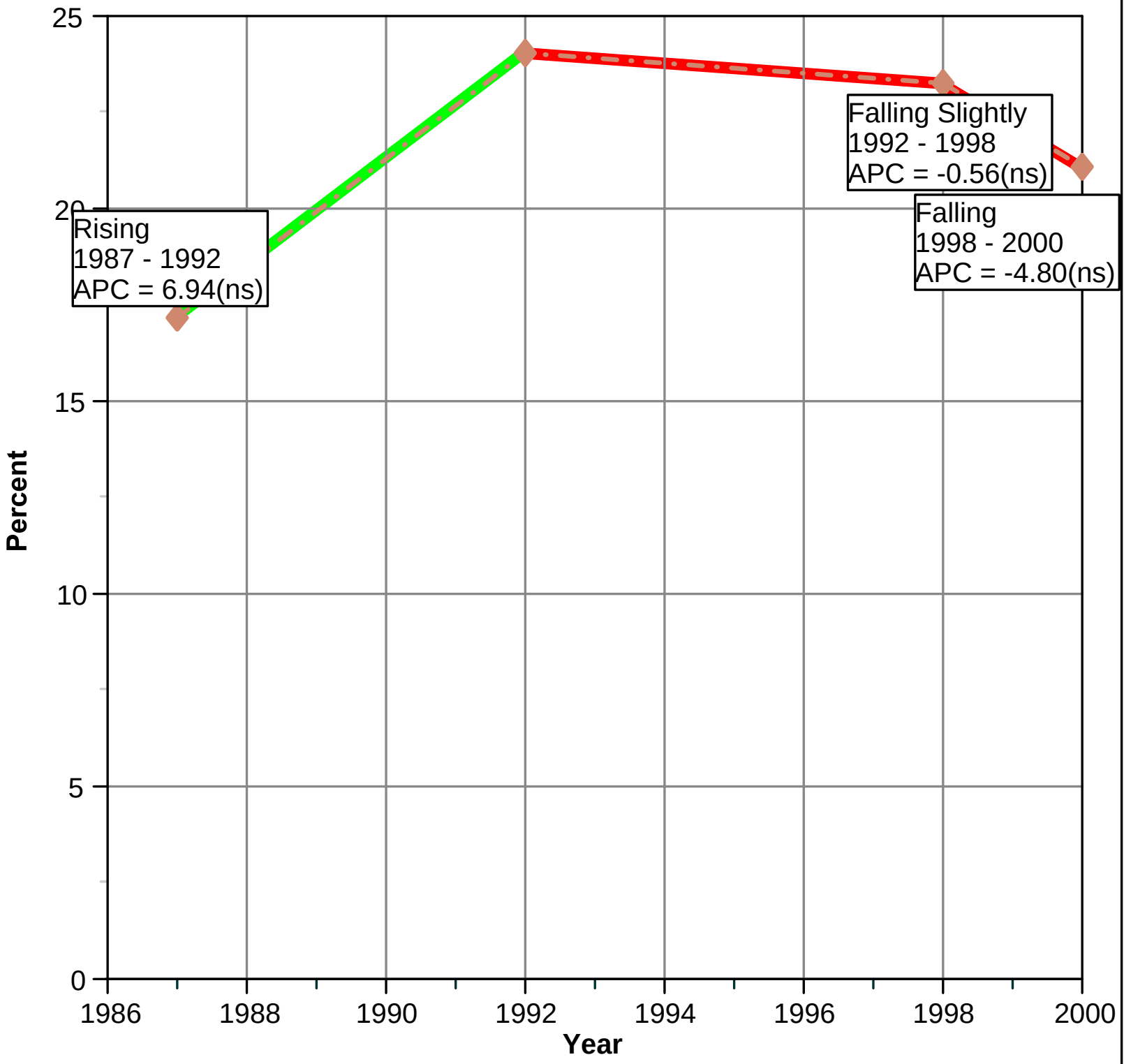
X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Black (Line).
Point 1, X=1987, Y=21.054, Note: Rising 1987 - 1992 APC = 4.87(ns).
Point 2, X=1992, Y=26.6988.
Point 3, X=1998, Y=30.0218, Note: Rising 1992 - 1998 APC = 1.97(ns).
Point 4, X=2000, Y=30.9711, Note: Rising 1998 - 2000 APC = 1.57(ns).
Maximum at X=2000, Y=30.9711 and minimum at X=1987, Y=21.054.

No Healthy People 2010 Target Goal for Blacks.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates..\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

back

Close window

Figure 16d. Percent of Adults (Ages 50+) Who Had an FOBT Test within the Past 2 Years, by Race/Ethnicity, Hispanic - 1987,1992, 1998, and 2000



No Healthy People 2010 Target Goal for Hispanics.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

Close window

Line graph with 1 lines and 4 points per line.

x-axis title: Year
y-axis title: Percent

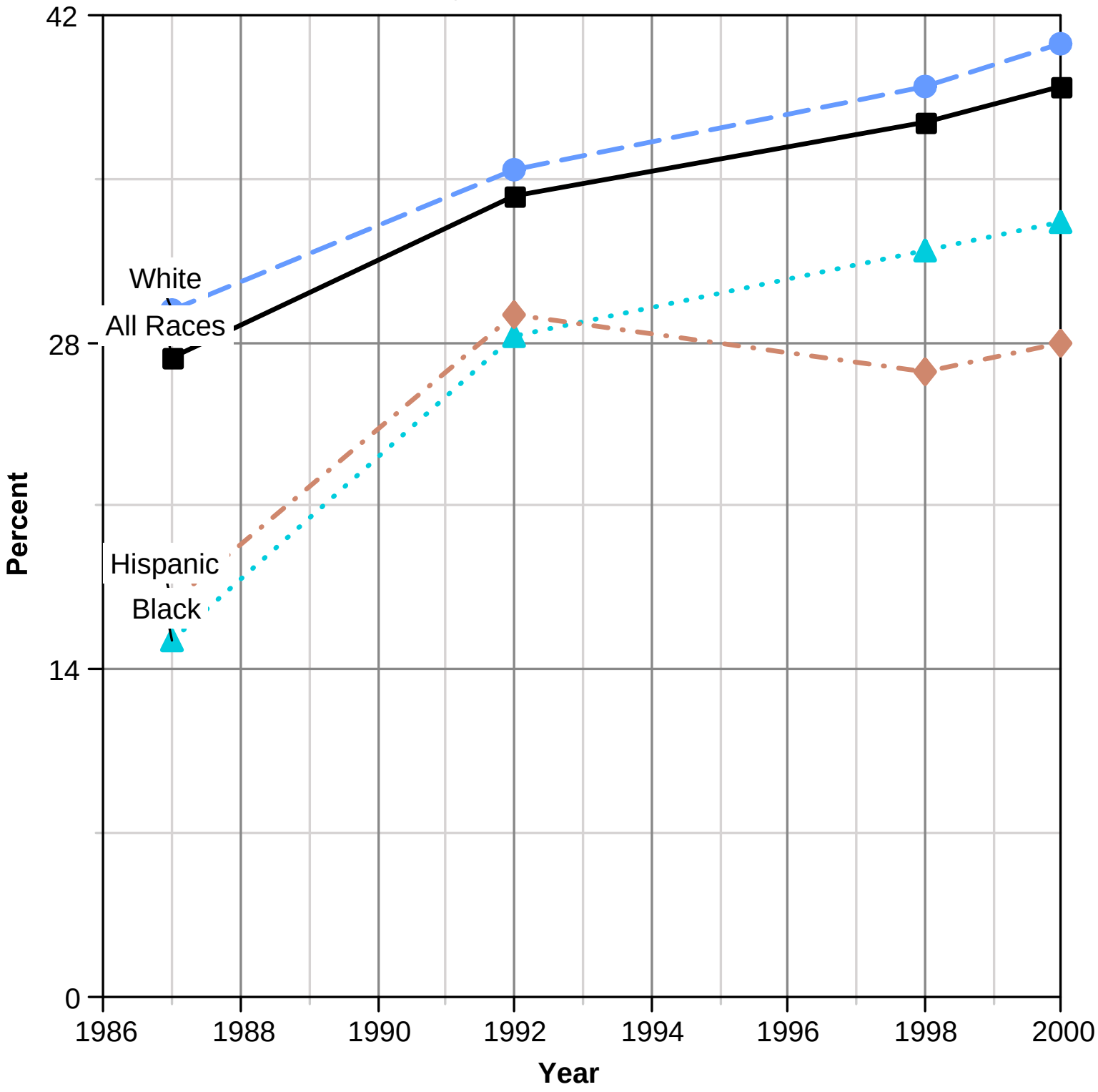
X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Hispanic (Line).
Point 1, X=1987, Y=17.1804, Note: Rising 1987 - 1992 APC = 6.94(ns).
Point 2, X=1992, Y=24.0292.
Point 3, X=1998, Y=23.2341, Note: Falling Slightly 1992 - 1998 APC = -0.56(ns).
Point 4, X=2000, Y=21.0572, Note: Falling 1998 - 2000 APC = -4.80(ns).
Maximum at X=1992, Y=24.0292 and minimum at X=1987, Y=17.1804.

No Healthy People 2010 Target Goal for Hispanics.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

back

Close window

Figure 17. Percent of Adults (Ages 50+) Who Ever Had a Colorectal Endoscopy, by Race/Ethnicity - 1987,1992, 1998, and 2000



Source: Centers for Disease Control and Prevention, National Center for Health Statistics. National Health Interview Survey.\
Data are age-adjusted to the 2000 standard using age groups: 50-64, 65+.

Line graph with 4 lines and 4 points per line.

x-axis title: Year
y-axis title: Percent

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, All Races (Line).
Point 1, X=1987, Y=27.3137, Note: All Races.
Point 2, X=1992, Y=34.28138.
Point 3, X=1998, Y=37.44455.
Point 4, X=2000, Y=38.93774.
Maximum at X=2000, Y=38.93774 and minimum at X=1987, Y=27.3137.
Data series 2, White (Line).
Point 1, X=1987, Y=29.37758, Note: White.
Point 2, X=1992, Y=35.41956.
Point 3, X=1998, Y=38.98181.
Point 4, X=2000, Y=40.80957.
Maximum at X=2000, Y=40.80957 and minimum at X=1987, Y=29.37758.
Data series 3, Black (Line).
Point 1, X=1987, Y=15.30267, Note: Black.
Point 2, X=1992, Y=28.22517.
Point 3, X=1998, Y=31.98288.
Point 4, X=2000, Y=33.17501.
Maximum at X=2000, Y=33.17501 and minimum at X=1987, Y=15.30267.
Data series 4, Hispanic (Line).
Point 1, X=1987, Y=16.84939, Note: Hispanic.
Point 2, X=1992, Y=29.17553.
Point 3, X=1998, Y=26.73901.
Point 4, X=2000, Y=27.94569.
Maximum at X=1992, Y=29.17553 and minimum at X=1987, Y=16.84939.

Source: Centers for Disease Control and Prevention, National Center for Health Statistics. National Health Interview Survey.\
Data are age-adjusted to the 2000 standard using age groups: 50-64, 65+.

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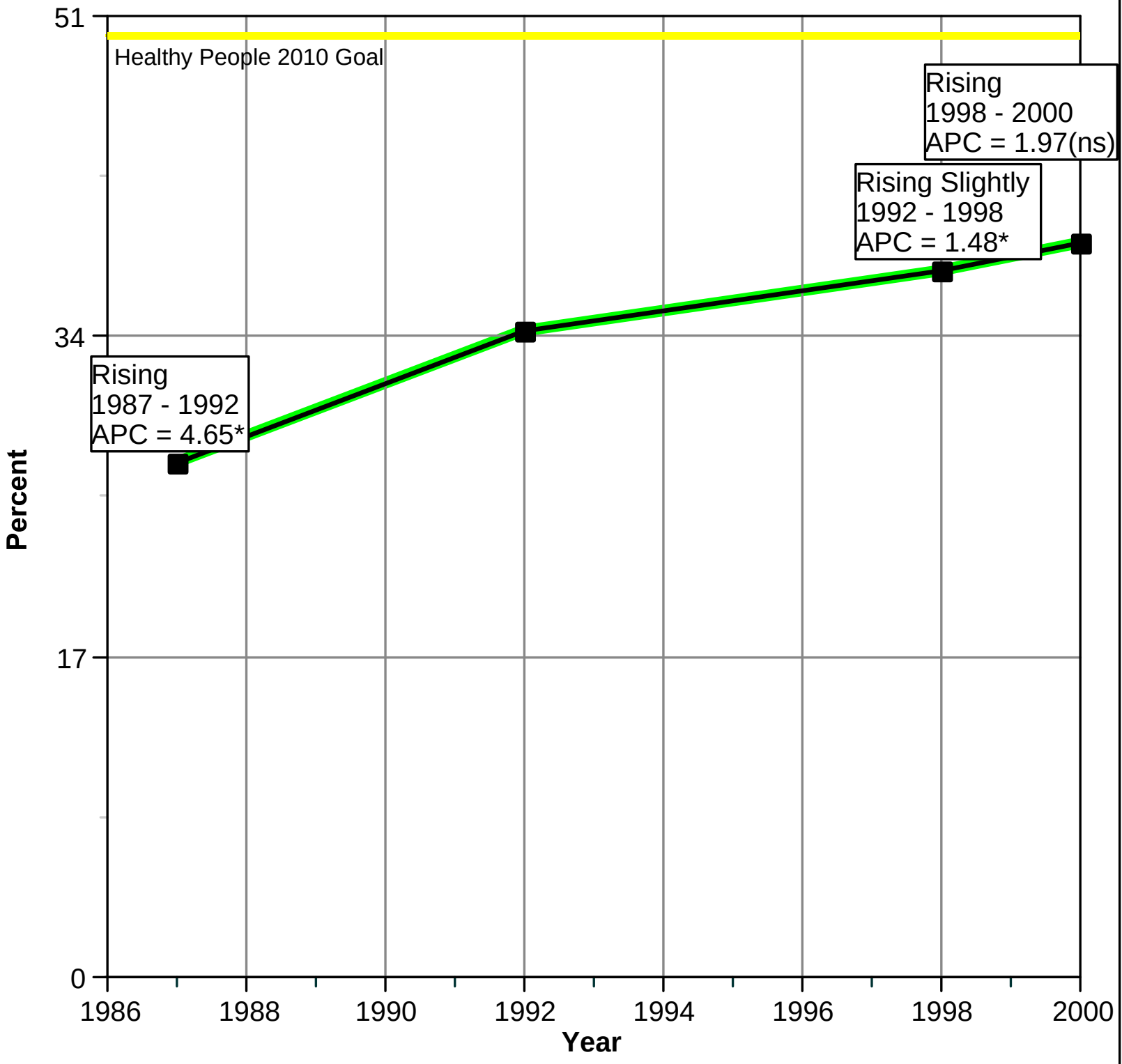
Figure 17a. Percent of Adults (Ages 50+) Who Ever Had a Colorectal Endoscopy, by Race/Ethnicity, All Races - 1987,1992, 1998, and 2000



Healthy People 2010 Goal 3-12b: Percent of adults (ages 50+) to have ever received a sigmoidoscopy to reach 50%. NHIS data provide information relating to people who have ever received a type of colorectal endoscopy. Sigmoidoscopy tests are a type of colorectal endoscopy.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.\
* The Annual Percent Change (APC) is statistically significant.

Close window

Line graph with 1 lines and 4 points per line.

x-axis title: Year
y-axis title: Percent

X scale titled Scale label.
Y scale titled Scale label.
Scale Marker 1 on Y scale, line at 50. Scale marker text: Healthy People 2010 Goal
Data series 1, All Races (Line).
Point 1, X=1987, Y=27.3137, Note: Rising 1987 - 1992 APC = 4.65*.
Point 2, X=1992, Y=34.28138.
Point 3, X=1998, Y=37.44455, Note: Rising Slightly 1992 - 1998 APC = 1.48*.
Point 4, X=2000, Y=38.93774, Note: Rising 1998 - 2000 APC = 1.97(ns).
Maximum at X=2000, Y=38.93774 and minimum at X=1987, Y=27.3137.

Healthy People 2010 Goal 3-12b: Percent of adults (ages 50+) to have ever received a sigmoidoscopy to reach 50%. NHIS data provide information relating to people who have ever received a type of colorectal endoscopy. Sigmoidoscopy tests are a type of colorectal endoscopy.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.\
* The Annual Percent Change (APC) is statistically significant.

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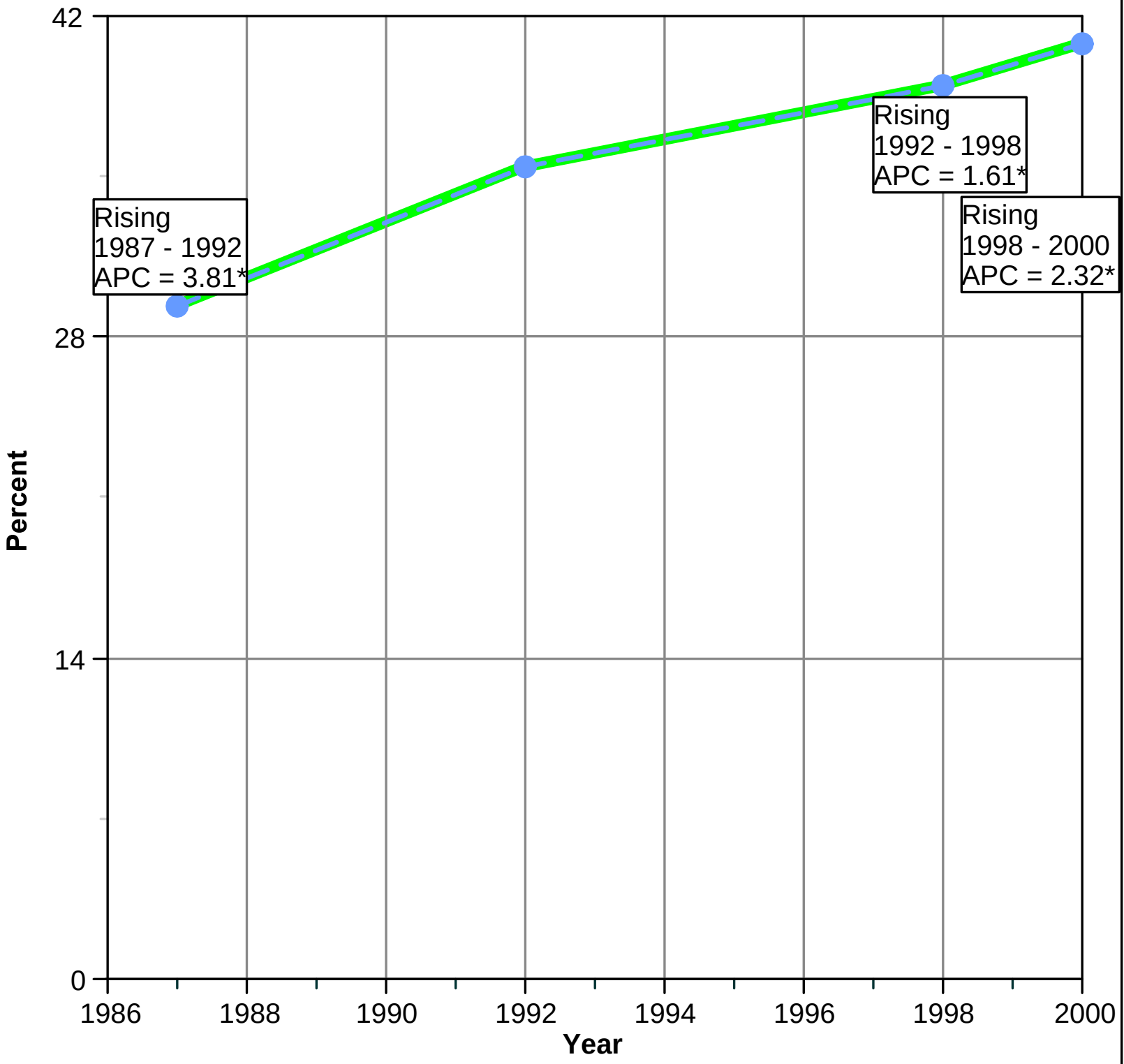
Close window

Figure 17b. Percent of Adults (Ages 50+) Who Ever Had a Colorectal Endoscopy, by Race/Ethnicity, White - 1987,1992, 1998, and 2000



No Healthy People 2010 Goal for Whites.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.\
* The Annual Percent Change (APC) is statistically significant.

Close window

Line graph with 1 lines and 4 points per line.

x-axis title: Year
y-axis title: Percent

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, White (Line).
Point 1, X=1987, Y=29.37758, Note: Rising 1987 - 1992 APC = 3.81*.
Point 2, X=1992, Y=35.41956.
Point 3, X=1998, Y=38.98181, Note: Rising 1992 - 1998 APC = 1.61*.
Point 4, X=2000, Y=40.80957, Note: Rising 1998 - 2000 APC = 2.32*.
Maximum at X=2000, Y=40.80957 and minimum at X=1987, Y=29.37758.

No Healthy People 2010 Goal for Whites.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.\
* The Annual Percent Change (APC) is statistically significant.

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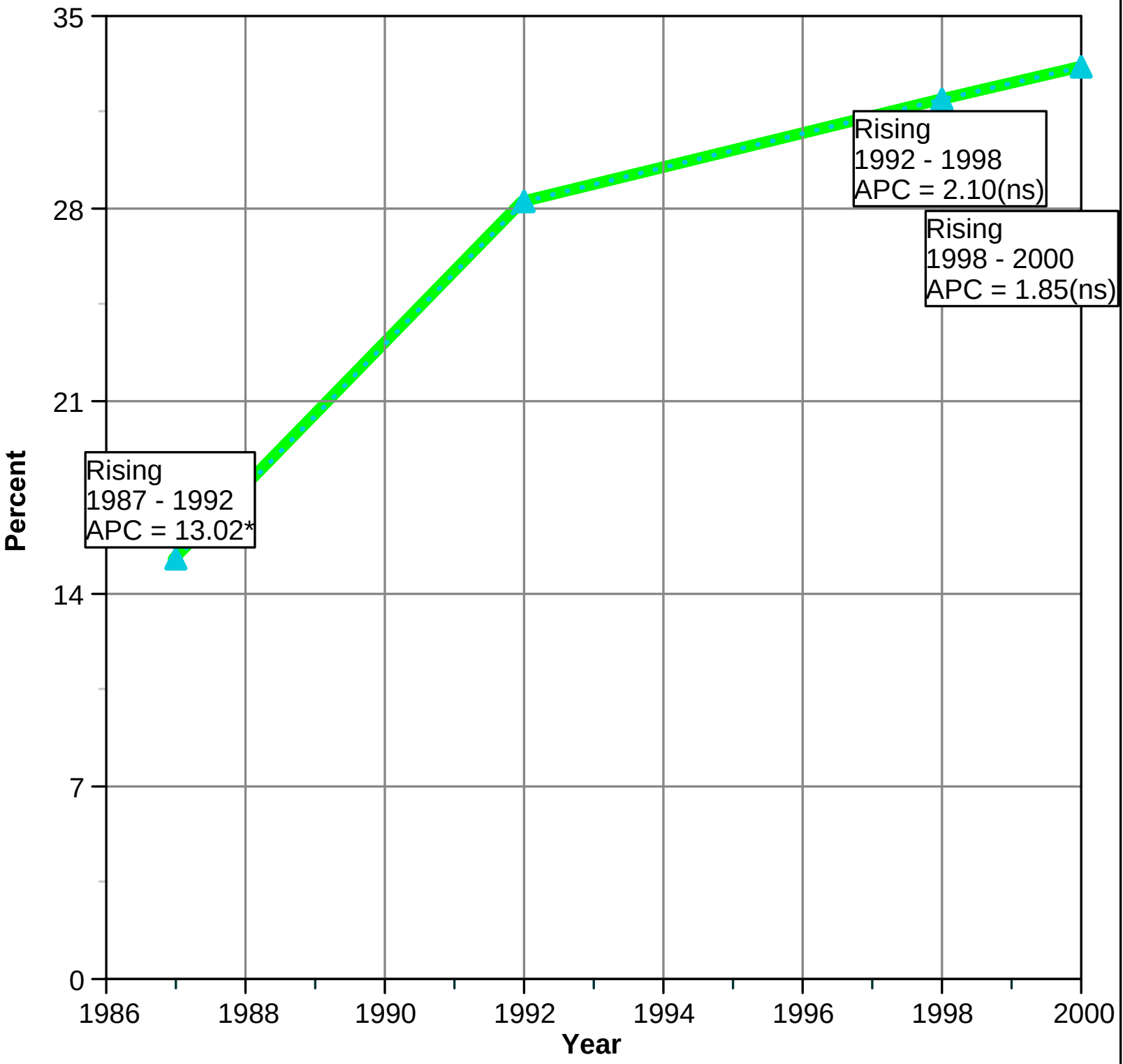
Close window

Figure 17c. Percent of Adults (Ages 50+) Who Ever Had a Colorectal Endoscopy, by Race/Ethnicity, Black - 1987,1992, 1998, and 2000



No Healthy People 2010 Goal for Blacks.\
Trend lines connect sequential data points. Statistical significance of difference between sequ
points was determined using a two-sample test incorporating the standard errors of the estima
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

Close window

Line graph with 1 lines and 4 points per line.

x-axis title: Year
y-axis title: Percent

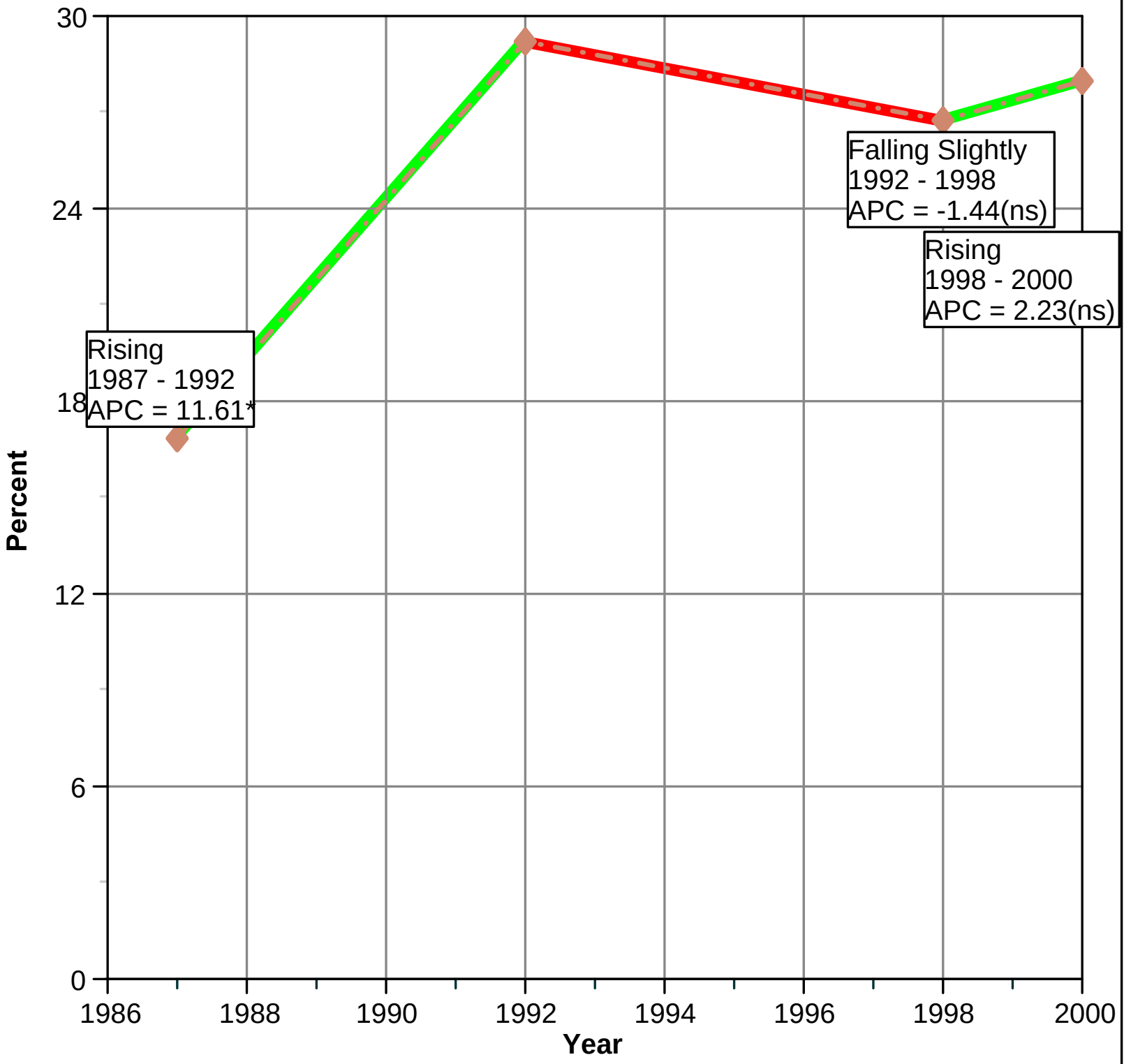
X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Black (Line).
Point 1, X=1987, Y=15.30267, Note: Rising 1987 - 1992 APC = 13.02*.
Point 2, X=1992, Y=28.22517.
Point 3, X=1998, Y=31.98288, Note: Rising 1992 - 1998 APC = 2.10(ns).
Point 4, X=2000, Y=33.17501, Note: Rising 1998 - 2000 APC = 1.85(ns).
Maximum at X=2000, Y=33.17501 and minimum at X=1987, Y=15.30267.

No Healthy People 2010 Goal for Blacks.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

back

Close window

Figure 17d. Percent of Adults (Ages 50+) Who Ever Had a Colorectal Endoscopy, by Race/Ethnicity, Hispanic - 1987,1992, 1998, and 2000



No Healthy People 2010 Goal for Hispanics.\
Trend lines connect sequential data points. Statistical significance of difference between sequ
points was determined using a two-sample test incorporating the standard errors of the estima
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, p < 0.05

Close window

Line graph with 1 lines and 4 points per line.

x-axis title: Year
y-axis title: Percent

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Hispanic (Line).
Point 1, X=1987, Y=16.84939, Note: Rising 1987 - 1992 APC = 11.61*.
Point 2, X=1992, Y=29.17553.
Point 3, X=1998, Y=26.73901, Note: Falling Slightly 1992 - 1998 APC = -1.44(ns).
Point 4, X=2000, Y=27.94569, Note: Rising 1998 - 2000 APC = 2.23(ns).
Maximum at X=1992, Y=29.17553 and minimum at X=1987, Y=16.84939.

No Healthy People 2010 Goal for Hispanics.\
Trend lines connect sequential data points. Statistical significance of difference between sequential points was determined using a two-sample test incorporating the standard errors of the estimates.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

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Close window

Diagnosis

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

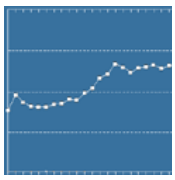
Another important measure is the proportion of cancers diagnosed at a late stage. The stage of a cancer shows how far the disease has progressed. The earlier the stage at diagnosis, the better the chances for cure. Downward trends in the proportion of late cancer diagnoses are a sign that screening is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

This section of the *Cancer Progress Report - 2003 Update* provides data on the rates of new cancers, based on the NCI Surveillance, Epidemiology, and End-Results (SEER) Program, by cancer site and by racial and ethnic group. Also included are data on the proportion of cancers diagnosed at a late stage for five of the major cancer sites where cancer screening has been shown or has been evaluated to make a difference in outcomes. Cancer sites include: female breast, colon, rectum, cervix, and prostate.

Also in this Section
- Incidence
- Stage at Diagnosis

Also in the *Report*
- Report-at-a-Glance
- Prevention
- Early Detection
- **Diagnosis**
- Treatment
- Life After Cancer
- End of Life

Page last modified: 7/1/2004



Diagnosis

Incidence

After several decades of steady increases, rates of new cancers began to decline in 1992, and then stabilized in 1995 with a slight increase observed recently when adjusted for case reporting delays.

Also in this Section
- **Incidence**
- Stage at Diagnosis

Also in the *Report*
- Report-at-a-Glance
- Prevention
- Early Detection
- Diagnosis
- Treatment
- Life After Cancer
- End of Life

On this page:

- Measuring New Cancer Cases
- Measure
- Period
- Trends
- Most Recent Estimate
- Healthy People 2010 Target
- Groups at High Risk for Getting New Cancers
- Key Issues
- Links to Additional Information

Measuring New Cancer Cases

In 2003, more than half of all new cancers were cancers of the prostate, breast, lung, and colon/rectum. It was projected that there would be 1,334,100 new cases of cancer in 2003, including 220,900 prostate cancers; 211,300 female breast cancers; 171,900 lung cancers; and 147,500 cancers of the colon/rectum.

Cancer incidence is usually measured as the number of new cases each year for every 100,000 people (for gender-specific cancers, people of the same gender serve as the denominator).

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Measure

Incidence rate: The observed number of new cancer cases per 100,000 people per year, and the estimated number of new cases per 100,000, adjusted for reporting delays, based on data from approximately 10 percent of the U.S. population.

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Period – 1975-2001

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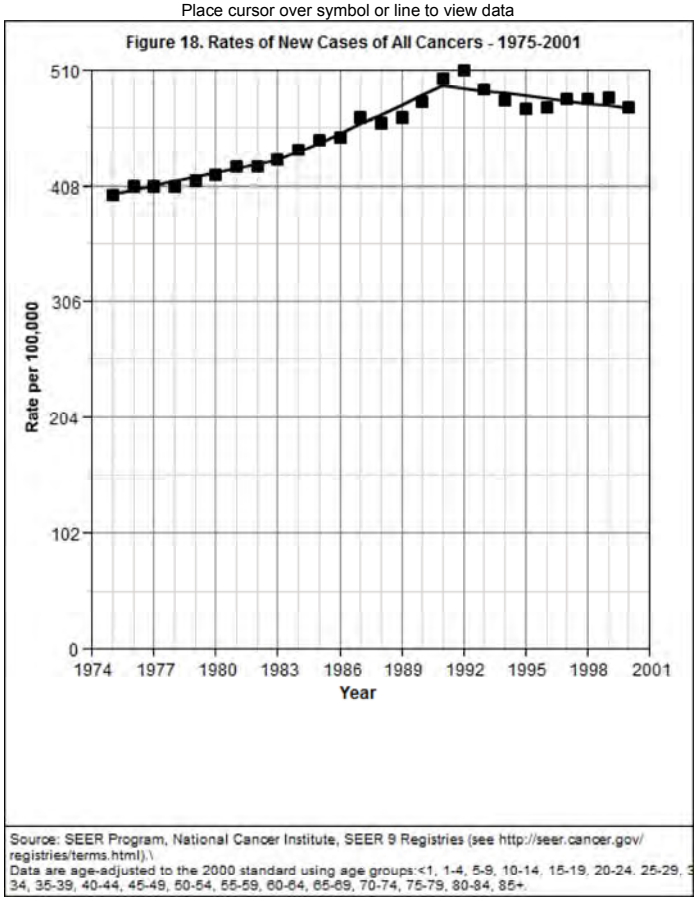
Trends – Rising, then falling slightly overall.

Cancer incidence for all sites combined was on the rise until 1992, when it began to decline. It stabilized in 1995, with rates adjusted for reporting delays showing a slight increase.

Graph image format: ○ [D] ◉ FLASH ○ JPEG

View details for:
All Cancers

Place cursor over symbol or line to view data



Weighted regression lines utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute. (See Methodology for Characterizing Trends)

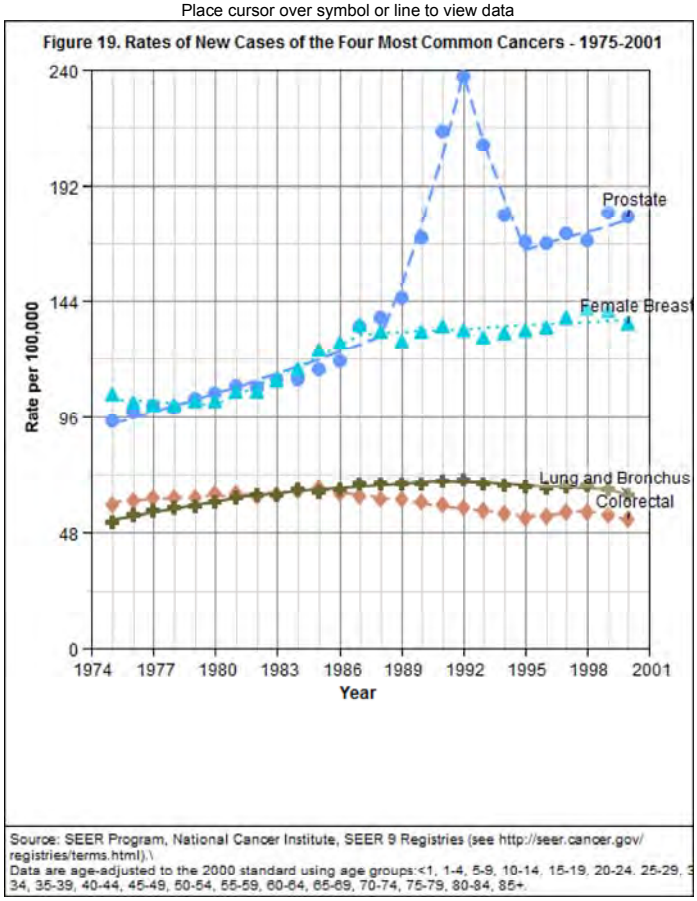
Download data (Excel)

For the four most common cancers (Figure 19):

Graph image format: ○ [D] ◉ FLASH ○ JPEG

View details for:
Prostate Female Breast Colorectal Lung and Bronchus

Place cursor over symbol or line to view data



Weighted regression lines utilizing standard errors are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute. (See Methodology for Characterizing Trends)

Download data (Excel)

- The incidence of prostate cancer rose harply beginning around 1988, peaked in 1992, then declined until around 1995, after which time it began to rise slightly again.
- The incidence of female breast cancer steadily increased between 1980 and 1987, and has since risen minimally. For ages 50 to 64, there appears to be a slight increase in recent years.
- The incidence of colorectal cancer increased slightly until 1985. It has declined steadily since then, except for a slight non-signficant rise during the period 1995-1998.
- The incidence of lung cancer increased until 1991, after which it declined slightly. However, for women the delay-adjusted rates continue to increase, although not as rapidly as in previous years.

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Most Recent Estimate

In 2001, the rate of new cases of all cancers combined was 469 per 100,000 people per year.

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Healthy People 2010 Target

There is no Healthy People 2010 target for this measure.

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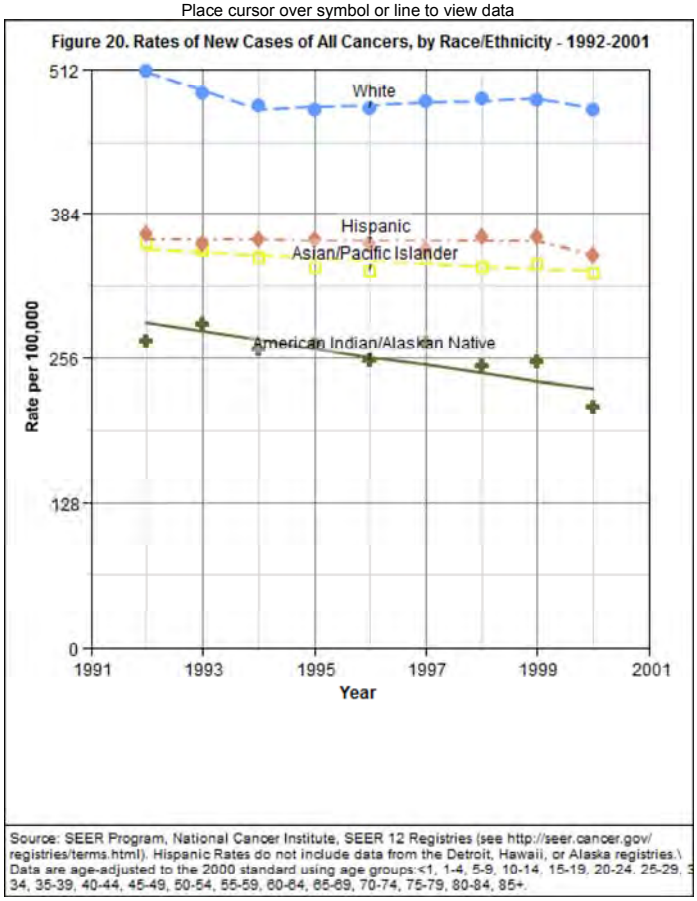
Groups at High Risk for Getting New Cancers

Among major racial/ethnic groups, Blacks have the highest rate of new cancers. Rates are relatively low among American Indians/Alaska Natives. These disparities are not likely due to genetic differences. Rather, they are more likely due to social, cultural, behavioral, and environmental factors.

Graph image format: ○ [D] ◉ FLASH ○ JPEG

View details for:
White American Indian/Alaskan Native Asian/Pacific Islander Hispanic

Place cursor over symbol or line to view data



Weighted regression lines utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute. (See Methodology for Characterizing Trends)

Download data (Excel)

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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.

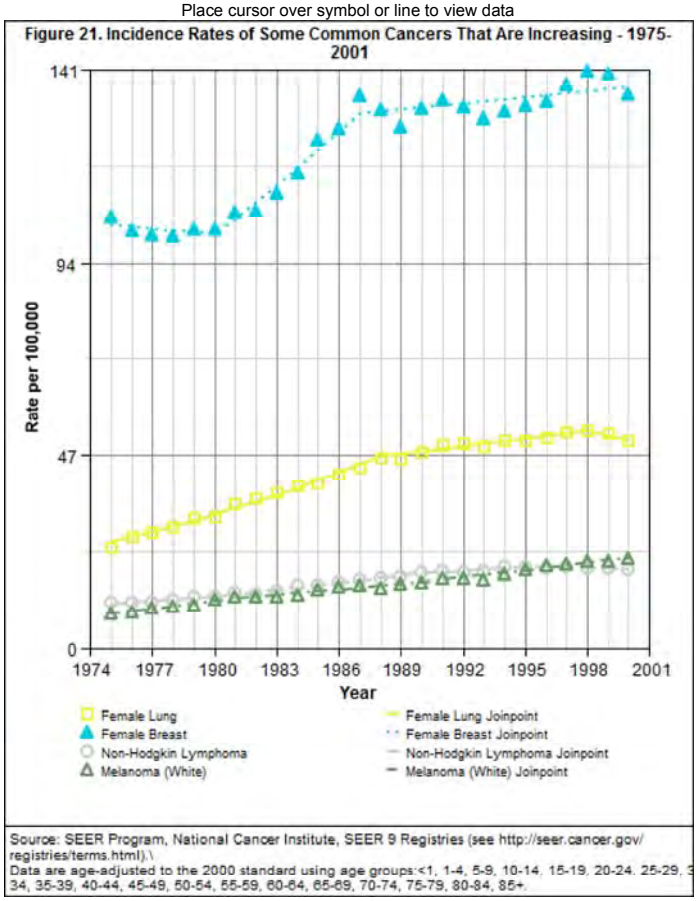
The recent increase in new breast cancers is unexplained and needs further study.

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 lymphoma and melanoma in men and women. The incidence of some relatively rare cancers, including those of the liver and esophagus, also is increasing.

Graph image format: ○ [D] ◉ FLASH ○ JPEG

View details for:
Female Lung Female Breast Non-Hodgkin Lymphoma Melanoma (White)

Place cursor over symbol or line to view data



Weighted regression lines utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute. (See Methodology for Characterizing Trends)

Download data (Excel)

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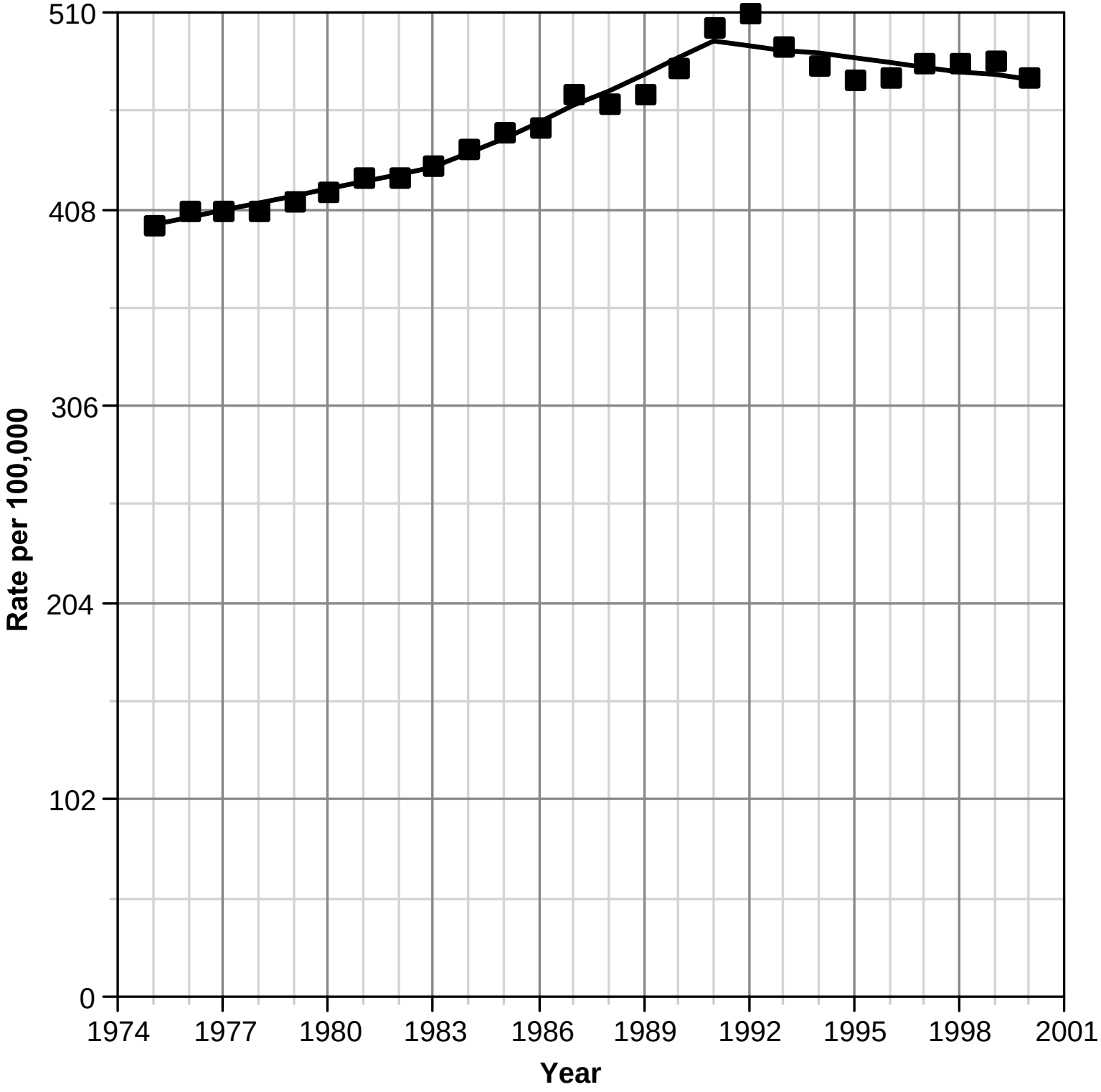
Links to additional information on incidence:

- Statistics for 2002 (ACS)
  http://www.cancer.org/docroot/STT/stt_0_2002.asp?sitearea=STT&level=1>
- SEER Cancer Statistics Review, 1975-2000 (NCI)
  http://seer.cancer.gov/csr/1975_2000/
- Women and Smoking: A Report of the Surgeon General - 2001 (Tobacco Information and Prevention Source, CDC)
  http://www.cdc.gov/tobacco/sgr/sgr_forwomen/index.htm

Page last modified: 11/08/2005

Figure 18. Rates of New Cases of All Cancers - 1975-2001



Source: SEER Program, National Cancer Institute, SEER 9 Registries (see http://seer.cancer.gov/registries/terms.html).\
Data are age-adjusted to the 2000 standard using age groups:<1, 1-4, 5-9, 10-14, 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65-69, 70-74, 75-79, 80-84, 85+.

Line graph with 2 lines and 26 points per line.

x-axis title: Year
y-axis title: Rate per 100,000

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, All Cancers (Scatter).
Point 1, X=1975, Y=400.2.
Point 2, X=1976, Y=407.2.
Point 3, X=1977, Y=407.5.
Point 4, X=1978, Y=407.1.
Point 5, X=1979, Y=412.3.
Point 6, X=1980, Y=417.6.
Point 7, X=1981, Y=425.
Point 8, X=1982, Y=424.2.
Point 9, X=1983, Y=430.8.
Point 10, X=1984, Y=439.5.
Point 11, X=1985, Y=448.3.
Point 12, X=1986, Y=451.
Point 13, X=1987, Y=467.7.
Point 14, X=1988, Y=463.4.
Point 15, X=1989, Y=467.4.
Point 16, X=1990, Y=481.2.
Point 17, X=1991, Y=502.2.
Point 18, X=1992, Y=509.9.
Point 19, X=1993, Y=492.7.
Point 20, X=1994, Y=482.4.
Point 21, X=1995, Y=475.2.
Point 22, X=1996, Y=476.6.
Point 23, X=1997, Y=483.6.
Point 24, X=1998, Y=484.6.
Point 25, X=1999, Y=484.9.
Point 26, X=2000, Y=477.1.
Maximum at X=1992, Y=509.9 and minimum at X=1975, Y=400.2.
Data series 2, All Cancers Joinpoint (Line).
Point 1, X=1975, Y=400.1.
Point 2, X=1976, Y=403.7.
Point 3, X=1977, Y=407.3.
Point 4, X=1978, Y=410.9.
Point 5, X=1979, Y=414.6.
Point 6, X=1980, Y=418.3.
Point 7, X=1981, Y=422.
Point 8, X=1982, Y=425.8.
Point 9, X=1983, Y=429.6.
Point 10, X=1984, Y=437.3.
Point 11, X=1985, Y=445.1.
Point 12, X=1986, Y=453.1.
Point 13, X=1987, Y=461.3.
Point 14, X=1988, Y=469.6.
Point 15, X=1989, Y=478.
Point 16, X=1990, Y=486.6.
Point 17, X=1991, Y=495.4.
Point 18, X=1992, Y=493.1.
Point 19, X=1993, Y=490.8.
Point 20, X=1994, Y=488.6.
Point 21, X=1995, Y=486.4.
Point 22, X=1996, Y=484.1.
Point 23, X=1997, Y=481.9.
Point 24, X=1998, Y=479.7.
Point 25, X=1999, Y=477.5.
Point 26, X=2000, Y=475.3.
Maximum at X=1991, Y=495.4 and minimum at X=1975, Y=400.1.

Source: SEER Program, National Cancer Institute, SEER 9 Registries (see http://seer.cancer.gov/registries/terms.html).\
Data are age-adjusted to the 2000 standard using age groups:<1, 1-4, 5-9, 10-14, 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65-69, 70-74, 75-79, 80-84, 85+.

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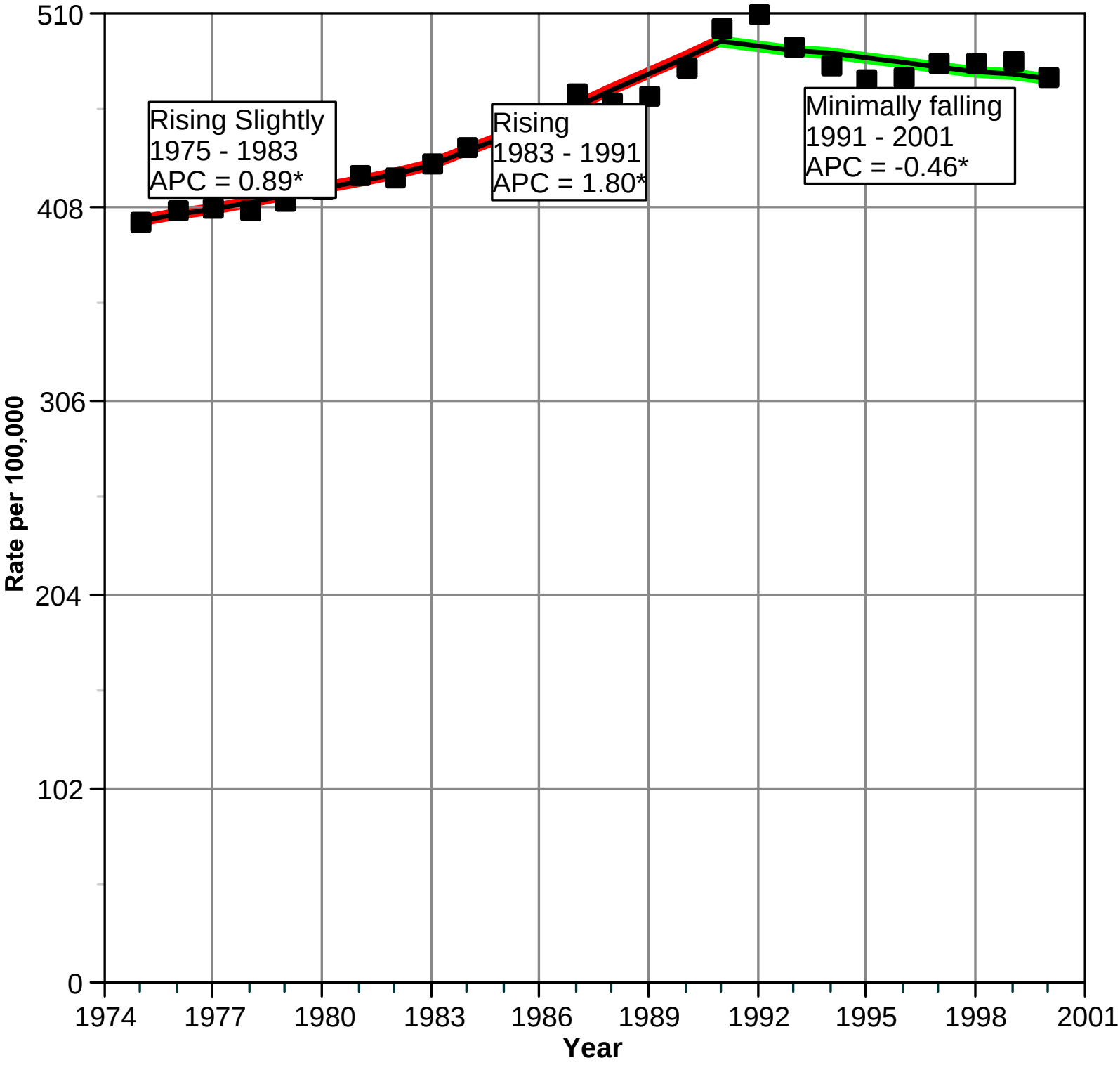
Figure 18a. Rates of New Cases of All Cancers - 1975-2001



No Healthy People 2010 Target Goal for all cancers incidence.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.

Close window

Line graph with 2 lines and 26 points per line.

x-axis title: Year
y-axis title: Rate per 100,000

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, All Cancers (Scatter).
Point 1, X=1975, Y=400.2.
Point 2, X=1976, Y=407.2.
Point 3, X=1977, Y=407.5.
Point 4, X=1978, Y=407.1, Note: Rising Slightly 1975 - 1983 APC = 0.89*.
Point 5, X=1979, Y=412.3.
Point 6, X=1980, Y=417.6.
Point 7, X=1981, Y=425.
Point 8, X=1982, Y=424.2.
Point 9, X=1983, Y=430.8.
Point 10, X=1984, Y=439.5.
Point 11, X=1985, Y=448.3.
Point 12, X=1986, Y=451.
Point 13, X=1987, Y=467.7, Note: Rising 1983 - 1991 APC = 1.80*.
Point 14, X=1988, Y=463.4.
Point 15, X=1989, Y=467.4.
Point 16, X=1990, Y=481.2.
Point 17, X=1991, Y=502.2.
Point 18, X=1992, Y=509.9.
Point 19, X=1993, Y=492.7.
Point 20, X=1994, Y=482.4.
Point 21, X=1995, Y=475.2.
Point 22, X=1996, Y=476.6, Note: Minimally falling 1991 - 2001 APC = -0.46*.
Point 23, X=1997, Y=483.6.
Point 24, X=1998, Y=484.6.
Point 25, X=1999, Y=484.9.
Point 26, X=2000, Y=477.1.
Maximum at X=1992, Y=509.9 and minimum at X=1975, Y=400.2.
Data series 2, All Cancers Joinpoint (Line).
Point 1, X=1975, Y=400.1.
Point 2, X=1976, Y=403.7.
Point 3, X=1977, Y=407.3.
Point 4, X=1978, Y=410.9.
Point 5, X=1979, Y=414.6.
Point 6, X=1980, Y=418.3.
Point 7, X=1981, Y=422.
Point 8, X=1982, Y=425.8.
Point 9, X=1983, Y=429.6.
Point 10, X=1984, Y=437.3.
Point 11, X=1985, Y=445.1.
Point 12, X=1986, Y=453.1.
Point 13, X=1987, Y=461.3.
Point 14, X=1988, Y=469.6.
Point 15, X=1989, Y=478.
Point 16, X=1990, Y=486.6.
Point 17, X=1991, Y=495.4.
Point 18, X=1992, Y=493.1.
Point 19, X=1993, Y=490.8.

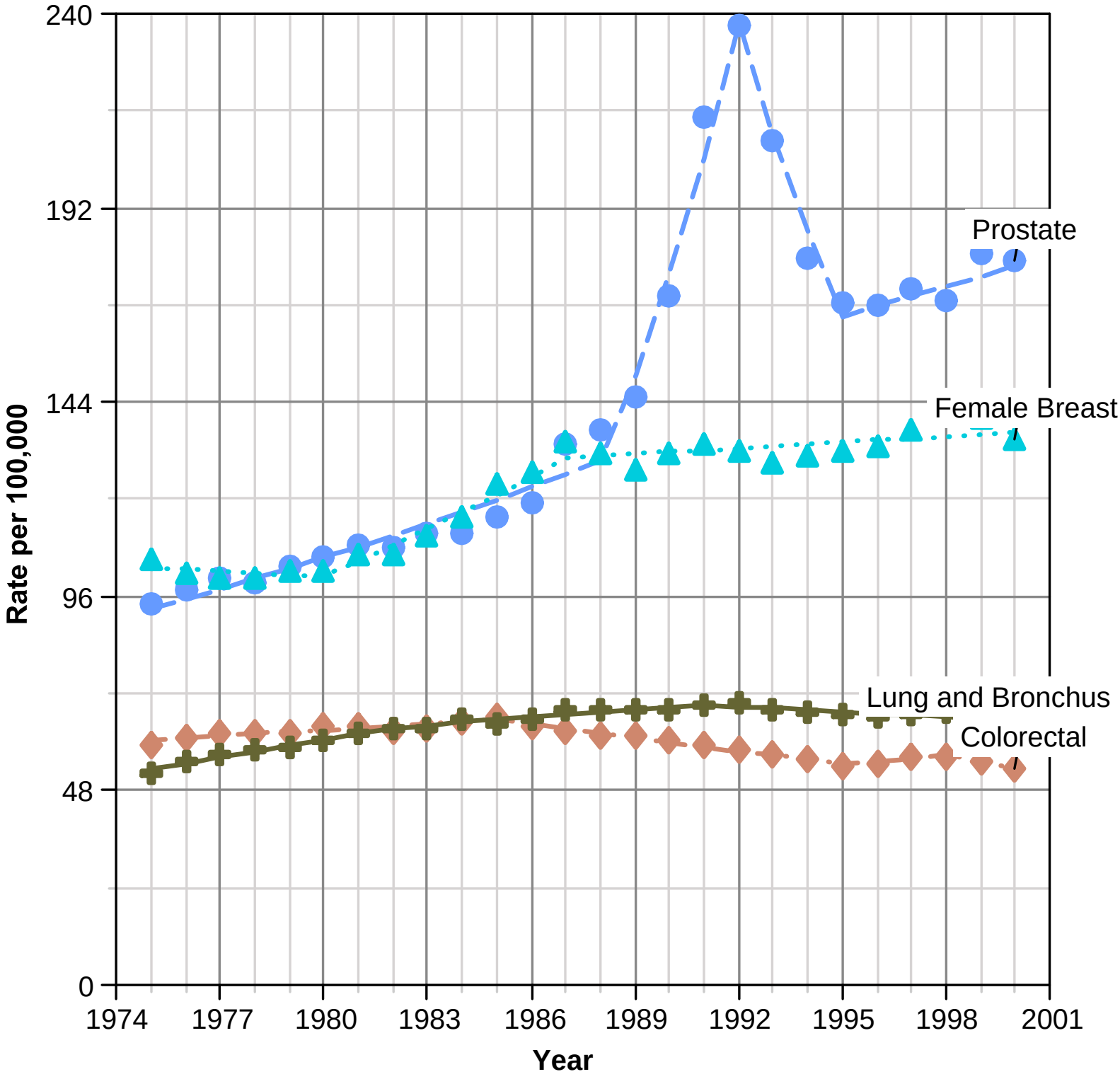
Point 20, X=1994, Y=488.6.
Point 21, X=1995, Y=486.4.
Point 22, X=1996, Y=484.1.
Point 23, X=1997, Y=481.9.
Point 24, X=1998, Y=479.7.
Point 25, X=1999, Y=477.5.
Point 26, X=2000, Y=475.3.
Maximum at X=1991, Y=495.4 and minimum at X=1975, Y=400.1.

No Healthy People 2010 Target Goal for all cancers incidence.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.

back

Close window

Figure 19. Rates of New Cases of the Four Most Common Cancers - 1975-2001



Source: SEER Program, National Cancer Institute, SEER 9 Registries (see http://seer.cancer.gov/registries/terms.html).\
Data are age-adjusted to the 2000 standard using age groups:<1, 1-4, 5-9, 10-14, 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65-69, 70-74, 75-79, 80-84, 85+.

Line graph with 8 lines and 26 points per line.

x-axis title: Year
y-axis title: Rate per 100,000

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Prostate (Scatter).
Point 1, X=1975, Y=94.
Point 2, X=1976, Y=97.9.
Point 3, X=1977, Y=100.4.
Point 4, X=1978, Y=99.4.
Point 5, X=1979, Y=103.4.
Point 6, X=1980, Y=105.9.
Point 7, X=1981, Y=108.8.
Point 8, X=1982, Y=108.2.
Point 9, X=1983, Y=111.5.
Point 10, X=1984, Y=111.6.
Point 11, X=1985, Y=115.4.
Point 12, X=1986, Y=118.9.
Point 13, X=1987, Y=133.5.
Point 14, X=1988, Y=137.4.
Point 15, X=1989, Y=145.2.
Point 16, X=1990, Y=170.5.
Point 17, X=1991, Y=214.5.
Point 18, X=1992, Y=236.9.
Point 19, X=1993, Y=208.9.
Point 20, X=1994, Y=179.8.
Point 21, X=1995, Y=168.3.
Point 22, X=1996, Y=168.
Point 23, X=1997, Y=172.1.
Point 24, X=1998, Y=169.1.
Point 25, X=1999, Y=180.5.
Point 26, X=2000, Y=178.9, Note: Prostate.
Maximum at X=1992, Y=236.9 and minimum at X=1975, Y=94.
Data series 2, Prostate Joinpoint (Line).
Point 1, X=1975, Y=93.
Point 2, X=1976, Y=95.4.
Point 3, X=1977, Y=97.8.
Point 4, X=1978, Y=100.3.
Point 5, X=1979, Y=102.9.
Point 6, X=1980, Y=105.6.
Point 7, X=1981, Y=108.3.
Point 8, X=1982, Y=111.1.
Point 9, X=1983, Y=113.9.
Point 10, X=1984, Y=116.9.
Point 11, X=1985, Y=119.9.
Point 12, X=1986, Y=123.
Point 13, X=1987, Y=126.1.
Point 14, X=1988, Y=129.4.
Point 15, X=1989, Y=150.6.
Point 16, X=1990, Y=175.3.
Point 17, X=1991, Y=204.1.
Point 18, X=1992, Y=237.6.
Point 19, X=1993, Y=210.6.
Point 20, X=1994, Y=186.6.
Point 21, X=1995, Y=165.3.
Point 22, X=1996, Y=167.7.
Point 23, X=1997, Y=170.2.
Point 24, X=1998, Y=172.6.
Point 25, X=1999, Y=175.1.
Point 26, X=2000, Y=177.7.
Maximum at X=1992, Y=237.6 and minimum at X=1975, Y=93.
Data series 3, Female Breast (Scatter).
Point 1, X=1975, Y=105.
Point 2, X=1976, Y=101.9.
Point 3, X=1977, Y=100.8.
Point 4, X=1978, Y=100.5.
Point 5, X=1979, Y=102.1.
Point 6, X=1980, Y=102.1.
Point 7, X=1981, Y=106.3.
Point 8, X=1982, Y=106.4.
Point 9, X=1983, Y=111.1.
Point 10, X=1984, Y=115.8.
Point 11, X=1985, Y=124.
Point 12, X=1986, Y=126.7.
Point 13, X=1987, Y=134.4.
Point 14, X=1988, Y=131.2.
Point 15, X=1989, Y=127.1.
Point 16, X=1990, Y=131.6.
Point 17, X=1991, Y=133.5.

Point 18, X=1992, Y=131.9.
Point 19, X=1993, Y=129.1.
Point 20, X=1994, Y=130.6.
Point 21, X=1995, Y=132.2.
Point 22, X=1996, Y=133.3.
Point 23, X=1997, Y=137.3.
Point 24, X=1998, Y=140.6.
Point 25, X=1999, Y=140.1.
Point 26, X=2000, Y=135, Note: Female Breast.
Maximum at X=1998, Y=140.6 and minimum at X=1978, Y=100.5.
Data series 4, Female Breast Joinpoint (Line).
Point 1, X=1975, Y=103.1.
Point 2, X=1976, Y=102.7.
Point 3, X=1977, Y=102.2.
Point 4, X=1978, Y=101.8.
Point 5, X=1979, Y=101.3.
Point 6, X=1980, Y=100.9.
Point 7, X=1981, Y=104.6.
Point 8, X=1982, Y=108.5.
Point 9, X=1983, Y=112.6.
Point 10, X=1984, Y=116.7.
Point 11, X=1985, Y=121.1.
Point 12, X=1986, Y=125.6.
Point 13, X=1987, Y=130.2.
Point 14, X=1988, Y=130.7.
Point 15, X=1989, Y=131.2.
Point 16, X=1990, Y=131.7.
Point 17, X=1991, Y=132.2.
Point 18, X=1992, Y=132.6.
Point 19, X=1993, Y=133.1.
Point 20, X=1994, Y=133.6.
Point 21, X=1995, Y=134.1.
Point 22, X=1996, Y=134.6.
Point 23, X=1997, Y=135.1.
Point 24, X=1998, Y=135.6.
Point 25, X=1999, Y=136.1.
Point 26, X=2000, Y=136.6.
Maximum at X=2000, Y=136.6 and minimum at X=1980, Y=100.9.
Data series 5, Colorectal (Scatter).
Point 1, X=1975, Y=59.5.
Point 2, X=1976, Y=61.3.
Point 3, X=1977, Y=62.4.
Point 4, X=1978, Y=62.
Point 5, X=1979, Y=62.3.
Point 6, X=1980, Y=63.7.
Point 7, X=1981, Y=64.2.
Point 8, X=1982, Y=62.8.
Point 9, X=1983, Y=63.6.
Point 10, X=1984, Y=64.8.
Point 11, X=1985, Y=66.3.
Point 12, X=1986, Y=64.2.
Point 13, X=1987, Y=62.7.
Point 14, X=1988, Y=61.4.
Point 15, X=1989, Y=61.7.
Point 16, X=1990, Y=60.7.
Point 17, X=1991, Y=59.5.
Point 18, X=1992, Y=58.
Point 19, X=1993, Y=56.8.
Point 20, X=1994, Y=55.7.
Point 21, X=1995, Y=54.
Point 22, X=1996, Y=54.6.
Point 23, X=1997, Y=56.3.
Point 24, X=1998, Y=56.6.
Point 25, X=1999, Y=55.2.
Point 26, X=2000, Y=53.5, Note: Colorectal.
Maximum at X=1985, Y=66.3 and minimum at X=2000, Y=53.5.
Data series 6, Colorectal Joinpoint (Line).
Point 1, X=1975, Y=60.5.
Point 2, X=1976, Y=61.
Point 3, X=1977, Y=61.5.
Point 4, X=1978, Y=62.
Point 5, X=1979, Y=62.5.
Point 6, X=1980, Y=63.
Point 7, X=1981, Y=63.5.
Point 8, X=1982, Y=64.
Point 9, X=1983, Y=64.5.
Point 10, X=1984, Y=65.1.
Point 11, X=1985, Y=65.6.
Point 12, X=1986, Y=64.4.
Point 13, X=1987, Y=63.2.
Point 14, X=1988, Y=62.1.

Point 15, X=1989, Y=61.
Point 16, X=1990, Y=59.9.
Point 17, X=1991, Y=58.8.
Point 18, X=1992, Y=57.7.
Point 19, X=1993, Y=56.7.
Point 20, X=1994, Y=55.7.
Point 21, X=1995, Y=54.7.
Point 22, X=1996, Y=55.3.
Point 23, X=1997, Y=56.
Point 24, X=1998, Y=56.7.
Point 25, X=1999, Y=55.
Point 26, X=2000, Y=53.4.
Maximum at X=1985, Y=65.6 and minimum at X=2000, Y=53.4.
Data series 7, Lung and Bronchus (Scatter).
Point 1, X=1975, Y=52.3.
Point 2, X=1976, Y=55.4.
Point 3, X=1977, Y=56.7.
Point 4, X=1978, Y=57.9.
Point 5, X=1979, Y=58.6.
Point 6, X=1980, Y=60.6.
Point 7, X=1981, Y=62.
Point 8, X=1982, Y=63.3.
Point 9, X=1983, Y=63.4.
Point 10, X=1984, Y=65.5.
Point 11, X=1985, Y=64.7.
Point 12, X=1986, Y=65.8.
Point 13, X=1987, Y=68.
Point 14, X=1988, Y=68.1.
Point 15, X=1989, Y=67.7.
Point 16, X=1990, Y=68.2.
Point 17, X=1991, Y=69.4.
Point 18, X=1992, Y=69.6.
Point 19, X=1993, Y=67.9.
Point 20, X=1994, Y=67.3.
Point 21, X=1995, Y=66.9.
Point 22, X=1996, Y=66.4.
Point 23, X=1997, Y=66.6.
Point 24, X=1998, Y=67.4.
Point 25, X=1999, Y=65.5.
Point 26, X=2000, Y=63.4, Note: Lung and Bronchus.
Maximum at X=1992, Y=69.6 and minimum at X=1975, Y=52.3.
Data series 8, Lung and Bronchus Joinpoint (Line).
Point 1, X=1975, Y=53.4.
Point 2, X=1976, Y=54.7.
Point 3, X=1977, Y=56.1.
Point 4, X=1978, Y=57.5.
Point 5, X=1979, Y=59.
Point 6, X=1980, Y=60.5.
Point 7, X=1981, Y=62.
Point 8, X=1982, Y=63.6.
Point 9, X=1983, Y=64.2.
Point 10, X=1984, Y=64.8.
Point 11, X=1985, Y=65.4.
Point 12, X=1986, Y=66.1.
Point 13, X=1987, Y=66.7.
Point 14, X=1988, Y=67.3.
Point 15, X=1989, Y=68.
Point 16, X=1990, Y=68.6.
Point 17, X=1991, Y=69.3.
Point 18, X=1992, Y=68.8.
Point 19, X=1993, Y=68.4.
Point 20, X=1994, Y=67.9.
Point 21, X=1995, Y=67.5.
Point 22, X=1996, Y=67.
Point 23, X=1997, Y=66.6.
Point 24, X=1998, Y=66.2.
Point 25, X=1999, Y=65.7.
Point 26, X=2000, Y=63.4.
Maximum at X=1991, Y=69.3 and minimum at X=1975, Y=53.4.

Source: SEER Program, National Cancer Institute, SEER 9 Registries (see http://seer.cancer.gov/registries/terms.html).\
Data are age-adjusted to the 2000 standard using age groups:<1, 1-4, 5-9, 10-14, 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65-69, 70-74, 75-79, 80-84, 85+.

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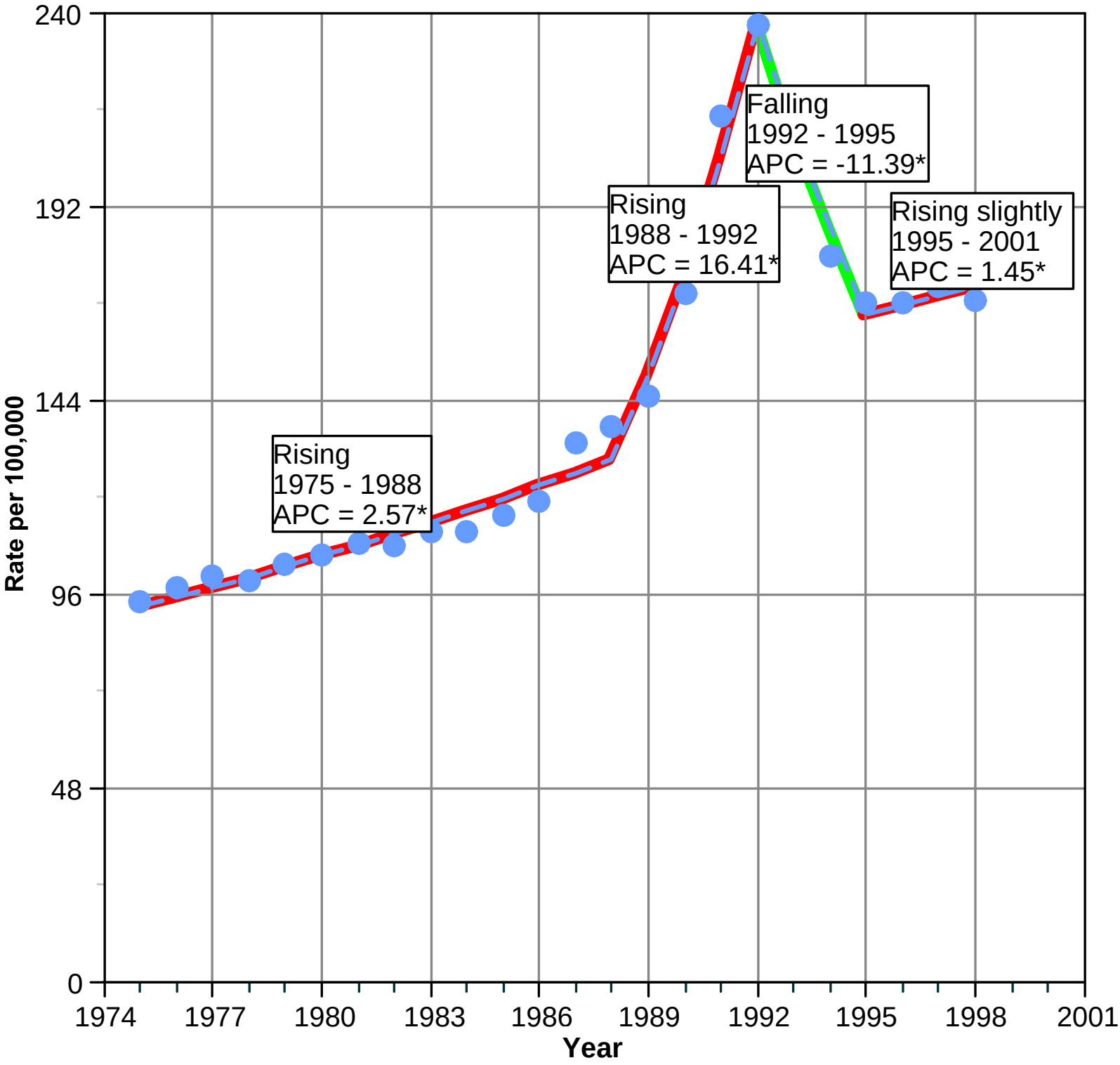
Figure 19a. Rates of New Cases of the Four Most Common Cancers, Protate - 1975-2001



No Healthy People 2010 Target Goal for prostate cancer incidence.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
Incidence rates for prostate cancer are based on a sex-specific population.\
* The Annual Percent Change (APC) is statistically significant.

Close window

Line graph with 2 lines and 26 points per line.

x-axis title: Year
y-axis title: Rate per 100,000

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Prostate (Scatter).
Point 1, X=1975, Y=94.
Point 2, X=1976, Y=97.9.
Point 3, X=1977, Y=100.4.
Point 4, X=1978, Y=99.4.
Point 5, X=1979, Y=103.4.
Point 6, X=1980, Y=105.9.
Point 7, X=1981, Y=108.8, Note: Rising 1975 - 1988 APC = 2.57*.
Point 8, X=1982, Y=108.2.
Point 9, X=1983, Y=111.5.
Point 10, X=1984, Y=111.6.
Point 11, X=1985, Y=115.4.
Point 12, X=1986, Y=118.9.
Point 13, X=1987, Y=133.5.
Point 14, X=1988, Y=137.4.
Point 15, X=1989, Y=145.2.
Point 16, X=1990, Y=170.5, Note: Rising 1988 - 1992 APC = 16.41*.
Point 17, X=1991, Y=214.5.
Point 18, X=1992, Y=236.9.
Point 19, X=1993, Y=208.9.
Point 20, X=1994, Y=179.8, Note: Falling 1992 - 1995 APC = -11.39*.
Point 21, X=1995, Y=168.3.
Point 22, X=1996, Y=168.
Point 23, X=1997, Y=172.1.
Point 24, X=1998, Y=169.1, Note: Rising slightly 1995 - 2001 APC = 1.45*.
Point 25, X=1999, Y=180.5.
Point 26, X=2000, Y=178.9.
Maximum at X=1992, Y=236.9 and minimum at X=1975, Y=94.
Data series 2, Prostate Joinpoint (Line).
Point 1, X=1975, Y=93.
Point 2, X=1976, Y=95.4.
Point 3, X=1977, Y=97.8.
Point 4, X=1978, Y=100.3.
Point 5, X=1979, Y=102.9.
Point 6, X=1980, Y=105.6.
Point 7, X=1981, Y=108.3.
Point 8, X=1982, Y=111.1.
Point 9, X=1983, Y=113.9.
Point 10, X=1984, Y=116.9.
Point 11, X=1985, Y=119.9.
Point 12, X=1986, Y=123.
Point 13, X=1987, Y=126.1.
Point 14, X=1988, Y=129.4.
Point 15, X=1989, Y=150.6.
Point 16, X=1990, Y=175.3.
Point 17, X=1991, Y=204.1.
Point 18, X=1992, Y=237.6.
Point 19, X=1993, Y=210.6.

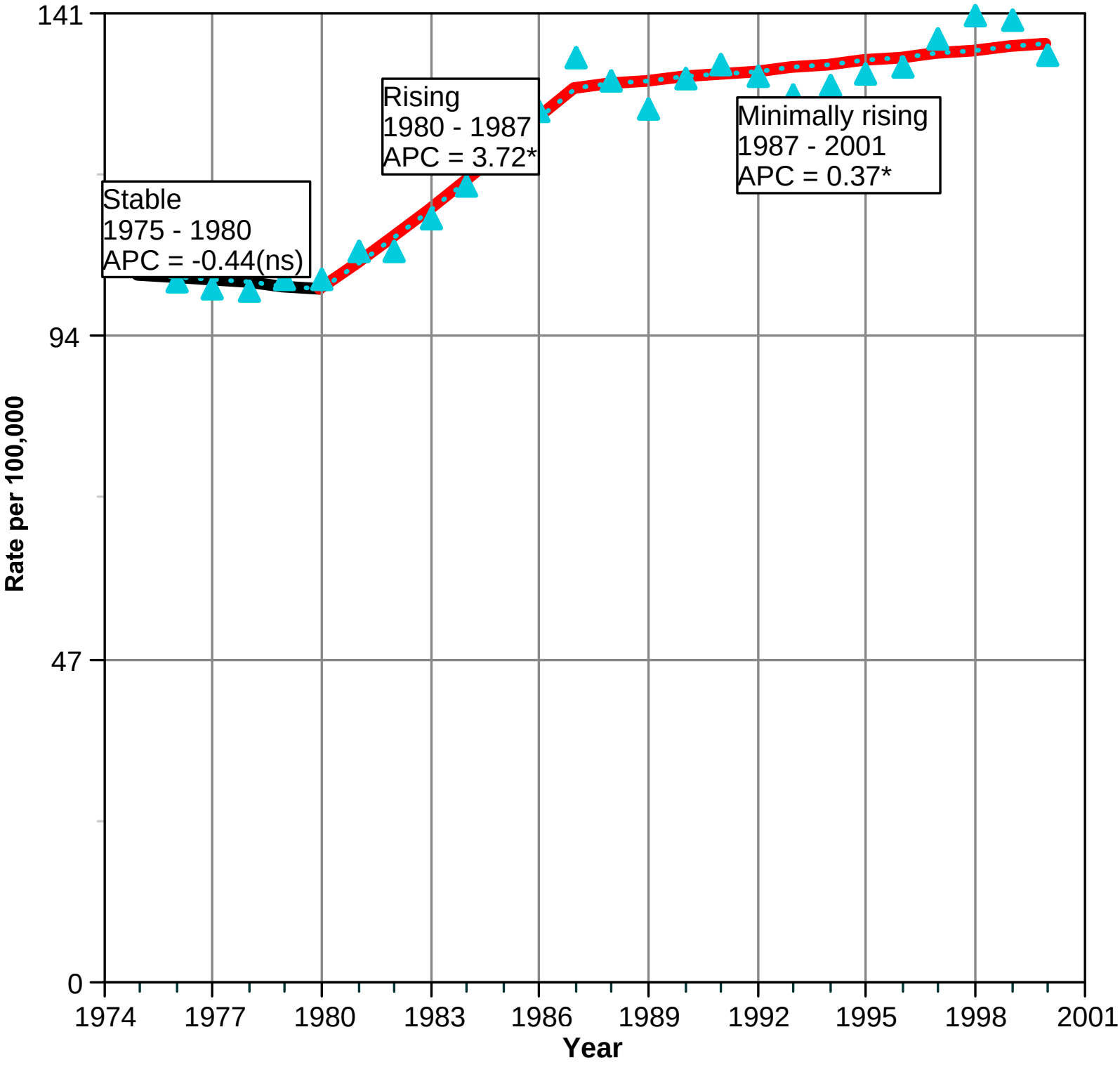
Point 20, X=1994, Y=186.6.
Point 21, X=1995, Y=165.3.
Point 22, X=1996, Y=167.7.
Point 23, X=1997, Y=170.2.
Point 24, X=1998, Y=172.6.
Point 25, X=1999, Y=175.1.
Point 26, X=2000, Y=177.7.
Maximum at X=1992, Y=237.6 and minimum at X=1975, Y=93.

No Healthy People 2010 Target Goal for prostate cancer incidence.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
Incidence rates for prostate cancer are based on a sex-specific population.\
* The Annual Percent Change (APC) is statistically significant.

back

Close window

Figure 19b. Rates of New Cases of the Four Most Common Cancers, Female Breast - 1975-2001



No Healthy People 2010 Target Goal for female breast cancer incidence.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
Incidence rates for female breast cancer are based on a sex-specific population.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

Close window

Line graph with 2 lines and 26 points per line.

x-axis title: Year
y-axis title: Rate per 100,000

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Female Breast (Scatter).
Point 1, X=1975, Y=105.
Point 2, X=1976, Y=101.9.
Point 3, X=1977, Y=100.8, Note: Stable 1975 - 1980 APC = -0.44(ns).
Point 4, X=1978, Y=100.5.
Point 5, X=1979, Y=102.1.
Point 6, X=1980, Y=102.1.
Point 7, X=1981, Y=106.3.
Point 8, X=1982, Y=106.4.
Point 9, X=1983, Y=111.1.
Point 10, X=1984, Y=115.8, Note: Rising 1980 - 1987 APC = 3.72*.
Point 11, X=1985, Y=124.
Point 12, X=1986, Y=126.7.
Point 13, X=1987, Y=134.4.
Point 14, X=1988, Y=131.2.
Point 15, X=1989, Y=127.1.
Point 16, X=1990, Y=131.6.
Point 17, X=1991, Y=133.5.
Point 18, X=1992, Y=131.9.
Point 19, X=1993, Y=129.1.
Point 20, X=1994, Y=130.6, Note: Minimally rising 1987 - 2001 APC = 0.37*.
Point 21, X=1995, Y=132.2.
Point 22, X=1996, Y=133.3.
Point 23, X=1997, Y=137.3.
Point 24, X=1998, Y=140.6.
Point 25, X=1999, Y=140.1.
Point 26, X=2000, Y=135.
Maximum at X=1998, Y=140.6 and minimum at X=1978, Y=100.5.
Data series 2, Female Breast Joinpoint (Line).
Point 1, X=1975, Y=103.1.
Point 2, X=1976, Y=102.7.
Point 3, X=1977, Y=102.2.
Point 4, X=1978, Y=101.8.
Point 5, X=1979, Y=101.3.
Point 6, X=1980, Y=100.9.
Point 7, X=1981, Y=104.6.
Point 8, X=1982, Y=108.5.
Point 9, X=1983, Y=112.6.
Point 10, X=1984, Y=116.7.
Point 11, X=1985, Y=121.1.
Point 12, X=1986, Y=125.6.
Point 13, X=1987, Y=130.2.
Point 14, X=1988, Y=130.7.
Point 15, X=1989, Y=131.2.
Point 16, X=1990, Y=131.7.
Point 17, X=1991, Y=132.2.
Point 18, X=1992, Y=132.6.
Point 19, X=1993, Y=133.1.

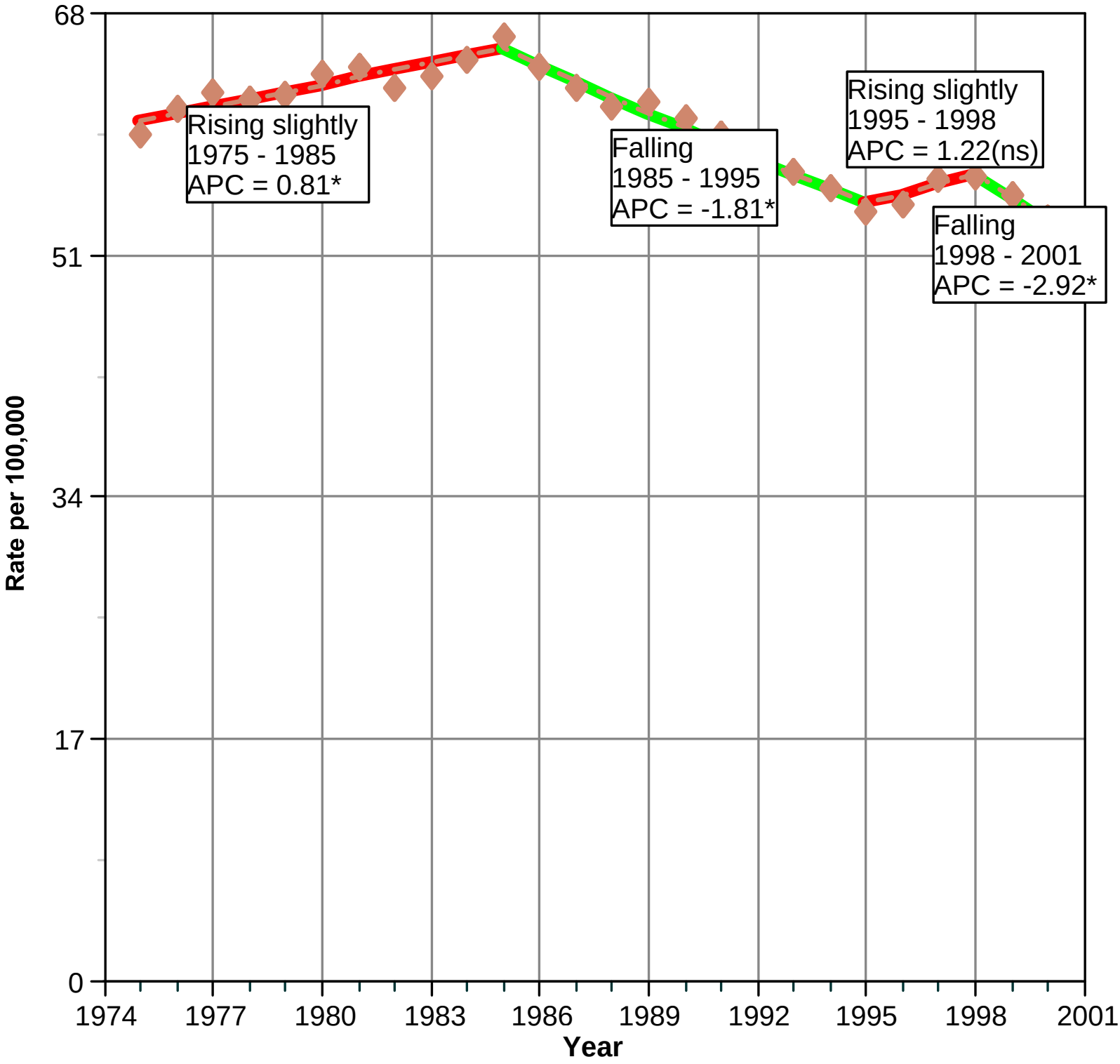
Point 20, X=1994, Y=133.6.
Point 21, X=1995, Y=134.1.
Point 22, X=1996, Y=134.6.
Point 23, X=1997, Y=135.1.
Point 24, X=1998, Y=135.6.
Point 25, X=1999, Y=136.1.
Point 26, X=2000, Y=136.6.
Maximum at X=2000, Y=136.6 and minimum at X=1980, Y=100.9.

No Healthy People 2010 Target Goal for female breast cancer incidence.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
Incidence rates for female breast cancer are based on a sex-specific population.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

back

Close window

Figure 19c. Rates of New Cases of the Four Most Common Cancers, Colorectal - 1975 2001



No Healthy People 2010 Target Goal for colorectal cancer incidence.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

Close window

Line graph with 2 lines and 26 points per line.

x-axis title: Year
y-axis title: Rate per 100,000

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Colorectal (Scatter).
Point 1, X=1975, Y=59.5.
Point 2, X=1976, Y=61.3.
Point 3, X=1977, Y=62.4.
Point 4, X=1978, Y=62.
Point 5, X=1979, Y=62.3, Note: Rising slightly 1975 - 1985 APC = 0.81*.
Point 6, X=1980, Y=63.7.
Point 7, X=1981, Y=64.2.
Point 8, X=1982, Y=62.8.
Point 9, X=1983, Y=63.6.
Point 10, X=1984, Y=64.8.
Point 11, X=1985, Y=66.3.
Point 12, X=1986, Y=64.2.
Point 13, X=1987, Y=62.7.
Point 14, X=1988, Y=61.4.
Point 15, X=1989, Y=61.7.
Point 16, X=1990, Y=60.7, Note: Falling 1985 - 1995 APC = -1.81*.
Point 17, X=1991, Y=59.5.
Point 18, X=1992, Y=58.
Point 19, X=1993, Y=56.8.
Point 20, X=1994, Y=55.7.
Point 21, X=1995, Y=54.
Point 22, X=1996, Y=54.6.
Point 23, X=1997, Y=56.3, Note: Rising slightly 1995 - 1998 APC = 1.22(ns).
Point 24, X=1998, Y=56.6.
Point 25, X=1999, Y=55.2, Note: Falling 1998 - 2001 APC = -2.92*.
Point 26, X=2000, Y=53.5.
Maximum at X=1985, Y=66.3 and minimum at X=2000, Y=53.5.
Data series 2, Colorectal Joinpoint (Line).
Point 1, X=1975, Y=60.5.
Point 2, X=1976, Y=61.
Point 3, X=1977, Y=61.5.
Point 4, X=1978, Y=62.
Point 5, X=1979, Y=62.5.
Point 6, X=1980, Y=63.
Point 7, X=1981, Y=63.5.
Point 8, X=1982, Y=64.
Point 9, X=1983, Y=64.5.
Point 10, X=1984, Y=65.1.
Point 11, X=1985, Y=65.6.
Point 12, X=1986, Y=64.4.
Point 13, X=1987, Y=63.2.
Point 14, X=1988, Y=62.1.
Point 15, X=1989, Y=61.
Point 16, X=1990, Y=59.9.
Point 17, X=1991, Y=58.8.
Point 18, X=1992, Y=57.7.
Point 19, X=1993, Y=56.7.

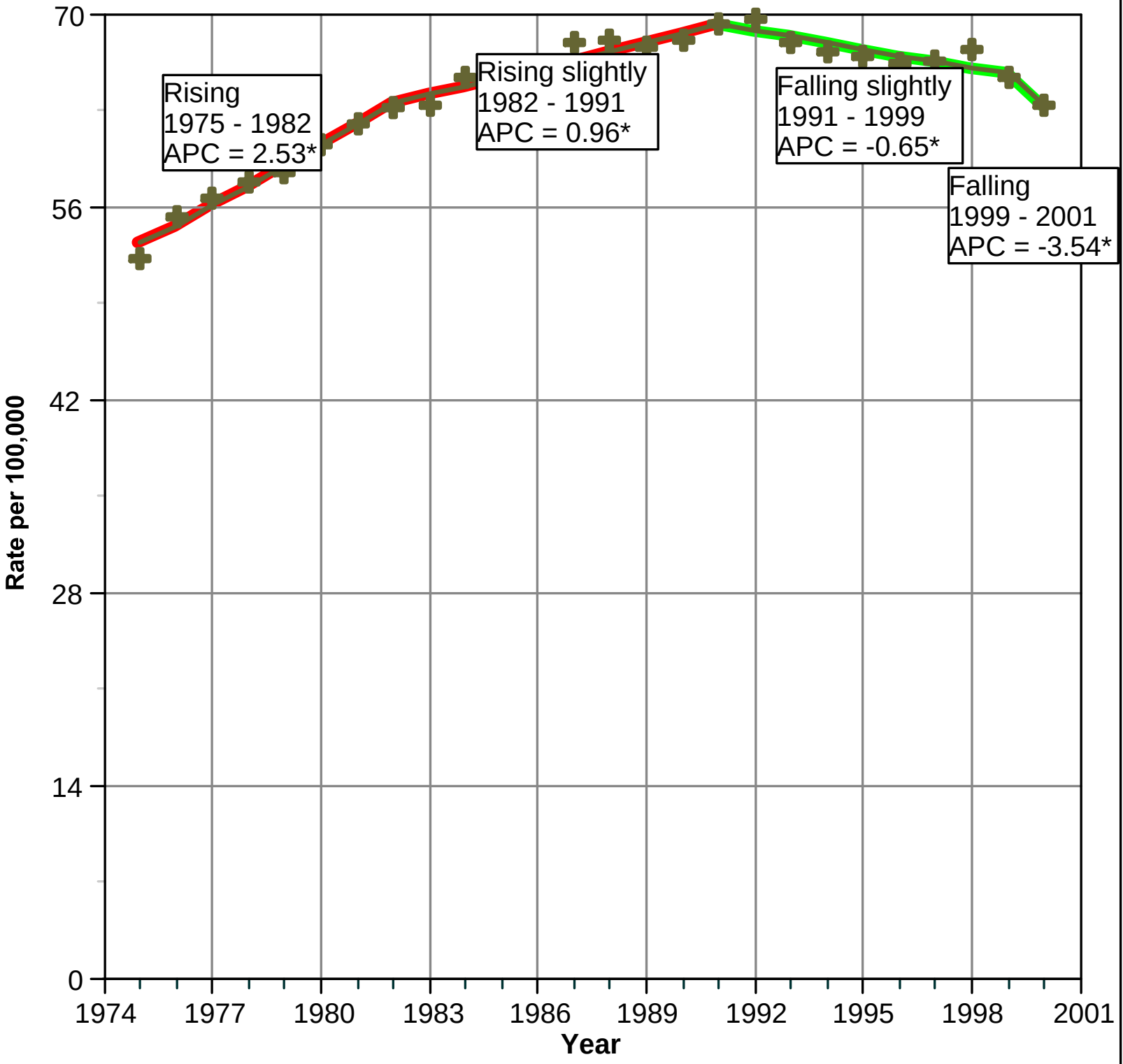
Point 20, X=1994, Y=55.7.
Point 21, X=1995, Y=54.7.
Point 22, X=1996, Y=55.3.
Point 23, X=1997, Y=56.
Point 24, X=1998, Y=56.7.
Point 25, X=1999, Y=55.
Point 26, X=2000, Y=53.4.
Maximum at X=1985, Y=65.6 and minimum at X=2000, Y=53.4.

No Healthy People 2010 Target Goal for colorectal cancer incidence.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

back

Close window

Figure 19d. Rates of New Cases of the Four Most Common Cancers, Lung and Bronchus - 1975-2001



No Healthy People 2010 Target Goal for lung and bronchus cancer incidence.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.

Close window

Line graph with 2 lines and 26 points per line.

x-axis title: Year
y-axis title: Rate per 100,000

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Lung and Bronchus (Scatter).
Point 1, X=1975, Y=52.3.
Point 2, X=1976, Y=55.4.
Point 3, X=1977, Y=56.7.
Point 4, X=1978, Y=57.9, Note: Rising 1975 - 1982 APC = 2.53*.
Point 5, X=1979, Y=58.6.
Point 6, X=1980, Y=60.6.
Point 7, X=1981, Y=62.
Point 8, X=1982, Y=63.3.
Point 9, X=1983, Y=63.4.
Point 10, X=1984, Y=65.5.
Point 11, X=1985, Y=64.7.
Point 12, X=1986, Y=65.8.
Point 13, X=1987, Y=68, Note: Rising slightly 1982 - 1991 APC = 0.96*.
Point 14, X=1988, Y=68.1.
Point 15, X=1989, Y=67.7.
Point 16, X=1990, Y=68.2.
Point 17, X=1991, Y=69.4.
Point 18, X=1992, Y=69.6.
Point 19, X=1993, Y=67.9.
Point 20, X=1994, Y=67.3.
Point 21, X=1995, Y=66.9, Note: Falling slightly 1991 - 1999 APC = -0.65*.
Point 22, X=1996, Y=66.4.
Point 23, X=1997, Y=66.6.
Point 24, X=1998, Y=67.4.
Point 25, X=1999, Y=65.5.
Point 26, X=2000, Y=63.4, Note: Falling 1999 - 2001 APC = -3.54*.
Maximum at X=1992, Y=69.6 and minimum at X=1975, Y=52.3.
Data series 2, Lung and Bronchus Joinpoint (Line).
Point 1, X=1975, Y=53.4.
Point 2, X=1976, Y=54.7.
Point 3, X=1977, Y=56.1.
Point 4, X=1978, Y=57.5.
Point 5, X=1979, Y=59.
Point 6, X=1980, Y=60.5.
Point 7, X=1981, Y=62.
Point 8, X=1982, Y=63.6.
Point 9, X=1983, Y=64.2.
Point 10, X=1984, Y=64.8.
Point 11, X=1985, Y=65.4.
Point 12, X=1986, Y=66.1.
Point 13, X=1987, Y=66.7.
Point 14, X=1988, Y=67.3.
Point 15, X=1989, Y=68.
Point 16, X=1990, Y=68.6.
Point 17, X=1991, Y=69.3.
Point 18, X=1992, Y=68.8.
Point 19, X=1993, Y=68.4.

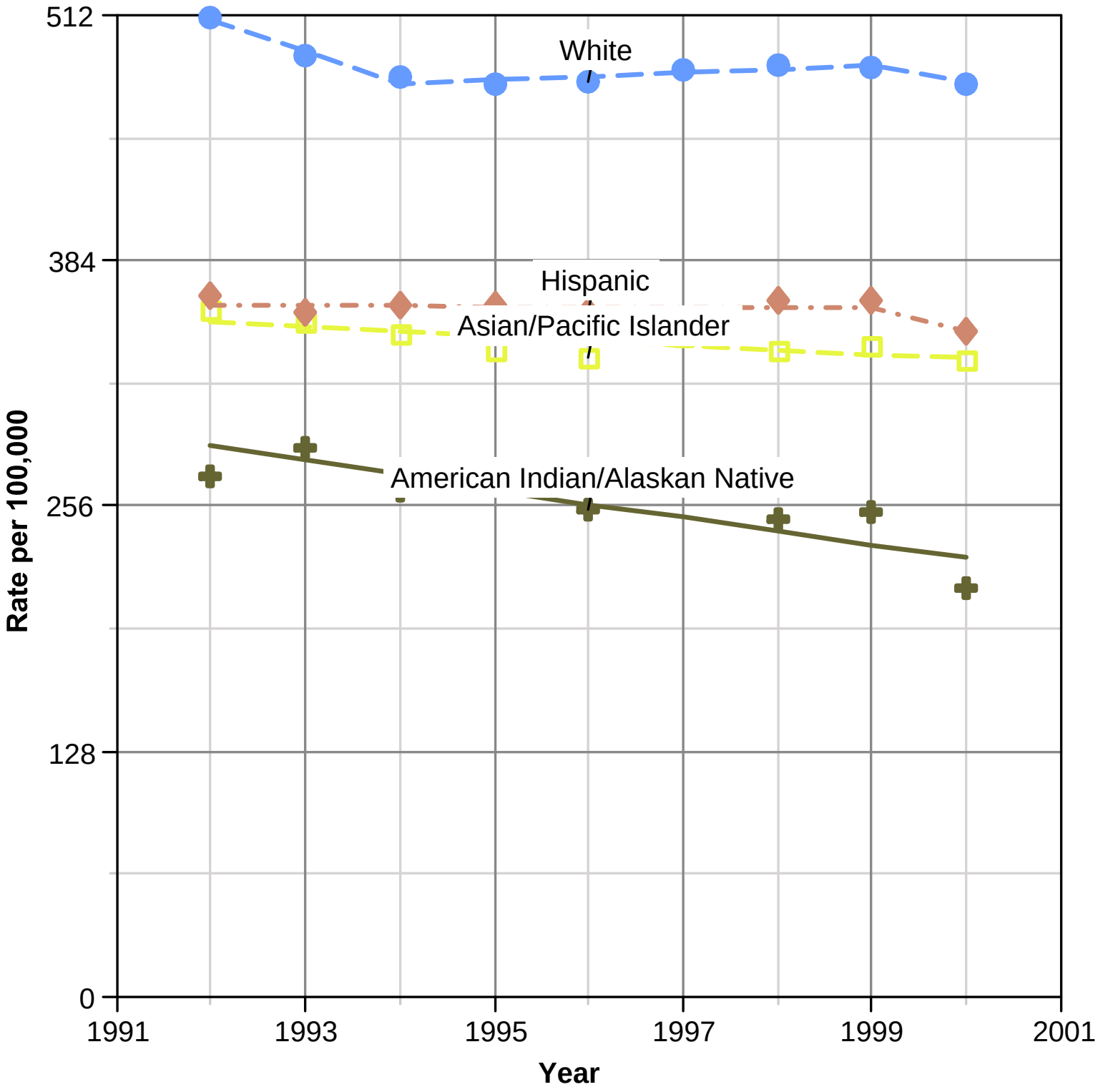
Point 20, X=1994, Y=67.9.
Point 21, X=1995, Y=67.5.
Point 22, X=1996, Y=67.
Point 23, X=1997, Y=66.6.
Point 24, X=1998, Y=66.2.
Point 25, X=1999, Y=65.7.
Point 26, X=2000, Y=63.4.
Maximum at X=1991, Y=69.3 and minimum at X=1975, Y=53.4.

No Healthy People 2010 Target Goal for lung and bronchus cancer incidence.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.

back

Close window

Figure 20. Rates of New Cases of All Cancers, by Race/Ethnicity - 1992-2001



Source: SEER Program, National Cancer Institute, SEER 12 Registries (see http://seer.cancer.gov/registries/terms.html). Hispanic Rates do not include data from the Detroit, Hawaii, or Alaska registries.\
Data are age-adjusted to the 2000 standard using age groups:<1, 1-4, 5-9, 10-14, 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65-69, 70-74, 75-79, 80-84, 85+.

Line graph with 8 lines and 9 points per line.

x-axis title: Year
y-axis title: Rate per 100,000

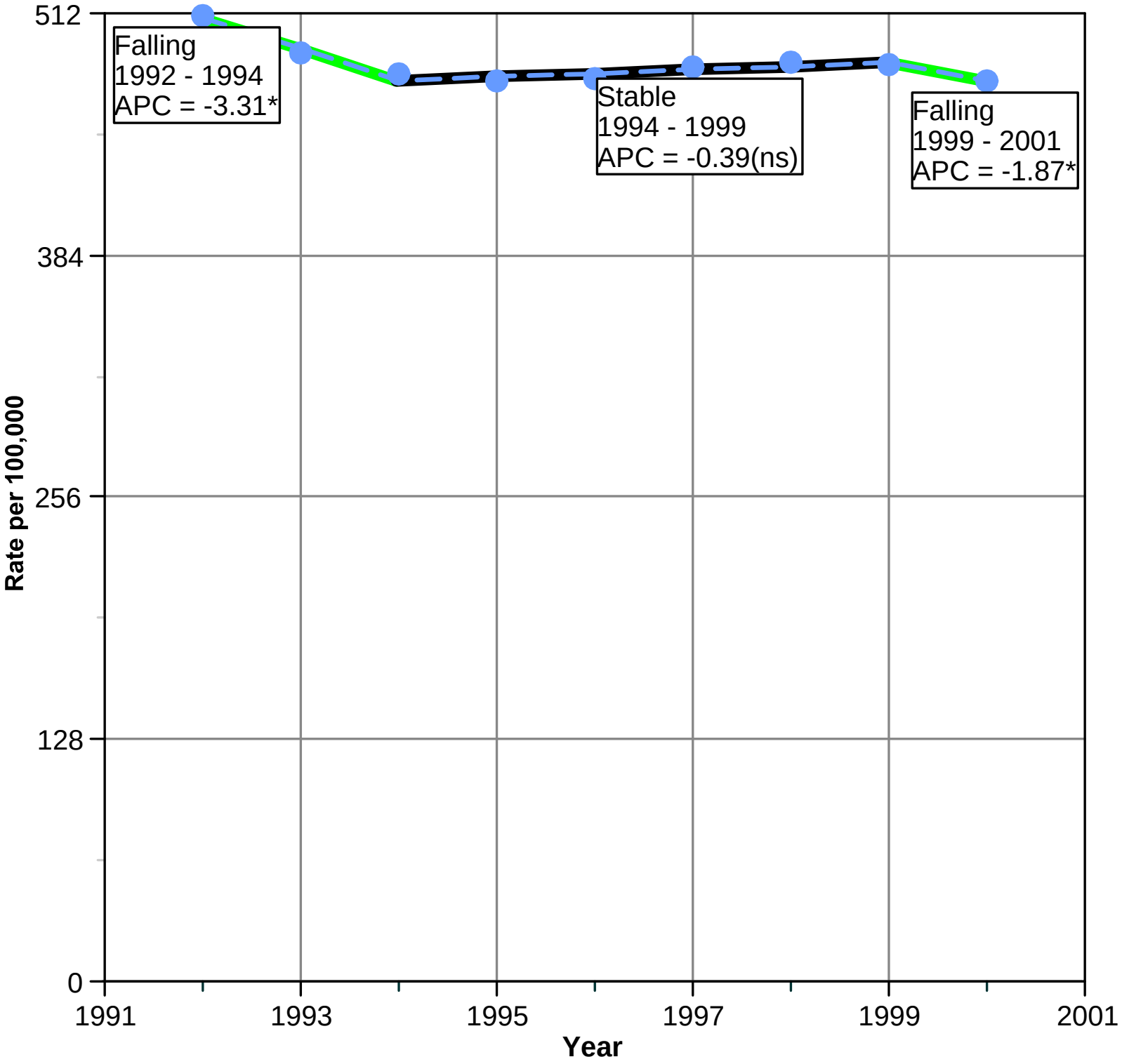
X scale titled Scale label.
Y scale titled Scale label.
Data series 1, White (Scatter).
Point 1, X=1992, Y=510.7.
Point 2, X=1993, Y=491.2.
Point 3, X=1994, Y=479.9.
Point 4, X=1995, Y=475.9.
Point 5, X=1996, Y=477.7, Note: White.
Point 6, X=1997, Y=483.7.
Point 7, X=1998, Y=485.8.
Point 8, X=1999, Y=485.1.
Point 9, X=2000, Y=476.3.
Maximum at X=1992, Y=510.7 and minimum at X=1995, Y=475.9.
Data series 2, White Joinpoint (Line).
Point 1, X=1992, Y=509.8.
Point 2, X=1993, Y=492.9.
Point 3, X=1994, Y=476.6.
Point 4, X=1995, Y=478.4.
Point 5, X=1996, Y=480.2.
Point 6, X=1997, Y=482.1.
Point 7, X=1998, Y=483.9.
Point 8, X=1999, Y=485.8.
Point 9, X=2000, Y=476.7.
Maximum at X=1992, Y=509.8 and minimum at X=1994, Y=476.6.
Data series 3, American Indian/Alaskan Native (Scatter).
Point 1, X=1992, Y=271.2.
Point 2, X=1993, Y=285.8.
Point 3, X=1994, Y=264.1.
Point 4, X=1995, Y=269.6.
Point 5, X=1996, Y=254.3, Note: American Indian/Alaskan Native.
Point 6, X=1997, Y=269.7.
Point 7, X=1998, Y=249.7.
Point 8, X=1999, Y=252.3.
Point 9, X=2000, Y=213.
Maximum at X=1993, Y=285.8 and minimum at X=2000, Y=213.
Data series 4, American Indian/Alaskan Native Joinpoint (Line).
Point 1, X=1992, Y=288.2.
Point 2, X=1993, Y=280.1.
Point 3, X=1994, Y=272.2.
Point 4, X=1995, Y=264.6.
Point 5, X=1996, Y=257.2.
Point 6, X=1997, Y=249.9.
Point 7, X=1998, Y=242.9.
Point 8, X=1999, Y=236.1.
Point 9, X=2000, Y=229.5.
Maximum at X=1992, Y=288.2 and minimum at X=2000, Y=229.5.
Data series 5, Asian/Pacific Islander (Scatter).
Point 1, X=1992, Y=357.9.
Point 2, X=1993, Y=352.5.
Point 3, X=1994, Y=345.4.
Point 4, X=1995, Y=337.8.
Point 5, X=1996, Y=333.6, Note: Asian/Pacific Islander.
Point 6, X=1997, Y=345.1.
Point 7, X=1998, Y=337.1.
Point 8, X=1999, Y=339.6.
Point 9, X=2000, Y=331.7.
Maximum at X=1992, Y=357.9 and minimum at X=2000, Y=331.7.
Data series 6, Asian/Pacific Islander Joinpoint (Line).
Point 1, X=1992, Y=351.8.
Point 2, X=1993, Y=349.4.
Point 3, X=1994, Y=347.
Point 4, X=1995, Y=344.7.
Point 5, X=1996, Y=342.3.
Point 6, X=1997, Y=340.
Point 7, X=1998, Y=337.7.
Point 8, X=1999, Y=335.3.
Point 9, X=2000, Y=333.1.
Maximum at X=1992, Y=351.8 and minimum at X=2000, Y=333.1.
Data series 7, Hispanic (Scatter).
Point 1, X=1992, Y=365.5.
Point 2, X=1993, Y=357.
Point 3, X=1994, Y=361.1.
Point 4, X=1995, Y=361.1.
Point 5, X=1996, Y=357.3, Note: Hispanic.
Point 6, X=1997, Y=352.6.
Point 7, X=1998, Y=363.2.

Point 8, X=1999, Y=362.8.
Point 9, X=2000, Y=346.7.
Maximum at X=1992, Y=365.5 and minimum at X=2000, Y=346.7.
Data series 8, Hispanic Joinpoint (Line).
Point 1, X=1992, Y=360.5.
Point 2, X=1993, Y=360.4.
Point 3, X=1994, Y=360.3.
Point 4, X=1995, Y=360.1.
Point 5, X=1996, Y=360.
Point 6, X=1997, Y=359.9.
Point 7, X=1998, Y=359.8.
Point 8, X=1999, Y=359.6.
Point 9, X=2000, Y=346.8.
Maximum at X=1992, Y=360.5 and minimum at X=2000, Y=346.8.

Source: SEER Program, National Cancer Institute, SEER 12 Registries (see http://seer.cancer.gov/registries/terms.html). Hispanic Rates do not include data from the Detroit, Hawaii, or Alaska registries.\
Data are age-adjusted to the 2000 standard using age groups:<1, 1-4, 5-9, 10-14, 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65-69, 70-74, 75-79, 80-84, 85+.

back

Figure 20a. Rates of New Cases of All Cancers, by Race/Ethnicity, White - 1992-2001



No Healthy People 2010 Target Goal for incidence among Whites.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

Close window

Line graph with 2 lines and 9 points per line.

x-axis title: Year
y-axis title: Rate per 100,000

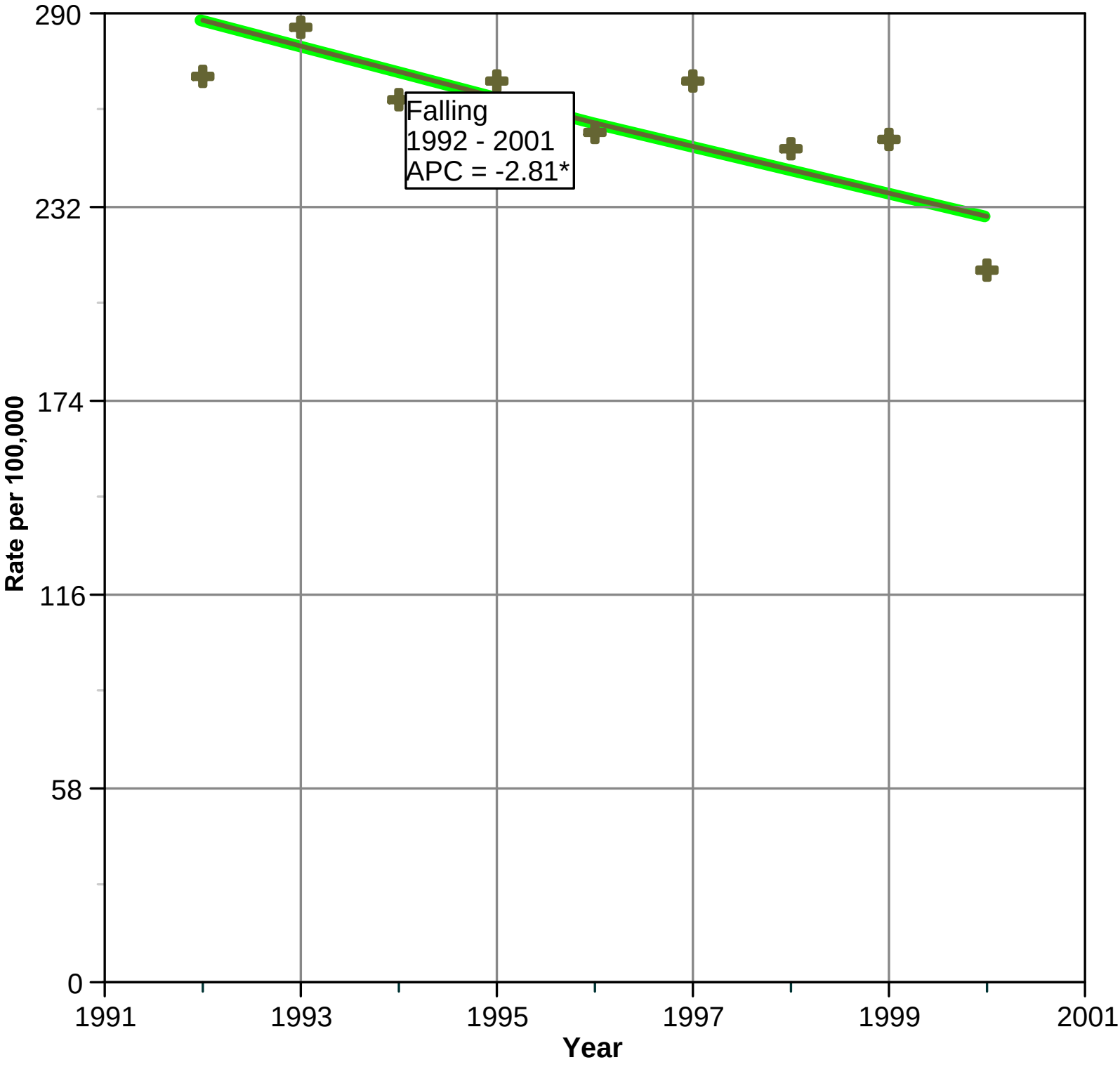
X scale titled Scale label.
Y scale titled Scale label.
Data series 1, White (Scatter).
Point 1, X=1992, Y=510.7, Note: Falling 1992 - 1994 APC = -3.31*.
Point 2, X=1993, Y=491.2.
Point 3, X=1994, Y=479.9.
Point 4, X=1995, Y=475.9.
Point 5, X=1996, Y=477.7.
Point 6, X=1997, Y=483.7, Note: Stable 1994 - 1999 APC = -0.39(ns).
Point 7, X=1998, Y=485.8.
Point 8, X=1999, Y=485.1.
Point 9, X=2000, Y=476.3, Note: Falling 1999 - 2001 APC = -1.87*.
Maximum at X=1992, Y=510.7 and minimum at X=1995, Y=475.9.
Data series 2, White Joinpoint (Line).
Point 1, X=1992, Y=509.8.
Point 2, X=1993, Y=492.9.
Point 3, X=1994, Y=476.6.
Point 4, X=1995, Y=478.4.
Point 5, X=1996, Y=480.2.
Point 6, X=1997, Y=482.1.
Point 7, X=1998, Y=483.9.
Point 8, X=1999, Y=485.8.
Point 9, X=2000, Y=476.7.
Maximum at X=1992, Y=509.8 and minimum at X=1994, Y=476.6.

No Healthy People 2010 Target Goal for incidence among Whites.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

back

Close window

Figure 20c. Rates of New Cases of All Cancers, by Race/Ethnicity, American Indian/ Alaskan Native - 1992-2001



No Healthy People 2010 Target Goal for incidence among American Indian/Alaskan Natives.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.

Close window

Line graph with 2 lines and 9 points per line.

x-axis title: Year
y-axis title: Rate per 100,000

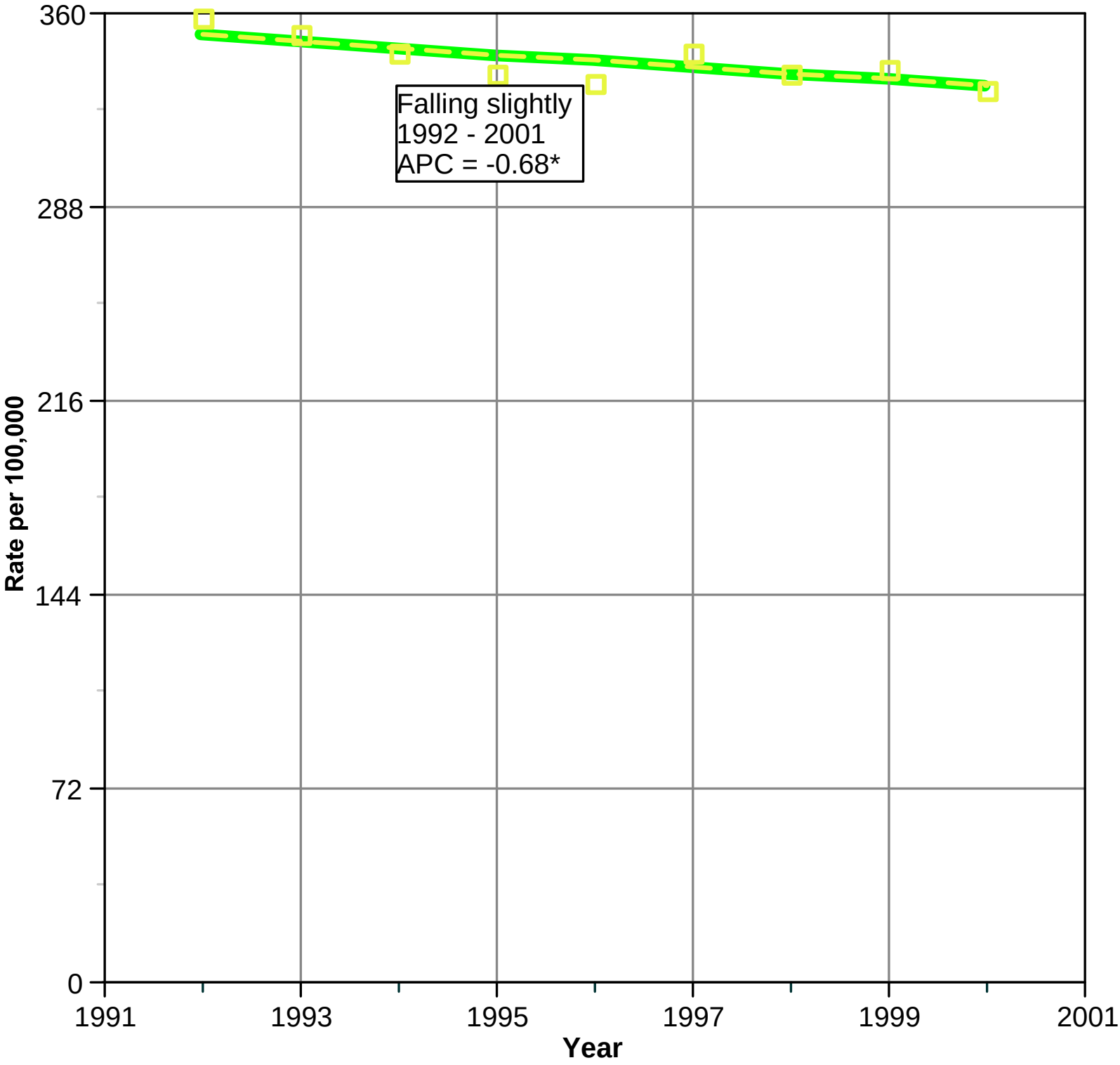
X scale titled Scale label.
Y scale titled Scale label.
Data series 1, American Indian/Alaskan Native (Scatter).
Point 1, X=1992, Y=271.2.
Point 2, X=1993, Y=285.8.
Point 3, X=1994, Y=264.1.
Point 4, X=1995, Y=269.6, Note: Falling 1992 - 2001 APC = -2.81*.
Point 5, X=1996, Y=254.3.
Point 6, X=1997, Y=269.7.
Point 7, X=1998, Y=249.7.
Point 8, X=1999, Y=252.3.
Point 9, X=2000, Y=213.
Maximum at X=1993, Y=285.8 and minimum at X=2000, Y=213.
Data series 2, American Indian/Alaskan Native Joinpoint (Line).
Point 1, X=1992, Y=288.2.
Point 2, X=1993, Y=280.1.
Point 3, X=1994, Y=272.2.
Point 4, X=1995, Y=264.6.
Point 5, X=1996, Y=257.2.
Point 6, X=1997, Y=249.9.
Point 7, X=1998, Y=242.9.
Point 8, X=1999, Y=236.1.
Point 9, X=2000, Y=229.5.
Maximum at X=1992, Y=288.2 and minimum at X=2000, Y=229.5.

No Healthy People 2010 Target Goal for incidence among American Indian/Alaskan Natives.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.

back

Close window

Figure 20d. Rates of New Cases of All Cancers, by Race/Ethnicity, Asian/Pacific Islander - 1992-2001



No Healthy People 2010 Target Goal for incidence among Asian/Pacific Islanders.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.

Close window

Line graph with 2 lines and 9 points per line.

x-axis title: Year
y-axis title: Rate per 100,000

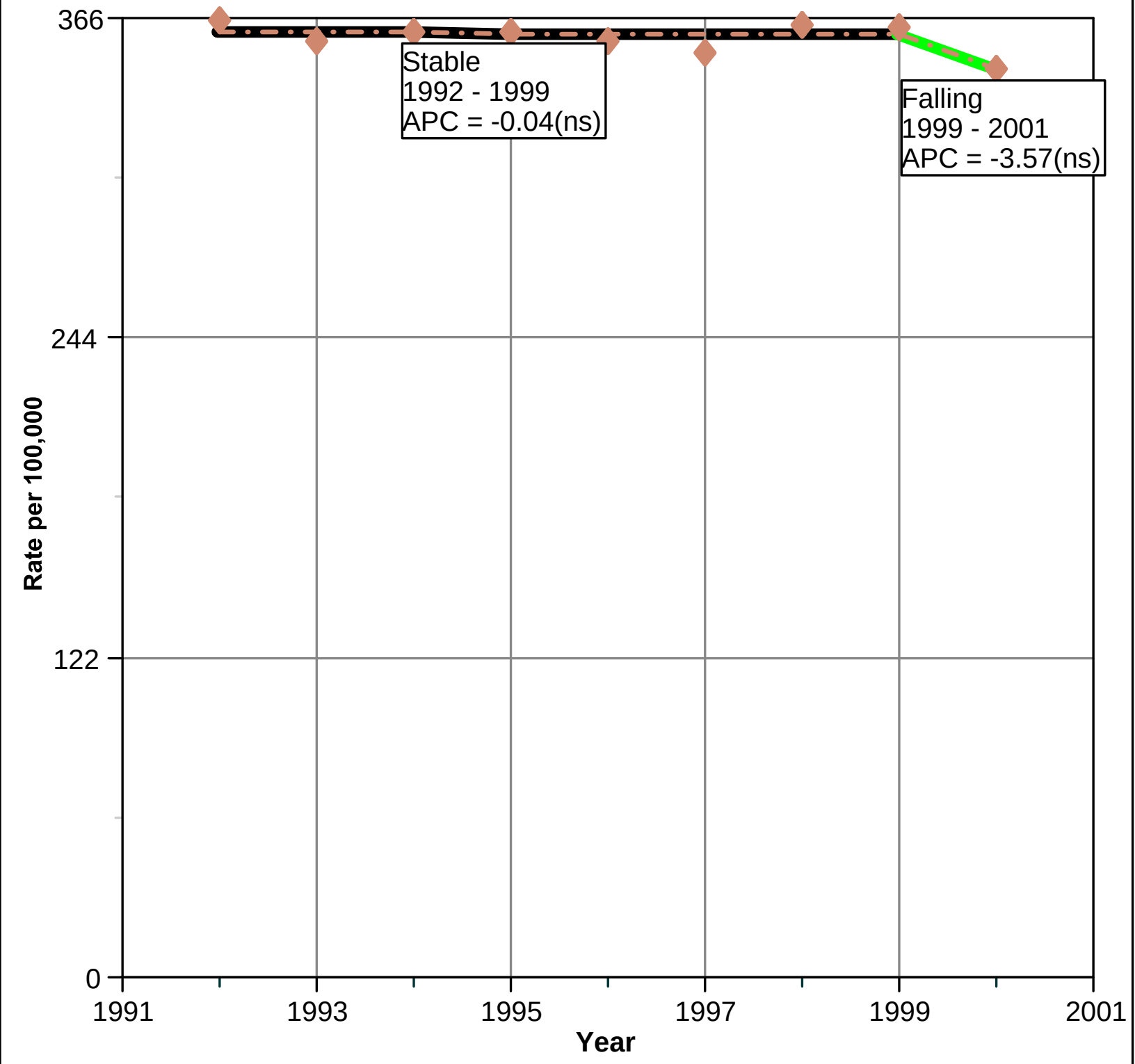
X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Asian/Pacific Islander (Scatter).
Point 1, X=1992, Y=357.9.
Point 2, X=1993, Y=352.5.
Point 3, X=1994, Y=345.4.
Point 4, X=1995, Y=337.8, Note: Falling slightly 1992 - 2001 APC = -0.68*.
Point 5, X=1996, Y=333.6.
Point 6, X=1997, Y=345.1.
Point 7, X=1998, Y=337.1.
Point 8, X=1999, Y=339.6.
Point 9, X=2000, Y=331.7.
Maximum at X=1992, Y=357.9 and minimum at X=2000, Y=331.7.
Data series 2, Asian/Pacific Islander Joinpoint (Line).
Point 1, X=1992, Y=351.8.
Point 2, X=1993, Y=349.4.
Point 3, X=1994, Y=347.
Point 4, X=1995, Y=344.7.
Point 5, X=1996, Y=342.3.
Point 6, X=1997, Y=340.
Point 7, X=1998, Y=337.7.
Point 8, X=1999, Y=335.3.
Point 9, X=2000, Y=333.1.
Maximum at X=1992, Y=351.8 and minimum at X=2000, Y=333.1.

No Healthy People 2010 Target Goal for incidence among Asian/Pacific Islanders.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.

back

Close window

Figure 20e. Rates of New Cases of All Cancers, by Race/Ethnicity, Hispanic - 1992-200



No Healthy People 2010 Target Goal for incidence among Hispanics.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

Close window

Line graph with 2 lines and 9 points per line.

x-axis title: Year
y-axis title: Rate per 100,000

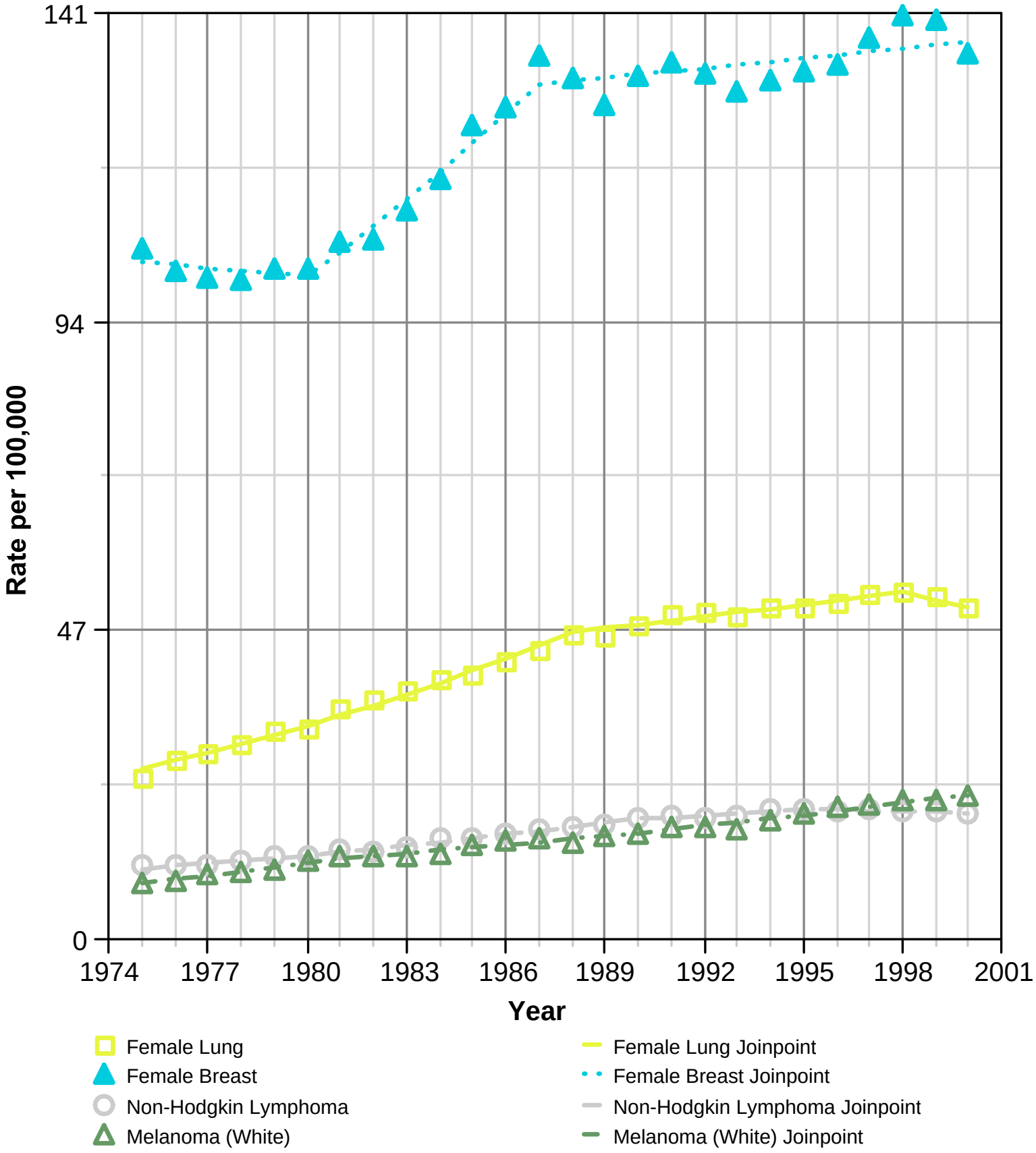
X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Hispanic (Scatter).
Point 1, X=1992, Y=365.5.
Point 2, X=1993, Y=357.
Point 3, X=1994, Y=361.1.
Point 4, X=1995, Y=361.1, Note: Stable 1992 - 1999 APC = -0.04(ns).
Point 5, X=1996, Y=357.3.
Point 6, X=1997, Y=352.6.
Point 7, X=1998, Y=363.2.
Point 8, X=1999, Y=362.8.
Point 9, X=2000, Y=346.7, Note: Falling 1999 - 2001 APC = -3.57(ns).
Maximum at X=1992, Y=365.5 and minimum at X=2000, Y=346.7.
Data series 2, Hispanic Joinpoint (Line).
Point 1, X=1992, Y=360.5.
Point 2, X=1993, Y=360.4.
Point 3, X=1994, Y=360.3.
Point 4, X=1995, Y=360.1.
Point 5, X=1996, Y=360.
Point 6, X=1997, Y=359.9.
Point 7, X=1998, Y=359.8.
Point 8, X=1999, Y=359.6.
Point 9, X=2000, Y=346.8.
Maximum at X=1992, Y=360.5 and minimum at X=2000, Y=346.8.

No Healthy People 2010 Target Goal for incidence among Hispanics.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

back

Close window

Figure 21. Incidence Rates of Some Common Cancers That Are Increasing - 1975-2001



Source: SEER Program, National Cancer Institute, SEER 9 Registries (see http://seer.cancer.gov/registries/terms.html).\
Data are age-adjusted to the 2000 standard using age groups:<1, 1-4, 5-9, 10-14, 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65-69, 70-74, 75-79, 80-84, 85+.

Line graph with 8 lines and 26 points per line.

x-axis title: Year
y-axis title: Rate per 100,000

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Female Lung (Scatter).
Point 1, X=1975, Y=24.5.
Point 2, X=1976, Y=27.3.
Point 3, X=1977, Y=28.3.
Point 4, X=1978, Y=29.7.
Point 5, X=1979, Y=31.6.
Point 6, X=1980, Y=32.2.
Point 7, X=1981, Y=35.1.
Point 8, X=1982, Y=36.7.
Point 9, X=1983, Y=37.8.
Point 10, X=1984, Y=39.5.
Point 11, X=1985, Y=40.2.
Point 12, X=1986, Y=42.3.
Point 13, X=1987, Y=44.2.
Point 14, X=1988, Y=46.3.
Point 15, X=1989, Y=46.2.
Point 16, X=1990, Y=47.8.
Point 17, X=1991, Y=49.6.
Point 18, X=1992, Y=49.9.
Point 19, X=1993, Y=49.2.
Point 20, X=1994, Y=50.6.
Point 21, X=1995, Y=50.4.
Point 22, X=1996, Y=51.2.
Point 23, X=1997, Y=52.5.
Point 24, X=1998, Y=52.8.
Point 25, X=1999, Y=52.1.
Point 26, X=2000, Y=50.6.
Maximum at X=1998, Y=52.8 and minimum at X=1975, Y=24.5.
Data series 2, Female Lung Joinpoint (Line).
Point 1, X=1975, Y=26.
Point 2, X=1976, Y=27.2.
Point 3, X=1977, Y=28.5.
Point 4, X=1978, Y=29.8.
Point 5, X=1979, Y=31.1.
Point 6, X=1980, Y=32.6.
Point 7, X=1981, Y=34.1.
Point 8, X=1982, Y=35.6.
Point 9, X=1983, Y=37.3.
Point 10, X=1984, Y=39.
Point 11, X=1985, Y=40.8.
Point 12, X=1986, Y=42.7.
Point 13, X=1987, Y=44.6.
Point 14, X=1988, Y=46.7.
Point 15, X=1989, Y=47.3.
Point 16, X=1990, Y=47.9.
Point 17, X=1991, Y=48.5.
Point 18, X=1992, Y=49.1.
Point 19, X=1993, Y=49.7.
Point 20, X=1994, Y=50.3.
Point 21, X=1995, Y=51.
Point 22, X=1996, Y=51.6.
Point 23, X=1997, Y=52.3.
Point 24, X=1998, Y=52.9.
Point 25, X=1999, Y=51.7.
Point 26, X=2000, Y=50.5.
Maximum at X=1998, Y=52.9 and minimum at X=1975, Y=26.
Data series 3, Female Breast (Scatter).
Point 1, X=1975, Y=105.
Point 2, X=1976, Y=101.9.
Point 3, X=1977, Y=100.8.
Point 4, X=1978, Y=100.5.
Point 5, X=1979, Y=102.1.
Point 6, X=1980, Y=102.1.
Point 7, X=1981, Y=106.3.
Point 8, X=1982, Y=106.4.
Point 9, X=1983, Y=111.1.
Point 10, X=1984, Y=115.8.
Point 11, X=1985, Y=124.
Point 12, X=1986, Y=126.7.
Point 13, X=1987, Y=134.4.
Point 14, X=1988, Y=131.2.
Point 15, X=1989, Y=127.1.
Point 16, X=1990, Y=131.6.
Point 17, X=1991, Y=133.5.

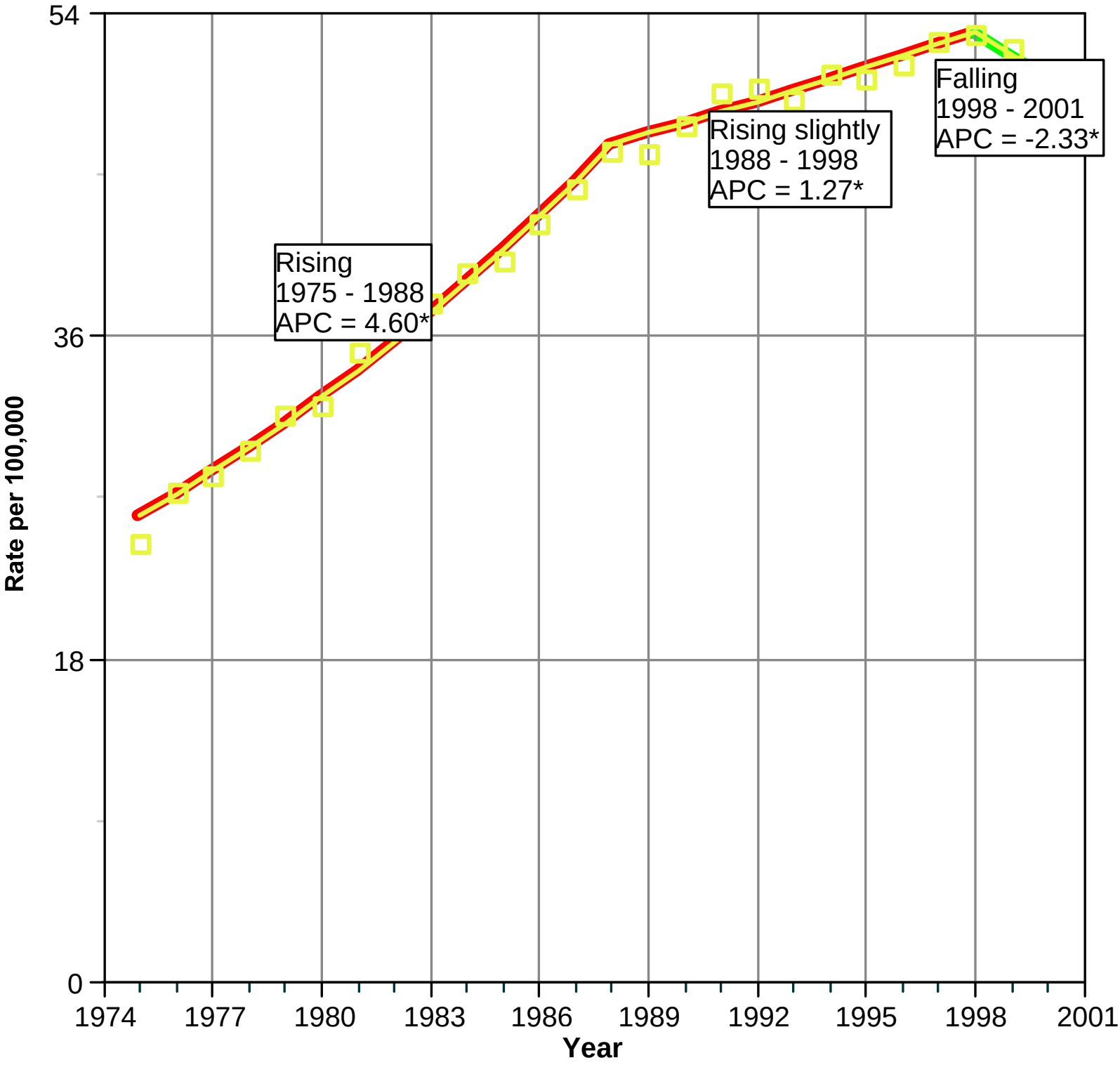
Point 18, X=1992, Y=131.9.
Point 19, X=1993, Y=129.1.
Point 20, X=1994, Y=130.6.
Point 21, X=1995, Y=132.2.
Point 22, X=1996, Y=133.3.
Point 23, X=1997, Y=137.3.
Point 24, X=1998, Y=140.6.
Point 25, X=1999, Y=140.1.
Point 26, X=2000, Y=135.
Maximum at X=1998, Y=140.6 and minimum at X=1978, Y=100.5.
Data series 4, Female Breast Joinpoint (Line).
Point 1, X=1975, Y=103.1.
Point 2, X=1976, Y=102.7.
Point 3, X=1977, Y=102.2.
Point 4, X=1978, Y=101.8.
Point 5, X=1979, Y=101.3.
Point 6, X=1980, Y=100.9.
Point 7, X=1981, Y=104.6.
Point 8, X=1982, Y=108.5.
Point 9, X=1983, Y=112.6.
Point 10, X=1984, Y=116.7.
Point 11, X=1985, Y=121.1.
Point 12, X=1986, Y=125.6.
Point 13, X=1987, Y=130.2.
Point 14, X=1988, Y=130.7.
Point 15, X=1989, Y=131.2.
Point 16, X=1990, Y=131.7.
Point 17, X=1991, Y=132.2.
Point 18, X=1992, Y=132.6.
Point 19, X=1993, Y=133.1.
Point 20, X=1994, Y=133.6.
Point 21, X=1995, Y=134.1.
Point 22, X=1996, Y=134.6.
Point 23, X=1997, Y=135.1.
Point 24, X=1998, Y=135.6.
Point 25, X=1999, Y=136.1.
Point 26, X=2000, Y=136.6.
Maximum at X=2000, Y=136.6 and minimum at X=1980, Y=100.9.
Data series 5, Non-Hodgkin Lymphoma (Scatter).
Point 1, X=1975, Y=11.1.
Point 2, X=1976, Y=11.2.
Point 3, X=1977, Y=11.2.
Point 4, X=1978, Y=11.9.
Point 5, X=1979, Y=12.5.
Point 6, X=1980, Y=12.6.
Point 7, X=1981, Y=13.6.
Point 8, X=1982, Y=13.4.
Point 9, X=1983, Y=14.
Point 10, X=1984, Y=15.2.
Point 11, X=1985, Y=15.5.
Point 12, X=1986, Y=15.9.
Point 13, X=1987, Y=16.7.
Point 14, X=1988, Y=17.2.
Point 15, X=1989, Y=17.3.
Point 16, X=1990, Y=18.5.
Point 17, X=1991, Y=18.8.
Point 18, X=1992, Y=18.6.
Point 19, X=1993, Y=18.9.
Point 20, X=1994, Y=19.9.
Point 21, X=1995, Y=19.8.
Point 22, X=1996, Y=19.3.
Point 23, X=1997, Y=19.9.
Point 24, X=1998, Y=19.3.
Point 25, X=1999, Y=19.5.
Point 26, X=2000, Y=19.2.
Maximum at X=1994, Y=19.9 and minimum at X=1975, Y=11.1.
Data series 6, Non-Hodgkin Lymphoma Joinpoint (Line).
Point 1, X=1975, Y=10.7.
Point 2, X=1976, Y=11.1.
Point 3, X=1977, Y=11.5.
Point 4, X=1978, Y=12.
Point 5, X=1979, Y=12.4.
Point 6, X=1980, Y=12.8.
Point 7, X=1981, Y=13.3.
Point 8, X=1982, Y=13.8.
Point 9, X=1983, Y=14.3.
Point 10, X=1984, Y=14.8.
Point 11, X=1985, Y=15.3.
Point 12, X=1986, Y=15.9.
Point 13, X=1987, Y=16.5.
Point 14, X=1988, Y=17.1.

Point 15, X=1989, Y=17.7.
Point 16, X=1990, Y=18.3.
Point 17, X=1991, Y=18.6.
Point 18, X=1992, Y=18.9.
Point 19, X=1993, Y=19.2.
Point 20, X=1994, Y=19.5.
Point 21, X=1995, Y=19.8.
Point 22, X=1996, Y=19.7.
Point 23, X=1997, Y=19.6.
Point 24, X=1998, Y=19.4.
Point 25, X=1999, Y=19.3.
Point 26, X=2000, Y=19.2.
Maximum at X=1995, Y=19.8 and minimum at X=1975, Y=10.7.
Data series 7, Melanoma (White) (Scatter).
Point 1, X=1975, Y=8.7.
Point 2, X=1976, Y=9.
Point 3, X=1977, Y=9.8.
Point 4, X=1978, Y=10.1.
Point 5, X=1979, Y=10.7.
Point 6, X=1980, Y=12.
Point 7, X=1981, Y=12.5.
Point 8, X=1982, Y=12.7.
Point 9, X=1983, Y=12.5.
Point 10, X=1984, Y=13.
Point 11, X=1985, Y=14.2.
Point 12, X=1986, Y=15.
Point 13, X=1987, Y=15.4.
Point 14, X=1988, Y=14.8.
Point 15, X=1989, Y=15.8.
Point 16, X=1990, Y=15.9.
Point 17, X=1991, Y=16.9.
Point 18, X=1992, Y=17.1.
Point 19, X=1993, Y=16.8.
Point 20, X=1994, Y=18.2.
Point 21, X=1995, Y=19.
Point 22, X=1996, Y=20.1.
Point 23, X=1997, Y=20.5.
Point 24, X=1998, Y=21.1.
Point 25, X=1999, Y=21.3.
Point 26, X=2000, Y=21.8.
Maximum at X=2000, Y=21.8 and minimum at X=1975, Y=8.7.
Data series 8, Melanoma (White) Joinpoint (Line).
Point 1, X=1975, Y=8.6.
Point 2, X=1976, Y=9.1.
Point 3, X=1977, Y=9.7.
Point 4, X=1978, Y=10.3.
Point 5, X=1979, Y=10.9.
Point 6, X=1980, Y=11.6.
Point 7, X=1981, Y=12.3.
Point 8, X=1982, Y=12.7.
Point 9, X=1983, Y=13.1.
Point 10, X=1984, Y=13.5.
Point 11, X=1985, Y=13.9.
Point 12, X=1986, Y=14.4.
Point 13, X=1987, Y=14.8.
Point 14, X=1988, Y=15.3.
Point 15, X=1989, Y=15.7.
Point 16, X=1990, Y=16.2.
Point 17, X=1991, Y=16.7.
Point 18, X=1992, Y=17.3.
Point 19, X=1993, Y=17.8.
Point 20, X=1994, Y=18.3.
Point 21, X=1995, Y=18.9.
Point 22, X=1996, Y=19.5.
Point 23, X=1997, Y=20.1.
Point 24, X=1998, Y=20.7.
Point 25, X=1999, Y=21.4.
Point 26, X=2000, Y=22.
Maximum at X=2000, Y=22 and minimum at X=1975, Y=8.6.

Source: SEER Program, National Cancer Institute, SEER 9 Registries (see http://seer.cancer.gov/registries/terms.html).\
Data are age-adjusted to the 2000 standard using age groups:<1, 1-4, 5-9, 10-14, 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65-69, 70-74, 75-79, 80-84, 85+.

back

Figure 21a. Incidence Rates of Some Common Cancers That Are Increasing, Female Lung - 1975-2001



No Healthy People 2010 Target Goal for female lung cancer incidence.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
Incidence rates for female lung cancer are based on a sex-specific population.\
* The Annual Percent Change (APC) is statistically significant.

Close window

Line graph with 2 lines and 26 points per line.

x-axis title: Year
y-axis title: Rate per 100,000

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Female Lung (Scatter).
Point 1, X=1975, Y=24.5.
Point 2, X=1976, Y=27.3.
Point 3, X=1977, Y=28.3.
Point 4, X=1978, Y=29.7.
Point 5, X=1979, Y=31.6.
Point 6, X=1980, Y=32.2.
Point 7, X=1981, Y=35.1, Note: Rising 1975 - 1988 APC = 4.60*.
Point 8, X=1982, Y=36.7.
Point 9, X=1983, Y=37.8.
Point 10, X=1984, Y=39.5.
Point 11, X=1985, Y=40.2.
Point 12, X=1986, Y=42.3.
Point 13, X=1987, Y=44.2.
Point 14, X=1988, Y=46.3.
Point 15, X=1989, Y=46.2.
Point 16, X=1990, Y=47.8.
Point 17, X=1991, Y=49.6.
Point 18, X=1992, Y=49.9.
Point 19, X=1993, Y=49.2, Note: Rising slightly 1988 - 1998 APC = 1.27*.
Point 20, X=1994, Y=50.6.
Point 21, X=1995, Y=50.4.
Point 22, X=1996, Y=51.2.
Point 23, X=1997, Y=52.5.
Point 24, X=1998, Y=52.8.
Point 25, X=1999, Y=52.1, Note: Falling 1998 - 2001 APC = -2.33*.
Point 26, X=2000, Y=50.6.
Maximum at X=1998, Y=52.8 and minimum at X=1975, Y=24.5.
Data series 2, Female Lung Joinpoint (Line).
Point 1, X=1975, Y=26.
Point 2, X=1976, Y=27.2.
Point 3, X=1977, Y=28.5.
Point 4, X=1978, Y=29.8.
Point 5, X=1979, Y=31.1.
Point 6, X=1980, Y=32.6.
Point 7, X=1981, Y=34.1.
Point 8, X=1982, Y=35.6.
Point 9, X=1983, Y=37.3.
Point 10, X=1984, Y=39.
Point 11, X=1985, Y=40.8.
Point 12, X=1986, Y=42.7.
Point 13, X=1987, Y=44.6.
Point 14, X=1988, Y=46.7.
Point 15, X=1989, Y=47.3.
Point 16, X=1990, Y=47.9.
Point 17, X=1991, Y=48.5.
Point 18, X=1992, Y=49.1.
Point 19, X=1993, Y=49.7.

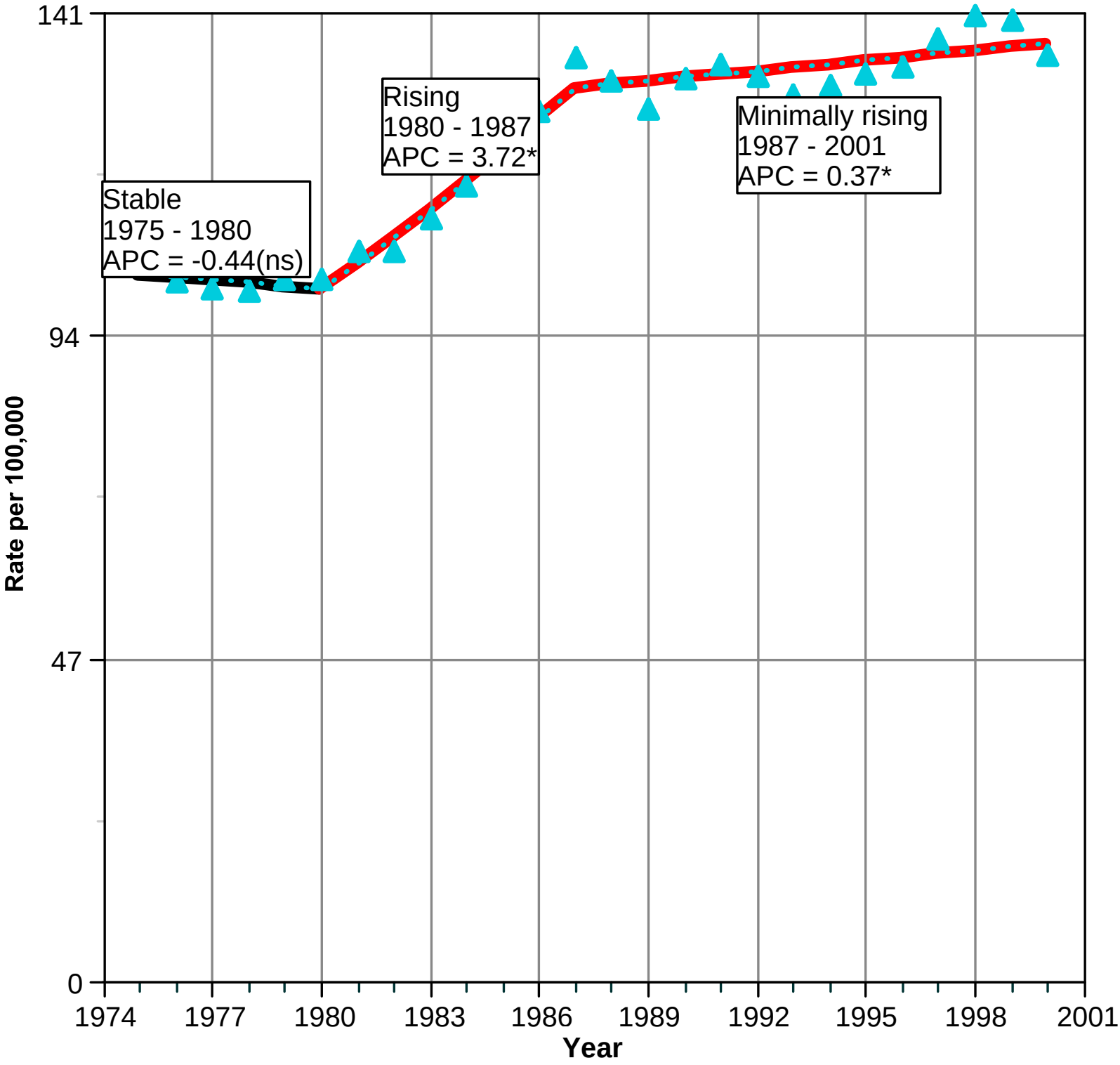
Point 20, X=1994, Y=50.3.
Point 21, X=1995, Y=51.
Point 22, X=1996, Y=51.6.
Point 23, X=1997, Y=52.3.
Point 24, X=1998, Y=52.9.
Point 25, X=1999, Y=51.7.
Point 26, X=2000, Y=50.5.
Maximum at X=1998, Y=52.9 and minimum at X=1975, Y=26.

No Healthy People 2010 Target Goal for female lung cancer incidence.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
Incidence rates for female lung cancer are based on a sex-specific population.\
* The Annual Percent Change (APC) is statistically significant.

back

Close window

Figure 21b. Incidence Rates of Some Common Cancers That Are Increasing, Female Breast - 1975-2001



No Healthy People 2010 Target Goal for female breast cancer incidence.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
Incidence rates for female breast cancer are based on a sex-specific population.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

Close window

Line graph with 2 lines and 26 points per line.

x-axis title: Year
y-axis title: Rate per 100,000

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Female Breast (Scatter).
Point 1, X=1975, Y=105.
Point 2, X=1976, Y=101.9.
Point 3, X=1977, Y=100.8, Note: Stable 1975 - 1980 APC = -0.44(ns).
Point 4, X=1978, Y=100.5.
Point 5, X=1979, Y=102.1.
Point 6, X=1980, Y=102.1.
Point 7, X=1981, Y=106.3.
Point 8, X=1982, Y=106.4.
Point 9, X=1983, Y=111.1.
Point 10, X=1984, Y=115.8, Note: Rising 1980 - 1987 APC = 3.72*.
Point 11, X=1985, Y=124.
Point 12, X=1986, Y=126.7.
Point 13, X=1987, Y=134.4.
Point 14, X=1988, Y=131.2.
Point 15, X=1989, Y=127.1.
Point 16, X=1990, Y=131.6.
Point 17, X=1991, Y=133.5.
Point 18, X=1992, Y=131.9.
Point 19, X=1993, Y=129.1.
Point 20, X=1994, Y=130.6, Note: Minimally rising 1987 - 2001 APC = 0.37*.
Point 21, X=1995, Y=132.2.
Point 22, X=1996, Y=133.3.
Point 23, X=1997, Y=137.3.
Point 24, X=1998, Y=140.6.
Point 25, X=1999, Y=140.1.
Point 26, X=2000, Y=135.
Maximum at X=1998, Y=140.6 and minimum at X=1978, Y=100.5.
Data series 2, Female Breast Joinpoint (Line).
Point 1, X=1975, Y=103.1.
Point 2, X=1976, Y=102.7.
Point 3, X=1977, Y=102.2.
Point 4, X=1978, Y=101.8.
Point 5, X=1979, Y=101.3.
Point 6, X=1980, Y=100.9.
Point 7, X=1981, Y=104.6.
Point 8, X=1982, Y=108.5.
Point 9, X=1983, Y=112.6.
Point 10, X=1984, Y=116.7.
Point 11, X=1985, Y=121.1.
Point 12, X=1986, Y=125.6.
Point 13, X=1987, Y=130.2.
Point 14, X=1988, Y=130.7.
Point 15, X=1989, Y=131.2.
Point 16, X=1990, Y=131.7.
Point 17, X=1991, Y=132.2.
Point 18, X=1992, Y=132.6.
Point 19, X=1993, Y=133.1.

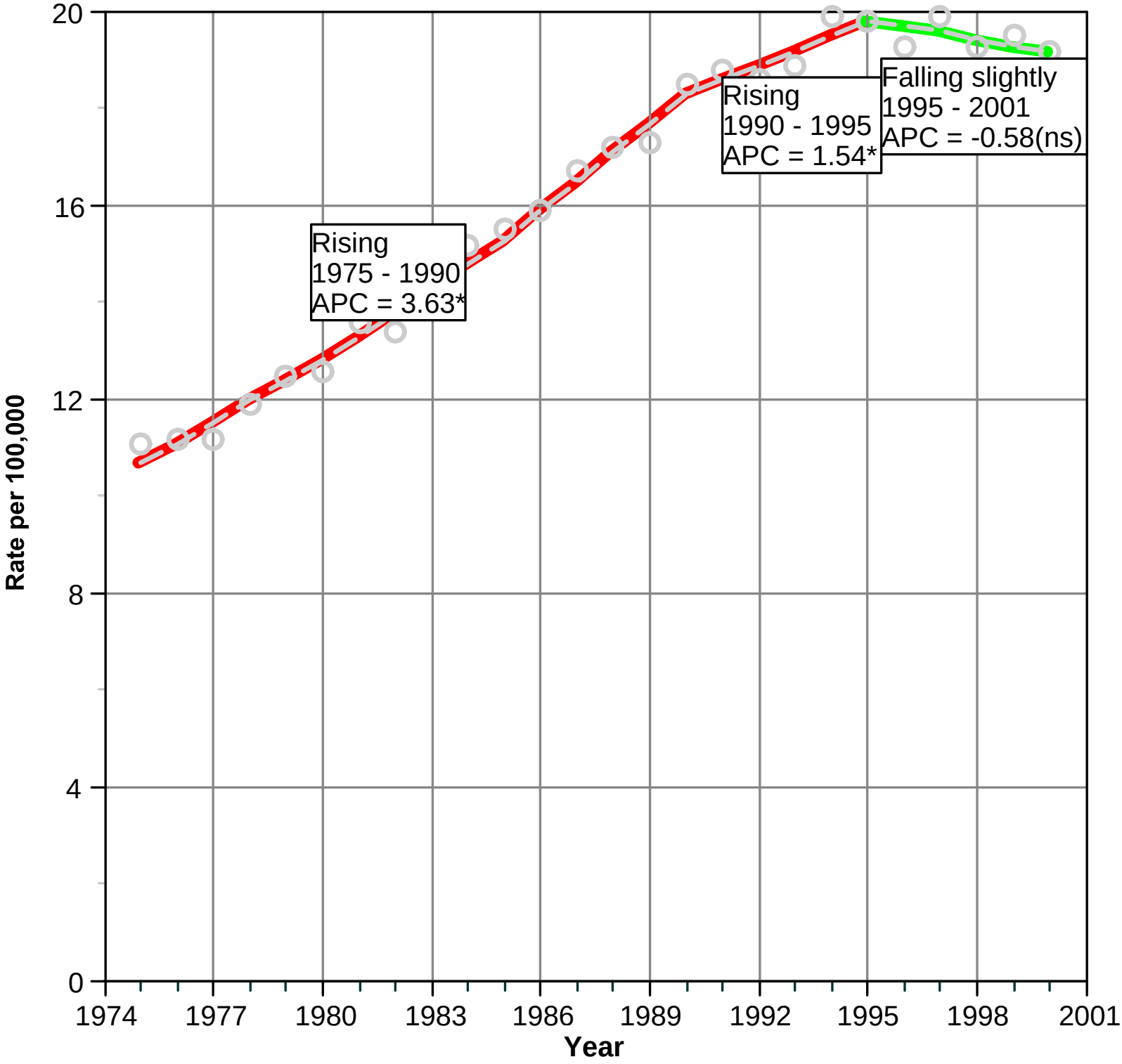
Point 20, X=1994, Y=133.6.
Point 21, X=1995, Y=134.1.
Point 22, X=1996, Y=134.6.
Point 23, X=1997, Y=135.1.
Point 24, X=1998, Y=135.6.
Point 25, X=1999, Y=136.1.
Point 26, X=2000, Y=136.6.
Maximum at X=2000, Y=136.6 and minimum at X=1980, Y=100.9.

No Healthy People 2010 Target Goal for female breast cancer incidence.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
Incidence rates for female breast cancer are based on a sex-specific population.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

back

Close window

Figure 21c. Incidence Rates of Some Common Cancers That Are Increasing, Non-Hodgkin Lymphoma - 1975-2001



No Healthy People 2010 Target Goal for Non-Hodgkin's Lymphoma incidence.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

Close window

Line graph with 2 lines and 26 points per line.

x-axis title: Year
y-axis title: Rate per 100,000

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Non-Hodgkin Lymphoma (Scatter).
Point 1, X=1975, Y=11.1.
Point 2, X=1976, Y=11.2.
Point 3, X=1977, Y=11.2.
Point 4, X=1978, Y=11.9.
Point 5, X=1979, Y=12.5.
Point 6, X=1980, Y=12.6.
Point 7, X=1981, Y=13.6.
Point 8, X=1982, Y=13.4, Note: Rising 1975 - 1990 APC = 3.63*.
Point 9, X=1983, Y=14.
Point 10, X=1984, Y=15.2.
Point 11, X=1985, Y=15.5.
Point 12, X=1986, Y=15.9.
Point 13, X=1987, Y=16.7.
Point 14, X=1988, Y=17.2.
Point 15, X=1989, Y=17.3.
Point 16, X=1990, Y=18.5.
Point 17, X=1991, Y=18.8.
Point 18, X=1992, Y=18.6.
Point 19, X=1993, Y=18.9, Note: Rising 1990 - 1995 APC = 1.54*.
Point 20, X=1994, Y=19.9.
Point 21, X=1995, Y=19.8.
Point 22, X=1996, Y=19.3.
Point 23, X=1997, Y=19.9.
Point 24, X=1998, Y=19.3, Note: Falling slightly 1995 - 2001 APC = -0.58(ns).
Point 25, X=1999, Y=19.5.
Point 26, X=2000, Y=19.2.
Maximum at X=1994, Y=19.9 and minimum at X=1975, Y=11.1.
Data series 2, Non-Hodgkin Lymphoma Joinpoint (Line).
Point 1, X=1975, Y=10.7.
Point 2, X=1976, Y=11.1.
Point 3, X=1977, Y=11.5.
Point 4, X=1978, Y=12.
Point 5, X=1979, Y=12.4.
Point 6, X=1980, Y=12.8.
Point 7, X=1981, Y=13.3.
Point 8, X=1982, Y=13.8.
Point 9, X=1983, Y=14.3.
Point 10, X=1984, Y=14.8.
Point 11, X=1985, Y=15.3.
Point 12, X=1986, Y=15.9.
Point 13, X=1987, Y=16.5.
Point 14, X=1988, Y=17.1.
Point 15, X=1989, Y=17.7.
Point 16, X=1990, Y=18.3.
Point 17, X=1991, Y=18.6.
Point 18, X=1992, Y=18.9.
Point 19, X=1993, Y=19.2.

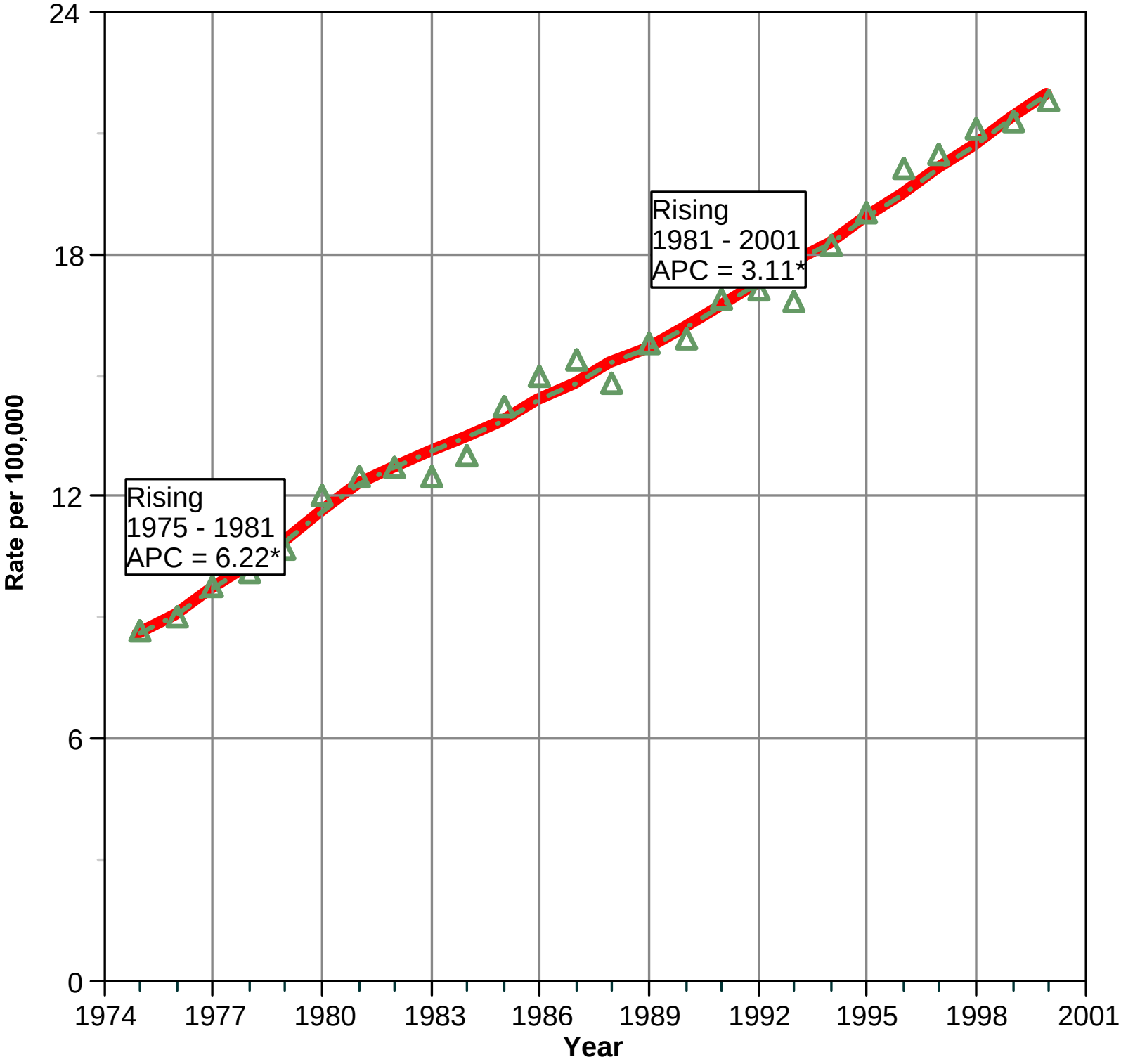
Point 20, X=1994, Y=19.5.
Point 21, X=1995, Y=19.8.
Point 22, X=1996, Y=19.7.
Point 23, X=1997, Y=19.6.
Point 24, X=1998, Y=19.4.
Point 25, X=1999, Y=19.3.
Point 26, X=2000, Y=19.2.
Maximum at X=1995, Y=19.8 and minimum at X=1975, Y=10.7.

No Healthy People 2010 Target Goal for Non-Hodgkin's Lymphoma incidence.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

back

Close window

Figure 21d. Incidence Rates of Some Common Cancers That Are Increasing, Melanoma of Skin (White) - 1975-2001



No Healthy People 2010 Target Goal for melanoma of skin (white) incidence.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
Incidence rates for melanoma of the skin are based on a race-specific population.\
* The Annual Percent Change (APC) is statistically significant.

Close window

Line graph with 2 lines and 26 points per line.

x-axis title: Year
y-axis title: Rate per 100,000

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Melanoma (White) (Scatter).
Point 1, X=1975, Y=8.7.
Point 2, X=1976, Y=9.
Point 3, X=1977, Y=9.8, Note: Rising 1975 - 1981 APC = 6.22*.
Point 4, X=1978, Y=10.1.
Point 5, X=1979, Y=10.7.
Point 6, X=1980, Y=12.
Point 7, X=1981, Y=12.5.
Point 8, X=1982, Y=12.7.
Point 9, X=1983, Y=12.5.
Point 10, X=1984, Y=13.
Point 11, X=1985, Y=14.2.
Point 12, X=1986, Y=15.
Point 13, X=1987, Y=15.4.
Point 14, X=1988, Y=14.8.
Point 15, X=1989, Y=15.8.
Point 16, X=1990, Y=15.9.
Point 17, X=1991, Y=16.9, Note: Rising 1981 - 2001 APC = 3.11*.
Point 18, X=1992, Y=17.1.
Point 19, X=1993, Y=16.8.
Point 20, X=1994, Y=18.2.
Point 21, X=1995, Y=19.
Point 22, X=1996, Y=20.1.
Point 23, X=1997, Y=20.5.
Point 24, X=1998, Y=21.1.
Point 25, X=1999, Y=21.3.
Point 26, X=2000, Y=21.8.
Maximum at X=2000, Y=21.8 and minimum at X=1975, Y=8.7.
Data series 2, Melanoma (White) Joinpoint (Line).
Point 1, X=1975, Y=8.6.
Point 2, X=1976, Y=9.1.
Point 3, X=1977, Y=9.7.
Point 4, X=1978, Y=10.3.
Point 5, X=1979, Y=10.9.
Point 6, X=1980, Y=11.6.
Point 7, X=1981, Y=12.3.
Point 8, X=1982, Y=12.7.
Point 9, X=1983, Y=13.1.
Point 10, X=1984, Y=13.5.
Point 11, X=1985, Y=13.9.
Point 12, X=1986, Y=14.4.
Point 13, X=1987, Y=14.8.
Point 14, X=1988, Y=15.3.
Point 15, X=1989, Y=15.7.
Point 16, X=1990, Y=16.2.
Point 17, X=1991, Y=16.7.
Point 18, X=1992, Y=17.3.
Point 19, X=1993, Y=17.8.

Point 20, X=1994, Y=18.3.
Point 21, X=1995, Y=18.9.
Point 22, X=1996, Y=19.5.
Point 23, X=1997, Y=20.1.
Point 24, X=1998, Y=20.7.
Point 25, X=1999, Y=21.4.
Point 26, X=2000, Y=22.
Maximum at X=2000, Y=22 and minimum at X=1975, Y=8.6.

No Healthy People 2010 Target Goal for melanoma of skin (white) incidence.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
Incidence rates for melanoma of the skin are based on a race-specific population.\
* The Annual Percent Change (APC) is statistically significant.

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Close window

Diagnosis

Stage at Diagnosis

There are fewer late-stage diagnoses for five major cancers where early detection is either recommended and/or widely used.

Also in this Section
- Incidence
- **Stage at Diagnosis**

Also in the *Report*
- Report-at-a-Glance
- Prevention
- Early Detection
- Diagnosis
- Treatment
- Life After Cancer
- End of Life

On this page:

- Late-Stage Diagnosis of Cancer
- Measure
- Period
- Trends
- Most Recent Estimates
- Healthy People 2010 Targets
- Groups at High Risk for Late-Stage Diagnosis
- Key Issues
- Links to Additional Information

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.

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Measure

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

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Period – 1980-2001

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Trends

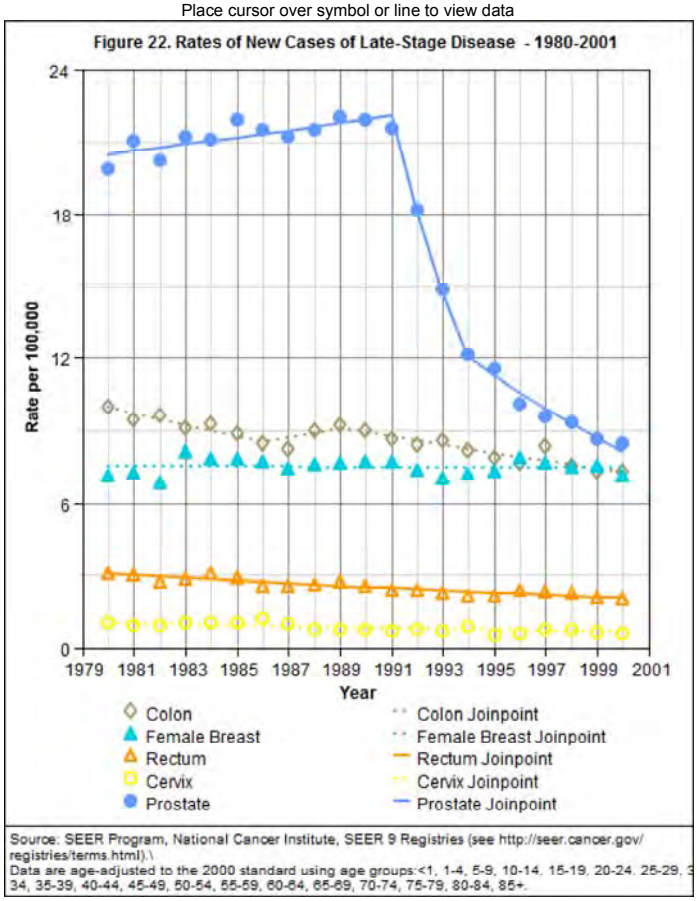
Prostate: Rising slightly for 1980-1991, falling thereafter. Late-stage prostate cancer has fallen dramatically since the early 1990s, following the introduction of the prostate-specific antigen (PSA) test.
Colon: Falling from 1980-1986, rising but not significantly from 1986-1989, then falling from 1989-2001
Female breast: Stable
Rectum: Falling

Cervix: Falling

Graph image format: ○ [D] ◉ FLASH ○ JPEG

View details for:
Colon Female Breast Rectum Cervix Prostate

Place cursor over symbol or line to view data



Weighted regression lines utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute. (See Methodology for Characterizing Trends)

Download data (Excel)

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Most Recent Estimates

In 2001, five major cancers were diagnosed at a late stage at the following rates:

Prostate: 8 new cases per 100,000 men per year
Colon: 7 new cases per 100,000 people per year
Female breast: 8 new cases per 100,000 women per year
Rectum: 2 new cases per 100,000 people per year
Cervix: 1 new case per 100,000 women per year

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Healthy People 2010 Target

There is no Healthy People 2010 target for this measure.

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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.

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

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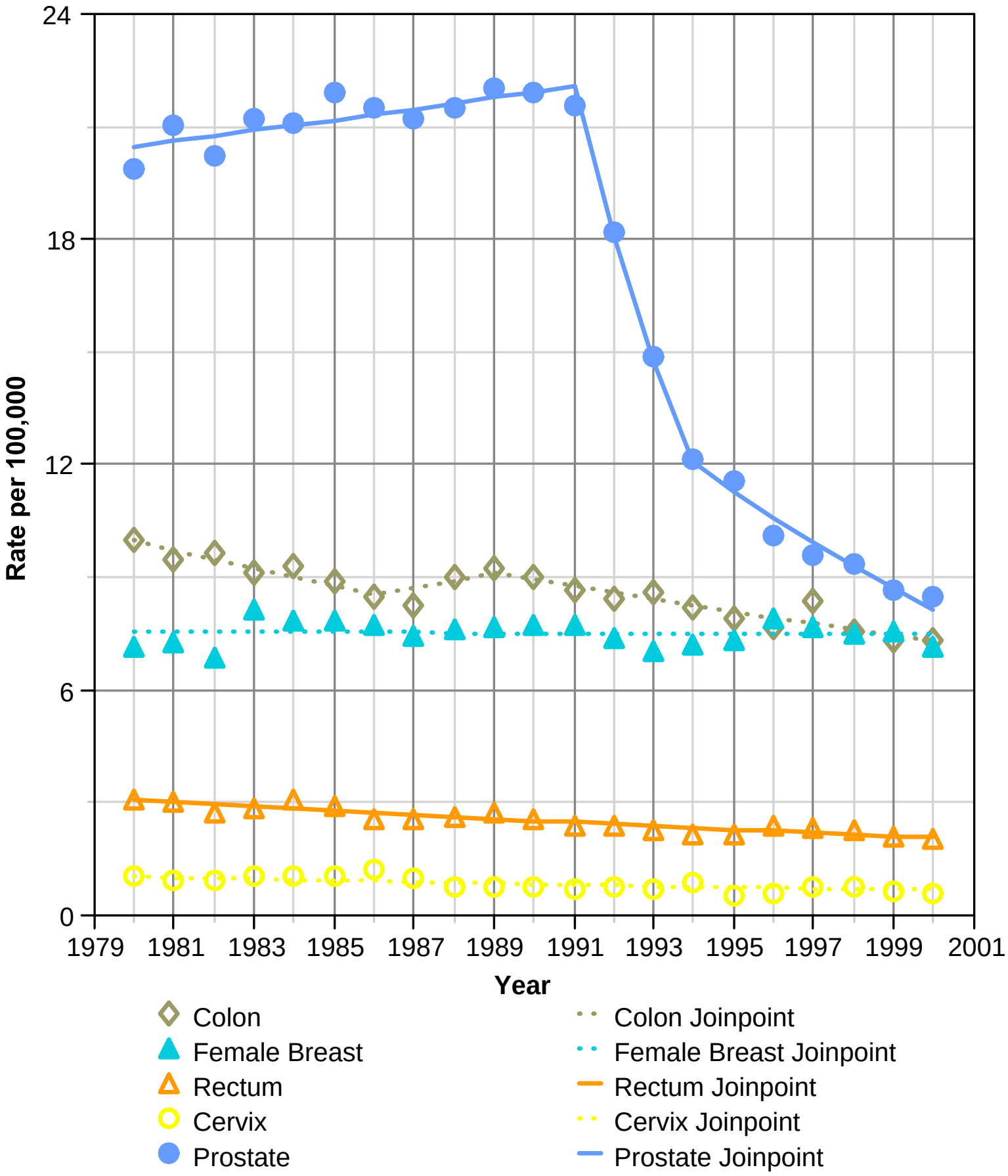
Links to additional information on stage at diagnosis

- Staging (ACS)
  http://www.cancer.org/docroot/eto/content/eto_1_2x_staging.asp
- SEER Cancer Statistics Review, 1973-1999 (NCI)
  http://seer.cancer.gov/csr/1973_1999/

Page last modified: 11/08/2005

Figure 22. Rates of New Cases of Late-Stage Disease - 1980-2001



Source: SEER Program, National Cancer Institute, SEER 9 Registries (see http://seer.cancer.gov/registries/terms.html).\
Data are age-adjusted to the 2000 standard using age groups:<1, 1-4, 5-9, 10-14, 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65-69, 70-74, 75-79, 80-84, 85+.

Line graph with 10 lines and 21 points per line.

x-axis title: Year
y-axis title: Rate per 100,000

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Colon (Scatter).
Point 1, X=1980, Y=10.
Point 2, X=1981, Y=9.45.
Point 3, X=1982, Y=9.67.
Point 4, X=1983, Y=9.13.
Point 5, X=1984, Y=9.27.
Point 6, X=1985, Y=8.91.
Point 7, X=1986, Y=8.51.
Point 8, X=1987, Y=8.26.
Point 9, X=1988, Y=9.02.
Point 10, X=1989, Y=9.25.
Point 11, X=1990, Y=9.03.
Point 12, X=1991, Y=8.65.
Point 13, X=1992, Y=8.44.
Point 14, X=1993, Y=8.6.
Point 15, X=1994, Y=8.22.
Point 16, X=1995, Y=7.91.
Point 17, X=1996, Y=7.66.
Point 18, X=1997, Y=8.34.
Point 19, X=1998, Y=7.54.
Point 20, X=1999, Y=7.34.
Point 21, X=2000, Y=7.34.
Maximum at X=1980, Y=10 and minimum at X=1999, Y=7.34.
Data series 2, Colon Joinpoint (Line).
Point 1, X=1980, Y=9.99.
Point 2, X=1981, Y=9.73.
Point 3, X=1982, Y=9.47.
Point 4, X=1983, Y=9.23.
Point 5, X=1984, Y=8.99.
Point 6, X=1985, Y=8.75.
Point 7, X=1986, Y=8.53.
Point 8, X=1987, Y=8.72.
Point 9, X=1988, Y=8.92.
Point 10, X=1989, Y=9.13.
Point 11, X=1990, Y=8.94.
Point 12, X=1991, Y=8.76.
Point 13, X=1992, Y=8.59.
Point 14, X=1993, Y=8.42.
Point 15, X=1994, Y=8.25.
Point 16, X=1995, Y=8.08.
Point 17, X=1996, Y=7.92.
Point 18, X=1997, Y=7.76.
Point 19, X=1998, Y=7.6.
Point 20, X=1999, Y=7.45.
Point 21, X=2000, Y=7.3.
Maximum at X=1980, Y=9.99 and minimum at X=2000, Y=7.3.
Data series 3, Female Breast (Scatter).
Point 1, X=1980, Y=7.17.
Point 2, X=1981, Y=7.25.
Point 3, X=1982, Y=6.87.
Point 4, X=1983, Y=8.12.
Point 5, X=1984, Y=7.83.
Point 6, X=1985, Y=7.86.
Point 7, X=1986, Y=7.74.
Point 8, X=1987, Y=7.43.
Point 9, X=1988, Y=7.59.
Point 10, X=1989, Y=7.67.
Point 11, X=1990, Y=7.73.
Point 12, X=1991, Y=7.72.
Point 13, X=1992, Y=7.37.
Point 14, X=1993, Y=7.05.
Point 15, X=1994, Y=7.18.
Point 16, X=1995, Y=7.34.
Point 17, X=1996, Y=7.9.
Point 18, X=1997, Y=7.69.
Point 19, X=1998, Y=7.49.
Point 20, X=1999, Y=7.54.
Point 21, X=2000, Y=7.14.
Maximum at X=1983, Y=8.12 and minimum at X=1982, Y=6.87.
Data series 4, Female Breast Joinpoint (Line).
Point 1, X=1980, Y=7.55.
Point 2, X=1981, Y=7.54.
Point 3, X=1982, Y=7.54.
Point 4, X=1983, Y=7.54.

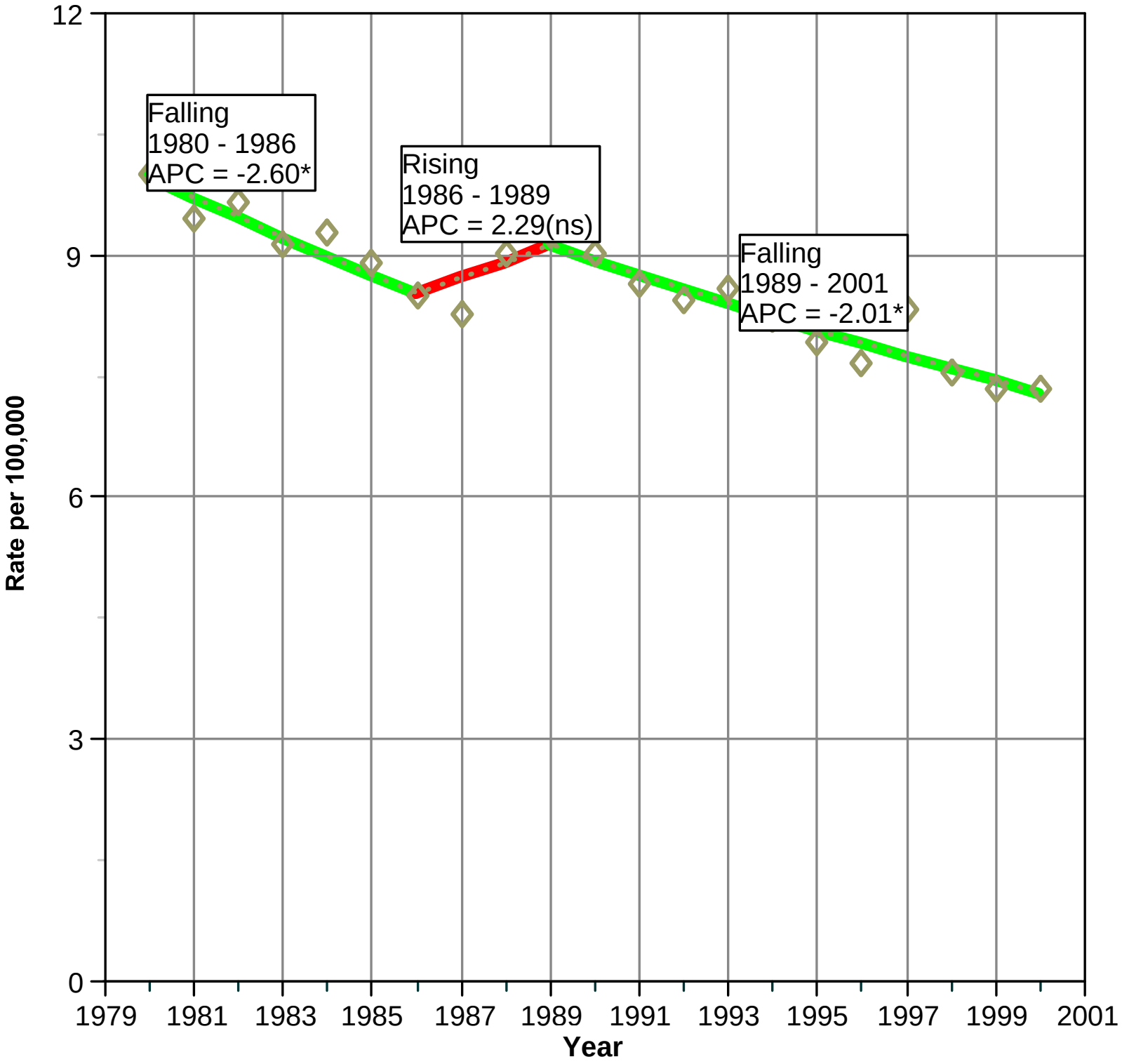
Point 5, X=1984, Y=7.53.
Point 6, X=1985, Y=7.53.
Point 7, X=1986, Y=7.53.
Point 8, X=1987, Y=7.53.
Point 9, X=1988, Y=7.52.
Point 10, X=1989, Y=7.52.
Point 11, X=1990, Y=7.52.
Point 12, X=1991, Y=7.52.
Point 13, X=1992, Y=7.51.
Point 14, X=1993, Y=7.51.
Point 15, X=1994, Y=7.51.
Point 16, X=1995, Y=7.5.
Point 17, X=1996, Y=7.5.
Point 18, X=1997, Y=7.5.
Point 19, X=1998, Y=7.5.
Point 20, X=1999, Y=7.49.
Point 21, X=2000, Y=7.49.
Maximum at X=1980, Y=7.55 and minimum at X=1999, Y=7.49.
Data series 5, Rectum (Scatter).
Point 1, X=1980, Y=3.09.
Point 2, X=1981, Y=3.05.
Point 3, X=1982, Y=2.72.
Point 4, X=1983, Y=2.85.
Point 5, X=1984, Y=3.06.
Point 6, X=1985, Y=2.92.
Point 7, X=1986, Y=2.54.
Point 8, X=1987, Y=2.53.
Point 9, X=1988, Y=2.64.
Point 10, X=1989, Y=2.75.
Point 11, X=1990, Y=2.55.
Point 12, X=1991, Y=2.38.
Point 13, X=1992, Y=2.41.
Point 14, X=1993, Y=2.26.
Point 15, X=1994, Y=2.15.
Point 16, X=1995, Y=2.15.
Point 17, X=1996, Y=2.37.
Point 18, X=1997, Y=2.3.
Point 19, X=1998, Y=2.26.
Point 20, X=1999, Y=2.12.
Point 21, X=2000, Y=2.04.
Maximum at X=1980, Y=3.09 and minimum at X=2000, Y=2.04.
Data series 6, Rectum Joinpoint (Line).
Point 1, X=1980, Y=3.06.
Point 2, X=1981, Y=3.
Point 3, X=1982, Y=2.94.
Point 4, X=1983, Y=2.88.
Point 5, X=1984, Y=2.83.
Point 6, X=1985, Y=2.77.
Point 7, X=1986, Y=2.72.
Point 8, X=1987, Y=2.67.
Point 9, X=1988, Y=2.61.
Point 10, X=1989, Y=2.56.
Point 11, X=1990, Y=2.52.
Point 12, X=1991, Y=2.47.
Point 13, X=1992, Y=2.42.
Point 14, X=1993, Y=2.37.
Point 15, X=1994, Y=2.33.
Point 16, X=1995, Y=2.28.
Point 17, X=1996, Y=2.24.
Point 18, X=1997, Y=2.2.
Point 19, X=1998, Y=2.15.
Point 20, X=1999, Y=2.11.
Point 21, X=2000, Y=2.07.
Maximum at X=1980, Y=3.06 and minimum at X=2000, Y=2.07.
Data series 7, Cervix (Scatter).
Point 1, X=1980, Y=1.02.
Point 2, X=1981, Y=0.91.
Point 3, X=1982, Y=0.92.
Point 4, X=1983, Y=1.06.
Point 5, X=1984, Y=1.03.
Point 6, X=1985, Y=1.03.
Point 7, X=1986, Y=1.2.
Point 8, X=1987, Y=0.98.
Point 9, X=1988, Y=0.74.
Point 10, X=1989, Y=0.73.
Point 11, X=1990, Y=0.77.
Point 12, X=1991, Y=0.68.
Point 13, X=1992, Y=0.77.
Point 14, X=1993, Y=0.69.
Point 15, X=1994, Y=0.85.
Point 16, X=1995, Y=0.5.

Point 17, X=1996, Y=0.59.
Point 18, X=1997, Y=0.73.
Point 19, X=1998, Y=0.75.
Point 20, X=1999, Y=0.64.
Point 21, X=2000, Y=0.61.
Maximum at X=1986, Y=1.2 and minimum at X=1995, Y=0.5.
Data series 8, Cervix Joinpoint (Line).
Point 1, X=1980, Y=1.04.
Point 2, X=1981, Y=1.01.
Point 3, X=1982, Y=0.99.
Point 4, X=1983, Y=0.97.
Point 5, X=1984, Y=0.95.
Point 6, X=1985, Y=0.93.
Point 7, X=1986, Y=0.91.
Point 8, X=1987, Y=0.89.
Point 9, X=1988, Y=0.87.
Point 10, X=1989, Y=0.85.
Point 11, X=1990, Y=0.83.
Point 12, X=1991, Y=0.81.
Point 13, X=1992, Y=0.8.
Point 14, X=1993, Y=0.78.
Point 15, X=1994, Y=0.76.
Point 16, X=1995, Y=0.75.
Point 17, X=1996, Y=0.73.
Point 18, X=1997, Y=0.72.
Point 19, X=1998, Y=0.7.
Point 20, X=1999, Y=0.68.
Point 21, X=2000, Y=0.67.
Maximum at X=1980, Y=1.04 and minimum at X=2000, Y=0.67.
Data series 9, Prostate (Scatter).
Point 1, X=1980, Y=19.85.
Point 2, X=1981, Y=21.06.
Point 3, X=1982, Y=20.2.
Point 4, X=1983, Y=21.2.
Point 5, X=1984, Y=21.07.
Point 6, X=1985, Y=21.88.
Point 7, X=1986, Y=21.53.
Point 8, X=1987, Y=21.2.
Point 9, X=1988, Y=21.49.
Point 10, X=1989, Y=22.04.
Point 11, X=1990, Y=21.89.
Point 12, X=1991, Y=21.56.
Point 13, X=1992, Y=18.2.
Point 14, X=1993, Y=14.89.
Point 15, X=1994, Y=12.15.
Point 16, X=1995, Y=11.59.
Point 17, X=1996, Y=10.11.
Point 18, X=1997, Y=9.6.
Point 19, X=1998, Y=9.36.
Point 20, X=1999, Y=8.65.
Point 21, X=2000, Y=8.47.
Maximum at X=1989, Y=22.04 and minimum at X=2000, Y=8.47.
Data series 10, Prostate Joinpoint (Line).
Point 1, X=1980, Y=20.48.
Point 2, X=1981, Y=20.62.
Point 3, X=1982, Y=20.76.
Point 4, X=1983, Y=20.9.
Point 5, X=1984, Y=21.04.
Point 6, X=1985, Y=21.18.
Point 7, X=1986, Y=21.33.
Point 8, X=1987, Y=21.47.
Point 9, X=1988, Y=21.62.
Point 10, X=1989, Y=21.77.
Point 11, X=1990, Y=21.92.
Point 12, X=1991, Y=22.07.
Point 13, X=1992, Y=18.05.
Point 14, X=1993, Y=14.76.
Point 15, X=1994, Y=12.07.
Point 16, X=1995, Y=11.3.
Point 17, X=1996, Y=10.59.
Point 18, X=1997, Y=9.91.
Point 19, X=1998, Y=9.28.
Point 20, X=1999, Y=8.69.
Point 21, X=2000, Y=8.14.
Maximum at X=1991, Y=22.07 and minimum at X=2000, Y=8.14.

Source: SEER Program, National Cancer Institute, SEER 9 Registries (see http://seer.cancer.gov/registries/terms.html).\
Data are age-adjusted to the 2000 standard using age groups:<1, 1-4, 5-9, 10-14, 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, 55-59, 60-64, 65-69, 70-74, 75-79, 80-84, 85+.

back

Figure 22a. Rates of New Cases of Late-Stage Disease, Colon Cancer - 1980-2001



No Healthy People 2010 Target Goal for colon cancer incidence.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

Close window

Line graph with 2 lines and 21 points per line.

x-axis title: Year
y-axis title: Rate per 100,000

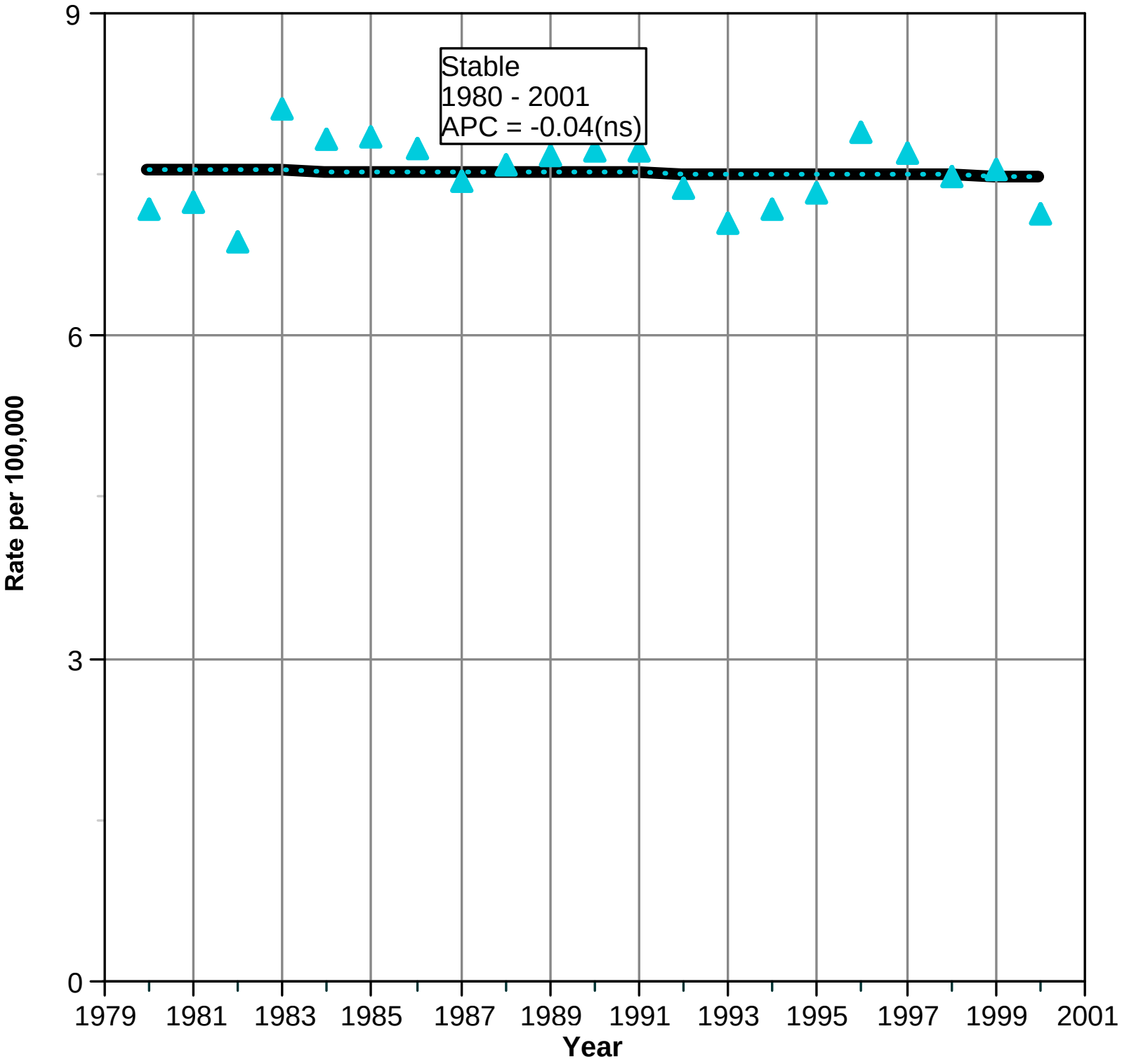
X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Colon (Scatter).
Point 1, X=1980, Y=10.
Point 2, X=1981, Y=9.45.
Point 3, X=1982, Y=9.67, Note: Falling 1980 - 1986 APC = -2.60*.
Point 4, X=1983, Y=9.13.
Point 5, X=1984, Y=9.27.
Point 6, X=1985, Y=8.91.
Point 7, X=1986, Y=8.51.
Point 8, X=1987, Y=8.26.
Point 9, X=1988, Y=9.02, Note: Rising 1986 - 1989 APC = 2.29(ns).
Point 10, X=1989, Y=9.25.
Point 11, X=1990, Y=9.03.
Point 12, X=1991, Y=8.65.
Point 13, X=1992, Y=8.44.
Point 14, X=1993, Y=8.6.
Point 15, X=1994, Y=8.22.
Point 16, X=1995, Y=7.91, Note: Falling 1989 - 2001 APC = -2.01*.
Point 17, X=1996, Y=7.66.
Point 18, X=1997, Y=8.34.
Point 19, X=1998, Y=7.54.
Point 20, X=1999, Y=7.34.
Point 21, X=2000, Y=7.34.
Maximum at X=1980, Y=10 and minimum at X=1999, Y=7.34.
Data series 2, Colon Joinpoint (Line).
Point 1, X=1980, Y=9.99.
Point 2, X=1981, Y=9.73.
Point 3, X=1982, Y=9.47.
Point 4, X=1983, Y=9.23.
Point 5, X=1984, Y=8.99.
Point 6, X=1985, Y=8.75.
Point 7, X=1986, Y=8.53.
Point 8, X=1987, Y=8.72.
Point 9, X=1988, Y=8.92.
Point 10, X=1989, Y=9.13.
Point 11, X=1990, Y=8.94.
Point 12, X=1991, Y=8.76.
Point 13, X=1992, Y=8.59.
Point 14, X=1993, Y=8.42.
Point 15, X=1994, Y=8.25.
Point 16, X=1995, Y=8.08.
Point 17, X=1996, Y=7.92.
Point 18, X=1997, Y=7.76.
Point 19, X=1998, Y=7.6.
Point 20, X=1999, Y=7.45.
Point 21, X=2000, Y=7.3.
Maximum at X=1980, Y=9.99 and minimum at X=2000, Y=7.3.

No Healthy People 2010 Target Goal for colon cancer incidence.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

back

Close window

Figure 22b. Rates of New Cases of Late-Stage Disease, Female Breast Cancer - 1980-2001



No Healthy People 2010 Target Goal for female breast cancer incidence.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
Incidence rates for female breast cancer are based on a sex-specific population.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

Close window

Line graph with 2 lines and 21 points per line.

x-axis title: Year
y-axis title: Rate per 100,000

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Female Breast (Scatter).
Point 1, X=1980, Y=7.17.
Point 2, X=1981, Y=7.25.
Point 3, X=1982, Y=6.87.
Point 4, X=1983, Y=8.12.
Point 5, X=1984, Y=7.83.
Point 6, X=1985, Y=7.86.
Point 7, X=1986, Y=7.74.
Point 8, X=1987, Y=7.43.
Point 9, X=1988, Y=7.59.
Point 10, X=1989, Y=7.67, Note: Stable 1980 - 2001 APC = -0.04(ns).
Point 11, X=1990, Y=7.73.
Point 12, X=1991, Y=7.72.
Point 13, X=1992, Y=7.37.
Point 14, X=1993, Y=7.05.
Point 15, X=1994, Y=7.18.
Point 16, X=1995, Y=7.34.
Point 17, X=1996, Y=7.9.
Point 18, X=1997, Y=7.69.
Point 19, X=1998, Y=7.49.
Point 20, X=1999, Y=7.54.
Point 21, X=2000, Y=7.14.
Maximum at X=1983, Y=8.12 and minimum at X=1982, Y=6.87.
Data series 2, Female Breast Joinpoint (Line).
Point 1, X=1980, Y=7.55.
Point 2, X=1981, Y=7.54.
Point 3, X=1982, Y=7.54.
Point 4, X=1983, Y=7.54.
Point 5, X=1984, Y=7.53.
Point 6, X=1985, Y=7.53.
Point 7, X=1986, Y=7.53.
Point 8, X=1987, Y=7.53.
Point 9, X=1988, Y=7.52.
Point 10, X=1989, Y=7.52.
Point 11, X=1990, Y=7.52.
Point 12, X=1991, Y=7.52.
Point 13, X=1992, Y=7.51.
Point 14, X=1993, Y=7.51.
Point 15, X=1994, Y=7.51.
Point 16, X=1995, Y=7.5.
Point 17, X=1996, Y=7.5.
Point 18, X=1997, Y=7.5.
Point 19, X=1998, Y=7.5.
Point 20, X=1999, Y=7.49.
Point 21, X=2000, Y=7.49.
Maximum at X=1980, Y=7.55 and minimum at X=1999, Y=7.49.

No Healthy People 2010 Target Goal for female breast cancer incidence.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
Incidence rates for female breast cancer are based on a sex-specific population.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

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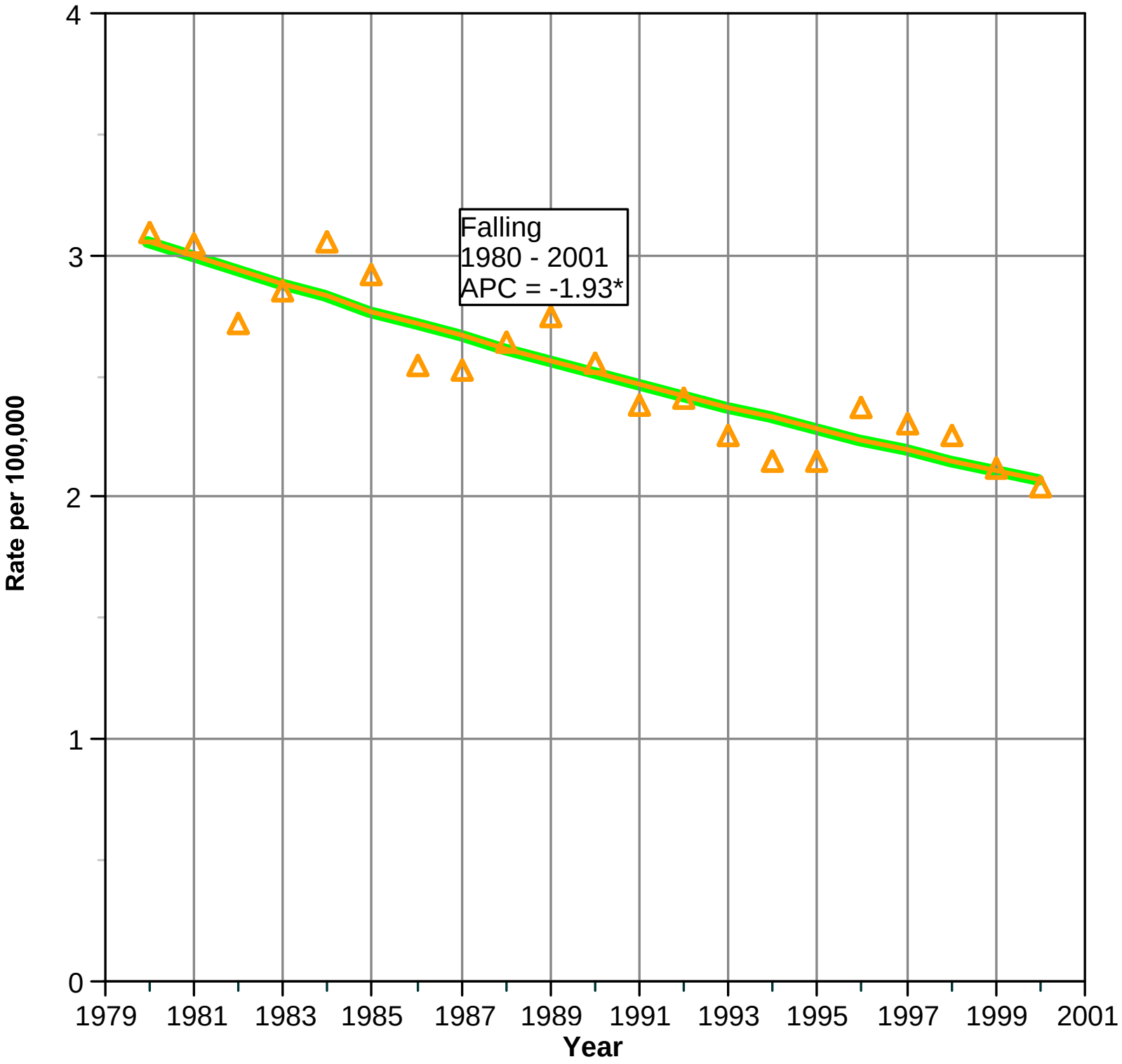
Close window

Figure 22c. Rates of New Cases of Late-Stage Disease, Rectum Cancer - 1980-2001



No Healthy People 2010 Target Goal for rectum cancer incidence.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.

Close window

Line graph with 2 lines and 21 points per line.

x-axis title: Year
y-axis title: Rate per 100,000

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Rectum (Scatter).
Point 1, X=1980, Y=3.09.
Point 2, X=1981, Y=3.05.
Point 3, X=1982, Y=2.72.
Point 4, X=1983, Y=2.85.
Point 5, X=1984, Y=3.06.
Point 6, X=1985, Y=2.92.
Point 7, X=1986, Y=2.54.
Point 8, X=1987, Y=2.53.
Point 9, X=1988, Y=2.64.
Point 10, X=1989, Y=2.75, Note: Falling 1980 - 2001 APC = -1.93*.
Point 11, X=1990, Y=2.55.
Point 12, X=1991, Y=2.38.
Point 13, X=1992, Y=2.41.
Point 14, X=1993, Y=2.26.
Point 15, X=1994, Y=2.15.
Point 16, X=1995, Y=2.15.
Point 17, X=1996, Y=2.37.
Point 18, X=1997, Y=2.3.
Point 19, X=1998, Y=2.26.
Point 20, X=1999, Y=2.12.
Point 21, X=2000, Y=2.04.
Maximum at X=1980, Y=3.09 and minimum at X=2000, Y=2.04.
Data series 2, Rectum Joinpoint (Line).
Point 1, X=1980, Y=3.06.
Point 2, X=1981, Y=3.
Point 3, X=1982, Y=2.94.
Point 4, X=1983, Y=2.88.
Point 5, X=1984, Y=2.83.
Point 6, X=1985, Y=2.77.
Point 7, X=1986, Y=2.72.
Point 8, X=1987, Y=2.67.
Point 9, X=1988, Y=2.61.
Point 10, X=1989, Y=2.56.
Point 11, X=1990, Y=2.52.
Point 12, X=1991, Y=2.47.
Point 13, X=1992, Y=2.42.
Point 14, X=1993, Y=2.37.
Point 15, X=1994, Y=2.33.
Point 16, X=1995, Y=2.28.
Point 17, X=1996, Y=2.24.
Point 18, X=1997, Y=2.2.
Point 19, X=1998, Y=2.15.
Point 20, X=1999, Y=2.11.
Point 21, X=2000, Y=2.07.
Maximum at X=1980, Y=3.06 and minimum at X=2000, Y=2.07.

No Healthy People 2010 Target Goal for rectum cancer incidence.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.

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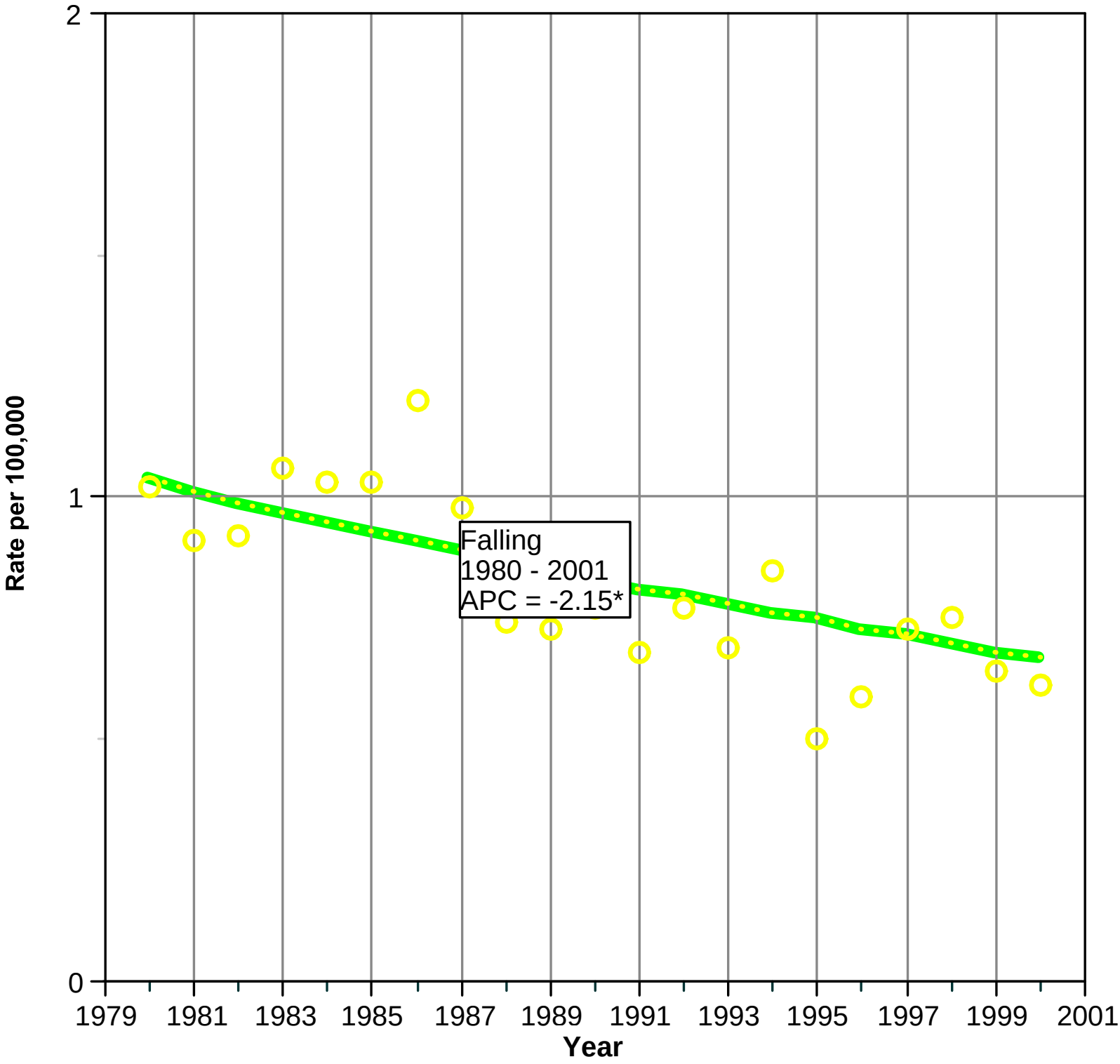
Close window

Figure 22d. Rates of New Cases of Late-Stage Disease, Cervix Cancer - 1980-2001



No Healthy People 2010 Target Goal for cervix cancer incidence.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
Incidence rates for cervix cancer are based on a sex-specific population.\
* The Annual Percent Change (APC) is statistically significant.

Close window

Line graph with 2 lines and 21 points per line.

x-axis title: Year
y-axis title: Rate per 100,000

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Cervix (Scatter).
Point 1, X=1980, Y=1.02.
Point 2, X=1981, Y=0.91.
Point 3, X=1982, Y=0.92.
Point 4, X=1983, Y=1.06.
Point 5, X=1984, Y=1.03.
Point 6, X=1985, Y=1.03.
Point 7, X=1986, Y=1.2.
Point 8, X=1987, Y=0.98.
Point 9, X=1988, Y=0.74.
Point 10, X=1989, Y=0.73, Note: Falling 1980 - 2001 APC = -2.15*.
Point 11, X=1990, Y=0.77.
Point 12, X=1991, Y=0.68.
Point 13, X=1992, Y=0.77.
Point 14, X=1993, Y=0.69.
Point 15, X=1994, Y=0.85.
Point 16, X=1995, Y=0.5.
Point 17, X=1996, Y=0.59.
Point 18, X=1997, Y=0.73.
Point 19, X=1998, Y=0.75.
Point 20, X=1999, Y=0.64.
Point 21, X=2000, Y=0.61.
Maximum at X=1986, Y=1.2 and minimum at X=1995, Y=0.5.
Data series 2, Cervix Joinpoint (Line).
Point 1, X=1980, Y=1.04.
Point 2, X=1981, Y=1.01.
Point 3, X=1982, Y=0.99.
Point 4, X=1983, Y=0.97.
Point 5, X=1984, Y=0.95.
Point 6, X=1985, Y=0.93.
Point 7, X=1986, Y=0.91.
Point 8, X=1987, Y=0.89.
Point 9, X=1988, Y=0.87.
Point 10, X=1989, Y=0.85.
Point 11, X=1990, Y=0.83.
Point 12, X=1991, Y=0.81.
Point 13, X=1992, Y=0.8.
Point 14, X=1993, Y=0.78.
Point 15, X=1994, Y=0.76.
Point 16, X=1995, Y=0.75.
Point 17, X=1996, Y=0.73.
Point 18, X=1997, Y=0.72.
Point 19, X=1998, Y=0.7.
Point 20, X=1999, Y=0.68.
Point 21, X=2000, Y=0.67.
Maximum at X=1980, Y=1.04 and minimum at X=2000, Y=0.67.

No Healthy People 2010 Target Goal for cervix cancer incidence.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
Incidence rates for cervix cancer are based on a sex-specific population.\
* The Annual Percent Change (APC) is statistically significant.

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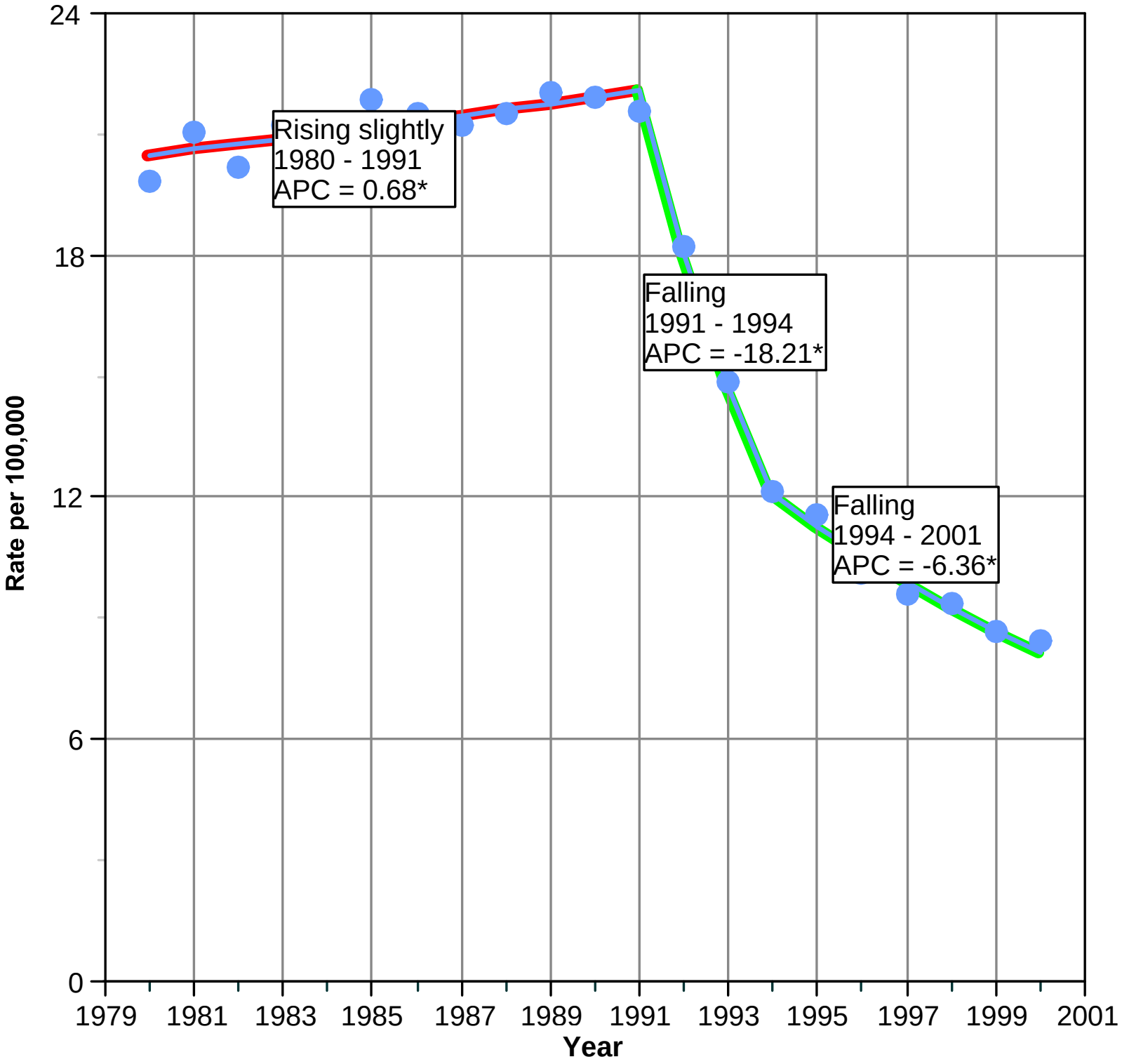
Figure 22e. Rates of New Cases of Late-Stage Disease, Prostate Cancer - 1980-2001



No Healthy People 2010 Target Goal for prostate cancer incidence.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
Incidence rates for prostate cancer are based on a sex-specific population.\
* The Annual Percent Change (APC) is statistically significant.

Close window

Line graph with 2 lines and 21 points per line.

x-axis title: Year
y-axis title: Rate per 100,000

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Prostate (Scatter).
Point 1, X=1980, Y=19.85.
Point 2, X=1981, Y=21.06.
Point 3, X=1982, Y=20.2.
Point 4, X=1983, Y=21.2.
Point 5, X=1984, Y=21.07.
Point 6, X=1985, Y=21.88, Note: Rising slightly 1980 - 1991 APC = 0.68*.
Point 7, X=1986, Y=21.53.
Point 8, X=1987, Y=21.2.
Point 9, X=1988, Y=21.49.
Point 10, X=1989, Y=22.04.
Point 11, X=1990, Y=21.89.
Point 12, X=1991, Y=21.56.
Point 13, X=1992, Y=18.2.
Point 14, X=1993, Y=14.89, Note: Falling 1991 - 1994 APC = -18.21*.
Point 15, X=1994, Y=12.15.
Point 16, X=1995, Y=11.59.
Point 17, X=1996, Y=10.11.
Point 18, X=1997, Y=9.6, Note: Falling 1994 - 2001 APC = -6.36*.
Point 19, X=1998, Y=9.36.
Point 20, X=1999, Y=8.65.
Point 21, X=2000, Y=8.47.
Maximum at X=1989, Y=22.04 and minimum at X=2000, Y=8.47.
Data series 2, Prostate Joinpoint (Line).
Point 1, X=1980, Y=20.48.
Point 2, X=1981, Y=20.62.
Point 3, X=1982, Y=20.76.
Point 4, X=1983, Y=20.9.
Point 5, X=1984, Y=21.04.
Point 6, X=1985, Y=21.18.
Point 7, X=1986, Y=21.33.
Point 8, X=1987, Y=21.47.
Point 9, X=1988, Y=21.62.
Point 10, X=1989, Y=21.77.
Point 11, X=1990, Y=21.92.
Point 12, X=1991, Y=22.07.
Point 13, X=1992, Y=18.05.
Point 14, X=1993, Y=14.76.
Point 15, X=1994, Y=12.07.
Point 16, X=1995, Y=11.3.
Point 17, X=1996, Y=10.59.
Point 18, X=1997, Y=9.91.
Point 19, X=1998, Y=9.28.
Point 20, X=1999, Y=8.69.
Point 21, X=2000, Y=8.14.
Maximum at X=1991, Y=22.07 and minimum at X=2000, Y=8.14.

No Healthy People 2010 Target Goal for prostate cancer incidence.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
Incidence rates for prostate cancer are based on a sex-specific population.\
* The Annual Percent Change (APC) is statistically significant.

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Treatment

Cancer treatment is improving—saving lives and extending survival for people with cancers at many sites, including the breast and colon, and for people with leukemias, lymphomas, and pediatric cancers.

Clinical trials are the major avenue for discovering, developing, and evaluating new therapies. However, only about 2 percent of all adult cancer patients participate in clinical trials. It is important to increase physician and patient awareness of, and participation in, clinical trials if we are to test new treatments more rapidly, find more effective treatments, and broaden the options available to patients.

For treatments already in use, the United States currently lacks a national data system for comprehensively tracking patterns that reflect the best quality of care. Therefore, for most cancers, we cannot yet illustrate with national data the extent to which cancer patients and their doctors are using the best treatments. However, trends in patterns of care have been documented for a number of important cancer treatments, including those for breast, colorectal, and prostate cancers, through the NCI Patterns of Care/Quality of Care and Surveillance, Epidemiology, and End-Results (SEER)-Medicare projects. Current efforts are underway to document patterns of treatment for ovarian cancer.

NCI is working with many Federal and private partners to further develop methods and data systems for tracking the quality of cancer care. Developing such methods and systems requires a consensus among major interested parties on the best measures of cancer outcomes (such as survival and quality of life) and of quality of care (such as timely receipt of effective treatment).

The research to generate such measures is underway. For prostate cancer, a major study on quality-of-life outcomes among 3,500 men following diagnosis has provided important new information that will help men and their families and physicians to make more informed decisions about treatment. Research results on breast cancer treatment have shown that the use of breast-conserving surgery and radiation for older women increased

Also in the Report
- Report-at-a-Glance
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markedly beginning in 1990 and that the use of recommended adjuvant chemo- and hormonal therapy increased substantially between 1987 and 1995. Similarly, the receipt of adjuvant chemotherapy for stage III colon cancer increased markedly following the publication in 1989 of clinical recommendations for this treatment.

The studies also show that older individuals and members of racial-ethnic minority groups are less likely to receive these treatments. More investigation is required to determine if these differences in treatments received constitute disparities in quality of care that need to be addressed through policy or organizational interventions.

An ongoing NCI initiative, the Cancer Care Outcomes Research and Surveillance Consortium, will provide more detailed information on how to link quality-of-care measures to outcomes important to patients. Other, similar initiatives are being supported by major professional organizations, as well as by NCI.

These and other ongoing studies will provide much new information on treatment. Future editions of the *Cancer Progress Report* will include treatment trends for cancer sites for which there are definitive treatment guidelines based on rigorous evidence of benefit to patients.

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Life After Cancer

Also in this Section

- Survival
- Costs of Cancer Care

Also in the *Report*

- Report-at-a-Glance
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- Diagnosis
- Treatment
- **Life After Cancer**
- End of Life

More and more people are benefiting from the early detection of cancer and its successful treatment. These medical advances are improving both quality of life and length of survival, permitting many survivors to continue full and productive lives at home and at work.

Nevertheless, national data regarding life after cancer are limited. They include:

- Survival rates for cancer by each stage at diagnosis (Survival)
- The estimated total number of survivors
- The economic impact of cancer (Cost of cancer care)

Few national measures are available that reflect health-related quality of life for cancer survivors, such as:

- The ability of cancer survivors to perform daily tasks
- The impact of cancer on employment and insurability
- The effects of cancer on family and loved ones

These and other measures related to life after cancer are subjects of intense research interest as well as matters of great concern to cancer survivors themselves. Future editions of the *Cancer Progress Report* will include additional measures in this area.

Page last modified: 2/4/2004

Life After Cancer

Survival

Five-year survival rates have improved for all sites combined.

Also in this Section

- **Survival**
- Costs of Cancer Care

Also in the *Report*

- Report-at-a-Glance
- Prevention
- Early Detection
- Diagnosis
- Treatment
- Life After Cancer
- End of Life

End of life:

- Cancer Survival
- Measure
- Period
- Trends
- Most Recent Estimate
- Healthy People 2010 Target
- Groups at High Risk for Poor Survival
- Key Issues
- Links to Additional Information

Cancer Survival

Advances in the ways cancer is diagnosed and treated have increased the number of people who are cured of cancer or who live for long periods of time free of their disease. This report looks at trends in 5-year survival rates for cancer, the time period traditionally associated with cure. However, we know that some people have a recurrence of their cancer after 5 years.

In 2000 nearly 9.6 million Americans were alive who had been diagnosed with cancer. Of these, 2.2 million were diagnosed with female breast cancer, 1.6 million were diagnosed with prostate cancer, and 1.0 million were diagnosed with colorectal cancer. Approximately 883,000 (9 percent of the 9.6 million) Americans diagnosed with cancer were longer-term survivors diagnosed over 25 years earlier.

Read more about Survival Projection Methods

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Measure

Five-year relative cancer survival rate: The proportion of patients surviving cancer 5 years after diagnosis. This report shows survival rates for cancers of the prostate, female breast, colon/rectum, and lung, and for all cancers combined.

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Period – 1975-1996 (year diagnosed)

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Trends – Mostly rising

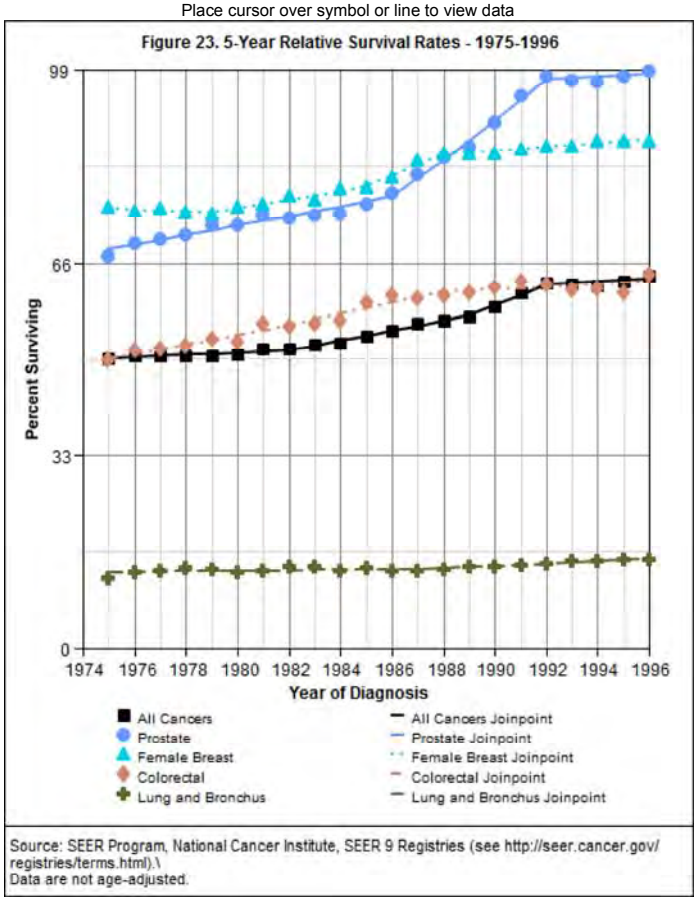
All cancer sites combined: Minimally rising, then rising, then stable (not statistically significant)
Prostate: Rising slightly, then rising, then stable (not statistically significant)
Female breast: Stable (not statistically significant), then rising slightly, then rising, then minimally rising
Colorectal: Rising, then stable (not statistically significant)
Lung and bronchus: Stable (not statistically significant), then rising slightly

Five-year survival rates are highest for prostate and female breast cancers and lowest for lung cancer.

Graph image format: ○ [D] ◉ FLASH ○ JPEG

View details for:
All Cancers Prostate Female Breast Colorectal Lung and Bronchus

Place cursor over symbol or line to view data



Weighted regression lines utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute. (See Methodology for Characterizing Trends)

Download data (Excel)

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Most Recent Estimate

For adults diagnosed with cancer (all sites) in 19965, 64 percent had survived their cancer for at least 5 years.

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Healthy People 2010 Target

Increase to 70 percent the proportion of cancer survivors who are living 5 years or longer after diagnosis.

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Groups at High Risk for Poor Survival

Late stage at diagnosis is associated with poor survival. This association supports the need for continued early detection and stage-appropriate treatment strategies.

Some cancers, such as pancreatic and lung cancer, are especially aggressive and tend to be associated with poor survival irrespective of the stage at diagnosis.

Among cancers that have tended to show good response to treatment strategies (such as

breast and colorectal cancer), patients with poor access to care and/or screening opportunities are at highest risk of lower survival.

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Key Issues

Improved survival rates result from both early detection and better treatments. It is difficult to separate out the contribution of each factor.

Despite the positive trends in 5-year survival for three of the most common cancers, lung cancer survival rates remain low.

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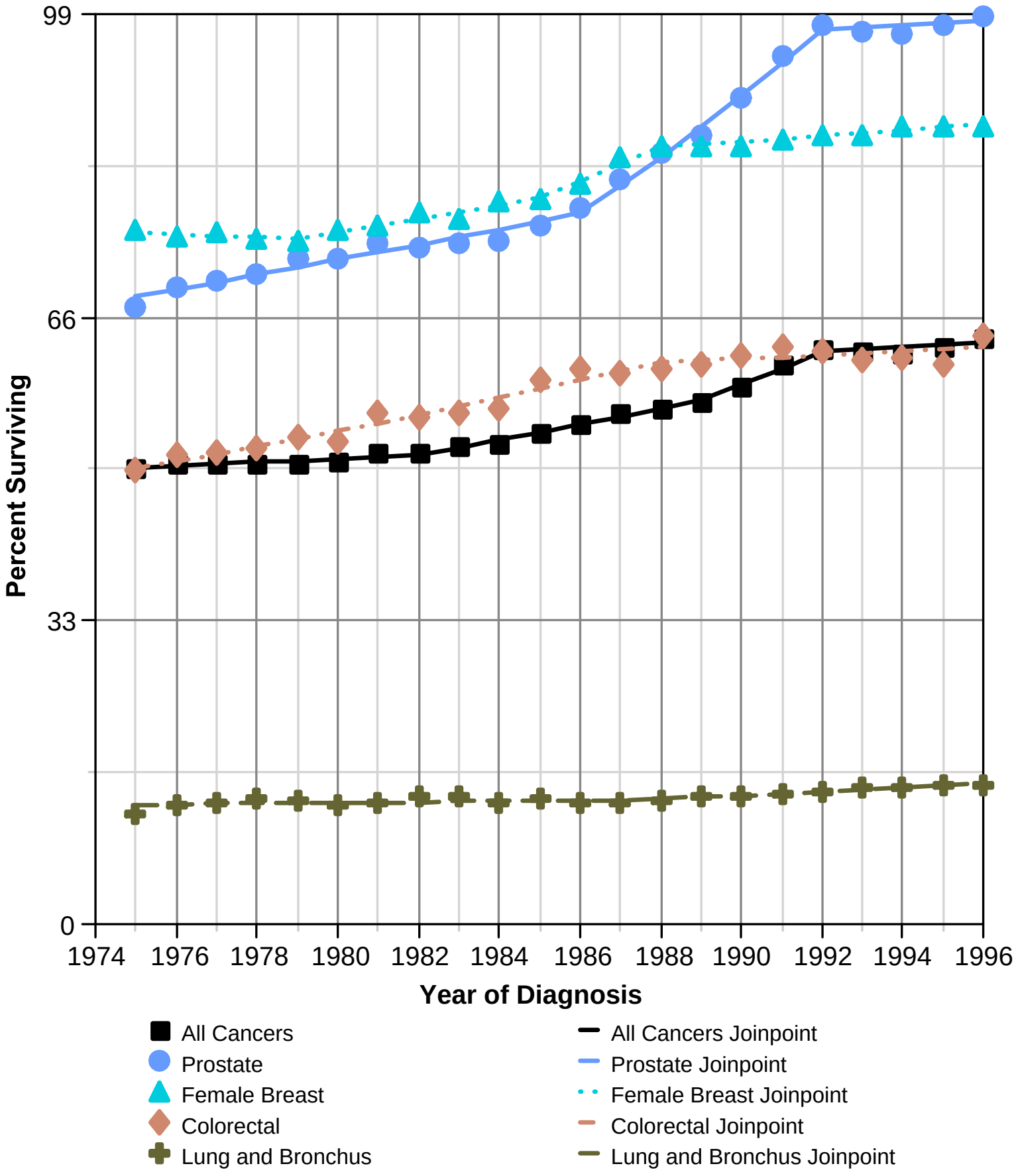
Links to additional information on survival:

- Statistics for 2004 (ACS)
  http://www.cancer.org/docroot/stt/stt_0.asp
- SEER Cancer Statistics Review, 1973-1999 (NCI)
  http://seer.cancer.gov/csr/1973_1999/
- Healthy People 2010, Volume 1, Chapter 3 - Cancer
  http://www.health.gov/healthypeople/document/HTML/Volume1/03Cancer.htm

Page last modified: 11/08/2005

Figure 23. 5-Year Relative Survival Rates - 1975-1996



Source: SEER Program, National Cancer Institute, SEER 9 Registries (see http://seer.cancer.gov/registries/terms.html).\
Data are not age-adjusted.

Line graph with 10 lines and 22 points per line.

x-axis title: Year of Diagnosis
y-axis title: Percent Surviving

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, All Cancers (Scatter).
Point 1, X=1975, Y=49.7.
Point 2, X=1976, Y=50.
Point 3, X=1977, Y=50.
Point 4, X=1978, Y=50.2.
Point 5, X=1979, Y=50.
Point 6, X=1980, Y=50.4.
Point 7, X=1981, Y=51.3.
Point 8, X=1982, Y=51.2.
Point 9, X=1983, Y=51.9.
Point 10, X=1984, Y=52.2.
Point 11, X=1985, Y=53.4.
Point 12, X=1986, Y=54.3.
Point 13, X=1987, Y=55.5.
Point 14, X=1988, Y=56.2.
Point 15, X=1989, Y=56.7.
Point 16, X=1990, Y=58.5.
Point 17, X=1991, Y=60.8.
Point 18, X=1992, Y=62.6.
Point 19, X=1993, Y=62.3.
Point 20, X=1994, Y=62.2.
Point 21, X=1995, Y=62.7.
Point 22, X=1996, Y=63.7.
Maximum at X=1996, Y=63.7 and minimum at X=1975, Y=49.7.
Data series 2, All Cancers Joinpoint (Line).
Point 1, X=1975, Y=49.7.
Point 2, X=1976, Y=49.9.
Point 3, X=1977, Y=50.1.
Point 4, X=1978, Y=50.3.
Point 5, X=1979, Y=50.4.
Point 6, X=1980, Y=50.6.
Point 7, X=1981, Y=50.8.
Point 8, X=1982, Y=51.
Point 9, X=1983, Y=51.8.
Point 10, X=1984, Y=52.7.
Point 11, X=1985, Y=53.5.
Point 12, X=1986, Y=54.3.
Point 13, X=1987, Y=55.2.
Point 14, X=1988, Y=56.1.
Point 15, X=1989, Y=57.
Point 16, X=1990, Y=58.7.
Point 17, X=1991, Y=60.5.
Point 18, X=1992, Y=62.3.
Point 19, X=1993, Y=62.5.
Point 20, X=1994, Y=62.7.
Point 21, X=1995, Y=63.
Point 22, X=1996, Y=63.2.
Maximum at X=1996, Y=63.2 and minimum at X=1975, Y=49.7.
Data series 3, Prostate (Scatter).
Point 1, X=1975, Y=67.2.
Point 2, X=1976, Y=69.2.
Point 3, X=1977, Y=70.
Point 4, X=1978, Y=70.7.
Point 5, X=1979, Y=72.5.
Point 6, X=1980, Y=72.3.
Point 7, X=1981, Y=74.1.
Point 8, X=1982, Y=73.6.
Point 9, X=1983, Y=74.1.
Point 10, X=1984, Y=74.3.
Point 11, X=1985, Y=75.9.
Point 12, X=1986, Y=77.9.
Point 13, X=1987, Y=81.1.
Point 14, X=1988, Y=84.
Point 15, X=1989, Y=85.8.
Point 16, X=1990, Y=89.9.
Point 17, X=1991, Y=94.4.
Point 18, X=1992, Y=97.7.
Point 19, X=1993, Y=97.1.
Point 20, X=1994, Y=96.9.
Point 21, X=1995, Y=97.9.
Point 22, X=1996, Y=98.7.
Maximum at X=1996, Y=98.7 and minimum at X=1975, Y=67.2.
Data series 4, Prostate Joinpoint (Line).
Point 1, X=1975, Y=68.3.

Point 2, X=1976, Y=69.1.
Point 3, X=1977, Y=69.8.
Point 4, X=1978, Y=70.6.
Point 5, X=1979, Y=71.4.
Point 6, X=1980, Y=72.3.
Point 7, X=1981, Y=73.1.
Point 8, X=1982, Y=73.9.
Point 9, X=1983, Y=74.8.
Point 10, X=1984, Y=75.6.
Point 11, X=1985, Y=76.5.
Point 12, X=1986, Y=77.4.
Point 13, X=1987, Y=80.4.
Point 14, X=1988, Y=83.5.
Point 15, X=1989, Y=86.8.
Point 16, X=1990, Y=90.1.
Point 17, X=1991, Y=93.7.
Point 18, X=1992, Y=97.3.
Point 19, X=1993, Y=97.5.
Point 20, X=1994, Y=97.8.
Point 21, X=1995, Y=98.
Point 22, X=1996, Y=98.2.
Maximum at X=1996, Y=98.2 and minimum at X=1975, Y=68.3.
Data series 5, Female Breast (Scatter).
Point 1, X=1975, Y=75.4.
Point 2, X=1976, Y=74.7.
Point 3, X=1977, Y=75.3.
Point 4, X=1978, Y=74.6.
Point 5, X=1979, Y=74.4.
Point 6, X=1980, Y=75.5.
Point 7, X=1981, Y=76.1.
Point 8, X=1982, Y=77.4.
Point 9, X=1983, Y=76.8.
Point 10, X=1984, Y=78.6.
Point 11, X=1985, Y=78.8.
Point 12, X=1986, Y=80.5.
Point 13, X=1987, Y=83.3.
Point 14, X=1988, Y=84.6.
Point 15, X=1989, Y=84.7.
Point 16, X=1990, Y=84.7.
Point 17, X=1991, Y=85.3.
Point 18, X=1992, Y=85.9.
Point 19, X=1993, Y=85.9.
Point 20, X=1994, Y=86.7.
Point 21, X=1995, Y=86.8.
Point 22, X=1996, Y=86.8.
Maximum at X=1995, Y=86.8 and minimum at X=1979, Y=74.4.
Data series 6, Female Breast Joinpoint (Line).
Point 1, X=1975, Y=75.3.
Point 2, X=1976, Y=75.1.
Point 3, X=1977, Y=74.9.
Point 4, X=1978, Y=74.8.
Point 5, X=1979, Y=74.6.
Point 6, X=1980, Y=75.3.
Point 7, X=1981, Y=76.
Point 8, X=1982, Y=76.8.
Point 9, X=1983, Y=77.5.
Point 10, X=1984, Y=78.2.
Point 11, X=1985, Y=79.
Point 12, X=1986, Y=80.8.
Point 13, X=1987, Y=82.6.
Point 14, X=1988, Y=84.5.
Point 15, X=1989, Y=84.8.
Point 16, X=1990, Y=85.1.
Point 17, X=1991, Y=85.4.
Point 18, X=1992, Y=85.7.
Point 19, X=1993, Y=86.
Point 20, X=1994, Y=86.4.
Point 21, X=1995, Y=86.7.
Point 22, X=1996, Y=87.
Maximum at X=1996, Y=87 and minimum at X=1979, Y=74.6.
Data series 7, Colorectal (Scatter).
Point 1, X=1975, Y=49.4.
Point 2, X=1976, Y=51.1.
Point 3, X=1977, Y=51.2.
Point 4, X=1978, Y=51.7.
Point 5, X=1979, Y=52.9.
Point 6, X=1980, Y=52.5.
Point 7, X=1981, Y=55.6.
Point 8, X=1982, Y=55.2.
Point 9, X=1983, Y=55.6.
Point 10, X=1984, Y=56.

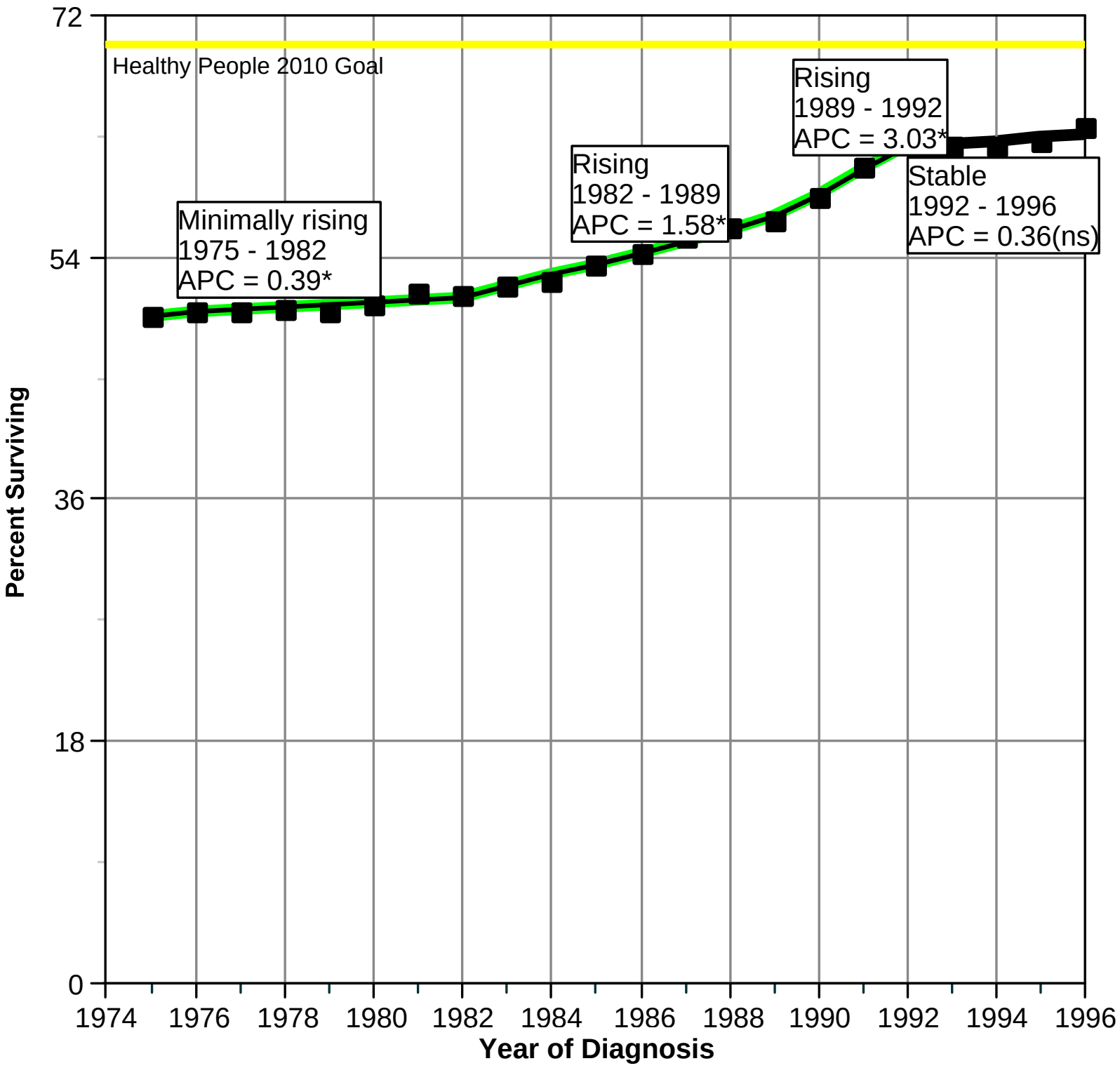
Point 11, X=1985, Y=59.1.
Point 12, X=1986, Y=60.4.
Point 13, X=1987, Y=60.
Point 14, X=1988, Y=60.3.
Point 15, X=1989, Y=60.9.
Point 16, X=1990, Y=61.9.
Point 17, X=1991, Y=62.7.
Point 18, X=1992, Y=62.4.
Point 19, X=1993, Y=61.4.
Point 20, X=1994, Y=61.6.
Point 21, X=1995, Y=61.
Point 22, X=1996, Y=64.
Maximum at X=1996, Y=64 and minimum at X=1975, Y=49.4.
Data series 8, Colorectal Joinpoint (Line).
Point 1, X=1975, Y=49.5.
Point 2, X=1976, Y=50.3.
Point 3, X=1977, Y=51.1.
Point 4, X=1978, Y=52.
Point 5, X=1979, Y=52.8.
Point 6, X=1980, Y=53.7.
Point 7, X=1981, Y=54.5.
Point 8, X=1982, Y=55.4.
Point 9, X=1983, Y=56.3.
Point 10, X=1984, Y=57.3.
Point 11, X=1985, Y=58.2.
Point 12, X=1986, Y=59.1.
Point 13, X=1987, Y=60.1.
Point 14, X=1988, Y=61.1.
Point 15, X=1989, Y=61.3.
Point 16, X=1990, Y=61.5.
Point 17, X=1991, Y=61.7.
Point 18, X=1992, Y=61.9.
Point 19, X=1993, Y=62.1.
Point 20, X=1994, Y=62.3.
Point 21, X=1995, Y=62.5.
Point 22, X=1996, Y=62.7.
Maximum at X=1996, Y=62.7 and minimum at X=1975, Y=49.5.
Data series 9, Lung and Bronchus (Scatter).
Point 1, X=1975, Y=12.1.
Point 2, X=1976, Y=13.
Point 3, X=1977, Y=13.1.
Point 4, X=1978, Y=13.6.
Point 5, X=1979, Y=13.4.
Point 6, X=1980, Y=12.9.
Point 7, X=1981, Y=13.2.
Point 8, X=1982, Y=13.9.
Point 9, X=1983, Y=14.
Point 10, X=1984, Y=13.1.
Point 11, X=1985, Y=13.6.
Point 12, X=1986, Y=13.2.
Point 13, X=1987, Y=13.3.
Point 14, X=1988, Y=13.4.
Point 15, X=1989, Y=14.
Point 16, X=1990, Y=13.8.
Point 17, X=1991, Y=14.2.
Point 18, X=1992, Y=14.4.
Point 19, X=1993, Y=14.8.
Point 20, X=1994, Y=14.9.
Point 21, X=1995, Y=15.1.
Point 22, X=1996, Y=15.2.
Maximum at X=1996, Y=15.2 and minimum at X=1975, Y=12.1.
Data series 10, Lung and Bronchus Joinpoint (Line).
Point 1, X=1975, Y=13.
Point 2, X=1976, Y=13.
Point 3, X=1977, Y=13.1.
Point 4, X=1978, Y=13.1.
Point 5, X=1979, Y=13.2.
Point 6, X=1980, Y=13.2.
Point 7, X=1981, Y=13.3.
Point 8, X=1982, Y=13.3.
Point 9, X=1983, Y=13.4.
Point 10, X=1984, Y=13.4.
Point 11, X=1985, Y=13.4.
Point 12, X=1986, Y=13.5.
Point 13, X=1987, Y=13.5.
Point 14, X=1988, Y=13.6.
Point 15, X=1989, Y=13.8.
Point 16, X=1990, Y=14.
Point 17, X=1991, Y=14.2.
Point 18, X=1992, Y=14.4.
Point 19, X=1993, Y=14.6.

Point 20, X=1994, Y=14.8.
Point 21, X=1995, Y=15.1.
Point 22, X=1996, Y=15.3.
Maximum at X=1996, Y=15.3 and minimum at X=1975, Y=13.

Source: SEER Program, National Cancer Institute, SEER 9 Registries (see http://seer.cancer.gov/registries/terms.html).\
Data are not age-adjusted.

back

Figure 23a. 5-Year Relative Survival Rates, All Cancer Sites Combined - 1975-1996



Healthy People 2010 Goal 3-15: 70%.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute. Regression line in graph is for observed d
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

Close window

Line graph with 2 lines and 22 points per line.

x-axis title: Year of Diagnosis
y-axis title: Percent Surviving

X scale titled Scale label.
Y scale titled Scale label.
Scale Marker 1 on Y scale, line at 70. Scale marker text: Healthy People 2010 Goal
Data series 1, All Cancers (Scatter).
Point 1, X=1975, Y=49.7.
Point 2, X=1976, Y=50.
Point 3, X=1977, Y=50.
Point 4, X=1978, Y=50.2, Note: Minimally rising 1975 - 1982 APC = 0.39*.
Point 5, X=1979, Y=50.
Point 6, X=1980, Y=50.4.
Point 7, X=1981, Y=51.3.
Point 8, X=1982, Y=51.2.
Point 9, X=1983, Y=51.9.
Point 10, X=1984, Y=52.2.
Point 11, X=1985, Y=53.4.
Point 12, X=1986, Y=54.3, Note: Rising 1982 - 1989 APC = 1.58*.
Point 13, X=1987, Y=55.5.
Point 14, X=1988, Y=56.2.
Point 15, X=1989, Y=56.7.
Point 16, X=1990, Y=58.5.
Point 17, X=1991, Y=60.8, Note: Rising 1989 - 1992 APC = 3.03*.
Point 18, X=1992, Y=62.6.
Point 19, X=1993, Y=62.3.
Point 20, X=1994, Y=62.2, Note: Stable 1992 - 1996 APC = 0.36(ns).
Point 21, X=1995, Y=62.7.
Point 22, X=1996, Y=63.7.
Maximum at X=1996, Y=63.7 and minimum at X=1975, Y=49.7.
Data series 2, All Cancers Joinpoint (Line).
Point 1, X=1975, Y=49.7.
Point 2, X=1976, Y=49.9.
Point 3, X=1977, Y=50.1.
Point 4, X=1978, Y=50.3.
Point 5, X=1979, Y=50.4.
Point 6, X=1980, Y=50.6.
Point 7, X=1981, Y=50.8.
Point 8, X=1982, Y=51.
Point 9, X=1983, Y=51.8.
Point 10, X=1984, Y=52.7.
Point 11, X=1985, Y=53.5.
Point 12, X=1986, Y=54.3.
Point 13, X=1987, Y=55.2.
Point 14, X=1988, Y=56.1.
Point 15, X=1989, Y=57.
Point 16, X=1990, Y=58.7.
Point 17, X=1991, Y=60.5.
Point 18, X=1992, Y=62.3.
Point 19, X=1993, Y=62.5.
Point 20, X=1994, Y=62.7.
Point 21, X=1995, Y=63.

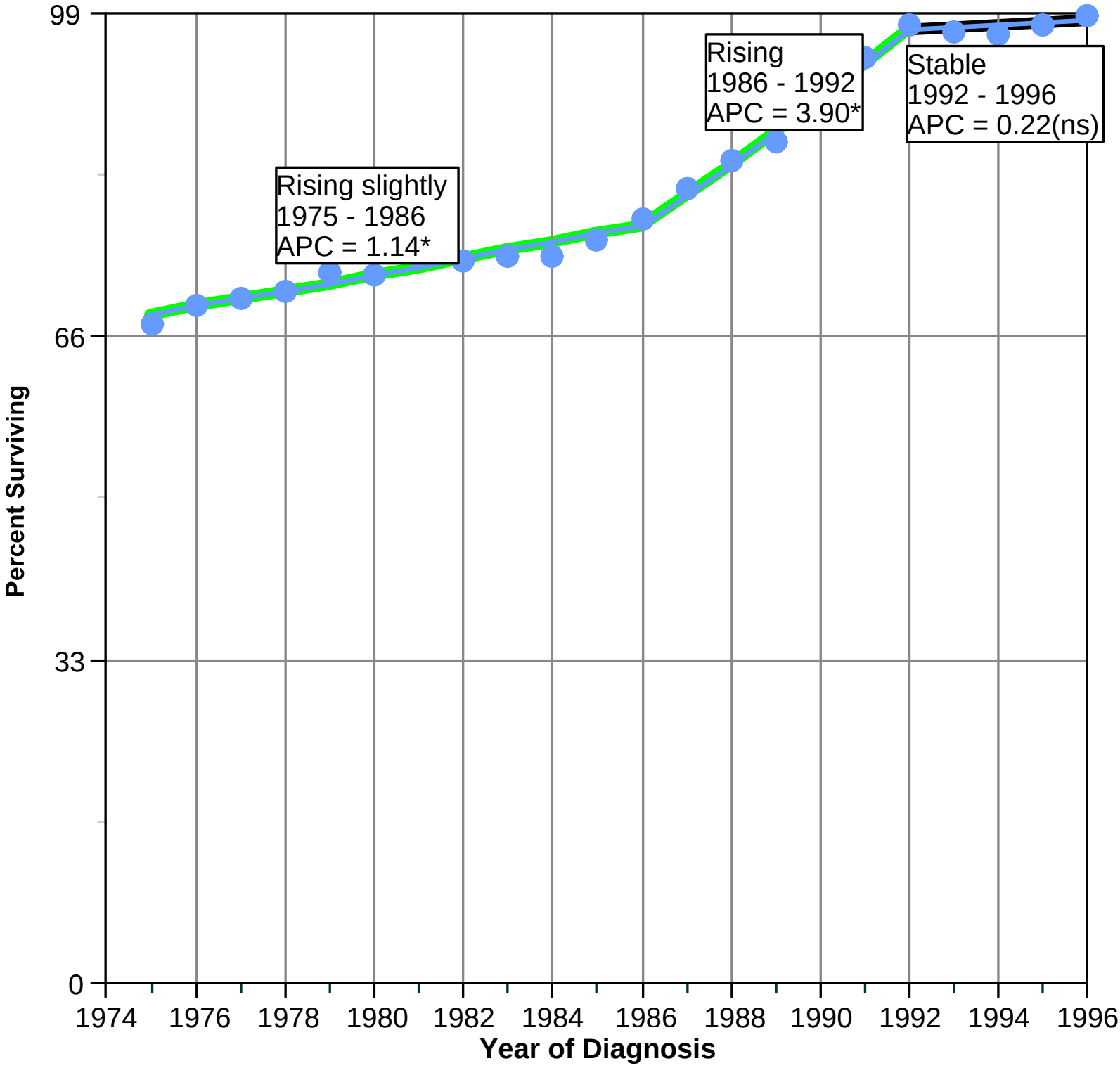
Point 22, X=1996, Y=63.2.
Maximum at X=1996, Y=63.2 and minimum at X=1975, Y=49.7.

Healthy People 2010 Goal 3-15: 70%.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute. Regression line in graph is for observed data.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

back

Close window

Figure 23b. 5-Year Relative Survival Rates, Prostate Cancer - 1975-1996



No Healthy People 2010 Target Goal for prostate cancer survival.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute. Regression line in graph is for observed d
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

Close window

Line graph with 2 lines and 22 points per line.

x-axis title: Year of Diagnosis
y-axis title: Percent Surviving

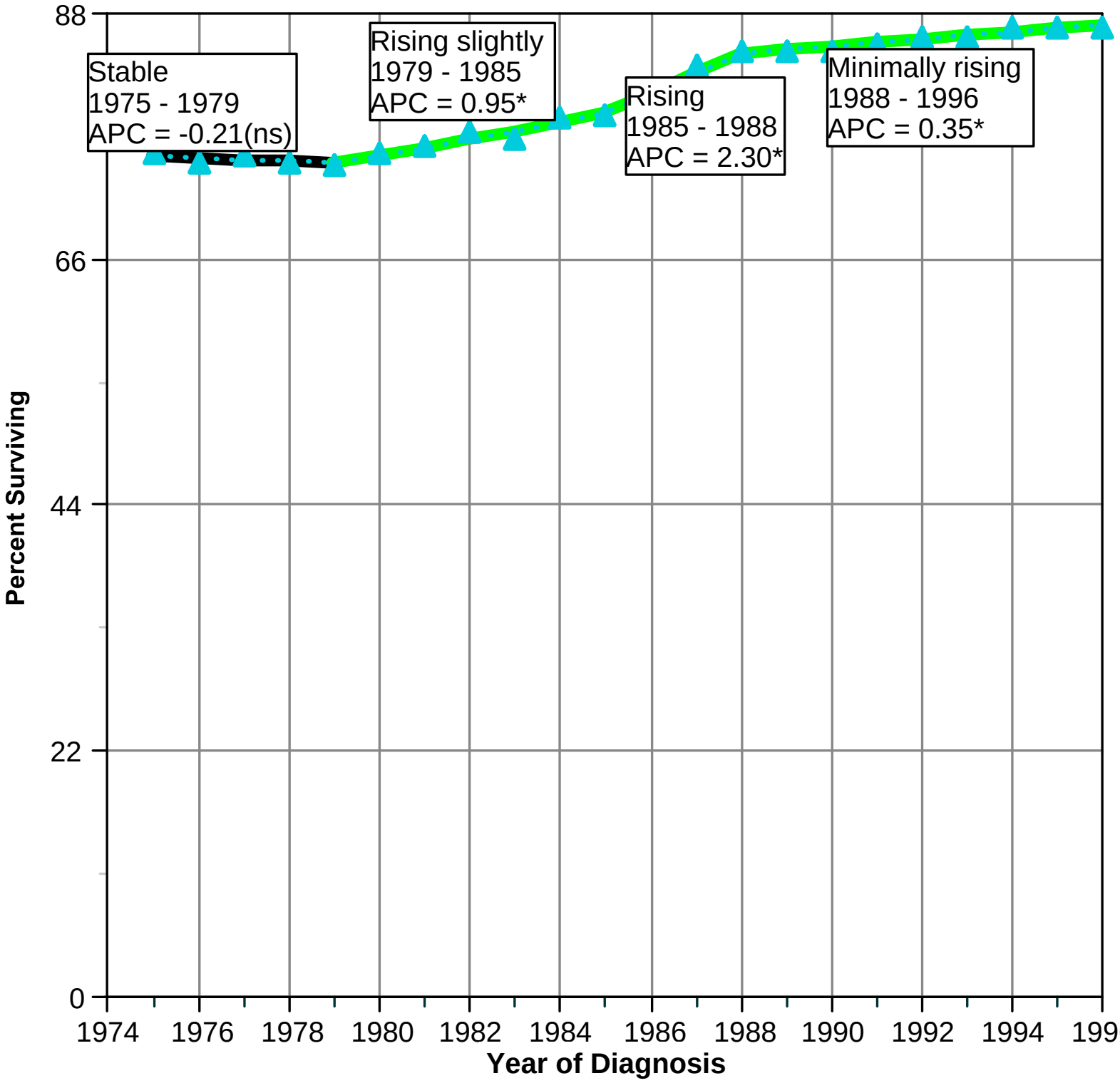
X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Prostate (Scatter).
Point 1, X=1975, Y=67.2.
Point 2, X=1976, Y=69.2.
Point 3, X=1977, Y=70.
Point 4, X=1978, Y=70.7.
Point 5, X=1979, Y=72.5.
Point 6, X=1980, Y=72.3, Note: Rising slightly 1975 - 1986 APC = 1.14*.
Point 7, X=1981, Y=74.1.
Point 8, X=1982, Y=73.6.
Point 9, X=1983, Y=74.1.
Point 10, X=1984, Y=74.3.
Point 11, X=1985, Y=75.9.
Point 12, X=1986, Y=77.9.
Point 13, X=1987, Y=81.1.
Point 14, X=1988, Y=84.
Point 15, X=1989, Y=85.8, Note: Rising 1986 - 1992 APC = 3.90*.
Point 16, X=1990, Y=89.9.
Point 17, X=1991, Y=94.4.
Point 18, X=1992, Y=97.7.
Point 19, X=1993, Y=97.1.
Point 20, X=1994, Y=96.9, Note: Stable 1992 - 1996 APC = 0.22(ns).
Point 21, X=1995, Y=97.9.
Point 22, X=1996, Y=98.7.
Maximum at X=1996, Y=98.7 and minimum at X=1975, Y=67.2.
Data series 2, Prostate Joinpoint (Line).
Point 1, X=1975, Y=68.3.
Point 2, X=1976, Y=69.1.
Point 3, X=1977, Y=69.8.
Point 4, X=1978, Y=70.6.
Point 5, X=1979, Y=71.4.
Point 6, X=1980, Y=72.3.
Point 7, X=1981, Y=73.1.
Point 8, X=1982, Y=73.9.
Point 9, X=1983, Y=74.8.
Point 10, X=1984, Y=75.6.
Point 11, X=1985, Y=76.5.
Point 12, X=1986, Y=77.4.
Point 13, X=1987, Y=80.4.
Point 14, X=1988, Y=83.5.
Point 15, X=1989, Y=86.8.
Point 16, X=1990, Y=90.1.
Point 17, X=1991, Y=93.7.
Point 18, X=1992, Y=97.3.
Point 19, X=1993, Y=97.5.
Point 20, X=1994, Y=97.8.
Point 21, X=1995, Y=98.
Point 22, X=1996, Y=98.2.
Maximum at X=1996, Y=98.2 and minimum at X=1975, Y=68.3.

No Healthy People 2010 Target Goal for prostate cancer survival.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute. Regression line in graph is for observed data.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

back

Close window

Figure 23c. 5-Year Relative Survival Rates, Female Breast Cancer - 1975-1996



No Healthy People 2010 Target Goal for female breast cancer survival.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute. Regression line in graph is for observed d
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

Close window

Line graph with 2 lines and 22 points per line.

x-axis title: Year of Diagnosis
y-axis title: Percent Surviving

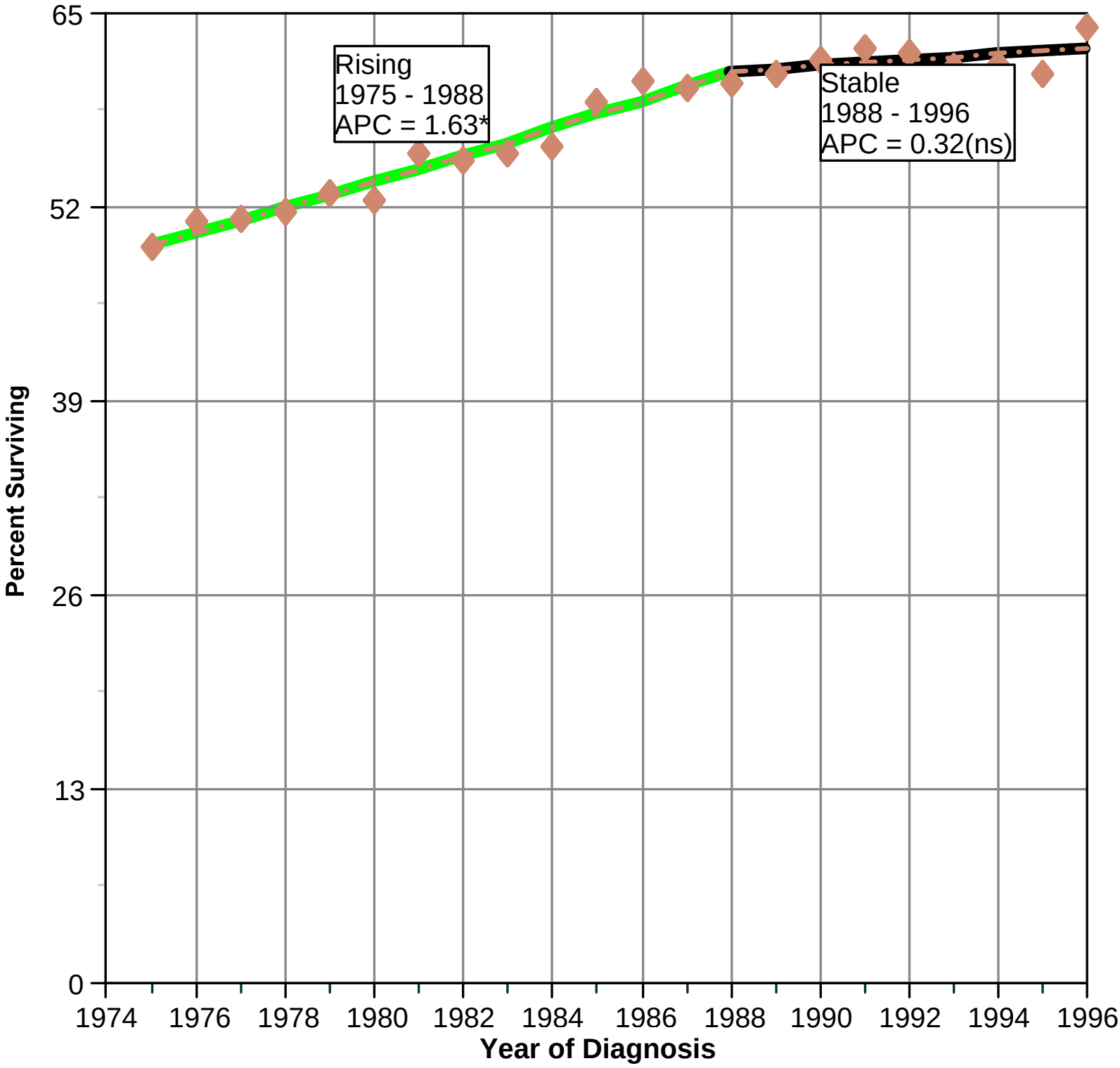
X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Female Breast (Scatter).
Point 1, X=1975, Y=75.4.
Point 2, X=1976, Y=74.7, Note: Stable 1975 - 1979 APC = -0.21(ns).
Point 3, X=1977, Y=75.3.
Point 4, X=1978, Y=74.6.
Point 5, X=1979, Y=74.4.
Point 6, X=1980, Y=75.5.
Point 7, X=1981, Y=76.1.
Point 8, X=1982, Y=77.4, Note: Rising slightly 1979 - 1985 APC = 0.95*.
Point 9, X=1983, Y=76.8.
Point 10, X=1984, Y=78.6.
Point 11, X=1985, Y=78.8.
Point 12, X=1986, Y=80.5.
Point 13, X=1987, Y=83.3, Note: Rising 1985 - 1988 APC = 2.30*.
Point 14, X=1988, Y=84.6.
Point 15, X=1989, Y=84.7.
Point 16, X=1990, Y=84.7.
Point 17, X=1991, Y=85.3.
Point 18, X=1992, Y=85.9, Note: Minimally rising 1988 - 1996 APC = 0.35*.
Point 19, X=1993, Y=85.9.
Point 20, X=1994, Y=86.7.
Point 21, X=1995, Y=86.8.
Point 22, X=1996, Y=86.8.
Maximum at X=1995, Y=86.8 and minimum at X=1979, Y=74.4.
Data series 2, Female Breast Joinpoint (Line).
Point 1, X=1975, Y=75.3.
Point 2, X=1976, Y=75.1.
Point 3, X=1977, Y=74.9.
Point 4, X=1978, Y=74.8.
Point 5, X=1979, Y=74.6.
Point 6, X=1980, Y=75.3.
Point 7, X=1981, Y=76.
Point 8, X=1982, Y=76.8.
Point 9, X=1983, Y=77.5.
Point 10, X=1984, Y=78.2.
Point 11, X=1985, Y=79.
Point 12, X=1986, Y=80.8.
Point 13, X=1987, Y=82.6.
Point 14, X=1988, Y=84.5.
Point 15, X=1989, Y=84.8.
Point 16, X=1990, Y=85.1.
Point 17, X=1991, Y=85.4.
Point 18, X=1992, Y=85.7.
Point 19, X=1993, Y=86.
Point 20, X=1994, Y=86.4.
Point 21, X=1995, Y=86.7.
Point 22, X=1996, Y=87.
Maximum at X=1996, Y=87 and minimum at X=1979, Y=74.6.

No Healthy People 2010 Target Goal for female breast cancer survival.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute. Regression line in graph is for observed data.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

back

Close window

Figure 23d. 5-Year Relative Survival Rates, Colorectal Cancer - 1975-1996



No Healthy People 2010 Target Goal for colorectal cancer survival.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute. Regression line in graph is for observed d
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

Close window

Line graph with 2 lines and 22 points per line.

x-axis title: Year of Diagnosis
y-axis title: Percent Surviving

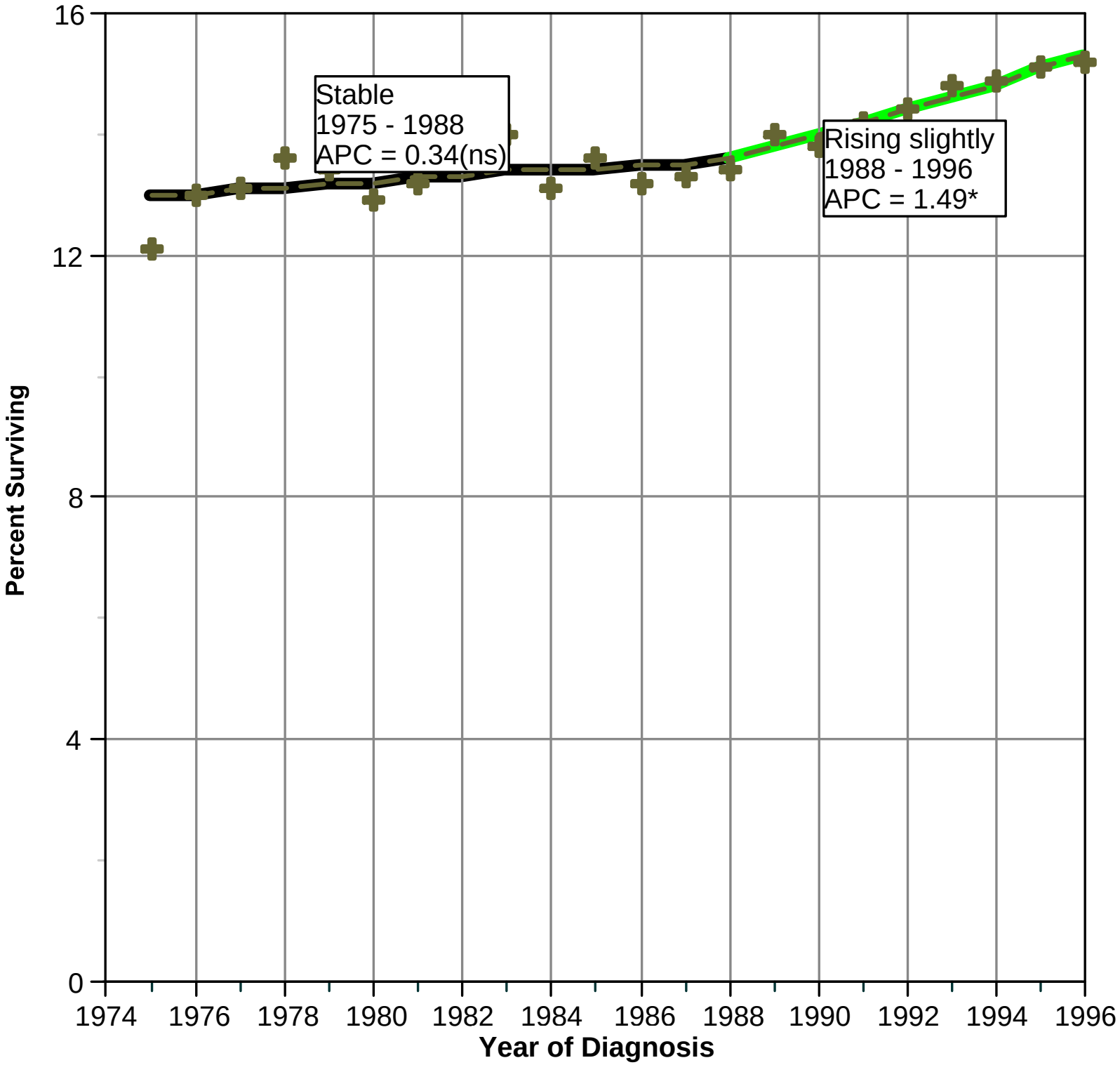
X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Colorectal (Scatter).
Point 1, X=1975, Y=49.4.
Point 2, X=1976, Y=51.1.
Point 3, X=1977, Y=51.2.
Point 4, X=1978, Y=51.7.
Point 5, X=1979, Y=52.9.
Point 6, X=1980, Y=52.5.
Point 7, X=1981, Y=55.6, Note: Rising 1975 - 1988 APC = 1.63*.
Point 8, X=1982, Y=55.2.
Point 9, X=1983, Y=55.6.
Point 10, X=1984, Y=56.
Point 11, X=1985, Y=59.1.
Point 12, X=1986, Y=60.4.
Point 13, X=1987, Y=60.
Point 14, X=1988, Y=60.3.
Point 15, X=1989, Y=60.9.
Point 16, X=1990, Y=61.9.
Point 17, X=1991, Y=62.7.
Point 18, X=1992, Y=62.4, Note: Stable 1988 - 1996 APC = 0.32(ns).
Point 19, X=1993, Y=61.4.
Point 20, X=1994, Y=61.6.
Point 21, X=1995, Y=61.
Point 22, X=1996, Y=64.
Maximum at X=1996, Y=64 and minimum at X=1975, Y=49.4.
Data series 2, Colorectal Joinpoint (Line).
Point 1, X=1975, Y=49.5.
Point 2, X=1976, Y=50.3.
Point 3, X=1977, Y=51.1.
Point 4, X=1978, Y=52.
Point 5, X=1979, Y=52.8.
Point 6, X=1980, Y=53.7.
Point 7, X=1981, Y=54.5.
Point 8, X=1982, Y=55.4.
Point 9, X=1983, Y=56.3.
Point 10, X=1984, Y=57.3.
Point 11, X=1985, Y=58.2.
Point 12, X=1986, Y=59.1.
Point 13, X=1987, Y=60.1.
Point 14, X=1988, Y=61.1.
Point 15, X=1989, Y=61.3.
Point 16, X=1990, Y=61.5.
Point 17, X=1991, Y=61.7.
Point 18, X=1992, Y=61.9.
Point 19, X=1993, Y=62.1.
Point 20, X=1994, Y=62.3.
Point 21, X=1995, Y=62.5.
Point 22, X=1996, Y=62.7.
Maximum at X=1996, Y=62.7 and minimum at X=1975, Y=49.5.

No Healthy People 2010 Target Goal for colorectal cancer survival.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute. Regression line in graph is for observed data.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

back

Close window

Figure 23e. 5-Year Relative Survival Rates, Lung and Bronchus Cancer - 1975-1996



No Healthy People 2010 Target Goal for Lung and bronchus cancer survival.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute. Regression line in graph is for observed d
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

Close window

Line graph with 2 lines and 22 points per line.

x-axis title: Year of Diagnosis
y-axis title: Percent Surviving

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Lung and Bronchus (Scatter).
Point 1, X=1975, Y=12.1.
Point 2, X=1976, Y=13.
Point 3, X=1977, Y=13.1.
Point 4, X=1978, Y=13.6.
Point 5, X=1979, Y=13.4.
Point 6, X=1980, Y=12.9.
Point 7, X=1981, Y=13.2, Note: Stable 1975 - 1988 APC = 0.34(ns).
Point 8, X=1982, Y=13.9.
Point 9, X=1983, Y=14.
Point 10, X=1984, Y=13.1.
Point 11, X=1985, Y=13.6.
Point 12, X=1986, Y=13.2.
Point 13, X=1987, Y=13.3.
Point 14, X=1988, Y=13.4.
Point 15, X=1989, Y=14.
Point 16, X=1990, Y=13.8.
Point 17, X=1991, Y=14.2.
Point 18, X=1992, Y=14.4, Note: Rising slightly 1988 - 1996 APC = 1.49*.
Point 19, X=1993, Y=14.8.
Point 20, X=1994, Y=14.9.
Point 21, X=1995, Y=15.1.
Point 22, X=1996, Y=15.2.
Maximum at X=1996, Y=15.2 and minimum at X=1975, Y=12.1.
Data series 2, Lung and Bronchus Joinpoint (Line).
Point 1, X=1975, Y=13.
Point 2, X=1976, Y=13.
Point 3, X=1977, Y=13.1.
Point 4, X=1978, Y=13.1.
Point 5, X=1979, Y=13.2.
Point 6, X=1980, Y=13.2.
Point 7, X=1981, Y=13.3.
Point 8, X=1982, Y=13.3.
Point 9, X=1983, Y=13.4.
Point 10, X=1984, Y=13.4.
Point 11, X=1985, Y=13.4.
Point 12, X=1986, Y=13.5.
Point 13, X=1987, Y=13.5.
Point 14, X=1988, Y=13.6.
Point 15, X=1989, Y=13.8.
Point 16, X=1990, Y=14.
Point 17, X=1991, Y=14.2.
Point 18, X=1992, Y=14.4.
Point 19, X=1993, Y=14.6.
Point 20, X=1994, Y=14.8.
Point 21, X=1995, Y=15.1.
Point 22, X=1996, Y=15.3.
Maximum at X=1996, Y=15.3 and minimum at X=1975, Y=13.

No Healthy People 2010 Target Goal for Lung and bronchus cancer survival.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute. Regression line in graph is for observed data.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

back

Close window

Life After Cancer

Costs of Cancer Care

Cancer treatment spending has risen but remains stable in proportion to total U.S. treatment spending.

Also in this Section
- Survival
- **Costs of Cancer Care**

Also in the *Report*
- Report-at-a-Glance
- Prevention
- Early Detection
- Diagnosis
- Treatment
- Life After Cancer
- End of Life

The financial costs of cancer treatment are a burden to people diagnosed with cancer, their families, and society as a whole. Cancer treatment accounted for about $41 billion in 1995, the most recent year for which there is information. This is just under 5 percent of total U.S. spending for medical treatment. In the 10 years from 1985 to 1995, the overall costs of treating cancer more than doubled.

High-quality cancer care is not necessarily the most expensive care. It would be desirable to see the overall costs of cancer treatment decrease relative to total health care costs. In the near future, however, these costs may increase as the population ages and the absolute number of people treated for cancer increases. Costs also are likely to increase at the individual level as new, more advanced, and more expensive treatments are adopted as standards of care.

NCI will continue to monitor cancer costs and track the percentage of total medical costs accounted for by cancer care. Over the last three decades, this percentage has remained remarkably constant.

As total spending for medical treatment rose between 1963 and 1995, so did spending for cancer treatment.

Table 1: National Cancer treatment Expenditures in Billions of Dollars— 1963-1995

Year	Cancer treatment spending (billions)	Total health care spending (billions)	Percent of cancer treatment spending to total
1963	$1.3	$29.4	4.4%
1972	$3.9	$78.0	5.0%
1980	$13.1	$217.0	6.0%
1985	$18.1	$376.4	4.8%
1990	$27.5	$614.7	4.5%
1995	$41.2	$879.3	4.7%

Source: Brown ML, Lipscomb J, Snyder C. The burden of illness of cancer: economic cost and quality of life. Annual Review of Public Health 2001;22:91-113.
Download data (Excel)

Spending for each year is expressed in current dollars for that year. While cancer treatment costs increased dramatically between 1963 and 1995, the proportion of these to all health care expenditures remained stable. Cancer spending in this chart does not include screening, which cost an additional $5 billion to $10 billion in 2000.

Total treatment expenditures for each of the four most common cancers are remarkably similar. However, individual costs for other cancers based on Medicare data show wide variation by type of cancer.

Table 2: Estimates of National Expenditures for Medical Treatment for the 13 Most Common Cancers— Based on Cancer Prevalence in 1996 and Cancer-Specific Costs for 1995-1998, Expressed in 1996 Dollars.

	Percent of all new cancers (1998)	Expenditures (billions; in 1996 dollars)	Percent of all cancer treatment expenditures	Average Medicare payments per individual in first year following diagnosis
Breast	18.2%	$5.4	13.1%	$9,230
Colorectal	11.7%	$5.4	13.1%	$21,608
Lung	12.5%	$4.9	12.1%	$20,340
Prostate	13.6%	$4.6	11.3%	$8,869
Lymphoma	4.2%	$2.6	6.3%	$17,217
Bladder	4.0%	$1.7	4.2%	$10,770
Cervix	2.3%	$1.7	4.1%	$13,083
Head/Neck	3.3%	$1.6	4.0%	$14,788
Ovary	1.7%	$1.5	3.7%	$32,340
Leukemia	2.1%	$1.2	2.8%	$11,882
Melanoma	5.2%	$0.7	1.7%	$3,177
Pancreas	2.1%	$0.6	1.5%	$23,504
Esophagus	0.9%	$0.4	0.9%	$25,886
All Other	18.1%	$8.7	21.2%	$17,201
Total	100.0%	$41.0	100%	

Source: Brown ML, Riley GF, Schussler N, Etzioni RD. Estimating health care costs related to cancer treatment from SEER-Medicare data. Med Care 2002 Aug;40(8 Suppl):IV-104-17.
Download data (Excel)

The first-year costs for lung and colorectal cancer are higher because screening is not commonly used in the detection of these cancers. If screening for colorectal cancer were performed as recommended, the proportion of cases presenting at advanced stages—when treatment is more extensive and costly—would be reduced.

Medicare does not cover certain cancer care expenses, such as oral medicines commonly used to treat cancers of the breast and prostate. These out-of-pocket costs may add as much as 10 percent to the estimates shown above.

Direct medical expenditures are only one component of the total economic burden of cancer. The indirect costs include losses in time and economic productivity resulting from cancer-related illness and death. Based on 1990 data, the total economic burden of cancer in 1996 was an estimated $143.5 billion.

Page last modified: 2/11/2004

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Prevention | **Early Detection** | **Diagnosis** | **Treatment** | **Life After Cancer** | **End of Life**
Report-at-a-Glance | **Director's Message** | **Introduction** | **Appendices**
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End of Life

The ultimate measure of our nation's success against cancer is how far we can lower the death rate from this group of diseases. This final section of the *Cancer Progress Report - 2003 Update* provides national data not only on cancer mortality by major sites, but also in terms of years of life lost to cancer — a measure that emphasizes the tragedy of common cancers that strike people at a relatively young age.

As highlighted at the beginning of this report, the news is good. For the first time since the government began collecting mortality data early in the last century, cancer death rates began to decline in 1992. It is our job as a nation to maintain and accelerate this trend. Future editions of this report will continue to document how we are doing in the ongoing battle against deaths from cancer.

- Mortality
- Person-Years of Life Lost

Also in this Section

- Mortality
- Person-Years of Life Lost

Also in the *Report*

- Report-at-a-Glance
- Prevention
- Early Detection
- Diagnosis
- Treatment
- Life After Cancer
- **End of Life**

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End of Life

Mortality

After several decades of steady increases, the U.S. cancer death rate began to decline in the early 1990s and stabilized in 1998-2000.

On this page:

- Measuring Cancer Deaths
- Measure
- Period
- Trends
- Most Recent Estimate
- Healthy People 2010 Target
- Groups at High Risk for Cancer Deaths
- Key Issues
- Links to Additional Information

Also in this Section
- **Mortality**
- Person-Years of Life Lost

Also in the *Report*
- Report-at-a-Glance
- Prevention
- Early Detection
- Diagnosis
- Treatment
- Life After Cancer
- End of Life

Measuring Cancer Deaths

In 2001, cancers of the breast, prostate, lung, and colon/rectum accounted for more than half of all cancer deaths in the United States. Lung cancer alone claimed more than one-fourth of the lives lost to cancer. It was projected that in 2003, there would be 556,500 cancer deaths overall, including 157,200 deaths from lung cancer; 57,100 from cancers of the colon/rectum; 39,800 from female breast cancer; and 28,900 from prostate cancer. Cancer mortality usually is measured as the annual number of deaths from cancer for every 100,000 people, adjusted to a standard population.

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Measure

Mortality rate: The number of cancer deaths per 100,000 people per year.

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Period –1975-2001

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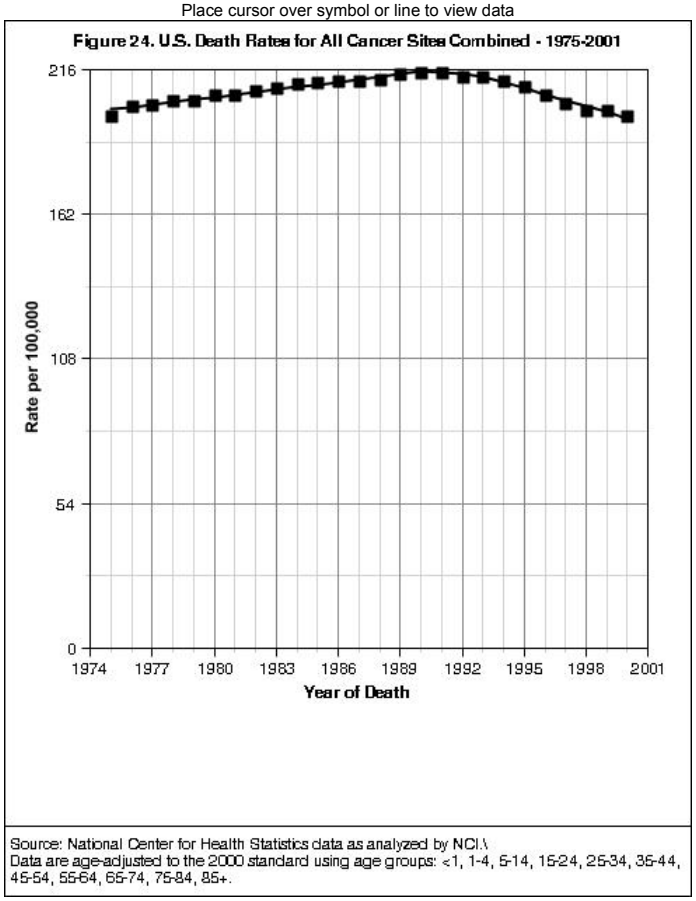
Trends – Minimally rising 1975-1990, then stable (not statistically significant) 1990-1993, then falling slightly 1993-2001

The death rate for all cancers combined increased through 1990, then stabilized until 1993, then declined from 1993 to 2001.

Graph image format: ○ [D] ○ FLASH ◉ JPEG

View details for:
All Cancers

Place cursor over symbol or line to view data



Source: National Center for Health Statistics data as analyzed by NCI.\
Data are age-adjusted to the 2000 standard using age groups: <1, 1-4, 5-14, 15-24, 25-34, 35-44, 45-54, 55-64, 65-74, 75-84, 85+.

Weighted regression lines utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute. (See Methodology for Characterizing Trends)

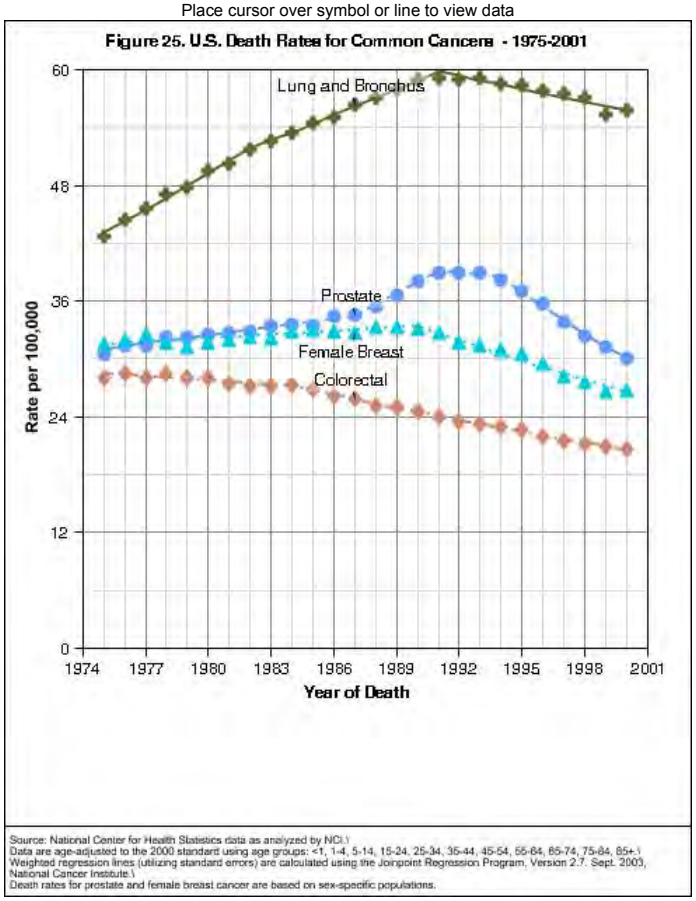
Download Data (Excel)

Death rates for the four most common cancers have been falling in recent years beginning in 1984 for colorectal cancer, 1990 for female breast cancer, 1991 for lung cancer, and 1994 for prostate cancer.

Graph image format: ○ [D] ○ FLASH ◉ JPEG

View details for:
Prostate Female Breast Colorectal Lung and Bronchus

Place cursor over symbol or line to view data



Weighted regression lines utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute. (See Methodology for Characterizing Trends)

Download Data (Excel)

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Most Recent Estimate

In 2001, the death rate for all cancers was 195.6 cancer deaths per 100,000 people per year.

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Healthy People 2010 Target

Reduce the overall cancer death rate to 159.9 cancer deaths per 100,000 people per year by 2010.

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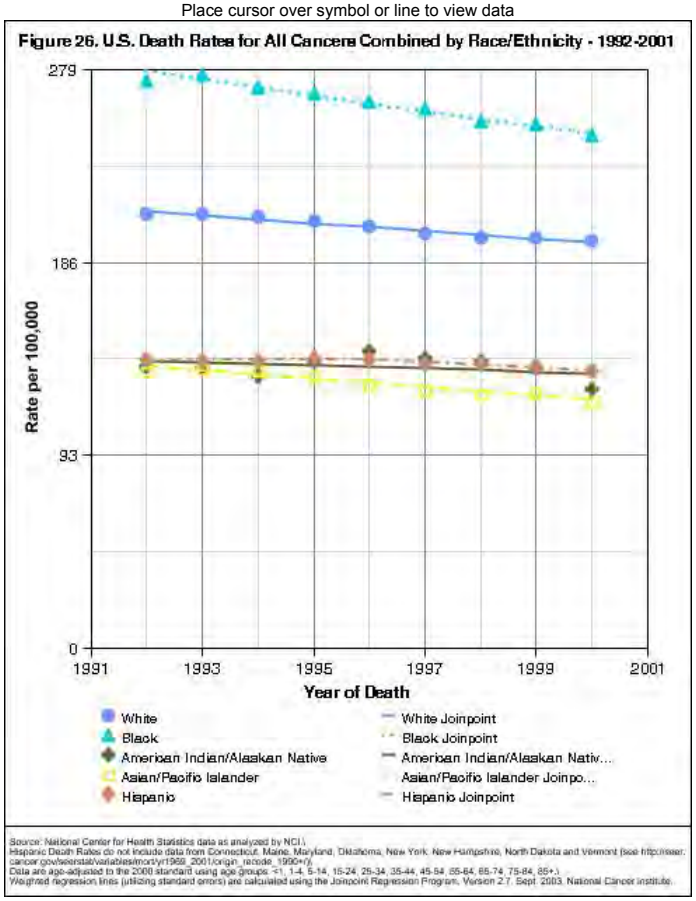
Groups at High Risk for Cancer Deaths

Blacks have the highest overall rates for cancer deaths, followed by Whites.

Graph image format: ○ [D] ○ FLASH ◉ JPEG

View details for:
White Black American Indian/Alaskan Native Asian/Pacific Islander Hispanic

Place cursor over symbol or line to view data



Weighted regression lines utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute. (See Methodology for Characterizing Trends)

Download Data (Excel)

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Key Issues

Although overall death rates are on the decline, deaths from some cancers, such as esophageal and liver cancers, are increasing.

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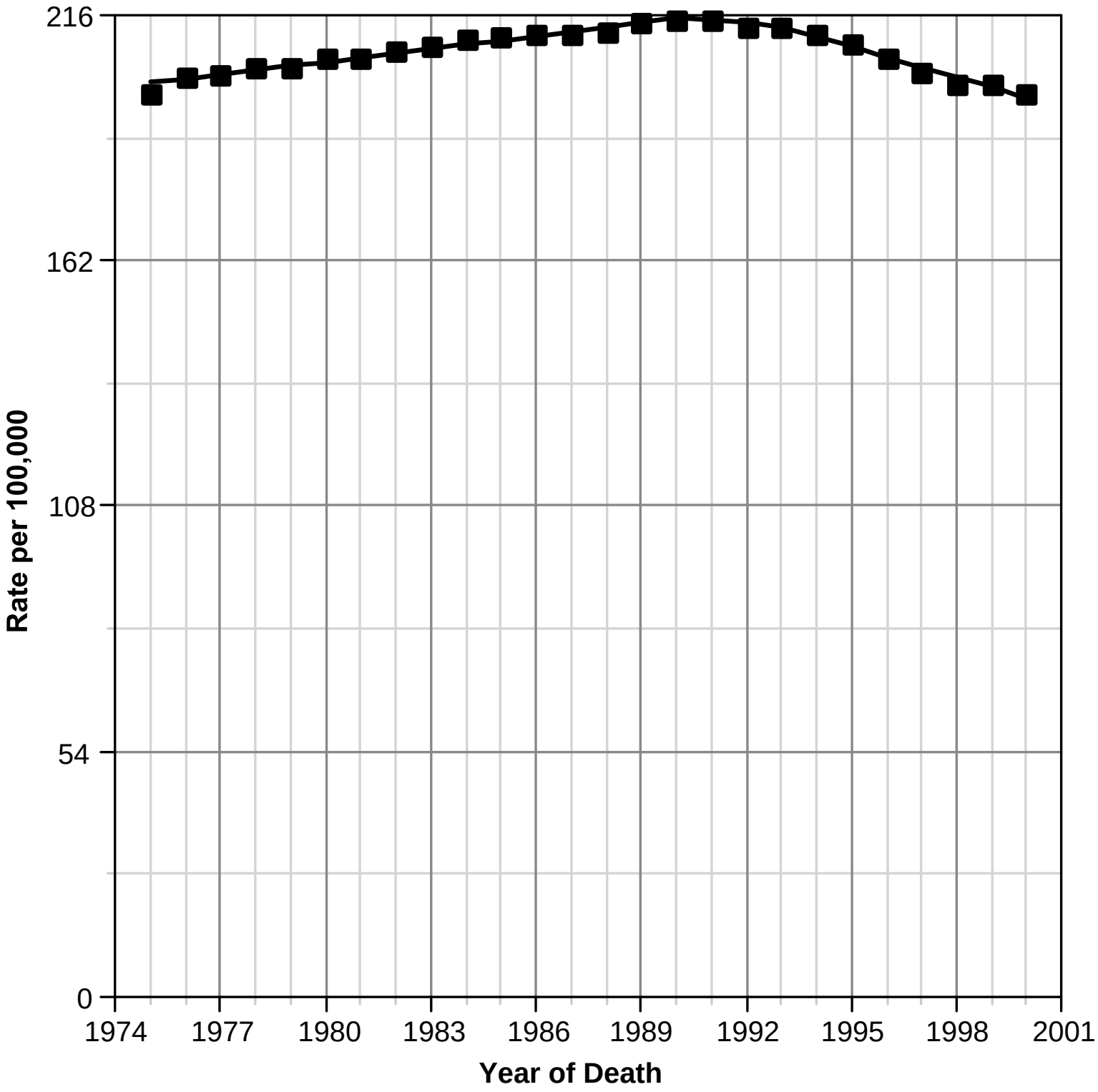
Links to additional information on mortality:

- American Cancer Society - Statistics for 2004
  http://www.cancer.org/docroot/stt/stt_0.asp
- Healthy People 2010, Volume 1, Chapter 3 - Cancer
  http://www.health.gov/healthypeople/document/HTML/Volume1/03Cancer.htm

Page last modified: 11/08/2005

Figure 24. U.S. Death Rates for All Cancer Sites Combined - 1975-2001



Source: National Center for Health Statistics data as analyzed by NCI.\
Data are age-adjusted to the 2000 standard using age groups: <1, 1-4, 5-14, 15-24, 25-34, 35-44, 45-54, 55-64, 65-74, 75-84, 85+.

Line graph with 2 lines and 26 points per line.

x-axis title: Year of Death
y-axis title: Rate per 100,000

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, All Cancers (Scatter).
Point 1, X=1975, Y=199.
Point 2, X=1976, Y=202.3.
Point 3, X=1977, Y=203.
Point 4, X=1978, Y=204.4.
Point 5, X=1979, Y=204.4.
Point 6, X=1980, Y=206.8.
Point 7, X=1981, Y=206.4.
Point 8, X=1982, Y=208.4.
Point 9, X=1983, Y=209.1.
Point 10, X=1984, Y=210.8.
Point 11, X=1985, Y=211.3.
Point 12, X=1986, Y=211.6.
Point 13, X=1987, Y=211.8.
Point 14, X=1988, Y=212.5.
Point 15, X=1989, Y=214.2.
Point 16, X=1990, Y=214.9.
Point 17, X=1991, Y=215.2.
Point 18, X=1992, Y=213.5.
Point 19, X=1993, Y=213.5.
Point 20, X=1994, Y=211.8.
Point 21, X=1995, Y=209.9.
Point 22, X=1996, Y=206.8.
Point 23, X=1997, Y=203.5.
Point 24, X=1998, Y=200.8.
Point 25, X=1999, Y=200.8.
Point 26, X=2000, Y=198.7.
Maximum at X=1991, Y=215.2 and minimum at X=2000, Y=198.7.
Data series 2, All Cancers Joinpoint (Line).
Point 1, X=1975, Y=201.1.
Point 2, X=1976, Y=202.1.
Point 3, X=1977, Y=203.
Point 4, X=1978, Y=203.9.
Point 5, X=1979, Y=204.8.
Point 6, X=1980, Y=205.8.
Point 7, X=1981, Y=206.7.
Point 8, X=1982, Y=207.7.
Point 9, X=1983, Y=208.6.
Point 10, X=1984, Y=209.6.
Point 11, X=1985, Y=210.5.
Point 12, X=1986, Y=211.5.
Point 13, X=1987, Y=212.5.
Point 14, X=1988, Y=213.4.
Point 15, X=1989, Y=214.4.
Point 16, X=1990, Y=215.4.
Point 17, X=1991, Y=214.8.
Point 18, X=1992, Y=214.2.
Point 19, X=1993, Y=213.6.
Point 20, X=1994, Y=211.3.
Point 21, X=1995, Y=209.
Point 22, X=1996, Y=206.7.
Point 23, X=1997, Y=204.5.
Point 24, X=1998, Y=202.3.
Point 25, X=1999, Y=200.1.
Point 26, X=2000, Y=197.9.
Maximum at X=1990, Y=215.4 and minimum at X=2000, Y=197.9.

Source: National Center for Health Statistics data as analyzed by NCI.\
Data are age-adjusted to the 2000 standard using age groups: <1, 1-4, 5-14, 15-24, 25-34, 35-44, 45-54, 55-64, 65-74, 75-84, 85+.

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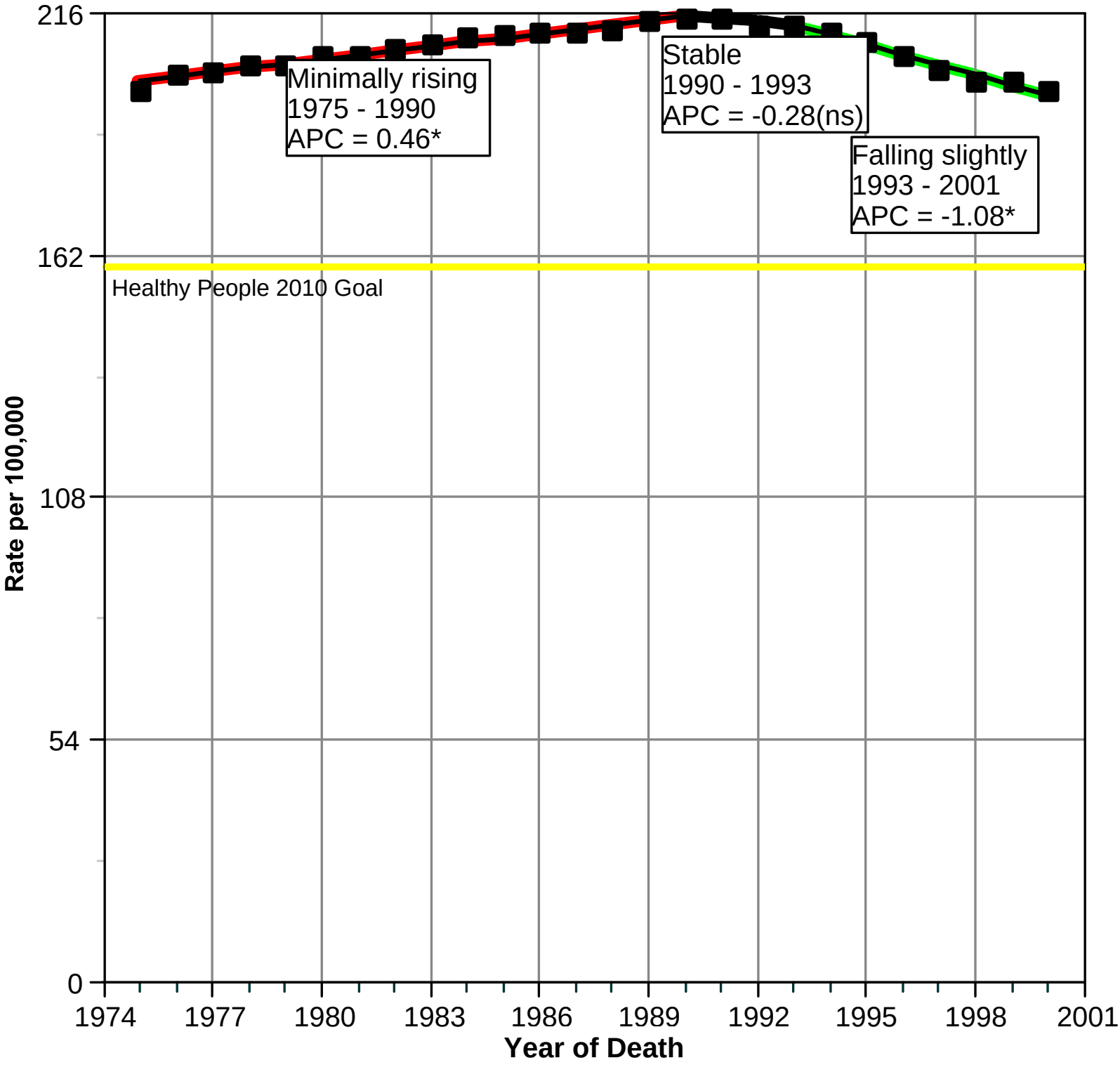
Figure 24. U.S. Death Rates for All Cancer Sites Combined - 1975-2001



Healthy People2010 Goal 3-1: 159.9 cancer deaths per 100,000 people.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

Close window

Line graph with 2 lines and 26 points per line.

x-axis title: Year of Death
y-axis title: Rate per 100,000

X scale titled Scale label.
Y scale titled Scale label.
Scale Marker 1 on Y scale, line at 160. Scale marker text: Healthy People 2010 Goal
Data series 1, All Cancers (Scatter).
Point 1, X=1975, Y=199.
Point 2, X=1976, Y=202.3.
Point 3, X=1977, Y=203.
Point 4, X=1978, Y=204.4.
Point 5, X=1979, Y=204.4.
Point 6, X=1980, Y=206.8.
Point 7, X=1981, Y=206.4.
Point 8, X=1982, Y=208.4, Note: Minimally rising 1975 - 1990 APC = 0.46*.
Point 9, X=1983, Y=209.1.
Point 10, X=1984, Y=210.8.
Point 11, X=1985, Y=211.3.
Point 12, X=1986, Y=211.6.
Point 13, X=1987, Y=211.8.
Point 14, X=1988, Y=212.5.
Point 15, X=1989, Y=214.2.
Point 16, X=1990, Y=214.9.
Point 17, X=1991, Y=215.2.
Point 18, X=1992, Y=213.5, Note: Stable 1990 - 1993 APC = -0.28(ns).
Point 19, X=1993, Y=213.5.
Point 20, X=1994, Y=211.8.
Point 21, X=1995, Y=209.9.
Point 22, X=1996, Y=206.8.
Point 23, X=1997, Y=203.5, Note: Falling slightly 1993 - 2001 APC = -1.08*.
Point 24, X=1998, Y=200.8.
Point 25, X=1999, Y=200.8.
Point 26, X=2000, Y=198.7.
Maximum at X=1991, Y=215.2 and minimum at X=2000, Y=198.7.
Data series 2, All Cancers Joinpoint (Line).
Point 1, X=1975, Y=201.1.
Point 2, X=1976, Y=202.1.
Point 3, X=1977, Y=203.
Point 4, X=1978, Y=203.9.
Point 5, X=1979, Y=204.8.
Point 6, X=1980, Y=205.8.
Point 7, X=1981, Y=206.7.
Point 8, X=1982, Y=207.7.
Point 9, X=1983, Y=208.6.
Point 10, X=1984, Y=209.6.
Point 11, X=1985, Y=210.5.
Point 12, X=1986, Y=211.5.
Point 13, X=1987, Y=212.5.
Point 14, X=1988, Y=213.4.
Point 15, X=1989, Y=214.4.
Point 16, X=1990, Y=215.4.
Point 17, X=1991, Y=214.8.
Point 18, X=1992, Y=214.2.

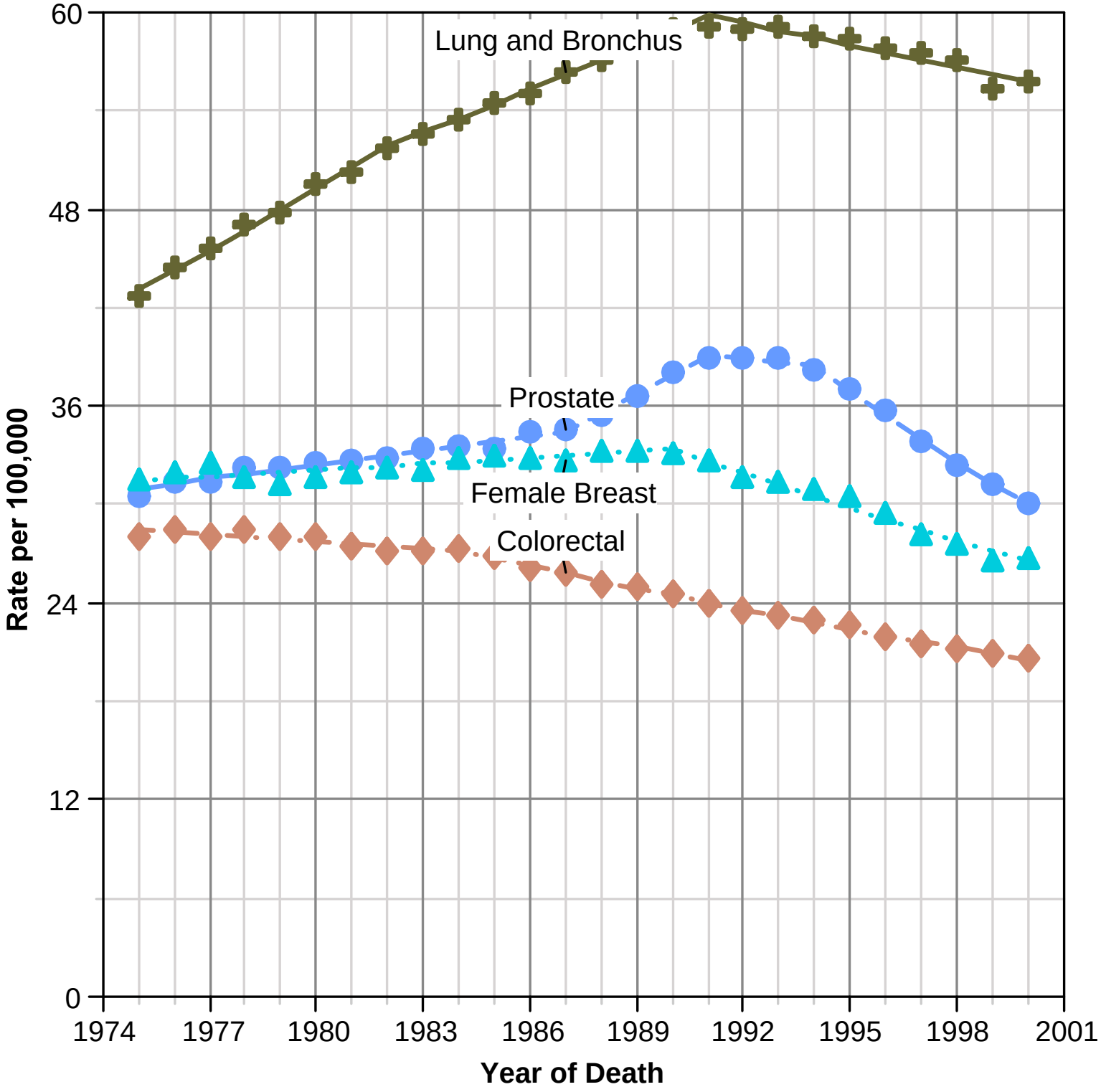
Point 19, X=1993, Y=213.6.
Point 20, X=1994, Y=211.3.
Point 21, X=1995, Y=209.
Point 22, X=1996, Y=206.7.
Point 23, X=1997, Y=204.5.
Point 24, X=1998, Y=202.3.
Point 25, X=1999, Y=200.1.
Point 26, X=2000, Y=197.9.
Maximum at X=1990, Y=215.4 and minimum at X=2000, Y=197.9.

Healthy People2010 Goal 3-1: 159.9 cancer deaths per 100,000 people.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

back

Close window

Figure 25. U.S. Death Rates for Common Cancers - 1975-2001



Source: National Center for Health Statistics data as analyzed by NCI.\
Data are age-adjusted to the 2000 standard using age groups: <1, 1-4, 5-14, 15-24, 25-34, 35-44, 45-54, 55-64, 65-74, 75-84,...
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Se...
National Cancer Institute.\
Death rates for prostate and female breast cancer are based on sex-specific populations.

Line graph with 8 lines and 26 points per line.

x-axis title: Year of Death
y-axis title: Rate per 100,000

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Prostate (Scatter).
Point 1, X=1975, Y=30.5.
Point 2, X=1976, Y=31.4.
Point 3, X=1977, Y=31.4.
Point 4, X=1978, Y=32.2.
Point 5, X=1979, Y=32.3.
Point 6, X=1980, Y=32.6.
Point 7, X=1981, Y=32.7.
Point 8, X=1982, Y=32.9.
Point 9, X=1983, Y=33.4.
Point 10, X=1984, Y=33.6.
Point 11, X=1985, Y=33.4.
Point 12, X=1986, Y=34.4.
Point 13, X=1987, Y=34.6, Note: Prostate.
Point 14, X=1988, Y=35.4.
Point 15, X=1989, Y=36.6.
Point 16, X=1990, Y=38.1.
Point 17, X=1991, Y=38.9.
Point 18, X=1992, Y=38.9.
Point 19, X=1993, Y=39.
Point 20, X=1994, Y=38.2.
Point 21, X=1995, Y=37.
Point 22, X=1996, Y=35.7.
Point 23, X=1997, Y=33.9.
Point 24, X=1998, Y=32.4.
Point 25, X=1999, Y=31.3.
Point 26, X=2000, Y=30.1.
Maximum at X=1993, Y=39 and minimum at X=2000, Y=30.1.
Data series 2, Prostate Joinpoint (Line).
Point 1, X=1975, Y=31.
Point 2, X=1976, Y=31.3.
Point 3, X=1977, Y=31.6.
Point 4, X=1978, Y=31.8.
Point 5, X=1979, Y=32.1.
Point 6, X=1980, Y=32.4.
Point 7, X=1981, Y=32.7.
Point 8, X=1982, Y=33.
Point 9, X=1983, Y=33.3.
Point 10, X=1984, Y=33.6.
Point 11, X=1985, Y=33.9.
Point 12, X=1986, Y=34.2.
Point 13, X=1987, Y=34.5.
Point 14, X=1988, Y=35.6.
Point 15, X=1989, Y=36.7.
Point 16, X=1990, Y=37.9.
Point 17, X=1991, Y=39.1.
Point 18, X=1992, Y=38.9.
Point 19, X=1993, Y=38.7.
Point 20, X=1994, Y=38.5.
Point 21, X=1995, Y=36.9.
Point 22, X=1996, Y=35.4.
Point 23, X=1997, Y=34.
Point 24, X=1998, Y=32.6.
Point 25, X=1999, Y=31.3.
Point 26, X=2000, Y=30.1.
Maximum at X=1991, Y=39.1 and minimum at X=2000, Y=30.1.
Data series 3, Female Breast (Scatter).
Point 1, X=1975, Y=31.5.
Point 2, X=1976, Y=31.9.
Point 3, X=1977, Y=32.5.
Point 4, X=1978, Y=31.7.
Point 5, X=1979, Y=31.2.
Point 6, X=1980, Y=31.7.
Point 7, X=1981, Y=32.
Point 8, X=1982, Y=32.2.
Point 9, X=1983, Y=32.1.
Point 10, X=1984, Y=32.9.
Point 11, X=1985, Y=33.
Point 12, X=1986, Y=32.8.
Point 13, X=1987, Y=32.7, Note: Female Breast.
Point 14, X=1988, Y=33.2.
Point 15, X=1989, Y=33.2.
Point 16, X=1990, Y=33.1.
Point 17, X=1991, Y=32.7.

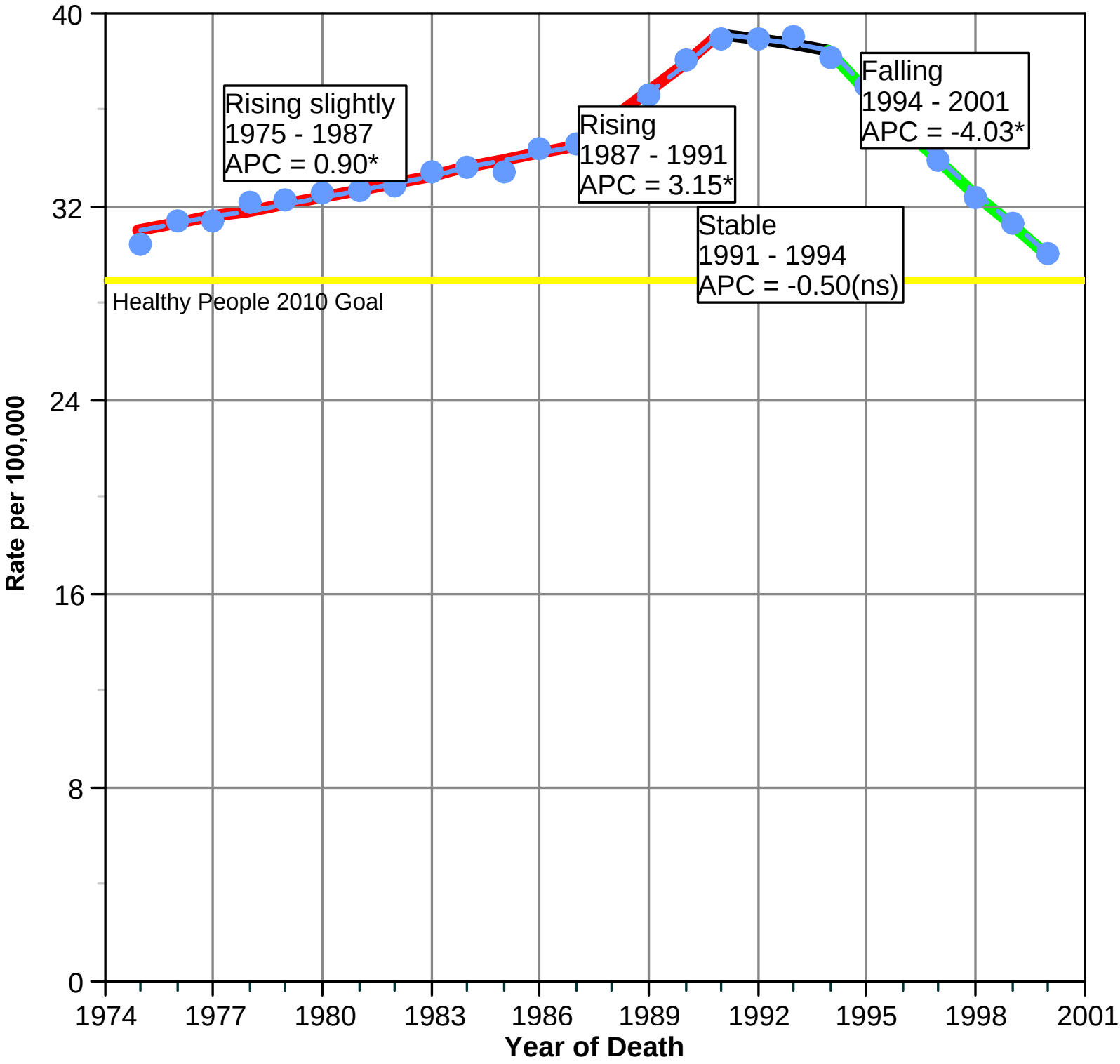
Point 18, X=1992, Y=31.6.
Point 19, X=1993, Y=31.4.
Point 20, X=1994, Y=30.9.
Point 21, X=1995, Y=30.5.
Point 22, X=1996, Y=29.5.
Point 23, X=1997, Y=28.2.
Point 24, X=1998, Y=27.6.
Point 25, X=1999, Y=26.6.
Point 26, X=2000, Y=26.7.
Maximum at X=1988, Y=33.2 and minimum at X=1999, Y=26.6.
Data series 4, Female Breast Joinpoint (Line).
Point 1, X=1975, Y=31.4.
Point 2, X=1976, Y=31.6.
Point 3, X=1977, Y=31.7.
Point 4, X=1978, Y=31.8.
Point 5, X=1979, Y=31.9.
Point 6, X=1980, Y=32.1.
Point 7, X=1981, Y=32.2.
Point 8, X=1982, Y=32.3.
Point 9, X=1983, Y=32.5.
Point 10, X=1984, Y=32.6.
Point 11, X=1985, Y=32.7.
Point 12, X=1986, Y=32.9.
Point 13, X=1987, Y=33.
Point 14, X=1988, Y=33.1.
Point 15, X=1989, Y=33.3.
Point 16, X=1990, Y=33.4.
Point 17, X=1991, Y=32.6.
Point 18, X=1992, Y=31.9.
Point 19, X=1993, Y=31.2.
Point 20, X=1994, Y=30.5.
Point 21, X=1995, Y=29.8.
Point 22, X=1996, Y=29.1.
Point 23, X=1997, Y=28.5.
Point 24, X=1998, Y=27.8.
Point 25, X=1999, Y=27.2.
Point 26, X=2000, Y=26.6.
Maximum at X=1990, Y=33.4 and minimum at X=2000, Y=26.6.
Data series 5, Colorectal (Scatter).
Point 1, X=1975, Y=28.
Point 2, X=1976, Y=28.5.
Point 3, X=1977, Y=28.1.
Point 4, X=1978, Y=28.5.
Point 5, X=1979, Y=28.1.
Point 6, X=1980, Y=28.
Point 7, X=1981, Y=27.5.
Point 8, X=1982, Y=27.2.
Point 9, X=1983, Y=27.1.
Point 10, X=1984, Y=27.3.
Point 11, X=1985, Y=26.9.
Point 12, X=1986, Y=26.1.
Point 13, X=1987, Y=25.8, Note: Colorectal.
Point 14, X=1988, Y=25.2.
Point 15, X=1989, Y=25.
Point 16, X=1990, Y=24.6.
Point 17, X=1991, Y=24.
Point 18, X=1992, Y=23.6.
Point 19, X=1993, Y=23.3.
Point 20, X=1994, Y=22.9.
Point 21, X=1995, Y=22.6.
Point 22, X=1996, Y=21.9.
Point 23, X=1997, Y=21.5.
Point 24, X=1998, Y=21.2.
Point 25, X=1999, Y=20.9.
Point 26, X=2000, Y=20.7.
Maximum at X=1976, Y=28.5 and minimum at X=2000, Y=20.7.
Data series 6, Colorectal Joinpoint (Line).
Point 1, X=1975, Y=28.5.
Point 2, X=1976, Y=28.3.
Point 3, X=1977, Y=28.2.
Point 4, X=1978, Y=28.
Point 5, X=1979, Y=27.9.
Point 6, X=1980, Y=27.8.
Point 7, X=1981, Y=27.6.
Point 8, X=1982, Y=27.5.
Point 9, X=1983, Y=27.3.
Point 10, X=1984, Y=27.2.
Point 11, X=1985, Y=26.7.
Point 12, X=1986, Y=26.3.
Point 13, X=1987, Y=25.8.
Point 14, X=1988, Y=25.3.

Point 15, X=1989, Y=24.9.
Point 16, X=1990, Y=24.5.
Point 17, X=1991, Y=24.
Point 18, X=1992, Y=23.6.
Point 19, X=1993, Y=23.2.
Point 20, X=1994, Y=22.8.
Point 21, X=1995, Y=22.4.
Point 22, X=1996, Y=22.
Point 23, X=1997, Y=21.6.
Point 24, X=1998, Y=21.3.
Point 25, X=1999, Y=20.9.
Point 26, X=2000, Y=20.5.
Maximum at X=1975, Y=28.5 and minimum at X=2000, Y=20.5.
Data series 7, Lung and Bronchus (Scatter).
Point 1, X=1975, Y=42.7.
Point 2, X=1976, Y=44.4.
Point 3, X=1977, Y=45.6.
Point 4, X=1978, Y=47.
Point 5, X=1979, Y=47.8.
Point 6, X=1980, Y=49.6.
Point 7, X=1981, Y=50.2.
Point 8, X=1982, Y=51.7.
Point 9, X=1983, Y=52.6.
Point 10, X=1984, Y=53.5.
Point 11, X=1985, Y=54.5.
Point 12, X=1986, Y=55.1.
Point 13, X=1987, Y=56.4, Note: Lung and Bronchus.
Point 14, X=1988, Y=57.1.
Point 15, X=1989, Y=58.
Point 16, X=1990, Y=59.
Point 17, X=1991, Y=59.2.
Point 18, X=1992, Y=59.
Point 19, X=1993, Y=59.2.
Point 20, X=1994, Y=58.6.
Point 21, X=1995, Y=58.4.
Point 22, X=1996, Y=57.8.
Point 23, X=1997, Y=57.5.
Point 24, X=1998, Y=57.1.
Point 25, X=1999, Y=55.4.
Point 26, X=2000, Y=55.8.
Maximum at X=1991, Y=59.2 and minimum at X=1975, Y=42.7.
Data series 8, Lung and Bronchus Joinpoint (Line).
Point 1, X=1975, Y=43.1.
Point 2, X=1976, Y=44.3.
Point 3, X=1977, Y=45.5.
Point 4, X=1978, Y=46.7.
Point 5, X=1979, Y=47.9.
Point 6, X=1980, Y=49.2.
Point 7, X=1981, Y=50.5.
Point 8, X=1982, Y=51.9.
Point 9, X=1983, Y=52.7.
Point 10, X=1984, Y=53.5.
Point 11, X=1985, Y=54.4.
Point 12, X=1986, Y=55.3.
Point 13, X=1987, Y=56.2.
Point 14, X=1988, Y=57.1.
Point 15, X=1989, Y=58.
Point 16, X=1990, Y=58.9.
Point 17, X=1991, Y=59.9.
Point 18, X=1992, Y=59.4.
Point 19, X=1993, Y=58.9.
Point 20, X=1994, Y=58.5.
Point 21, X=1995, Y=58.
Point 22, X=1996, Y=57.6.
Point 23, X=1997, Y=57.1.
Point 24, X=1998, Y=56.7.
Point 25, X=1999, Y=56.2.
Point 26, X=2000, Y=55.8.
Maximum at X=1991, Y=59.9 and minimum at X=1975, Y=43.1.

Source: National Center for Health Statistics data as analyzed by NCI.\
Data are age-adjusted to the 2000 standard using age groups: <1, 1-4, 5-14, 15-24, 25-34, 35-44, 45-54, 55-64, 65-74, 75-84, 85+.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
Death rates for prostate and female breast cancer are based on sex-specific populations.

back

Figure 25a. U.S. Death Rates for Common Cancers, Prostate - 1975-2001



Healthy People 2010 Goal 3-7: 28.8 deaths per 100,000 people.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
Death rates for prostate cancer are based on a sex-specific population.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

Close window

Line graph with 2 lines and 26 points per line.

x-axis title: Year of Death
y-axis title: Rate per 100,000

X scale titled Scale label.
Y scale titled Scale label.
Scale Marker 1 on Y scale, line at 29. Scale marker text: Healthy People 2010 Goal
Data series 1, Prostate (Scatter).
Point 1, X=1975, Y=30.5.
Point 2, X=1976, Y=31.4.
Point 3, X=1977, Y=31.4.
Point 4, X=1978, Y=32.2.
Point 5, X=1979, Y=32.3.
Point 6, X=1980, Y=32.6, Note: Rising slightly 1975 - 1987 APC = 0.90*.
Point 7, X=1981, Y=32.7.
Point 8, X=1982, Y=32.9.
Point 9, X=1983, Y=33.4.
Point 10, X=1984, Y=33.6.
Point 11, X=1985, Y=33.4.
Point 12, X=1986, Y=34.4.
Point 13, X=1987, Y=34.6.
Point 14, X=1988, Y=35.4.
Point 15, X=1989, Y=36.6, Note: Rising 1987 - 1991 APC = 3.15*.
Point 16, X=1990, Y=38.1.
Point 17, X=1991, Y=38.9.
Point 18, X=1992, Y=38.9.
Point 19, X=1993, Y=39, Note: Stable 1991 - 1994 APC = -0.50(ns).
Point 20, X=1994, Y=38.2.
Point 21, X=1995, Y=37.
Point 22, X=1996, Y=35.7.
Point 23, X=1997, Y=33.9, Note: Falling 1994 - 2001 APC = -4.03*.
Point 24, X=1998, Y=32.4.
Point 25, X=1999, Y=31.3.
Point 26, X=2000, Y=30.1.
Maximum at X=1993, Y=39 and minimum at X=2000, Y=30.1.
Data series 2, Prostate Joinpoint (Line).
Point 1, X=1975, Y=31.
Point 2, X=1976, Y=31.3.
Point 3, X=1977, Y=31.6.
Point 4, X=1978, Y=31.8.
Point 5, X=1979, Y=32.1.
Point 6, X=1980, Y=32.4.
Point 7, X=1981, Y=32.7.
Point 8, X=1982, Y=33.
Point 9, X=1983, Y=33.3.
Point 10, X=1984, Y=33.6.
Point 11, X=1985, Y=33.9.
Point 12, X=1986, Y=34.2.
Point 13, X=1987, Y=34.5.
Point 14, X=1988, Y=35.6.
Point 15, X=1989, Y=36.7.
Point 16, X=1990, Y=37.9.
Point 17, X=1991, Y=39.1.
Point 18, X=1992, Y=38.9.

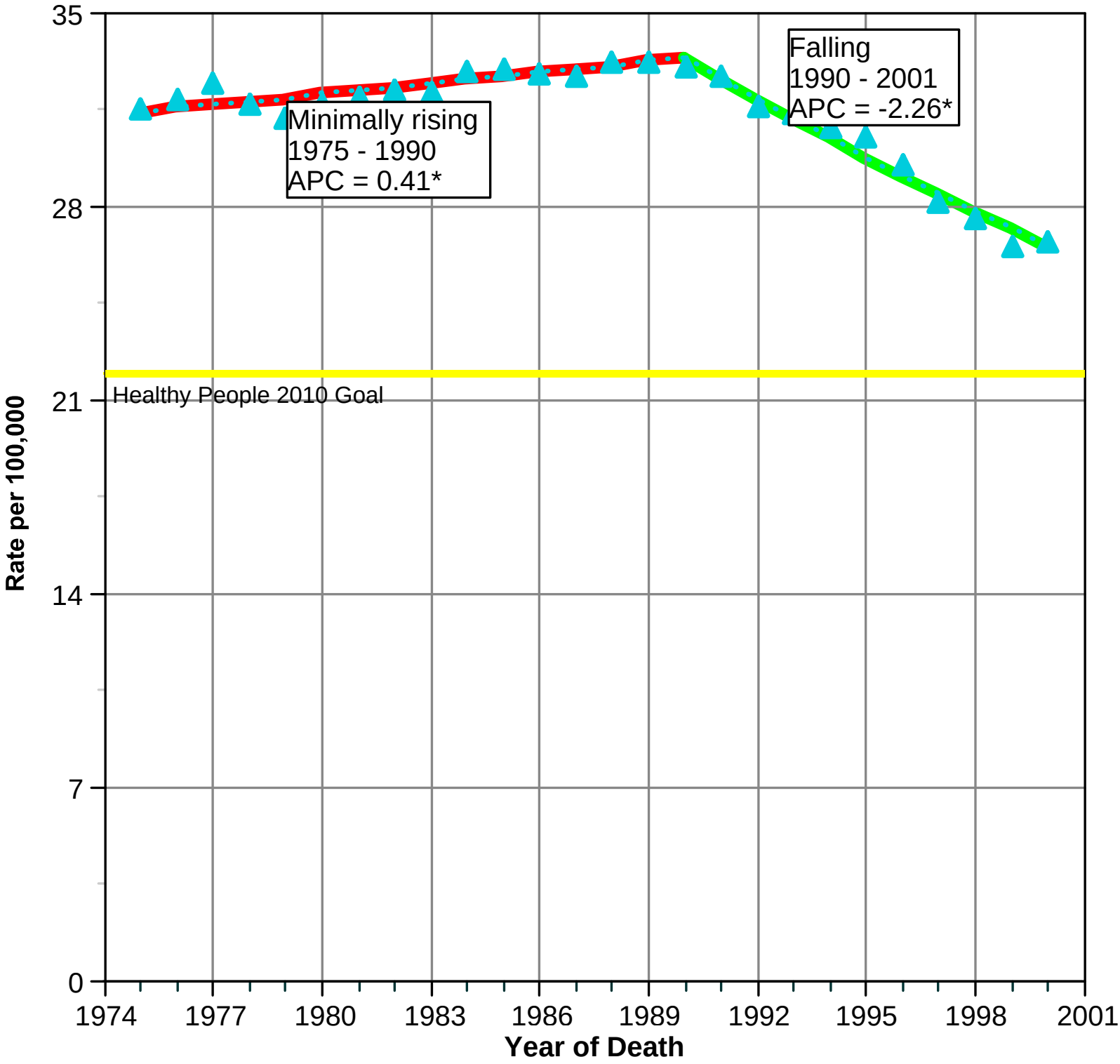
Point 19, X=1993, Y=38.7.
Point 20, X=1994, Y=38.5.
Point 21, X=1995, Y=36.9.
Point 22, X=1996, Y=35.4.
Point 23, X=1997, Y=34.
Point 24, X=1998, Y=32.6.
Point 25, X=1999, Y=31.3.
Point 26, X=2000, Y=30.1.
Maximum at X=1991, Y=39.1 and minimum at X=2000, Y=30.1.

Healthy People 2010 Goal 3-7: 28.8 deaths per 100,000 people.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
Death rates for prostate cancer are based on a sex-specific population.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p < 0.05$

back

Close window

Figure 25b. U.S. Death Rates for Common Cancers, Female Breast - 1975-2001



Healthy People 2010 Goal 3-3: 22.3 deaths per 100,000 people.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
Death rates for female breast cancer are based on a sex-specific population.\
* The Annual Percent Change (APC) is statistically significant.

Close window

Line graph with 2 lines and 26 points per line.

x-axis title: Year of Death
y-axis title: Rate per 100,000

X scale titled Scale label.
Y scale titled Scale label.
Scale Marker 1 on Y scale, line at 22. Scale marker text: Healthy People 2010 Goal
Data series 1, Female Breast (Scatter).
Point 1, X=1975, Y=31.5.
Point 2, X=1976, Y=31.9.
Point 3, X=1977, Y=32.5.
Point 4, X=1978, Y=31.7.
Point 5, X=1979, Y=31.2.
Point 6, X=1980, Y=31.7.
Point 7, X=1981, Y=32.
Point 8, X=1982, Y=32.2, Note: Minimally rising 1975 - 1990 APC = 0.41*.
Point 9, X=1983, Y=32.1.
Point 10, X=1984, Y=32.9.
Point 11, X=1985, Y=33.
Point 12, X=1986, Y=32.8.
Point 13, X=1987, Y=32.7.
Point 14, X=1988, Y=33.2.
Point 15, X=1989, Y=33.2.
Point 16, X=1990, Y=33.1.
Point 17, X=1991, Y=32.7.
Point 18, X=1992, Y=31.6.
Point 19, X=1993, Y=31.4.
Point 20, X=1994, Y=30.9.
Point 21, X=1995, Y=30.5, Note: Falling 1990 - 2001 APC = -2.26*.
Point 22, X=1996, Y=29.5.
Point 23, X=1997, Y=28.2.
Point 24, X=1998, Y=27.6.
Point 25, X=1999, Y=26.6.
Point 26, X=2000, Y=26.7.
Maximum at X=1988, Y=33.2 and minimum at X=1999, Y=26.6.
Data series 2, Female Breast Joinpoint (Line).
Point 1, X=1975, Y=31.4.
Point 2, X=1976, Y=31.6.
Point 3, X=1977, Y=31.7.
Point 4, X=1978, Y=31.8.
Point 5, X=1979, Y=31.9.
Point 6, X=1980, Y=32.1.
Point 7, X=1981, Y=32.2.
Point 8, X=1982, Y=32.3.
Point 9, X=1983, Y=32.5.
Point 10, X=1984, Y=32.6.
Point 11, X=1985, Y=32.7.
Point 12, X=1986, Y=32.9.
Point 13, X=1987, Y=33.
Point 14, X=1988, Y=33.1.
Point 15, X=1989, Y=33.3.
Point 16, X=1990, Y=33.4.
Point 17, X=1991, Y=32.6.
Point 18, X=1992, Y=31.9.

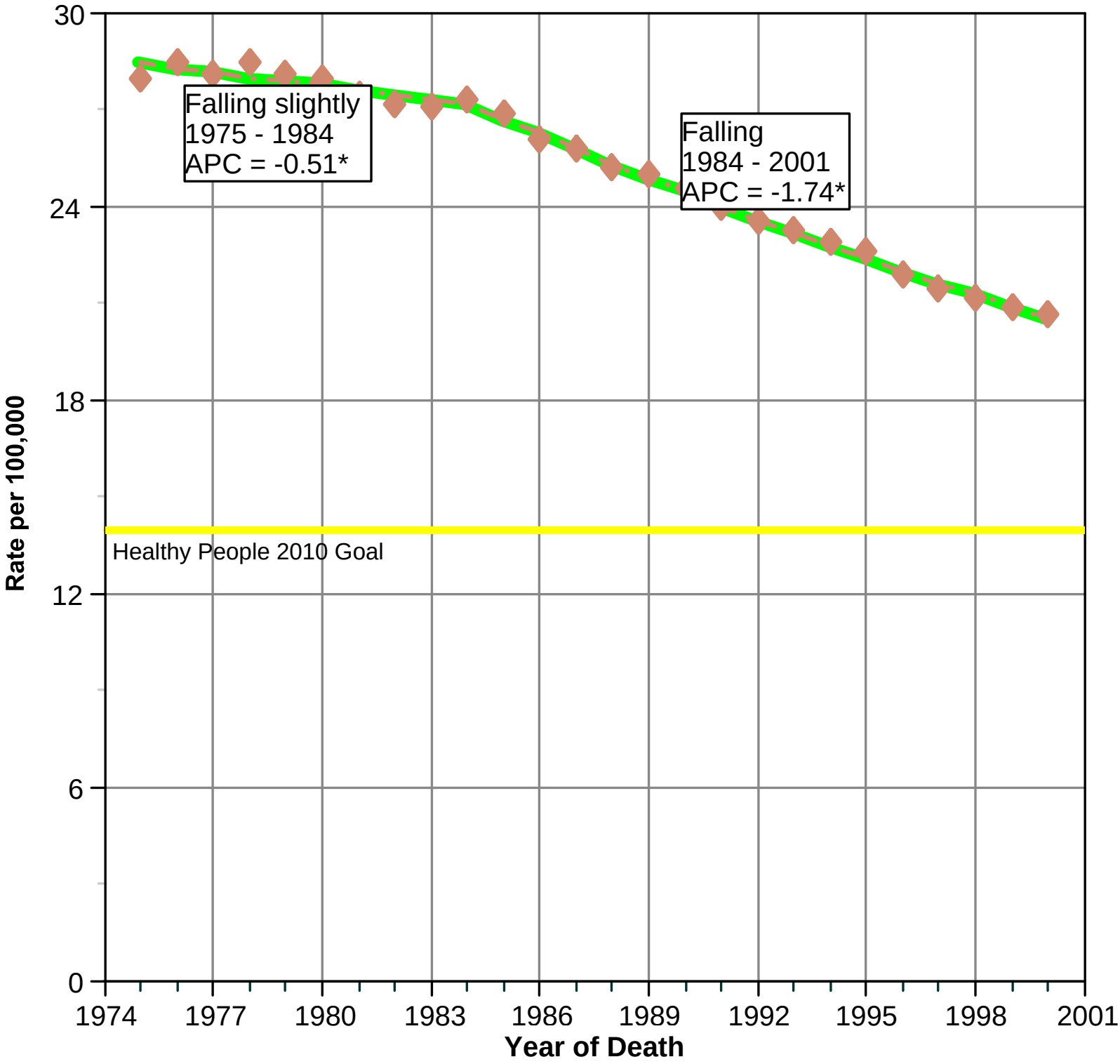
Point 19, X=1993, Y=31.2.
Point 20, X=1994, Y=30.5.
Point 21, X=1995, Y=29.8.
Point 22, X=1996, Y=29.1.
Point 23, X=1997, Y=28.5.
Point 24, X=1998, Y=27.8.
Point 25, X=1999, Y=27.2.
Point 26, X=2000, Y=26.6.
Maximum at X=1990, Y=33.4 and minimum at X=2000, Y=26.6.

Healthy People 2010 Goal 3-3: 22.3 deaths per 100,000 people.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
Death rates for female breast cancer are based on a sex-specific population.\
* The Annual Percent Change (APC) is statistically significant.

back

Close window

Figure 25c. U.S. Death Rates for Common Cancers, Colorectal - 1975-2001



Healthy People 2010 Goal 3-5: 13.9 deaths per 100,000 people.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.

Close window

Line graph with 2 lines and 26 points per line.

x-axis title: Year of Death
y-axis title: Rate per 100,000

X scale titled Scale label.
Y scale titled Scale label.
Scale Marker 1 on Y scale, line at 14. Scale marker text: Healthy People 2010 Goal
Data series 1, Colorectal (Scatter).
Point 1, X=1975, Y=28.
Point 2, X=1976, Y=28.5.
Point 3, X=1977, Y=28.1.
Point 4, X=1978, Y=28.5.
Point 5, X=1979, Y=28.1, Note: Falling slightly 1975 - 1984 APC = -0.51*.
Point 6, X=1980, Y=28.
Point 7, X=1981, Y=27.5.
Point 8, X=1982, Y=27.2.
Point 9, X=1983, Y=27.1.
Point 10, X=1984, Y=27.3.
Point 11, X=1985, Y=26.9.
Point 12, X=1986, Y=26.1.
Point 13, X=1987, Y=25.8.
Point 14, X=1988, Y=25.2.
Point 15, X=1989, Y=25.
Point 16, X=1990, Y=24.6.
Point 17, X=1991, Y=24.
Point 18, X=1992, Y=23.6, Note: Falling 1984 - 2001 APC = -1.74*.
Point 19, X=1993, Y=23.3.
Point 20, X=1994, Y=22.9.
Point 21, X=1995, Y=22.6.
Point 22, X=1996, Y=21.9.
Point 23, X=1997, Y=21.5.
Point 24, X=1998, Y=21.2.
Point 25, X=1999, Y=20.9.
Point 26, X=2000, Y=20.7.
Maximum at X=1976, Y=28.5 and minimum at X=2000, Y=20.7.
Data series 2, Colorectal Joinpoint (Line).
Point 1, X=1975, Y=28.5.
Point 2, X=1976, Y=28.3.
Point 3, X=1977, Y=28.2.
Point 4, X=1978, Y=28.
Point 5, X=1979, Y=27.9.
Point 6, X=1980, Y=27.8.
Point 7, X=1981, Y=27.6.
Point 8, X=1982, Y=27.5.
Point 9, X=1983, Y=27.3.
Point 10, X=1984, Y=27.2.
Point 11, X=1985, Y=26.7.
Point 12, X=1986, Y=26.3.
Point 13, X=1987, Y=25.8.
Point 14, X=1988, Y=25.3.
Point 15, X=1989, Y=24.9.
Point 16, X=1990, Y=24.5.
Point 17, X=1991, Y=24.
Point 18, X=1992, Y=23.6.

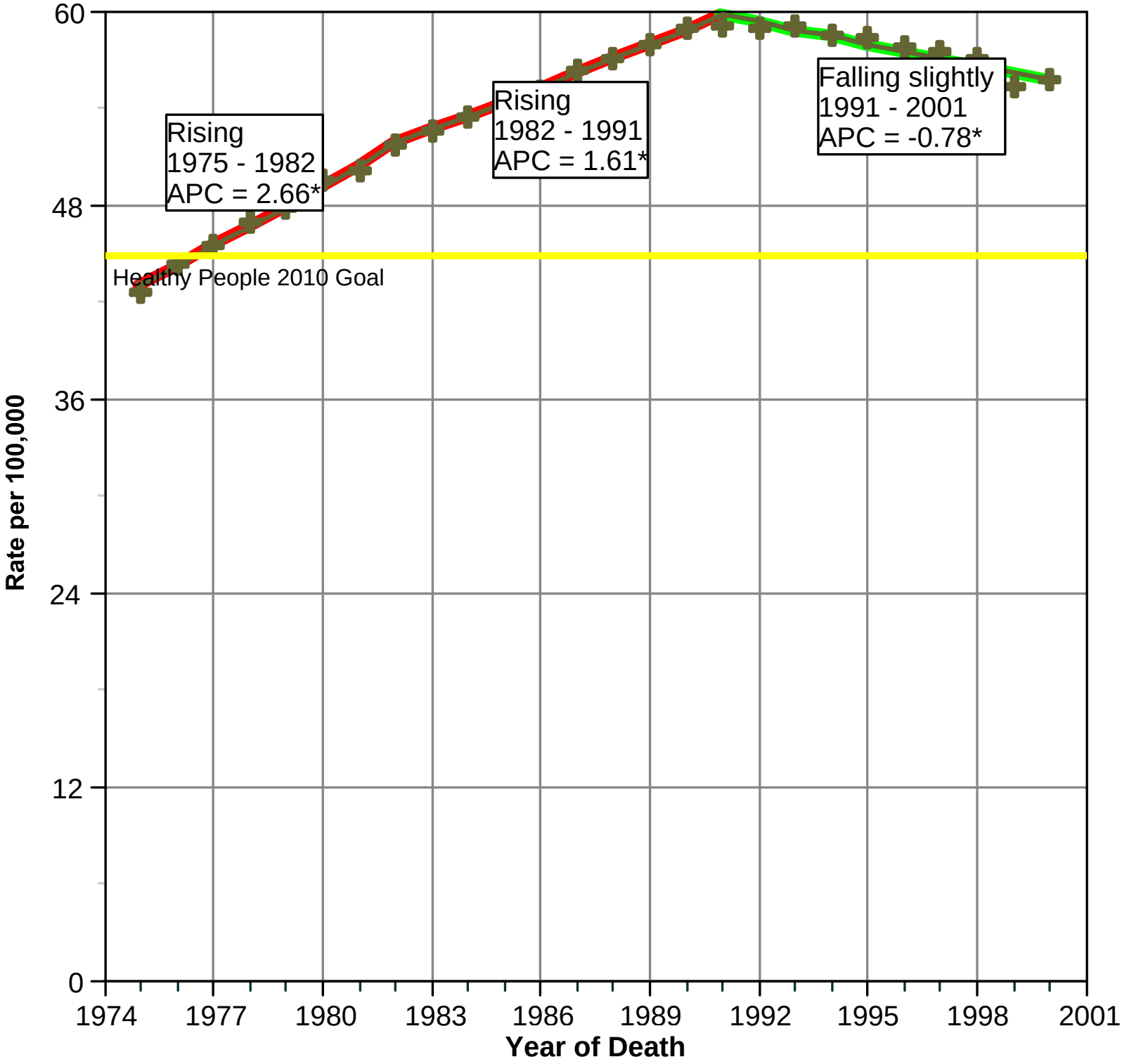
Point 19, X=1993, Y=23.2.
Point 20, X=1994, Y=22.8.
Point 21, X=1995, Y=22.4.
Point 22, X=1996, Y=22.
Point 23, X=1997, Y=21.6.
Point 24, X=1998, Y=21.3.
Point 25, X=1999, Y=20.9.
Point 26, X=2000, Y=20.5.
Maximum at X=1975, Y=28.5 and minimum at X=2000, Y=20.5.

Healthy People 2010 Goal 3-5: 13.9 deaths per 100,000 people.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.

back

Close window

Figure 25d. U.S. Death Rates for Common Cancers, Lung and Bronchus - 1975-2001



Healthy People 2010 Goal 3-2: 44.9 deaths per 100,000 people.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.

Close window

Line graph with 2 lines and 26 points per line.

x-axis title: Year of Death
y-axis title: Rate per 100,000

X scale titled Scale label.
Y scale titled Scale label.
Scale Marker 1 on Y scale, line at 45. Scale marker text: Healthy People 2010 Goal
Data series 1, Lung and Bronchus (Scatter).
Point 1, X=1975, Y=42.7.
Point 2, X=1976, Y=44.4.
Point 3, X=1977, Y=45.6.
Point 4, X=1978, Y=47, Note: Rising 1975 - 1982 APC = 2.66*.
Point 5, X=1979, Y=47.8.
Point 6, X=1980, Y=49.6.
Point 7, X=1981, Y=50.2.
Point 8, X=1982, Y=51.7.
Point 9, X=1983, Y=52.6.
Point 10, X=1984, Y=53.5.
Point 11, X=1985, Y=54.5.
Point 12, X=1986, Y=55.1.
Point 13, X=1987, Y=56.4, Note: Rising 1982 - 1991 APC = 1.61*.
Point 14, X=1988, Y=57.1.
Point 15, X=1989, Y=58.
Point 16, X=1990, Y=59.
Point 17, X=1991, Y=59.2.
Point 18, X=1992, Y=59.
Point 19, X=1993, Y=59.2.
Point 20, X=1994, Y=58.6.
Point 21, X=1995, Y=58.4.
Point 22, X=1996, Y=57.8, Note: Falling slightly 1991 - 2001 APC = -0.78*.
Point 23, X=1997, Y=57.5.
Point 24, X=1998, Y=57.1.
Point 25, X=1999, Y=55.4.
Point 26, X=2000, Y=55.8.
Maximum at X=1991, Y=59.2 and minimum at X=1975, Y=42.7.
Data series 2, Lung and Bronchus Joinpoint (Line).
Point 1, X=1975, Y=43.1.
Point 2, X=1976, Y=44.3.
Point 3, X=1977, Y=45.5.
Point 4, X=1978, Y=46.7.
Point 5, X=1979, Y=47.9.
Point 6, X=1980, Y=49.2.
Point 7, X=1981, Y=50.5.
Point 8, X=1982, Y=51.9.
Point 9, X=1983, Y=52.7.
Point 10, X=1984, Y=53.5.
Point 11, X=1985, Y=54.4.
Point 12, X=1986, Y=55.3.
Point 13, X=1987, Y=56.2.
Point 14, X=1988, Y=57.1.
Point 15, X=1989, Y=58.
Point 16, X=1990, Y=58.9.
Point 17, X=1991, Y=59.9.
Point 18, X=1992, Y=59.4.

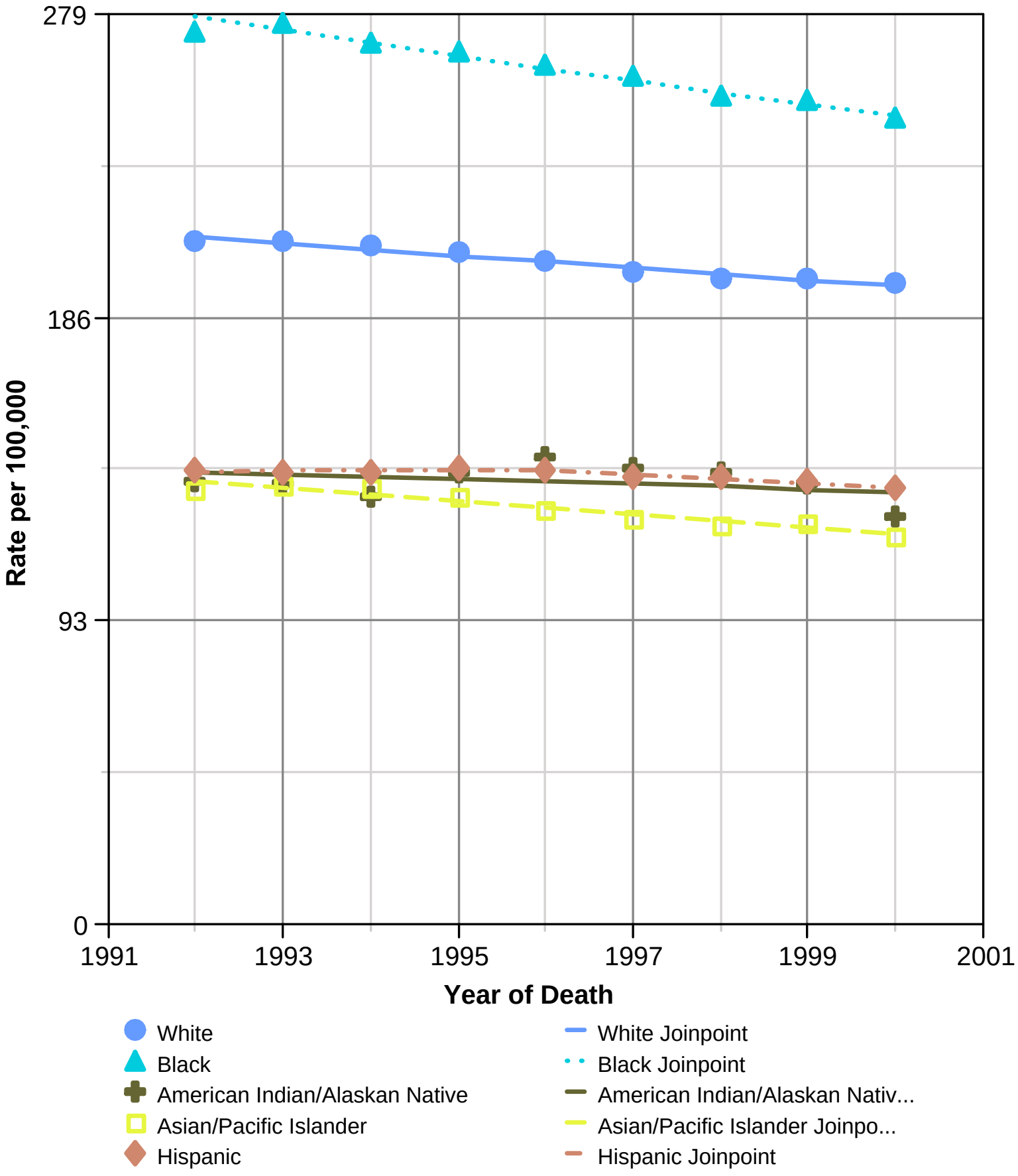
Point 19, X=1993, Y=58.9.
Point 20, X=1994, Y=58.5.
Point 21, X=1995, Y=58.
Point 22, X=1996, Y=57.6.
Point 23, X=1997, Y=57.1.
Point 24, X=1998, Y=56.7.
Point 25, X=1999, Y=56.2.
Point 26, X=2000, Y=55.8.
Maximum at X=1991, Y=59.9 and minimum at X=1975, Y=43.1.

Healthy People 2010 Goal 3-2: 44.9 deaths per 100,000 people.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.

back

Close window

Figure 26. U.S. Death Rates for All Cancers Combined by Race/Ethnicity - 1992-2001



Source: National Center for Health Statistics data as analyzed by NCI.\
Hispanic Death Rates do not include data from Connecticut, Maine, Maryland, Oklahoma, New York, New Hampshire, North Dakota ...
cancer.gov/seerstat/variables/mort/yr1969_2001/origin_recode_1990+/)\
Data are age-adjusted to the 2000 standard using age groups: <1, 1-4, 5-14, 15-24, 25-34, 35-44, 45-54, 55-64, 65-74, 75-84,...
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Se...

Line graph with 10 lines and 9 points per line.

x-axis title: Year of Death
y-axis title: Rate per 100,000

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, White (Scatter).
Point 1, X=1992, Y=209.5.
Point 2, X=1993, Y=209.4.
Point 3, X=1994, Y=208.
Point 4, X=1995, Y=206.3.
Point 5, X=1996, Y=203.4.
Point 6, X=1997, Y=200.1.
Point 7, X=1998, Y=197.7.
Point 8, X=1999, Y=198.
Point 9, X=2000, Y=196.5.
Maximum at X=1992, Y=209.5 and minimum at X=2000, Y=196.5.
Data series 2, White Joinpoint (Line).
Point 1, X=1992, Y=210.9.
Point 2, X=1993, Y=208.9.
Point 3, X=1994, Y=207.
Point 4, X=1995, Y=205.
Point 5, X=1996, Y=203.1.
Point 6, X=1997, Y=201.2.
Point 7, X=1998, Y=199.3.
Point 8, X=1999, Y=197.5.
Point 9, X=2000, Y=195.6.
Maximum at X=1992, Y=210.9 and minimum at X=2000, Y=195.6.
Data series 3, Black (Scatter).
Point 1, X=1992, Y=273.9.
Point 2, X=1993, Y=276.
Point 3, X=1994, Y=270.5.
Point 4, X=1995, Y=267.8.
Point 5, X=1996, Y=263.3.
Point 6, X=1997, Y=260.2.
Point 7, X=1998, Y=253.9.
Point 8, X=1999, Y=252.5.
Point 9, X=2000, Y=247.
Maximum at X=1993, Y=276 and minimum at X=2000, Y=247.
Data series 4, Black Joinpoint (Line).
Point 1, X=1992, Y=278.1.
Point 2, X=1993, Y=274.1.
Point 3, X=1994, Y=270.2.
Point 4, X=1995, Y=266.3.
Point 5, X=1996, Y=262.4.
Point 6, X=1997, Y=258.7.
Point 7, X=1998, Y=254.9.
Point 8, X=1999, Y=251.3.
Point 9, X=2000, Y=247.7.
Maximum at X=1992, Y=278.1 and minimum at X=2000, Y=247.7.
Data series 5, American Indian/Alaskan Native (Scatter).
Point 1, X=1992, Y=136.1.
Point 2, X=1993, Y=135.
Point 3, X=1994, Y=131.1.
Point 4, X=1995, Y=138.3.
Point 5, X=1996, Y=142.9.
Point 6, X=1997, Y=139.9.
Point 7, X=1998, Y=138.6.
Point 8, X=1999, Y=134.8.
Point 9, X=2000, Y=124.9.
Maximum at X=1996, Y=142.9 and minimum at X=2000, Y=124.9.
Data series 6, American Indian/Alaskan Native Joinpoint (Line).
Point 1, X=1992, Y=138.6.
Point 2, X=1993, Y=137.8.
Point 3, X=1994, Y=137.1.
Point 4, X=1995, Y=136.4.
Point 5, X=1996, Y=135.6.
Point 6, X=1997, Y=134.9.
Point 7, X=1998, Y=134.2.
Point 8, X=1999, Y=133.4.
Point 9, X=2000, Y=132.7.
Maximum at X=1992, Y=138.6 and minimum at X=2000, Y=132.7.
Data series 7, Asian/Pacific Islander (Scatter).
Point 1, X=1992, Y=132.9.
Point 2, X=1993, Y=134.5.
Point 3, X=1994, Y=133.9.
Point 4, X=1995, Y=131.
Point 5, X=1996, Y=126.9.
Point 6, X=1997, Y=124.1.
Point 7, X=1998, Y=122.6.

Point 8, X=1999, Y=122.7.
Point 9, X=2000, Y=118.9.
Maximum at X=1993, Y=134.5 and minimum at X=2000, Y=118.9.
Data series 8, Asian/Pacific Islander Joinpoint (Line).
Point 1, X=1992, Y=135.7.
Point 2, X=1993, Y=133.6.
Point 3, X=1994, Y=131.5.
Point 4, X=1995, Y=129.5.
Point 5, X=1996, Y=127.5.
Point 6, X=1997, Y=125.5.
Point 7, X=1998, Y=123.5.
Point 8, X=1999, Y=121.6.
Point 9, X=2000, Y=119.7.
Maximum at X=1992, Y=135.7 and minimum at X=2000, Y=119.7.
Data series 9, Hispanic (Scatter).
Point 1, X=1992, Y=139.1.
Point 2, X=1993, Y=138.8.
Point 3, X=1994, Y=138.4.
Point 4, X=1995, Y=139.7.
Point 5, X=1996, Y=139.
Point 6, X=1997, Y=137.4.
Point 7, X=1998, Y=137.4.
Point 8, X=1999, Y=136.
Point 9, X=2000, Y=133.8.
Maximum at X=1995, Y=139.7 and minimum at X=2000, Y=133.8.
Data series 10, Hispanic Joinpoint (Line).
Point 1, X=1992, Y=138.8.
Point 2, X=1993, Y=138.9.
Point 3, X=1994, Y=139.1.
Point 4, X=1995, Y=139.2.
Point 5, X=1996, Y=139.3.
Point 6, X=1997, Y=137.9.
Point 7, X=1998, Y=136.6.
Point 8, X=1999, Y=135.3.
Point 9, X=2000, Y=134.
Maximum at X=1996, Y=139.3 and minimum at X=2000, Y=134.

Source: National Center for Health Statistics data as analyzed by NCI.\
Hispanic Death Rates do not include data from Connecticut, Maine, Maryland, Oklahoma, New York, New Hampshire, North Dakota and Vermont (see http://seer.cancer.gov/seerstat/variables/mort/yr1969_2001/origin_recode_1990+/)\
Data are age-adjusted to the 2000 standard using age groups: <1, 1-4, 5-14, 15-24, 25-34, 35-44, 45-54, 55-64, 65-74, 75-84, 85+.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.

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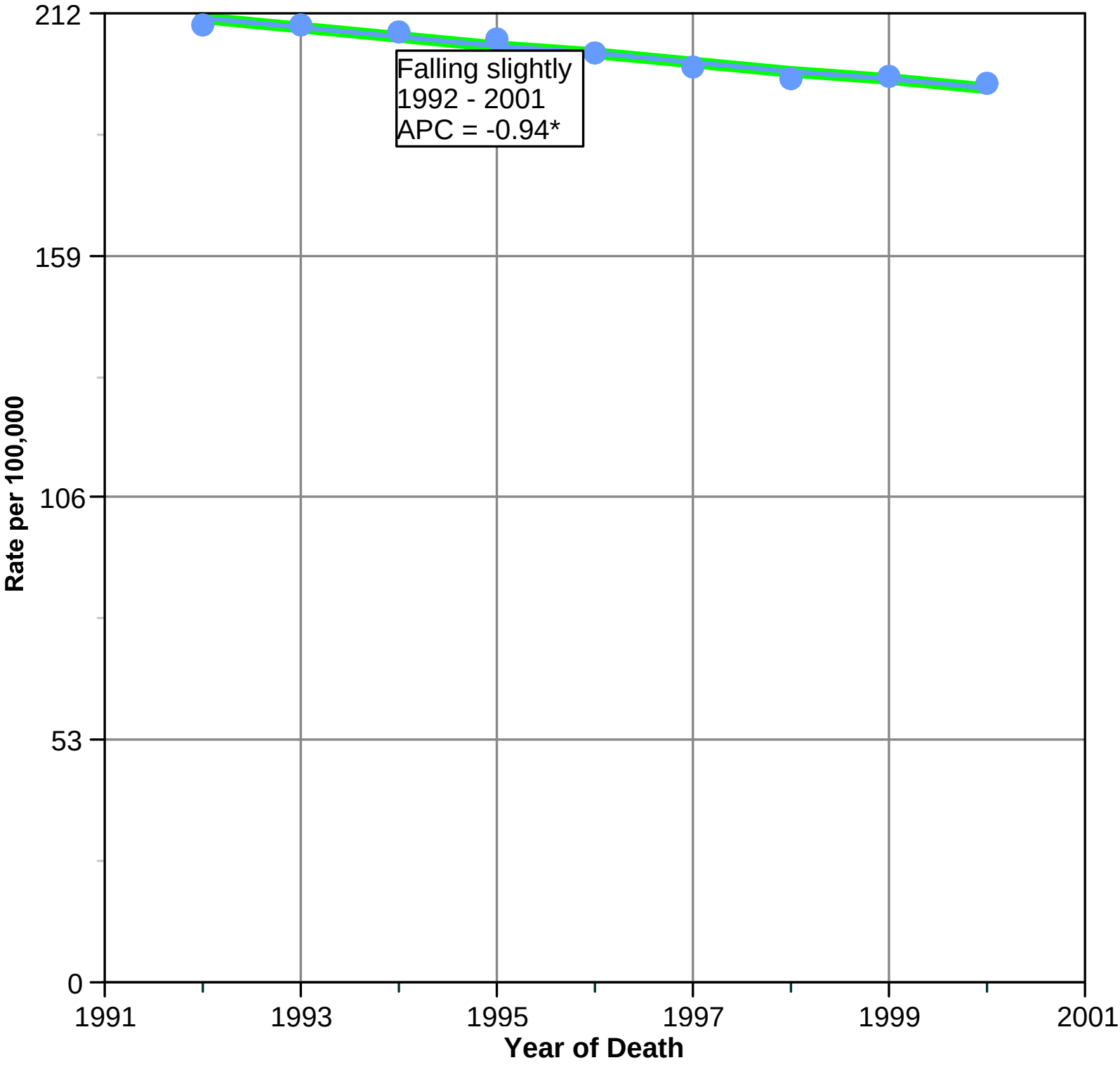
Figure 26a. U.S. Death Rates for All Cancers Combined by Race/Ethnicity, White - 1992-2001



Healthy People2010 Goal 3-1: 159.9 cancer deaths per 100,000 people, All Races. No Healthy People 2010 Target Goal for Whites.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.

Close window

Line graph with 2 lines and 9 points per line.

x-axis title: Year of Death
y-axis title: Rate per 100,000

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, White (Scatter).
Point 1, X=1992, Y=209.5.
Point 2, X=1993, Y=209.4.
Point 3, X=1994, Y=208.
Point 4, X=1995, Y=206.3, Note: Falling slightly 1992 - 2001 APC = -0.94*.
Point 5, X=1996, Y=203.4.
Point 6, X=1997, Y=200.1.
Point 7, X=1998, Y=197.7.
Point 8, X=1999, Y=198.
Point 9, X=2000, Y=196.5.
Maximum at X=1992, Y=209.5 and minimum at X=2000, Y=196.5.
Data series 2, White Joinpoint (Line).
Point 1, X=1992, Y=210.9.
Point 2, X=1993, Y=208.9.
Point 3, X=1994, Y=207.
Point 4, X=1995, Y=205.
Point 5, X=1996, Y=203.1.
Point 6, X=1997, Y=201.2.
Point 7, X=1998, Y=199.3.
Point 8, X=1999, Y=197.5.
Point 9, X=2000, Y=195.6.
Maximum at X=1992, Y=210.9 and minimum at X=2000, Y=195.6.

Healthy People2010 Goal 3-1: 159.9 cancer deaths per 100,000 people, All Races. No Healthy People 2010 Target Goal for Whites.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.

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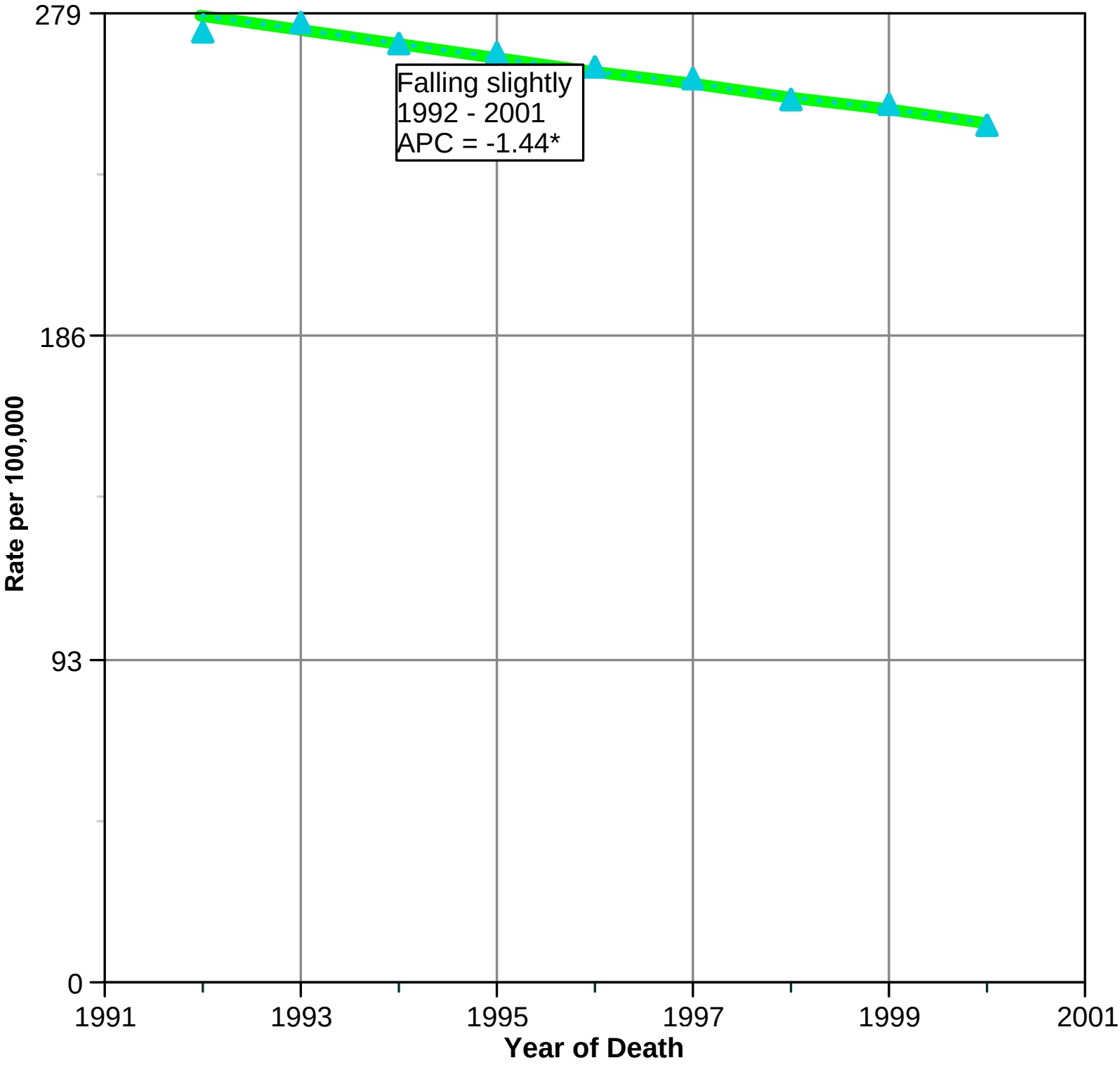
Close window

Figure 26b. U.S. Death Rates for All Cancers Combined by Race/Ethnicity, Black - 1992-2001



Healthy People2010 Goal 3-1: 159.9 cancer deaths per 100,000 people, All Races. No Healthy People 2010 Target Goal for Blacks.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.

Close window

Line graph with 2 lines and 9 points per line.

x-axis title: Year of Death
y-axis title: Rate per 100,000

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Black (Scatter).
Point 1, X=1992, Y=273.9.
Point 2, X=1993, Y=276.
Point 3, X=1994, Y=270.5.
Point 4, X=1995, Y=267.8, Note: Falling slightly 1992 - 2001 APC = -1.44*.
Point 5, X=1996, Y=263.3.
Point 6, X=1997, Y=260.2.
Point 7, X=1998, Y=253.9.
Point 8, X=1999, Y=252.5.
Point 9, X=2000, Y=247.
Maximum at X=1993, Y=276 and minimum at X=2000, Y=247.
Data series 2, Black Joinpoint (Line).
Point 1, X=1992, Y=278.1.
Point 2, X=1993, Y=274.1.
Point 3, X=1994, Y=270.2.
Point 4, X=1995, Y=266.3.
Point 5, X=1996, Y=262.4.
Point 6, X=1997, Y=258.7.
Point 7, X=1998, Y=254.9.
Point 8, X=1999, Y=251.3.
Point 9, X=2000, Y=247.7.
Maximum at X=1992, Y=278.1 and minimum at X=2000, Y=247.7.

Healthy People2010 Goal 3-1: 159.9 cancer deaths per 100,000 people, All Races. No Healthy People 2010 Target Goal for Blacks.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.

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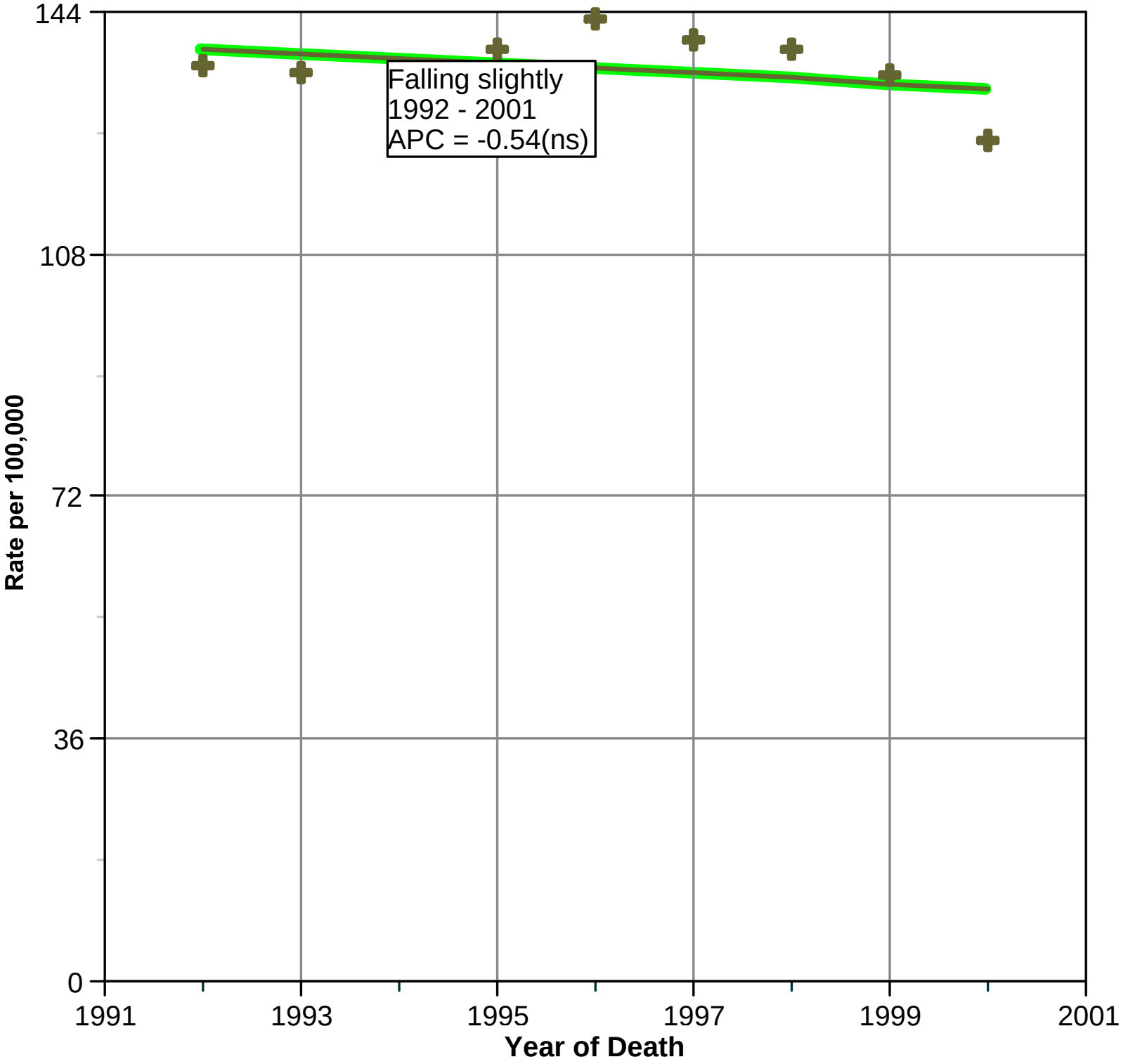
Figure 26c. U.S. Death Rates for All Cancers Combined by Race/Ethnicity, American Indian/Alaskan Native - 1992-2001



Healthy People2010 Goal 3-1: 159.9 cancer deaths per 100,000 people, All Races. No Healthy People 2010 Target Goal for American Indian/Alaskan Natives.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.

Close window

Line graph with 2 lines and 9 points per line.

x-axis title: Year of Death
y-axis title: Rate per 100,000

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, American Indian/Alaskan Native (Scatter).
Point 1, X=1992, Y=136.1.
Point 2, X=1993, Y=135.
Point 3, X=1994, Y=131.1.
Point 4, X=1995, Y=138.3, Note: Falling slightly 1992 - 2001 APC = -0.54(ns).
Point 5, X=1996, Y=142.9.
Point 6, X=1997, Y=139.9.
Point 7, X=1998, Y=138.6.
Point 8, X=1999, Y=134.8.
Point 9, X=2000, Y=124.9.
Maximum at X=1996, Y=142.9 and minimum at X=2000, Y=124.9.
Data series 2, American Indian/Alaskan Native Joinpoint (Line).
Point 1, X=1992, Y=138.6.
Point 2, X=1993, Y=137.8.
Point 3, X=1994, Y=137.1.
Point 4, X=1995, Y=136.4.
Point 5, X=1996, Y=135.6.
Point 6, X=1997, Y=134.9.
Point 7, X=1998, Y=134.2.
Point 8, X=1999, Y=133.4.
Point 9, X=2000, Y=132.7.
Maximum at X=1992, Y=138.6 and minimum at X=2000, Y=132.7.

Healthy People2010 Goal 3-1: 159.9 cancer deaths per 100,000 people, All Races. No Healthy People 2010 Target Goal for American Indian/Alaskan Natives.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.

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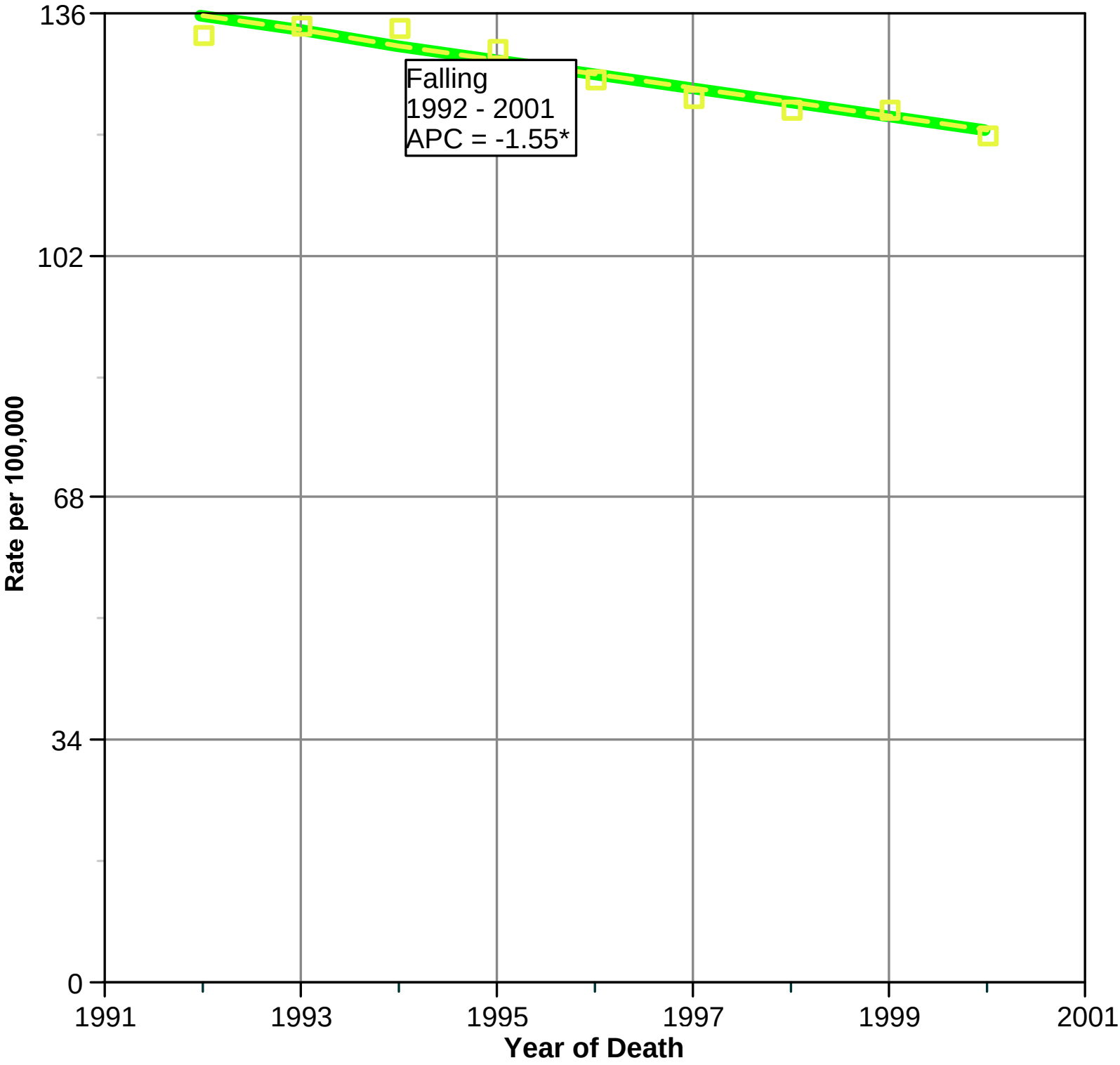
Figure 26d. U.S. Death Rates for All Cancers Combined by Race/Ethnicity, Asian/ Pacific Islander - 1992-2001



Healthy People2010 Goal 3-1: 159.9 cancer deaths per 100,000 people, All Races. No Healthy People 2010 Target Goal for Asian/Pacific Islanders.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.

Close window

Line graph with 2 lines and 9 points per line.

x-axis title: Year of Death
y-axis title: Rate per 100,000

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Asian/Pacific Islander (Scatter).
Point 1, X=1992, Y=132.9.
Point 2, X=1993, Y=134.5.
Point 3, X=1994, Y=133.9.
Point 4, X=1995, Y=131, Note: Falling 1992 - 2001 APC = -1.55*.
Point 5, X=1996, Y=126.9.
Point 6, X=1997, Y=124.1.
Point 7, X=1998, Y=122.6.
Point 8, X=1999, Y=122.7.
Point 9, X=2000, Y=118.9.
Maximum at X=1993, Y=134.5 and minimum at X=2000, Y=118.9.
Data series 2, Asian/Pacific Islander Joinpoint (Line).
Point 1, X=1992, Y=135.7.
Point 2, X=1993, Y=133.6.
Point 3, X=1994, Y=131.5.
Point 4, X=1995, Y=129.5.
Point 5, X=1996, Y=127.5.
Point 6, X=1997, Y=125.5.
Point 7, X=1998, Y=123.5.
Point 8, X=1999, Y=121.6.
Point 9, X=2000, Y=119.7.
Maximum at X=1992, Y=135.7 and minimum at X=2000, Y=119.7.

Healthy People2010 Goal 3-1: 159.9 cancer deaths per 100,000 people, All Races. No Healthy People 2010 Target Goal for Asian/Pacific Islanders.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.

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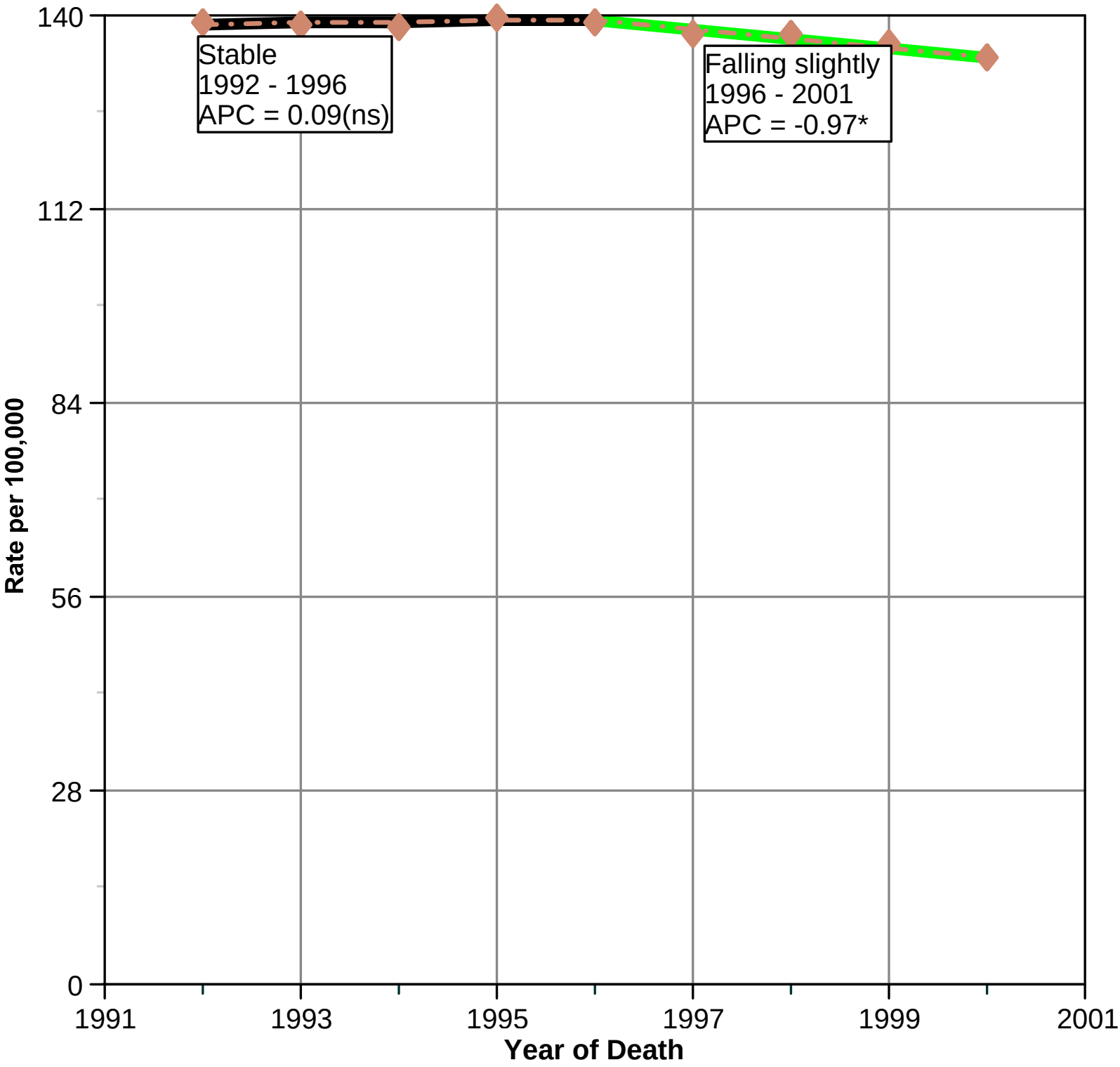
Figure 26e. U.S. Death Rates for All Cancers Combined by Race/Ethnicity, Hispanic - 1992-2001



Healthy People2010 Goal 3-1: 159.9 cancer deaths per 100,000 people, All Races. No Healthy People 2010 Target Goal for Hispanics.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, p<0.05.

Close window

Line graph with 2 lines and 9 points per line.

x-axis title: Year of Death
y-axis title: Rate per 100,000

X scale titled Scale label.
Y scale titled Scale label.
Data series 1, Hispanic (Scatter).
Point 1, X=1992, Y=139.1.
Point 2, X=1993, Y=138.8, Note: Stable 1992 - 1996 APC = 0.09(ns).
Point 3, X=1994, Y=138.4.
Point 4, X=1995, Y=139.7.
Point 5, X=1996, Y=139.
Point 6, X=1997, Y=137.4.
Point 7, X=1998, Y=137.4, Note: Falling slightly 1996 - 2001 APC = -0.97*.
Point 8, X=1999, Y=136.
Point 9, X=2000, Y=133.8.
Maximum at X=1995, Y=139.7 and minimum at X=2000, Y=133.8.
Data series 2, Hispanic Joinpoint (Line).
Point 1, X=1992, Y=138.8.
Point 2, X=1993, Y=138.9.
Point 3, X=1994, Y=139.1.
Point 4, X=1995, Y=139.2.
Point 5, X=1996, Y=139.3.
Point 6, X=1997, Y=137.9.
Point 7, X=1998, Y=136.6.
Point 8, X=1999, Y=135.3.
Point 9, X=2000, Y=134.
Maximum at X=1996, Y=139.3 and minimum at X=2000, Y=134.

Healthy People2010 Goal 3-1: 159.9 cancer deaths per 100,000 people, All Races. No Healthy People 2010 Target Goal for Hispanics.\
Weighted regression lines (utilizing standard errors) are calculated using the Joinpoint Regression Program, Version 2.7. Sept. 2003, National Cancer Institute.\
* The Annual Percent Change (APC) is statistically significant.\
(ns) The Annual Percent Change (APC) is not statistically significant, $p<0.05$.

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End of Life

Person-Years of Life Lost

Cancer is responsible for more estimated years of life lost than any other cause of death.

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- **Person-Years of Life Lost**

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On this page:

- Person-Years of Life Lost to Cancer
- Measure
- Period
- Trend
- Most Recent Estimate
- Healthy People 2010 Target
- Groups at High Risk for the Most PYLL
- Key Issues

Person-Years of Life Lost to Cancer

Death rates alone do not give a complete picture of the burden of cancer deaths. Another useful measure is person-years of life lost (PYLL) — the years of life lost due to early death from a particular cause. PYLL helps to describe the extent to which life is cut short by cancer. On average, each person who dies from cancer loses an estimated 15 years of life.

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Measure

PYLL due to cancer: The difference between the actual age of death due to a cancer and the expected age of death.

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Period – 2001

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Trend – No trend data are available.

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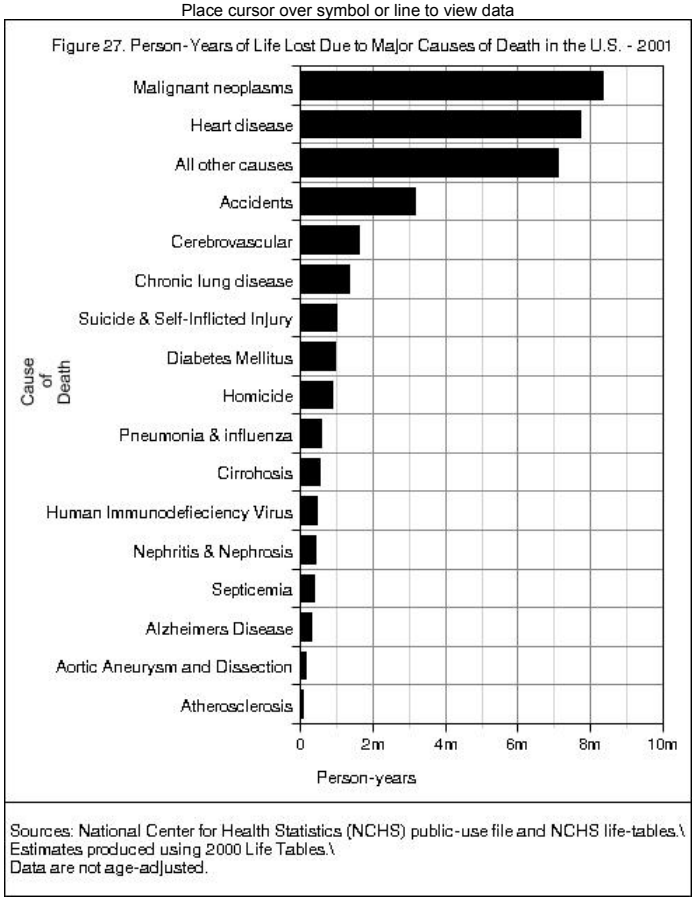
Most Recent Estimates

In 2001, cancer deaths were responsible for nearly 8.4 million PYLL. This is more than heart disease or any other cause of death.

Graph image format: ○ [D] ○ FLASH ◉ JPEG

Place cursor over symbol or line to view data

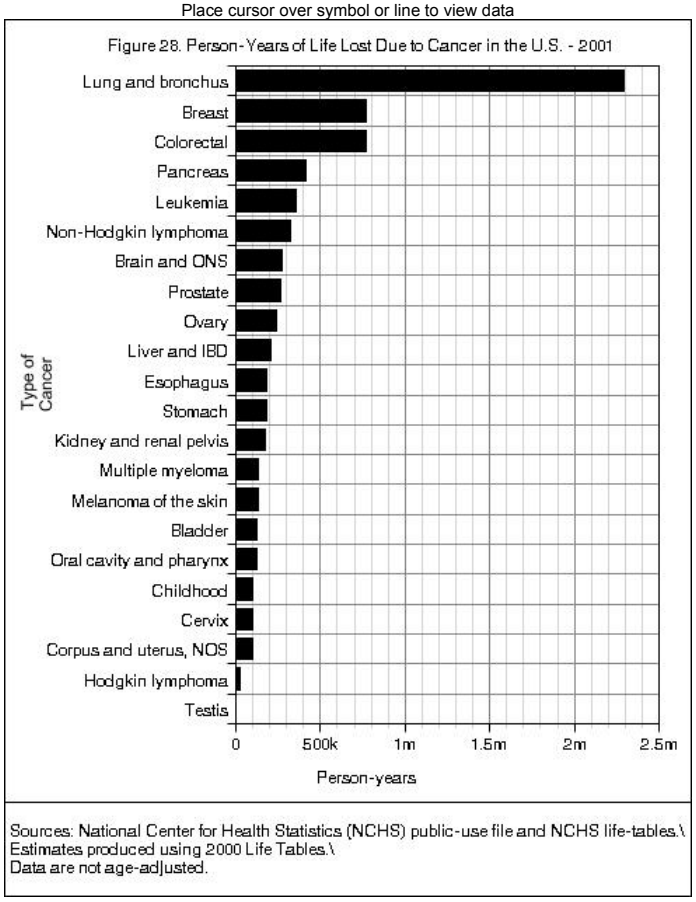


Download data (Excel)

Also, in 2001, lung cancer accounted for over 2.3 million PYLL, the most by far of any cancer. In contrast, prostate cancer, which primarily affects older men, accounted for fewer than 300,000 PYLL.

Graph image format: ○ [D] ○ FLASH ◉ JPEG

Place cursor over symbol or line to view data



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Healthy People 2010 Target

There is no Healthy People 2010 target for this measure.

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Groups at High Risk for the Most PYLL

Cancers that are both common and associated with poor survival are responsible for the most PYLL. Breast and colorectal cancers are also common cancers that strike people at a relatively young age and cause many years of life lost. Deaths from childhood cancers, which are uncommon, lead to the most years of life lost for the individual, but contribute only a small percentage to total PYLL.

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Key Issues

The greatest impact on reducing the number of years lost to cancer will come from progress against common cancers—especially lung, breast, and colorectal cancers.

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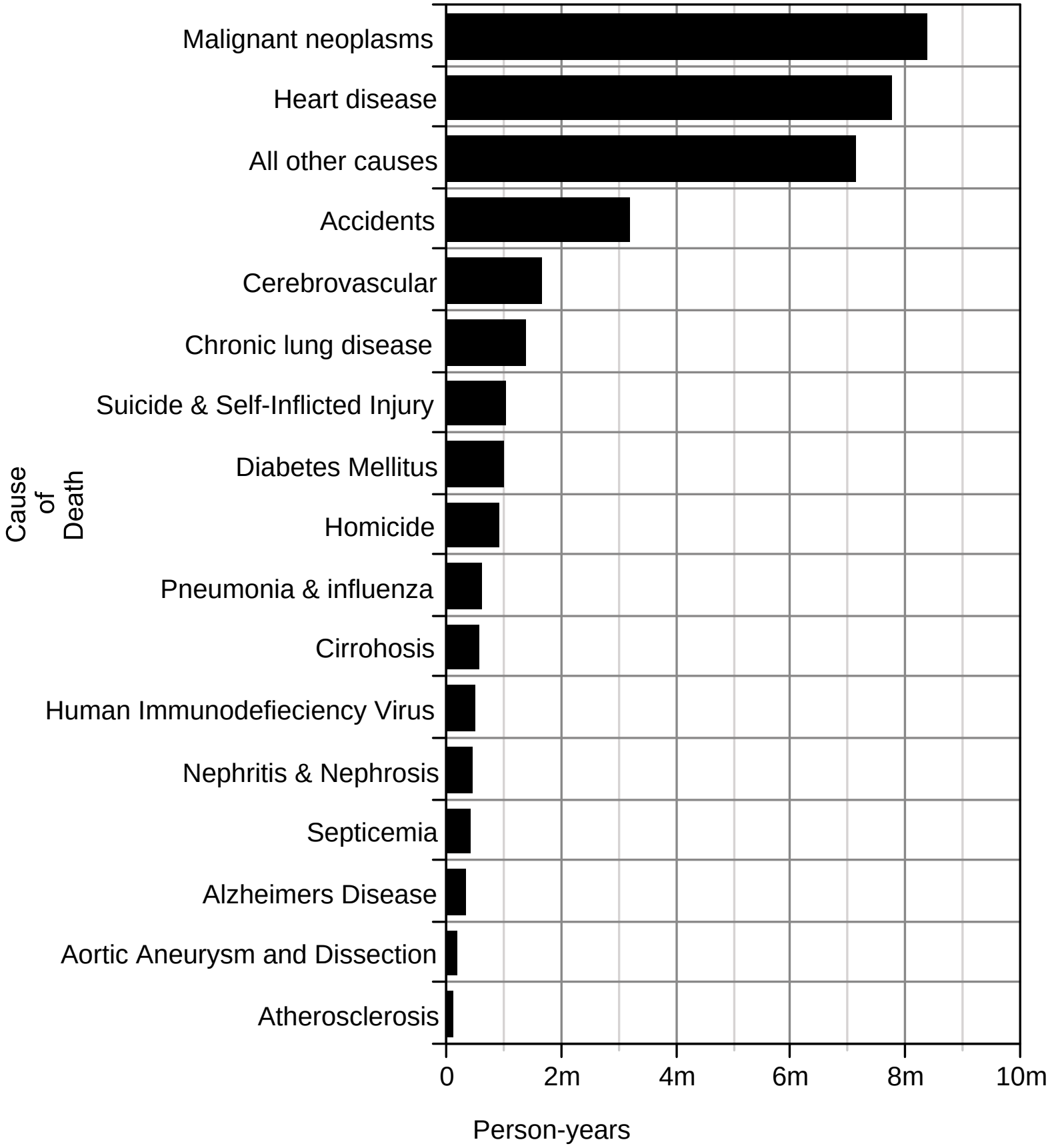
Figure 27. Person-Years of Life Lost Due to Major Causes of Death in the U.S. - 2001



Sources: National Center for Health Statistics (NCHS) public-use file and NCHS life-tables.\
Estimates produced using 2000 Life Tables.\
Data are not age-adjusted.

Horizontal Bar chart with 17 items.

X scale titled Scale label.
Item 1, Malignant neoplasms 8376000 person-years.
Item 2, Heart disease 7779000 person-years.
Item 3, All other causes 7137000 person-years.
Item 4, Accidents 3219000 person-years.
Item 5, Cerebrovascular 1644000 person-years.
Item 6, Chronic lung disease 1400000 person-years.
Item 7, Suicide & Self-Inflicted Injury 1032000 person-years.
Item 8, Diabetes Mellitus 987000 person-years.
Item 9, Homicide 908000 person-years.
Item 10, Pneumonia & influenza 599000 person-years.
Item 11, Cirrohosis 598000 person-years.
Item 12, Human Immunodefieciency Virus 496000 person-years.
Item 13, Nephritis & Nephrosis 459000 person-years.
Item 14, Septicemia 434000 person-years.
Item 15, Alzheimers Disease 364000 person-years.
Item 16, Aortic Aneurysm and Dissection 183000 person-years.
Item 17, Atherosclerosis 106000 person-years.

Sources: National Center for Health Statistics (NCHS) public-use file and NCHS life-tables.\
Estimates produced using 2000 Life Tables.\
Data are not age-adjusted.

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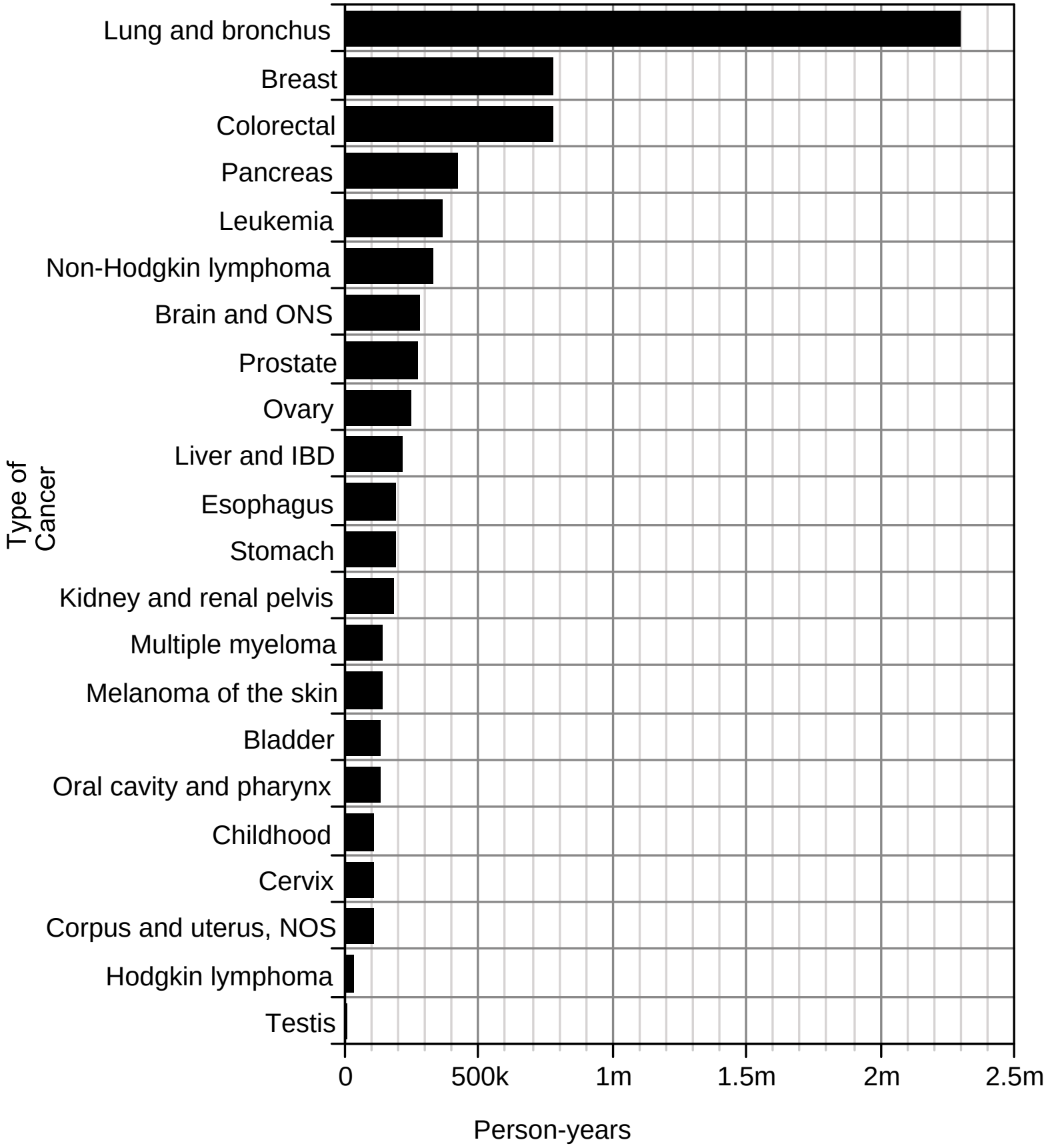
Figure 28. Person-Years of Life Lost Due to Cancer in the U.S. - 2001



Sources: National Center for Health Statistics (NCHS) public-use file and NCHS life-tables.\
Estimates produced using 2000 Life Tables.\
Data are not age-adjusted.

Horizontal Bar chart with 22 items.

X scale titled Scale label.
Item 1, Lung and bronchus 2304000 person-years.
Item 2, Breast 780000 person-years.
Item 3, Colorectal 777000 person-years.
Item 4, Pancreas 420000 person-years.
Item 5, Leukemia 361000 person-years.
Item 6, Non-Hodgkin lymphoma 329000 person-years.
Item 7, Brain and ONS 279000 person-years.
Item 8, Prostate 275000 person-years.
Item 9, Ovary 245000 person-years.
Item 10, Liver and IBD 214000 person-years.
Item 11, Esophagus 191000 person-years.
Item 12, Stomach 189000 person-years.
Item 13, Kidney and renal pelvis 180000 person-years.
Item 14, Multiple myeloma 143000 person-years.
Item 15, Melanoma of the skin 141000 person-years.
Item 16, Bladder 136000 person-years.
Item 17, Oral cavity and pharynx 129000 person-years.
Item 18, Childhood 105000 person-years.
Item 19, Cervix 104000 person-years.
Item 20, Corpus and uterus, NOS 104000 person-years.
Item 21, Hodgkin lymphoma 34000 person-years.
Item 22, Testis 12000 person-years.

Sources: National Center for Health Statistics (NCHS) public-use file and NCHS life-tables.\
Estimates produced using 2000 Life Tables.\
Data are not age-adjusted.

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Appendices

Acknowledgments

References

Methodology for Characterizing Trends

Incidence & Mortality Charts

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References

Following are selected major references used in preparing this report.

The data referenced here will not always match the data in the *Cancer Progress Report - 2003 Update*. This is because most of the report's data were age-adjusted to the year 2000 standard population so they would be compatible with data presented in Healthy People 2010.

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Methodology for Characterizing Trends

In order to obtain a consistent characterization of population trends in factors related to the prevention, early detection, or treatment of cancer, the joinpoint statistical methodology was used in this report. This methodology characterizes a trend using joined linear segments on a logarithmic scale; the point where two segments meet is called a "joinpoint." The methodology has previously proven useful in characterizing trends in cancer incidence and mortality rates (e.g., in the Annual Report to the nation on the Status of Cancer: 1975-2000; 2003).

The joinpoint software (Joinpoint Version 2.7) uses statistical criteria to determine the fewest number of segments necessary to characterize a trend, where the segments begin and end, and the annual percent change (APC) for each segment (a linear trend on a log scale implies a constant annual percent change). In addition, a 95 percent confidence interval around the APC was used to determine if the APC for each segment differed significantly from zero. Whenever possible, weighted regression lines (utilizing standard errors) were calculated using the joinpoint software. Using a log response variable, the weight (motivated by the delta method) equals the square of the response variable divided by the square of the standard error. If the standard errors were unavailable, an unweighted regression was used.

Using the results of these analyses, we characterize trends in this report with respect to both their public health importance and statistical significance. If a trend was:

- Changing less than 0.5 percent per year (-0.5 < APC < 0.5), and
  - the APC was not statistically significant, we characterized it as STABLE
  - the APC was statistically different from zero, we characterized it as MINIMALLY RISING or MINIMALLY FALLING

- Changing more than 0.5 percent per year but less than 1.5 percent per year, we characterized it as RISING or FALLING SLIGHTLY (-1.5 < APC < -0.5 or 0.5 < APC < 1.5)

- Changing more than 1.5 percent per year, we characterized it as RISING or FALLING (APC >-1.5 or APC< 1.5)

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If the trend was rising or falling at 0.5 percent per year or more, the statistical significance of the APC was also noted. While these categorizations are somewhat arbitrary, they do provide a consistent method to characterize the trends across disparate measures. However, statistical significance in addition to the absolute value of change for incidence and mortality trends were used to ensure consistency with all major publications on national cancer trends.

To avoid statistical anomalies, segments had to contain at least three observed data points, and no segment could begin or end closer than three data points from the beginning or end of the data series. The maximum number of segments was limited to four (i.e., three joinpoints), since for most practical situations this has been shown to be sufficient, and the calculations become computer intensive when searching for all possible model fits with many segments. However, because we constrained the joinpoint models to those where no segment could begin or end closer than three data points from the beginning or end of the data series, if there were four data points or less, only one segment could be fit; from five to seven data points, up to two segments could be fit; and from eight to ten data points, up to three segments could be fit. To avoid some of these limitations, for two to four data points we connected the data points to determine the APC for each time period, and then employed a two-sample test using the standard errors derived from the survey to determine the statistical significance of the change across periods.

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Cancer Incidence and Death Rates Age-Adjusted (AA) to the 1970 and 2000 Standards, United States 2000

Cancer Incidence

	All		Male		Female	
	AA 1970	AA 2000	AA 1970	AA 2000	AA 1970	AA 2000
Incidence	Rate	Rate	Rate	Rate	Rate	Rate
All sites	387.6	461.6	453	544.6	341.1	406.2
Lung and bronchus	49.5	59	62.2	75.3	39.9	47.2
Breast	61.3	72.5	1.1	1.3	113.5	132.9
Cervix uteri	–	–	–	–	7.3	8.7
Colon and rectum	41.7	52.4	49.2	61.6	35.8	45.3
Prostate	–	–	147.1	172	–	–
Melanomas of skin	13.8	16.5	17.6	21.4	11.1	13.1

Cancer Incidence (continued)

	White Male		White Female		Black Male		Black Female	
	AA 1970	AA 2000	AA 1970	AA 2000	AA 1970	AA 2000	AA 1970	AA 2000
Incidence	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate
All sites	453.1	544.7	354.5	421	574.7	677.3	328.3	391.5
Lung and bronchus	60.8	73.8	41.7	49.2	91.3	108.1	45.9	53.6
Breast	1.1	1.3	119	139.1	2.2	2.7	101.6	119.8
Cervix uteri	–	–	7.3	8.7	–	–	8.6	10.6
Colon and rectum	48.7	61	35.2	44.8	57.6	71.4	45.8	56.5
Prostate	142	165.8	–	–	239.8	275.9	–	–
Melanomas of skin	20.9	25.4	13.5	15.9	–	–	–	–

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Cancer Mortality

	All		Male		Female	
	AA 1970	AA 2000	AA 1970	AA 2000	AA 1970	AA 2000
Mortality	Rate	Rate	Rate	Rate	Rate	Rate
All sites	158.1	199.6	193.8	249.8	133.4	167.3
Lung and bronchus	46.3	56.1	62.3	76.9	34.2	41.2
Breast	12.1	15.3	0.3	0.4	21.7	26.7
Cervix uteri	–	–	–	–	2.3	2.8
Colon and rectum	15.7	20.8	19.2	25.2	13.1	17.6
Prostate	–	–	20.1	30.6	–	–
Melanomas of skin	2.2	2.7	3.1	3.8	1.5	1.8

Cancer Mortality (continued)

	White Male		White Female		Black Male		Black Female	
	AA 1970	AA 2000	AA 1970	AA 2000	AA 1970	AA 2000	AA 1970	AA 2000
Mortality	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate
All sites	189.5	244.6	132.7	166.4	270.3	343.3	156.7	194.3
Lung and bronchus	61.3	75.7	35	42.2	83.9	101.6	33.5	39.9
Breast	0.3	0.4	21.3	26.3	0.5	0.6	28.3	34.6
Cervix uteri	–	–	2.1	2.5	–	–	4.5	5.5
Colon and rectum	18.6	24.6	12.7	17.1	27.3	35.2	18.4	24
Prostate	18.2	27.9	–	–	47.4	69.2	–	–
Melanomas of skin	3.5	4.3	1.7	2	0.5	0.6	0.4	0.5

Source: Incidence rates are based on 12 geographic areas (14% of the U.S. population) from the National Cancer Institute's SEER Program, and death rates are based on the total U.S. population from the National Center for Health Statistics. Rates are per 100,000 and are age-adjusted to 1970 or 2000 U.S. standard million population as specified.

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Frequently Asked Questions

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Related Resources

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- *Cancer Progress Report 2001*

What is *Cancer Progress Report - 2003 Update*?

The National Cancer Institute's *Cancer Progress Report - 2003 Update* is an online report that tracks the nation's progress against cancer across the full cancer continuum -- from prevention through the impact of deaths from cancer.

Why is the report important?

It is the only report of its kind to present -- all in one place -- the most up-to-date information on the nation's progress against cancer, gathered through a collaborative effort with other key cancer agencies and groups, including the National Cancer Institute, the Centers for Disease Control and Prevention, other federal agencies, the American Cancer Society, professional groups and cancer researchers. *Cancer Progress Report - 2003 Update* presents national cancer data, trends, and progress relative to certain cancer-related targets of Healthy People 2010 (a comprehensive set of 10-year national health objectives developed through a public-private effort sponsored by the U.S. Department of Health and Human Services). The report represents an effort to make cancer information more accessible and understandable.

What is the main message of the report?

The nation is making progress toward a number of major cancer-related Healthy People 2010 targets. However, we are losing ground in other important areas that demand attention.

What is in the report?

The report includes key measures in the areas of prevention, screening, diagnosis, life after cancer, and the end of life. Progress is tracked over time, usually beginning in 1990. This progress is measured against certain cancer-related targets of Healthy People 2010.

The body of the report includes standardized information for each measure, including background, definition of measure, time period, trend, most recent estimate, Healthy People 2010 target, groups at high risk and key issues. This information is summarized in chart form in the Highlights section of the report. Special color-coded graphics in this section show whether the trend is going in the desired direction and how the nation's progress compares to the Healthy People 2010 targets.

How is the information displayed and explained?

Most of the trend graphs were made using a statistical method (joinpoint regression analysis) that illustrates real changes in direction instead of merely connecting one dot to another. The report shows whether trends are rising or falling, and it explains why changes might have occurred. For some measures, differences in the cancer burden between some U.S. racial and ethnic groups also are presented. The measures, trends and progress are summarized in chart form in the Highlights section of the report.

Where did the data come from?

The data in *Cancer Progress Report - 2003 Update* come from a variety of systems and surveys with different collection techniques and reporting times, so time periods may vary. Data were gathered from the National Cancer Institute, the Centers for Disease Control and Prevention, other federal agencies, professional groups and cancer researchers.

How were data selected?

Measures were selected based on scientific evidence and the availability of periodic or longitudinal national, rather than state or local, data collection and analysis efforts. Criteria for selecting measures included the relevance of what was being measured (e.g., impact on cancer, national policy implications); the scientific rigor underlying the measure (e.g., validity, reliability and explicitness of evidence base); the feasibility of using the measure (e.g., availability of long-term data); and usability by target audiences (e.g., ease of understanding and applicability). The report includes more measures for prevention, because more data on trends are

available in that area. Where possible, 1990 was used as the starting point or baseline against which to measure how well the nation is progressing toward the Healthy People 2010 targets.

What data are not in the report?

Not all measures for all relevant areas of cancer progress could be included in this report. In some cases, trend information on a national level is not available. In other cases, there are no reliable numbers at this time. Regarding cancer treatment measures, although dramatic advances have been made in the treatment of many cancers, a national data system for tracking and assessing successes over time is not yet in place. Some measures such as quality of life, while important in assessing the cancer burden, were not included because there simply is no consensus on how best to track those measures at this time. Future editions of the report will include these as well as measures on preventable environmental exposures. Also to be included are more population-level measures like the one in this edition describing state laws on smoke-free air.

Who can use the report?

People can use the report to better understand the nature of cancer and the results of work being done to fight it. Researchers, clinicians and public health providers can focus on the gaps and opportunities identified, and work to make future progress against cancer.

How often will the report be updated?

The online report will be updated in Fall 2005.

What is the rationale for the report?

The *Cancer Progress Report* resulted from recommendations in the late 1990s by NCI's Cancer Control Program Review Group (CCPRG) and Surveillance Implementation Group (SIG) to develop a national progress report on the cancer burden. The CCPRG was convened in 1996 by the NCI director and the NCI Board of Scientific Advisors to evaluate the full scope of the institute's cancer control research program. The SIG was established by the NCI director to provide advice and recommendations for expanding and enhancing NCI's cancer surveillance research program.

How can I get a copy of the report?

Cancer Progress Report - 2003 Update is available online only. Any section of the report may be printed by clicking "Print This Page" in the upper-right corner of the screen. Free copies of the 2001 print version may be ordered by calling 1-800-4-CANCER and requesting *Cancer Progress Report 2001* (T905). A stand-alone version of the executive summary, *Cancer Progress Report 2001: Highlights* (T983), also is available.

Where can more information on cancer be found?

- http://www.cancer.gov
- 1-800-4-CANCER

Where should questions about *Cancer Progress Report - 2003 Update* be directed?

Send questions to Progress Report Help.

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Associated Links

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Related Resources

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The links below are provided for the convenience of Web users. The National Cancer Institute (NCI) is not responsible for the availability, accessibility, or content of external (non-NCI) sites, nor does it endorse, warrant or guarantee the products, services, or information provided or offered at these Internet sites.

Government Agencies

- Agency for Toxic Substances and Disease Registry (ATSDR)
- Centers for Disease Control and Prevention (CDC)
- Centers for Medicare and Medicaid Services (CMS)
- Department of Health & Human Services (DHHS)
- Environmental Health Information Service (EHIS)
- Environmental Protection Agency (EPA)
- National Cancer Institute (NCI)
- National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP)
- National Center for Environmental Health (NCEH)
- National Center for Health Statistics (NCHS)
- National Heart, Lung, and Blood Institute (NHLBI)
- National Institute on Alcohol Abuse and Alcoholism (NIAAA)
- National Institutes of Health (NIH)
- Office of Disease Prevention and Health Promotion (ODPHP)
- Office of the Surgeon General
- Substance Abuse and Mental Health Services Administration (SAMHSA)
- U.S. Department of Agriculture (USDA)
- U.S. Government portal for health-related agencies

Databases

- Behavioral Risk Factor Surveillance System (BRFSS)
- Continuing Survey of Food Intakes by Individuals (USDA)
- Dietary Guidelines for Americans 2000, 5th Edition
- Health, United States, 2003 (NCHS)
- Healthy People 2010 (www.health.gov)
- National air quality and emissions trends report, 1998 (EPA)

- National Health Interview Survey (NHIS)
- NIAAA Databases
- SAMHSA Data Systems
- SEER Cancer Statistics Review, 1975-2000 (NCI)
- State Cancer Legislative Database, 1990-2000 (NCI)
- Surveillance, Epidemiology, and End Results (SEER) (NCI)
- Tobacco Use Supplement to the Current Population Survey (NCI)
- Youth risk behavior surveillance - United States (CDC)

Journals

- Cancer
- Journal of the American Medical Association (JAMA)
- Nature

Other

- American Cancer Society (ACS)
- American Institute for Cancer Research (AICR)
- American Medical Association (AMA)
- Health Services Research
- World Health Organization (WHO)

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Dictionary

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A

AAPC	Average Annual Percent Change
acute lymphocytic leukemia	A quickly progressing disease in which too many immature white blood cells called lymphoblasts are found in the blood and bone marrow. Also called acute lymphoblastic leukemia or ALL.
addict	A person who is habituated to a substance or practice, especially one considered harmful or illegal.
adverse effects	Problems that occur when treatment affects healthy cells. Common side effects of cancer treatment are fatigue, nausea, vomiting, decreased blood cell counts, hair loss, and mouth sores.
aggressive	A quickly growing cancer that arises in the cells of the lymphatic system.
APC	Annual Percent Change

B

benzene	A natural part of crude oil, gasoline, and cigarette smoke. It is also used as a gasoline additive and in the manufacture of a number of products.
bidi	Small, brown, hand-rolled, flavored cigarette.
bladder	The organ that stores urine.
body mass index (BMI)	A measurement found by dividing weight (in kilograms) by height (in meters) squared.
breast cancer	Abnormal growth of cells within the breast tissue i.e. ducts, lobule, nipple. The malignant variety is one of the most common malignancies in females. Breast neoplasia has also

	been described in males, though it is rare in that population.
breast cancer screening	Early detection of breast cancer involving asymptomatic women. Generally done in the population with higher risk, due to envirnomental or genetic factors.

C

cancer burden	A measure of the incidence of cancer within the population and an estimate of the financial, emotional, or social impact it creates. The burden of disease is not borne equally by all population groups in the United States.
cancer cell	Cells of, or derived from, a malignant tumor.
cancer continuum	The spectrum of cancer-related experience, including prevention, early detection, diagnosis, treatment, life after cancer, and end of life.
cancer diagnosis	General term for detecting and classifying cancer in patients.
cancer mortality rate	The number of cancer deaths per 100,000 people per year.
cancer patients	Individuals participating in the health care system for the purpose of receiving therapeutic, diagnostic, or preventive procedures for cancer.
cancer risk	The probability that a cancer will arise.
cancer screening	Any device, marker, or other means developed for the purpose of detecting the presence of a tumor early in its development, when it is theoretically more likely to be curable. Also education and promotion related to the benefits of early detection.
cancer survivor	Individual who has survived the cancer, and is in a disease free or chronic or relatively stable stage.
cancer treatment	Medical or surgical management of a malignant neoplasm.
carcinogen	Any substance that causes cancer.
cell	The basic unit of any living organism.
cervical cancer	Malignant tumor of the tissues of the cervix.
cervix	The lower, narrow end of the uterus that connects to the vagina.
chewing tobacco	

	Spit tobacco (smokeless tobacco) comes in two forms: snuff and chew. Users put a pinch of snuff (called a "dip" or "rub") next to the gum and hold it there. Chewing tobacco is bulkier than snuff and, as it name suggests, is chewed.
childhood cancers	Malignancies which occur in children from birth to adolescence.
chronic disease	Disease or disorder which has persisted over a long period of time; post coordinate with specific disease or disorder if appropriate.
clinical trial	A research study that tests how well new medical treatments or other interventions work in people.
clinician	A health professional engaged in the care of patients, as distinguished from one working in other areas.
colon	The division of the large intestine extending from the cecum to the rectum.
colonoscopy	An examination in which the doctor looks at the colon through a flexible, lighted instrument called a colonoscope.
colorectal	Related to the colon and rectum.
colorectal cancer	Malignant tumor of the colon or rectum.
corpus uteri / endometrium	The layer of tissue that lines the uterus.

D

[D] link	A text file that describes the contents of a graph or chart, which can be read by a screen reader, and is, therefore, accessible to the blind or visually-impaired user.
database	A structured file of information or a set of logically related data stored and retrieved using computer-based means.
death rate	An estimate of the proportion of the population that dies during a specified period, usually a year; the numerator is the number of people dying, the denominator is the number in the population, usually an estimate of the number at the mid-period. SYN crude death rate, mortality rate.
diabetes	

	A disease in which the body does not properly control the amount of sugar in the blood. As a result, the level of sugar in the blood is too high. This disease occurs when the body does not produce enough insulin or does not use it properly.
diagnosis	The process of identifying a disease by the signs and symptoms.
disease-free survival	Period after successful treatment in which there is no appearance of the symptoms or effects of the disease.
download	Copy an electronic file from the Internet onto the user's computer.

E

early detection	Any device, marker, or other means developed for the purpose of detecting the presence of a tumor early in its development, when it is theoretically more likely to be curable. Also education and promotion related to the benefits of early detection.
endometrial cancer	Malignant neoplasms of the endometrium.
environment	Aggregate of surrounding conditions or influences including housing, community, and family.
environmental tobacco smoke (ETS)	Smoke that comes from the burning of a tobacco product and smoke that is exhaled by smokers. Also called second-hand smoke. Inhaling ETS is called involuntary or passive smoking.
esophagus	The tube through which food passes from the mouth to the stomach.
Excel	file format for Microsoft Excel spreadsheets
exposure	Proximity and/or contact with a source of a disease agent in such a manner that effective transmission of the agent or harmful effects of the agent may occur.

F

fatty acid	A major component of fats that are used by the body for energy and tissue development.
fecal occult blood test (FOBT)	An exam of the stool that can find hidden blood, a sign of possible colorectal cancer. The FOBT also can find bleeding from other disorders.

file format	Format for encoding information in a file. Each different type of file has a different file format. The file format specifies first whether the file is a binary or ASCII file, and second, how the information is organized.
five year survival rate	The proportion of patients still alive five years after a diagnosis or form of treatment is completed. Usually applied to statistics of survival of cancer patients, since after five years, recurrences are much less likely to occur.
flash	Animated graphics format that permits the display of data "behind" a bar or graph when the cursor is moved over the bar or marker on the graph. "Drill down" from state to SEA or county is also permissible under this format.

G

gene	The functional and physical unit of heredity passed from parent to offspring. Genes are pieces of DNA, and most genes contain the information for making a specific protein.

H

health care costs	The actual costs of providing services related to the delivery of health care, including the costs of procedures, therapies, and medications. It is differentiated from HEALTH EXPENDITURES, which refers to the amount of money paid for the services, and from fees, which refers to the amount charged, regardless of cost.
Healthy People 2020	Provides science-based, 10-year national objectives for improving the health of all Americans.
Hispanic	Populations of Spanish, Portuguese, or Latin American descent residing in countries other than the country of their origin.
Human Immunodeficiency Virus (HIV)	Human T-cell lymphotropic virus type III; a cytopathic retrovirus (subfamily Lentvirinae, family Retroviridae) that is about 100 nm in diameter, has a lipid envelope, and has a characteristic dense cylindrical nucleoid containing core proteins and genomic RNA; it is

	the etiologic agent of acquired immunodeficiency syndrome (AIDS). Formerly or also known as the lymphadenopathy virus (LAV) or the human T-cell lymphotropic virus type III (HTLV-III). Identified in 1984 by Luc Montagnier and colleagues. RNA; it is the etiologic agent of acquired immunodeficiency syndrome (AIDS).
Human Papillomavirus	A virus that causes abnormal tissue growth (warts) and is associated with some types of cancer, including cervical cancer.

I

imaging techniques	Any visual display of structural or functional patterns of organs or tissues for diagnostic evaluation. It includes measuring physiologic and metabolic responses to physical and chemical stimuli, as well as ultramicroscopy.
incidence	The number of new cases of a given disease during a given period in a specified population. It also is used for the rate at which new events occur in a defined population. It is differentiated from PREVALENCE, which refers to all cases, new or old, in the population at a given time.
incidence rate (for cancer)	The number of new cancer cases per 100,000 people, per year.
indicators	In chemical analysis, a substance that changes color within a certain definite range of pH or oxidation potential, or in any way renders visible the completion of a chemical reaction; e.g., litmus, phenolsulfonphthalein.
intervention	An action or ministration that produces an effect or that is intended to alter the course of a pathologic process.
invasive cancer	Cancer that has spread beyond the layer of tissue in which it developed into surrounding, healthy tissue.

J

JPEG	stands for Joint Photographic Experts Group and is a commonly used image file format

K

kidneys	(KID-neez) A pair of organs in the abdomen that remove waste from the

	blood. The waste leaves the body as urine.

L

larynx	The voice box.
leukemia	Cancer of the blood-forming tissue.
liver	A large, glandular organ, located in the upper abdomen, that cleanses the blood and aids in digestion by secreting bile.
lung cancer	Malignant neoplasms of the lung.
lymphoma	Cancer that arises in cells of the lymphatic system.

M

malignant neoplasm	A cancerous tumor that can invade and destroy nearby tissue and spread to other parts of the body.
malignant skin melanoma	A form of skin cancer that arises in melanocytes, the cells that produce pigment. Melanoma usually begins in a mole.
mammogram	The record produced by mammography.
mammography	The use of x-rays to create a picture of the breast (mammogram) that can show signs of breast cancer before it can be felt.
measure	A specified magnitude of a physical quantity.
media campaign	Public communication via television, radio, newspapers, pamphlets, telephone, and other media to influence health or social behaviors.
melanoma	A form of skin cancer that arises in melanocytes, the cells that produce pigment. Melanoma usually begins in a mole.
microgram	One-millionth of a gram.
mortality	All deaths reported in a given population.
mortality rate (for cancer)	The number of cancer deaths per 100,000 people, per year.

N

Native Americans	Native populations of North and South America and the Caribbean Islands, with the exception of Eskimos.

neoplasms	Abnormal and uncontrolled cell growth.
nicotine	A poisonous volatile alkaloid derived from tobacco and responsible for many of the effects of tobacco.

O

obesity	Increase in body weight beyond skeletal and physical standards as the result of an excessive accumulation of fat in the body. More than two times the ideal weight is considered OBESITY, MORBID.
oral cavity	The lip, tongue, mouth, and throat.
outcomes	The outcomes of cancer care are the end results of interventions to prevent, detect, and treat cancer on the health and well-being of people and populations. Such outcomes include survival and disease-free survival, health-related quality of life (including ability to carry out usual activities), patient symptoms (such as pain and shortness of breath), economic burden, and patient and family experience and satisfaction with care.

P

pancreas	A glandular organ located in the abdomen. It makes pancreatic juices, and it produces several hormones, including insulin. The pancreas is surrounded by the stomach, intestines, and other organs.
Pap smear	The collection of cells from the cervix (the lower, narrow end of the uterus that forms a canal between the uterus and vagina) and their examination under a microscope. The Pap smear (or Pap test) is used to detect changes that may be cancer or may lead to cancer.
PDF	Short for Portable Document Format, a file format developed by Adobe Systems. PDF captures formatting information from a variety of desktop publishing applications making it possible to send formatted documents and have them appear on the recipient's monitor or printer as they were intended. To view a file in PDF format, you need Adobe Acrobat

	Reader, a free application distributed by Adobe Systems.
person-years	The sum of the number of years that each member of a population has been afflicted by a certain condition; e.g., years of treatment with a certain drug.
person-years of life lost (PYLL)	The years of life lost due to early death from a particular cause.
person-years of life lost (PYLL) due to cancer	The difference between the actual age of death due to a cancer and the expected age of death in the absence of cancer.
pharynx	The throat.
practitioner	A person who practices medicine or one of the allied health care professions.
prevalence	The total number of cases of a given disease in a specified population at a designated time. It is differentiated from INCIDENCE, which refers to the number of new cases in the population at a given time.
prevention	An attempt to prevent disease.
proctosigmoidoscopy	An examination of the rectum and the lower part of the colon using a thin, lighted instrument called a sigmoidoscope.
prostate cancer	Malignant neoplasm of the prostate gland.
prostate gland	A gland in the male reproductive system just below the bladder. It surrounds part of the urethra, the canal that empties the bladder. It produces a fluid that forms part of semen.
PSA - Prostate Specific Antigen	A substance that may be found in an increased amount in the blood of men who have prostate cancer or benign prostatic hyperplasia.
Public health	Branch of medicine concerned with the prevention and control of disease and disability, and the promotion of physical and mental health of the population on the international, national, state, or municipal level.
PYLL	See person-years of life lost.

Q

quality of care	The levels of excellence which characterize the health service or

	health care provided based on accepted standards of quality.
quality of life	The overall enjoyment of life. Many clinical trials measure aspects of a person's sense of well-being and ability to perform various tasks in order to assess the effects that cancer and its treatment have on the person.

R

radiation, x-rays	High-energy radiation used in low doses to diagnose diseases and in high doses to treat cancer.
radon	An invisible, odorless, tasteless gas that is released from rocks and soil.
rectum	The last 8 to 10 inches of the large intestine.
recurrence	The return of cancer, at the same site as the original (primary) tumor or in another location, after it had disappeared.
risk	The probability that an event will occur. It encompasses a variety of measures of the probability of a generally unfavorable outcome.
risk factor	Anything that increases the chance of developing a disease.

S

saturated fatty acid	A fatty acid, the carbon chain of which contains no ethylenic or other unsaturated linkages between carbon atoms (e.g., stearic acid and palmitic acid); called saturated because it is incapable of absorbing any more hydrogen.
screening	Using tests to check for a disease in its early stage, when there are no symptoms. For example, mammography is a screening test that can find breast cancer before it can be felt.
secondhand smoke	Also known as environmental tobacco smoke, it is what comes from a burning cigarette, pipe, or cigar, plus what the smoker exhales.
sigmoidoscopy	An exam of the rectum and the lower part of the colon with a thin, flexible, lighted tube to find polyps, abnormal areas, and tumors. Also called proctosigmoidoscopy.

smokeless tobacco	Tobacco whose use does not produce smoke; associated with increased risk of oral cancer. Also known as spit tobacco.
smoking	To inhale and exhale the smoke produced by the combustion of a substance.
socioeconomic status	A measure of a person's relative standing in society, frequently based on a combination of income, education, and occupation.
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.
statistical methods	The use of statistics to analyze and summarize data.
statistical significance (of a trend)	Results of a test to find out if a trend really is rising or falling, or whether any apparent rise or fall can be explained by random variation in the measurement.
statistics	The science and art of collecting, summarizing, and analyzing data that are subject to random variation. The term is also applied to the data themselves and to the summarization of the data.
sunscreen	A substance that helps to block the effect of the sun's harmful rays. Using lotions or creams that contain sunscreens can help protect the skin from premature skin aging and damage that may lead to skin cancer.
surveillance	Research studies assessing trends in risk factors, behaviors, and health services to determine changes over time and the influence of these trends on incidence, morbidity, mortality, and survival rates.
survey	1. An investigation in which information is systematically collected but in which the experimental method is not used. 2. a comprehensive examination or group of examinations to screen for one or more findings. 3. a series of questions administered to a sample of individuals in a population.
survival (cancer)	As used in this report, the proportion of cancer patients alive 5 years after their cancer diagnosis.

T

trend	The general direction (for example, rising, falling, or stable) of change over time.

U

URL	Abbreviation of Uniform Resource Locator, the global address of documents and other resources on the World Wide Web.
uterus	(YOO-ter-us) The small, hollow, pear-shaped organ in a woman's pelvis. This is the organ in which a fetus develops. Also called the womb.

V

virus	Microscopic organisms that cause infectious disease. In cancer therapy, some viruses may be made into vaccines that help the body build an immune response to kill tumor cells.
