Utah's Healthy People 2000

HEALTH STATUS INDICATORS

Bureau of Surveillance and Analysis
Office of Public Health Data

For more information contact:

Bureau of Surveillance and Analysis
Utah Department of Health
288 North 1460 West
Box 142875
Salt Lake City, Utah 84114-2875
Phone: (801) 538-6108
FAX: (801) 538-7053
Email: hlhda.phdata@state.ut.us

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The report was developed and prepared by:

Darryl Snyder
Habeeb Mohammad
Randy Johnson, Ph.D.
Laverne Snow, MPA
Kim Bangerter
Robert T. Rolfs, MD

Following individuals reviewed and assisted in writing the narrative sections of this report:

Nan Streeter, MS
A. Richard Melton, Dr.P.H.
Trisha Keller, MPH
Denise Beaudoin, MD, MSPH
Kathryn Rowley
Joan Ware, MSPH
Edie Sidle
Craig Nichols, MPA
Rick Crankshaw
Teresa Garrett, MS
Christie Chesler
Scott Williams, MD, MPH
Robert P. Dalley
Lois Bloebaum

Introduction

Assessing the health status of the population is a fundamental responsibility of public health. Such an assessment is an important guide for public health policy development and for evaluating existing public health programs. The 18 Health Status Indicators for the Year 2000 were developed as part of the Healthy People 2000 process under the leadership of the Centers of Disease Control and Prevention with input from public health professionals in state and local health departments, health professional organizations, and the academic community. These indicators were developed to:

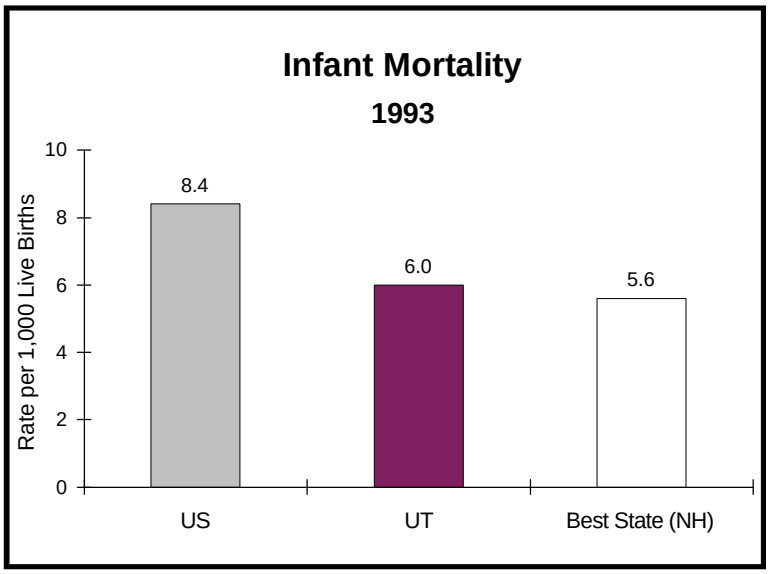
- be few in number;
- provide a comprehensive measure of community health;
- include measures of overall community health;
- include measures of specific problems that warrant public health attention;
- be measurable at federal, state, and local levels using available data;
- be understandable and acceptable;
- be outcome oriented and imply specific interventions compelling action.

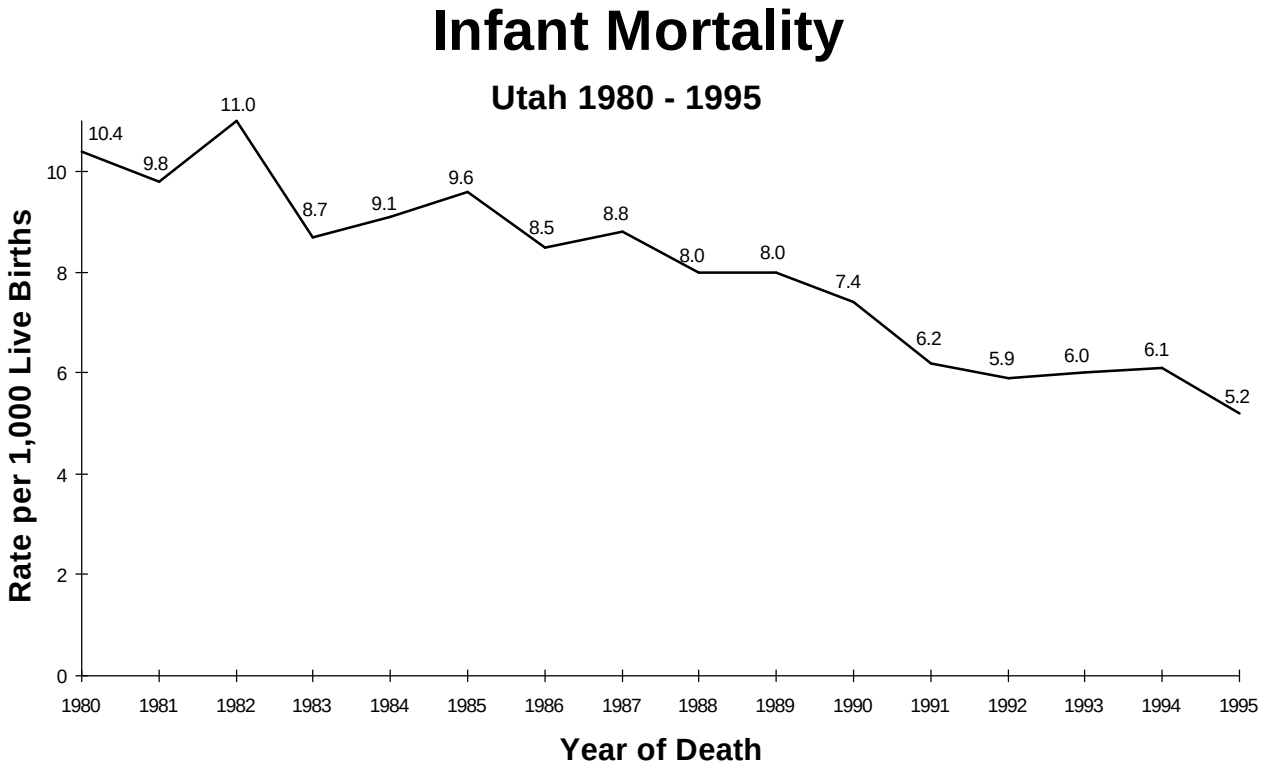
This report presents an update on the Health Status Indicators for the Year 2000 for the State of Utah. For each indicator, the trend for Utah is presented to allow an assessment of Utah's progress in improving health status as measured by that indicator. In addition, data are presented for the United States overall and for the state that has the best rate for that indicator. For those comparisons, the most recent data available for other states are used, so that those comparisons may not include the most recent Utah data. For many of the indicators, Utah's health status is better than that of the United States overall. Data on the "best state" are presented to provide an indication of those areas where further improvement may be more feasible, based on the achievement of better health status in that "best state."

For each indicator, one or more persons involved in a program to improve health status in the area measured by that indicator were interviewed to identify factors contributing to Utah's health status as measured by that indicator. Information gained from those interviews is included in the narrative for each section.

Health status is affected by many social and economic factors, in addition to specific health behaviors and health care services. Achieving further gains in the health status of Utahns will require a community-wide effort that addresses the general social and economic situation of Utahns as well as specific health care and public health services. It is hoped that this report will stimulate and provide information to guide such efforts.

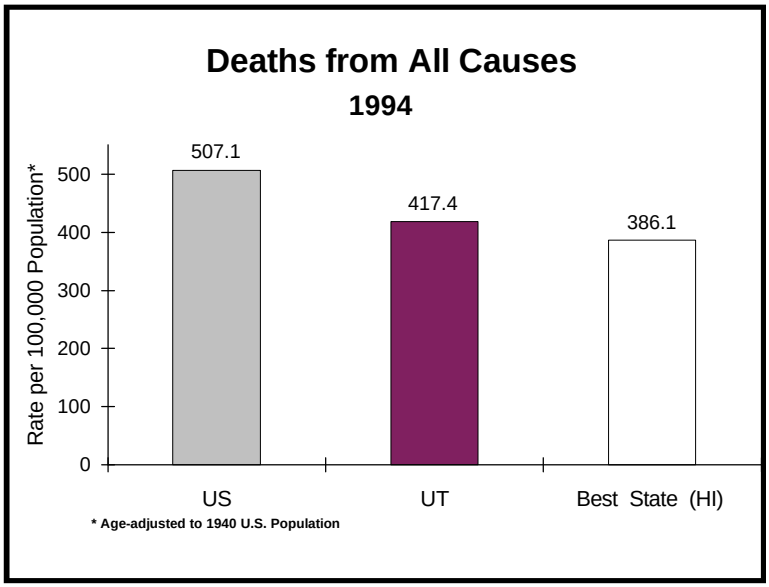
The rate of infant mortality (deaths of infants less than one year of age) is an important measure of the health of infants and mothers and also assesses the delivery of health care and related services to infants and mothers. The infant mortality rate in Utah has decreased substantially over the past decade. The infant mortality rate is also lower than that of the United States and among the lowest of all states. Factors contributing to Utah's low infant mortality rate include low rates of tobacco and substance use, a good health care system including specialized neonatal care, and effective public health programs to provide prenatal care.



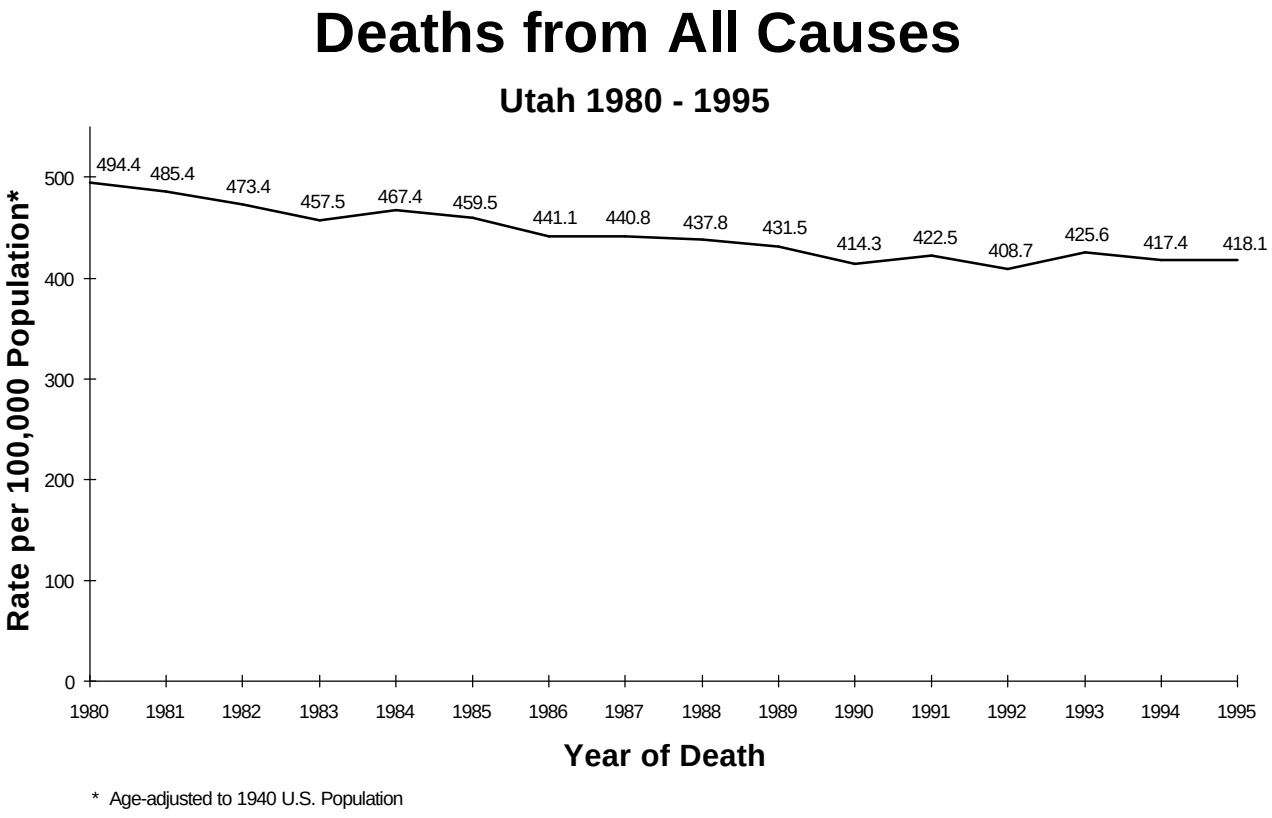


Deaths from All Causes

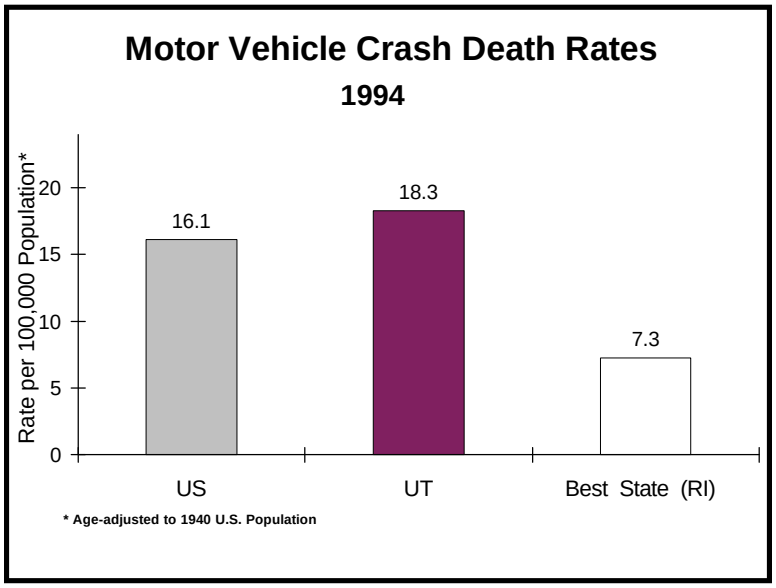
Utah's rate of deaths from all causes has declined steadily for the past 15 years and is nearly 20% lower than that of the United States overall. Utah's all-causes death rate is among the lowest of any state, but room for further improvement is suggested by the lower rate in Hawaii.

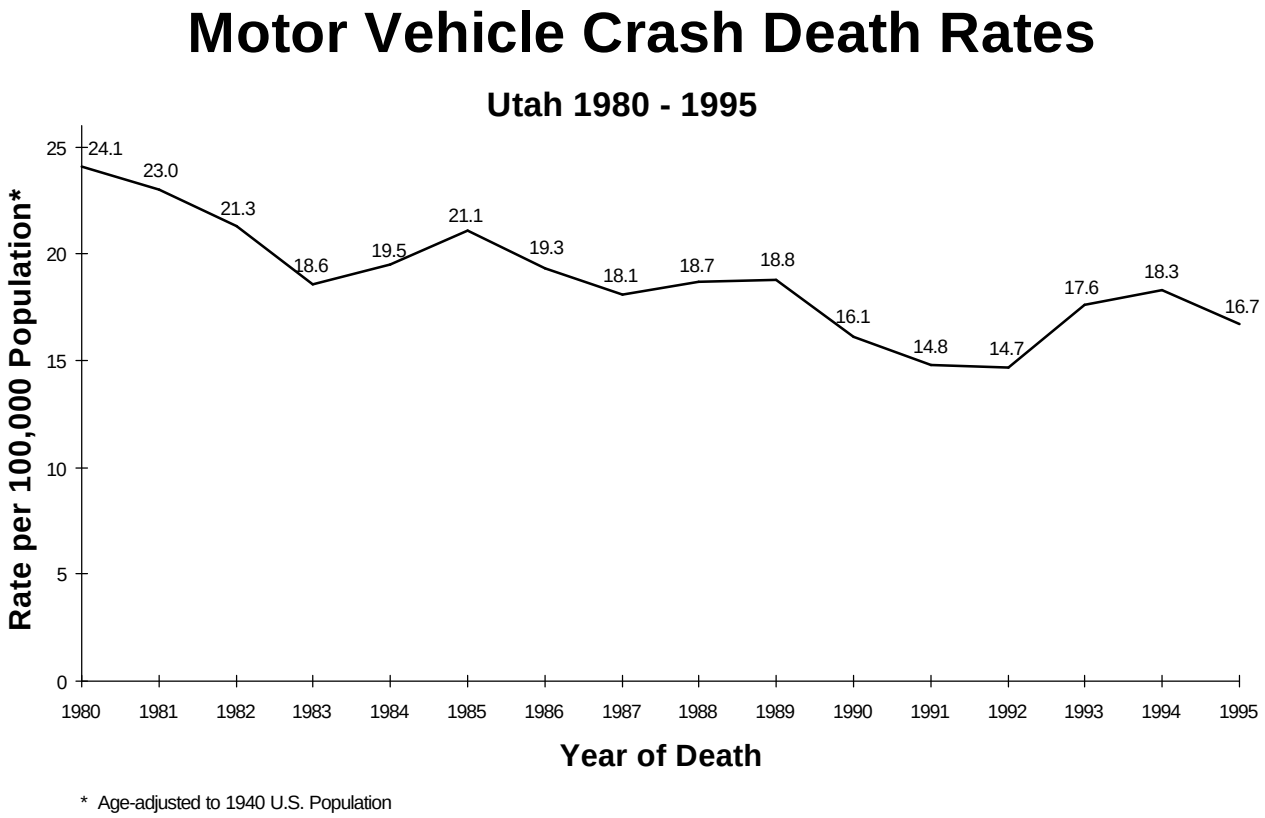


Factors contributing to the low death rate in Utah include health lifestyles (especially low rates of tobacco, alcohol, and substance use), relatively low rates of poverty, and access to excellent medical care. An important implication of the decreasing death rates of Utahns is that there are increasing numbers of older individuals. This trend will place increasing economic demands on Utah's health care and social security systems.



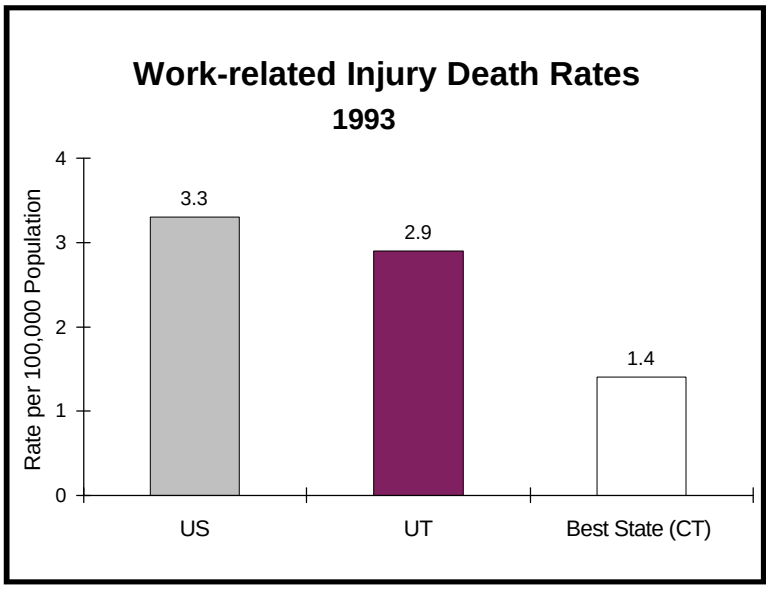
Motor vehicle crash is the most common cause of death for Utahns under the age of 50. Motor vehicle crash death rates appear to have increased somewhat over the past 3 years. The reasons for that increase are not clear. Other data indicate that the increase has been greatest for young males 15 to 24 years of age. Utah's motor vehicle crash death rates are higher than for the United States overall, and substantially higher than for the state with lowest rates. Excessive speed, driving after alcohol use, and failing to use motor vehicle restraints are the most important factors contributing to motor vehicle crash deaths.

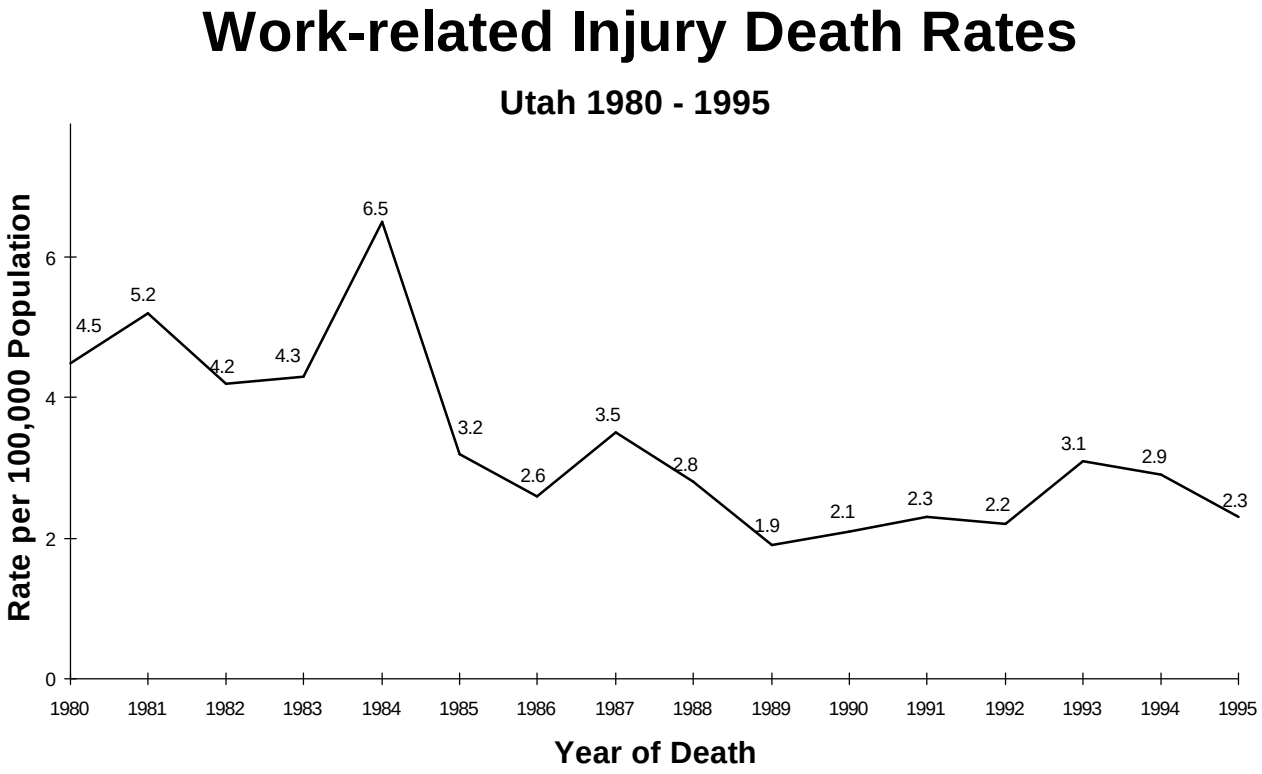




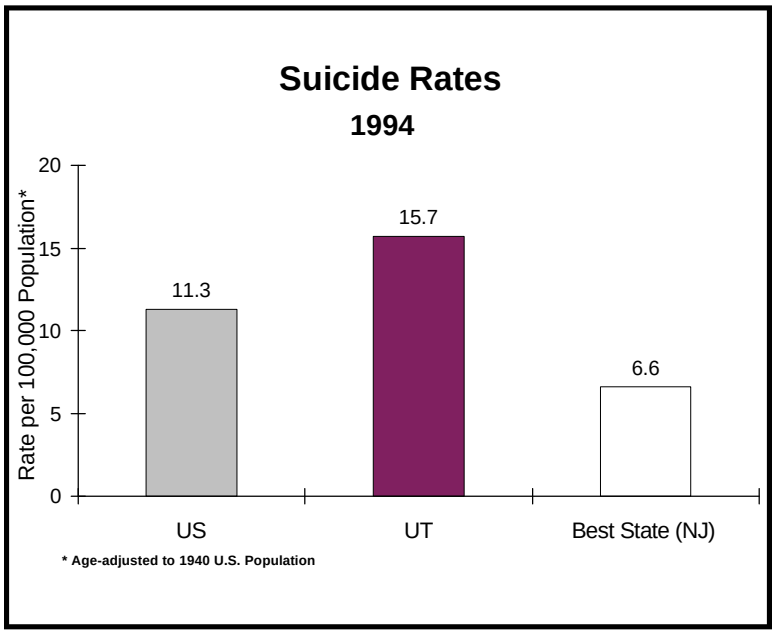
Work-related Injury Deaths

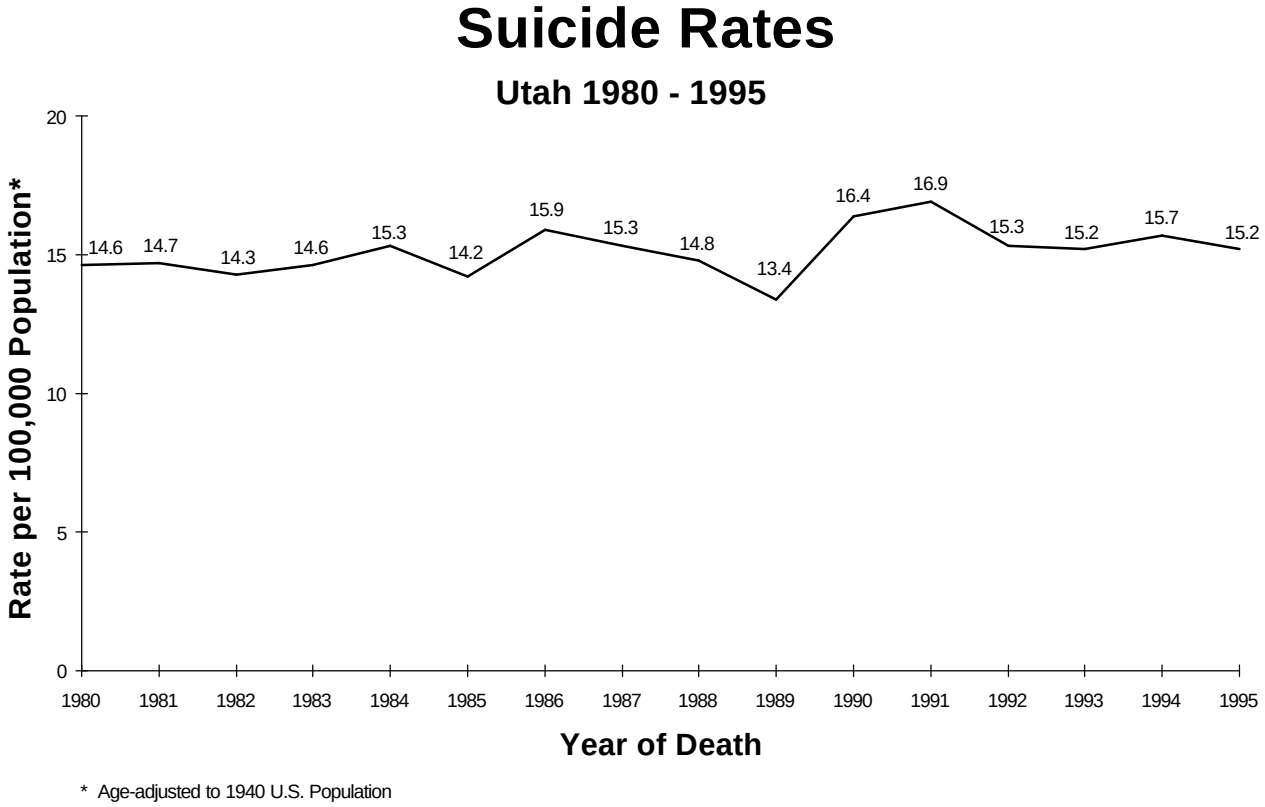
Work-related injuries are an important cause of unintentional injury deaths. Approximately 50 Utahns die each year of a work-related injury. The work-related injury death rate has changed little in recent years.





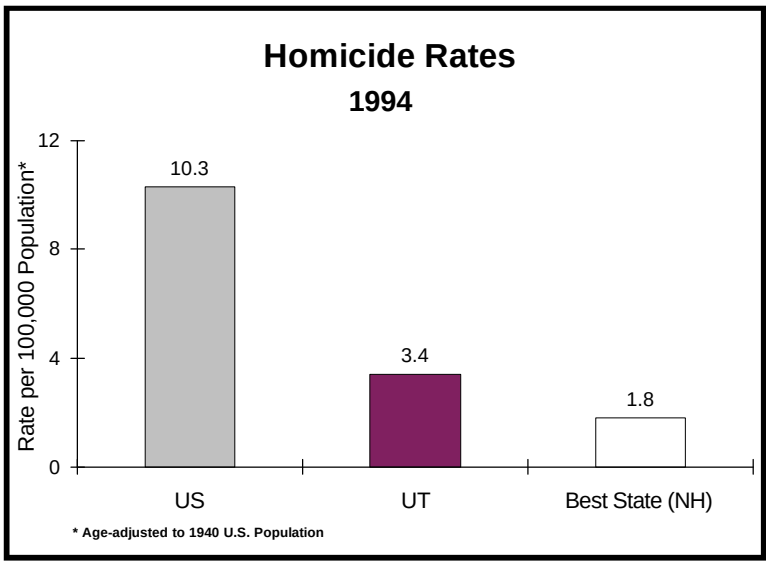
The suicide rate for Utah is nearly 40% higher than for the United States overall, and over twice as high as the state with the lowest rate for this indicator. Overall suicide rates have changed little in Utah over the past few years, but rates have increased for boys and young men. Suicide rates are substantially higher for boys and men than for girls and women. Reasons for Utah's high suicide rate are unknown. Suicide rates are also high in other western states. The majority of suicides in Utah and elsewhere involve firearms. In 1996, the Utah Department of Health in collaboration with the University of Utah and several local health departments began a study of youth suicides in Utah.





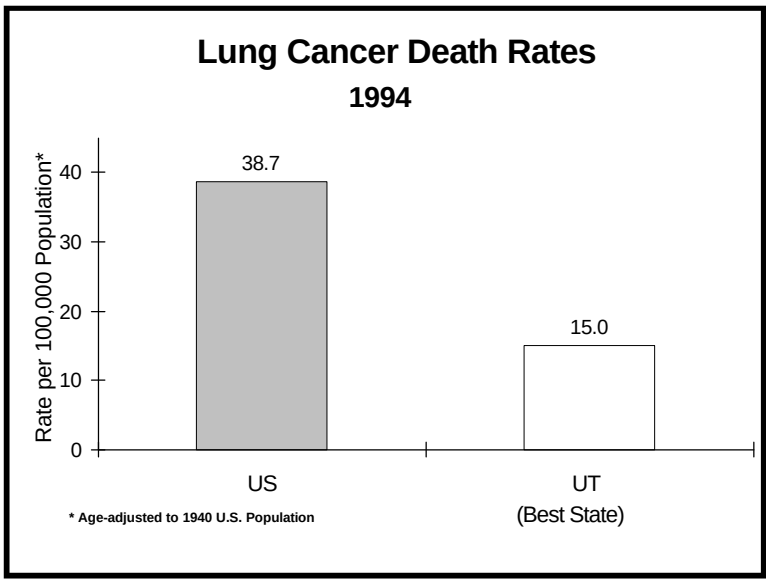
Homicide

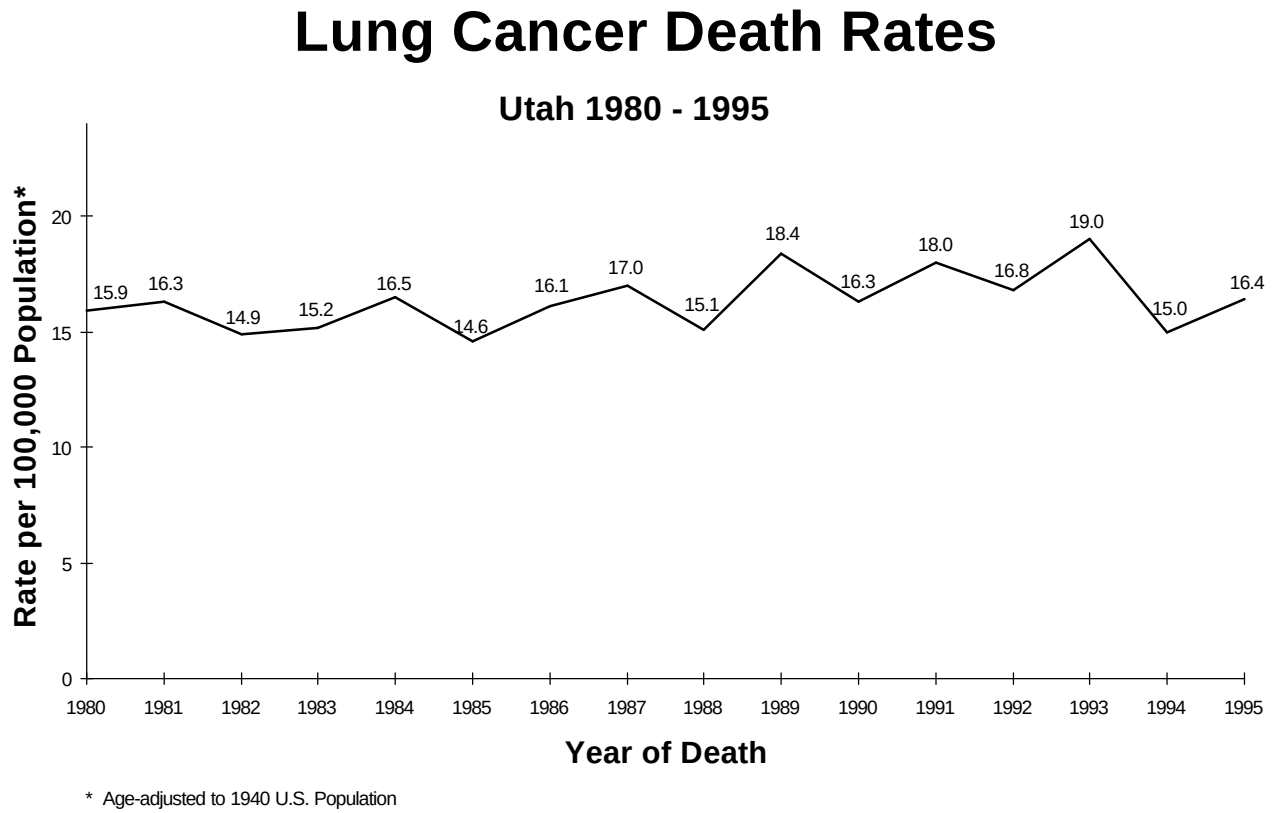
Utah's homicide death rate is lower than for the United States overall, but has increased somewhat over the past 4 years. Specific reasons for the increase are not known, though gang violence is one contributing factor. Most homicides are committed by someone known to the victim. Factors that lead to homicide include drugs, alcohol, and marriage or job problems. Preventing homicide requires a community effort, including measures such as reducing gang activity, teaching conflict resolution in schools and to adults, and assuring appropriate access to and use of firearms.



Note: These rates include legal intervention.

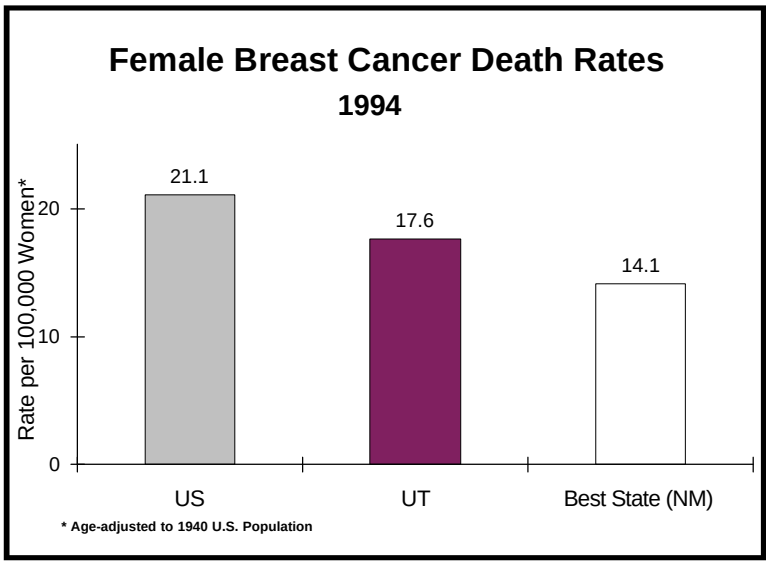
Utah's lung cancer death rate is less than half that of the United States overall and the lowest of any state. Utah's low lung cancer death rate is a result of the very low rates of tobacco use in Utah. The Utah lung cancer death rate has changed little over the past 15 years. It is notable that the smoking rate in Utah has not decreased appreciably in recent years and Utah no longer has the lowest smoking rate of any state in the United States. Efforts to reduce the adverse health effects of tobacco use in Utah have focused on limiting exposure to environmental tobacco smoke and reducing youth access to tobacco. Most smokers begin smoking during their adolescent years. Utah's indoor clear air act, enacted during the 1993 legislative session, is one of the toughest laws to reduce environmental tobacco smoke in the United States.





Female Breast Cancer Deaths

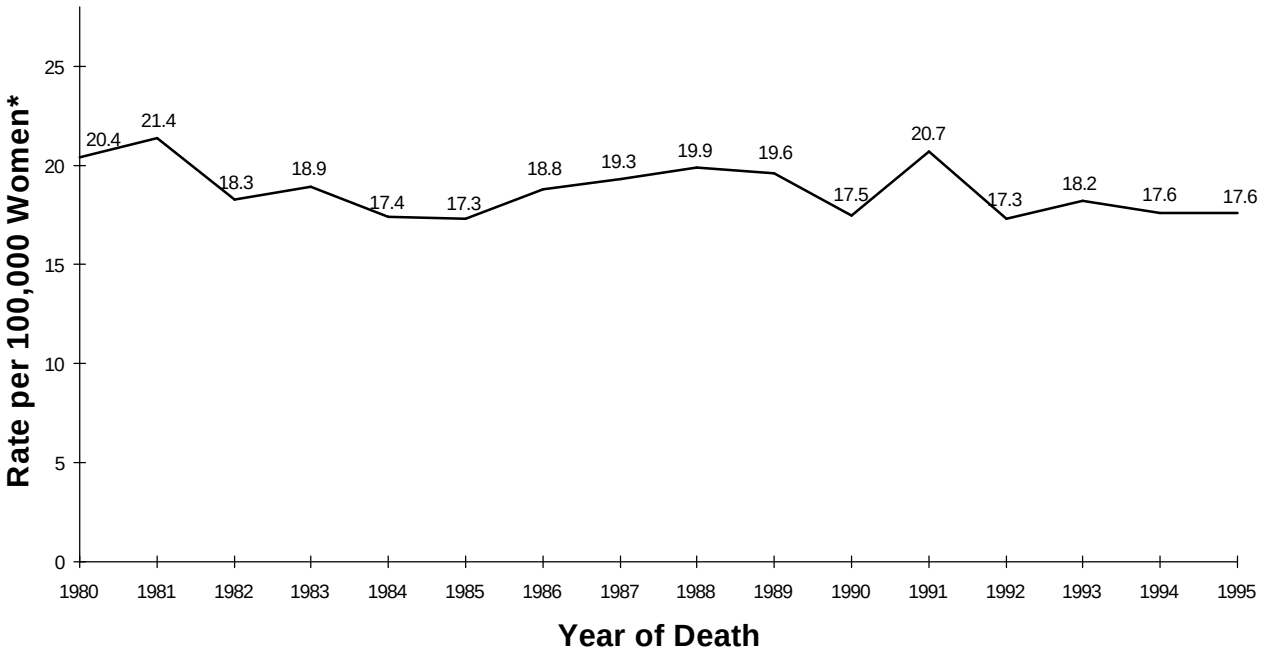
Utah's death rate from breast cancer has changed little over the past decade. It is lower than the rate for the United States overall. A possible factor contributing to Utah's low rate is the high birth rate among Utah women. Pregnancy, especially at younger ages is associated with a lower risk of breast cancer. Risk factors for breast cancer include: increasing age, never having children or having a first child at a later age, early menarche and late menopause, a personal or family history of breast cancer.



Breast cancer can be detected early when treatment can be curative. The most important efforts to reduce deaths from breast cancer involve screening using mammography. The Utah Cancer Control Program is currently targeting older women, minorities, low income women, and rural residents for increased screening. The proportion of women age 50 and older who reported receiving a mammogram within the past two years increased from 34% in 1987 to 66% in 1994 (Behavioral Risk Factor Surveillance System).

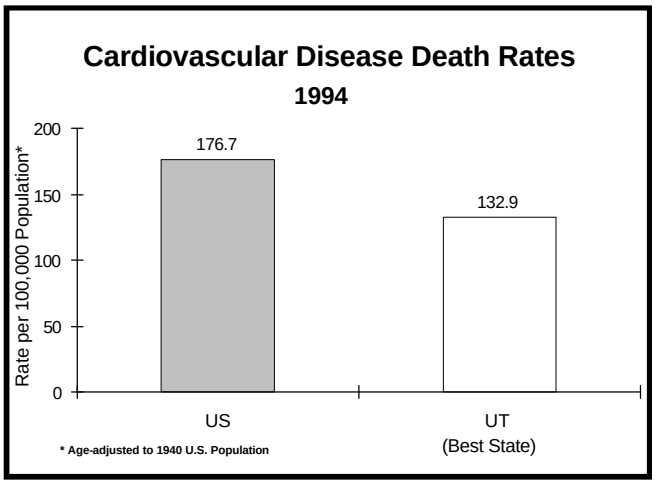
Female Breast Cancer Death Rates

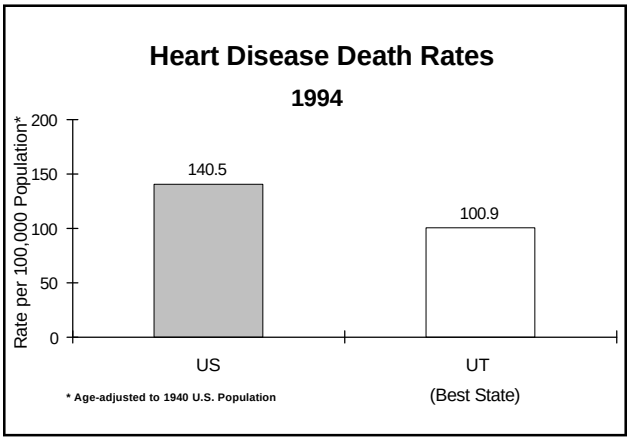
Utah 1980 - 1995

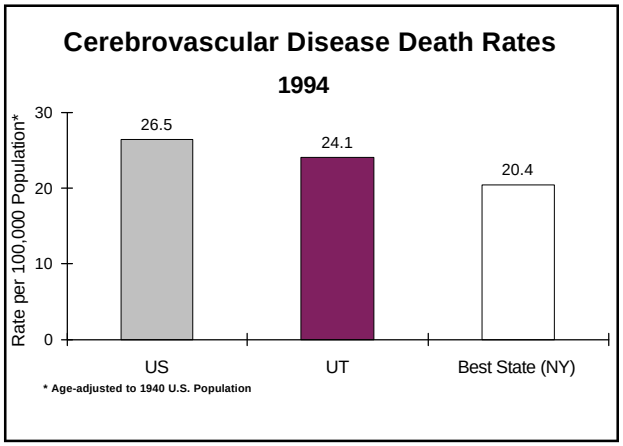


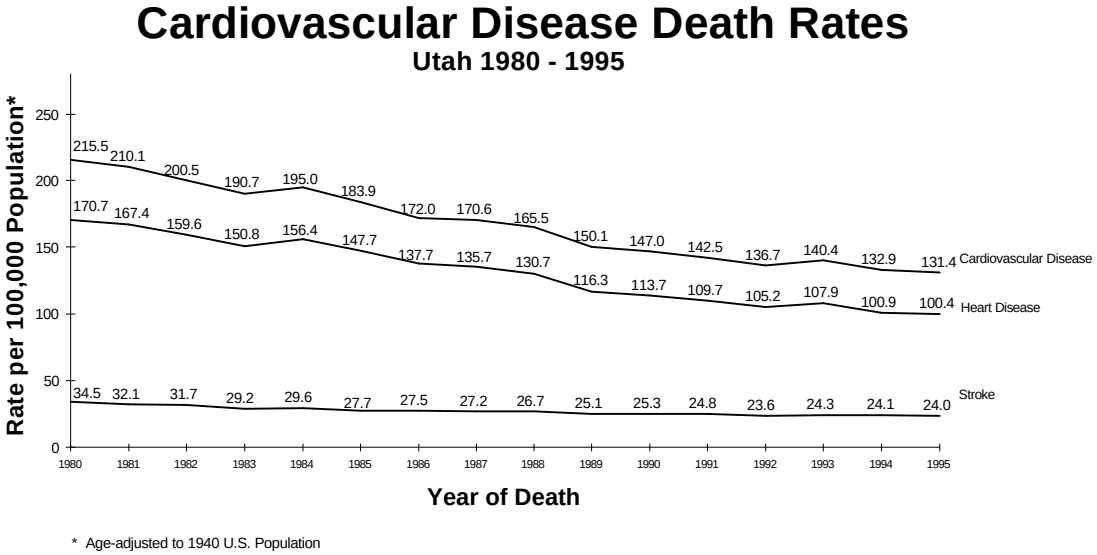
* Age-adjusted to 1940 U.S. Population

Cardiovascular disease includes heart diseases such as coronary artery disease and cerebrovascular disease or stroke. Heart disease accounts for about three quarters and stroke for about one fifth of cardiovascular disease deaths. Death rates for both heart disease and stroke have been decreasing steadily in the United States and in Utah. Utah's death rate from cardiovascular disease is lower than that of any other state. The most important factor in Utah's low death rate from cardiovascular disease is the low smoking rate in Utah. Other risk factors for cardiovascular disease include high blood pressure, family history, physical inactivity, high blood cholesterol, obesity, and diabetes. The risk factors for heart disease and stroke are similar. Many of these risk factors can be modified successfully by lifestyle changes.





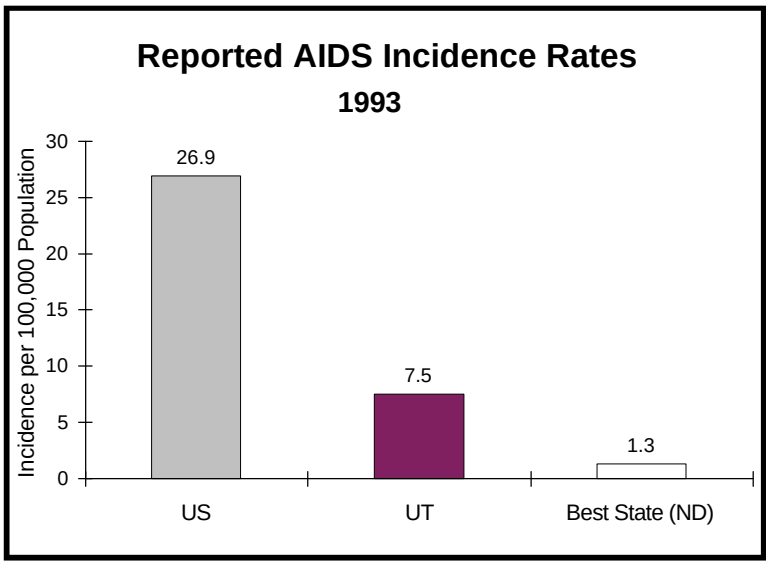




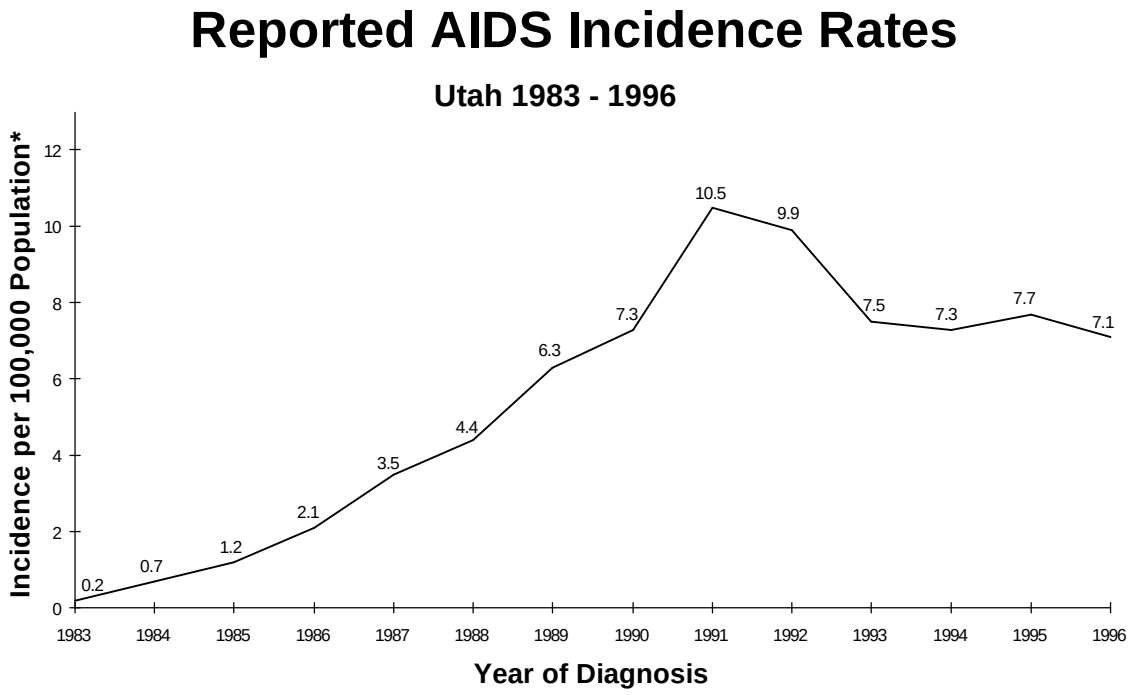
* Age-adjusted to 1940 U.S. Population

Acquired Immunodeficiency Syndrome (AIDS)

AIDS is a disease syndrome caused by infection with the Human Immunodeficiency Virus (HIV). Utah's AIDS incidence increased through 1991, after which it decreased somewhat and appears to have been level for the past three years. While the apparent decrease in recent years may be an artifact of delays in reporting (see footnote), the data suggest that the epidemic has stabilized after the rapid increases from 1983 to 1991. Utah's AIDS incidence rate is substantially lower than that of the United States overall, but comparable to other Western states.

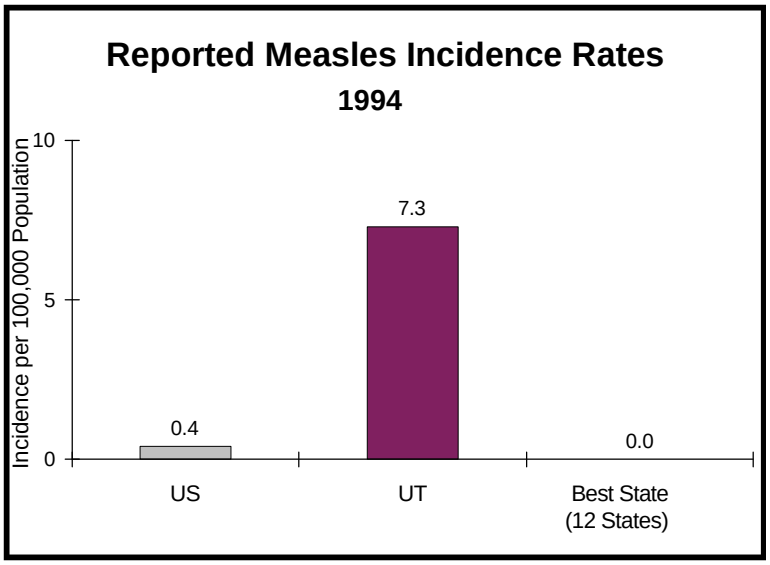


HIV infection is acquired primarily by sex and by sharing of needles to use illicit drugs. In Utah, most sexual transmission is among men having sex with other men. Prevention efforts concentrate on encouraging safer sexual practices (e.g., reducing numbers of sex partners, use of condoms), and reducing use of injection drugs or at least sharing of needles. Several new treatments have become available in the past year that offer hope of longer and improved quality of life for those infected with HIV.



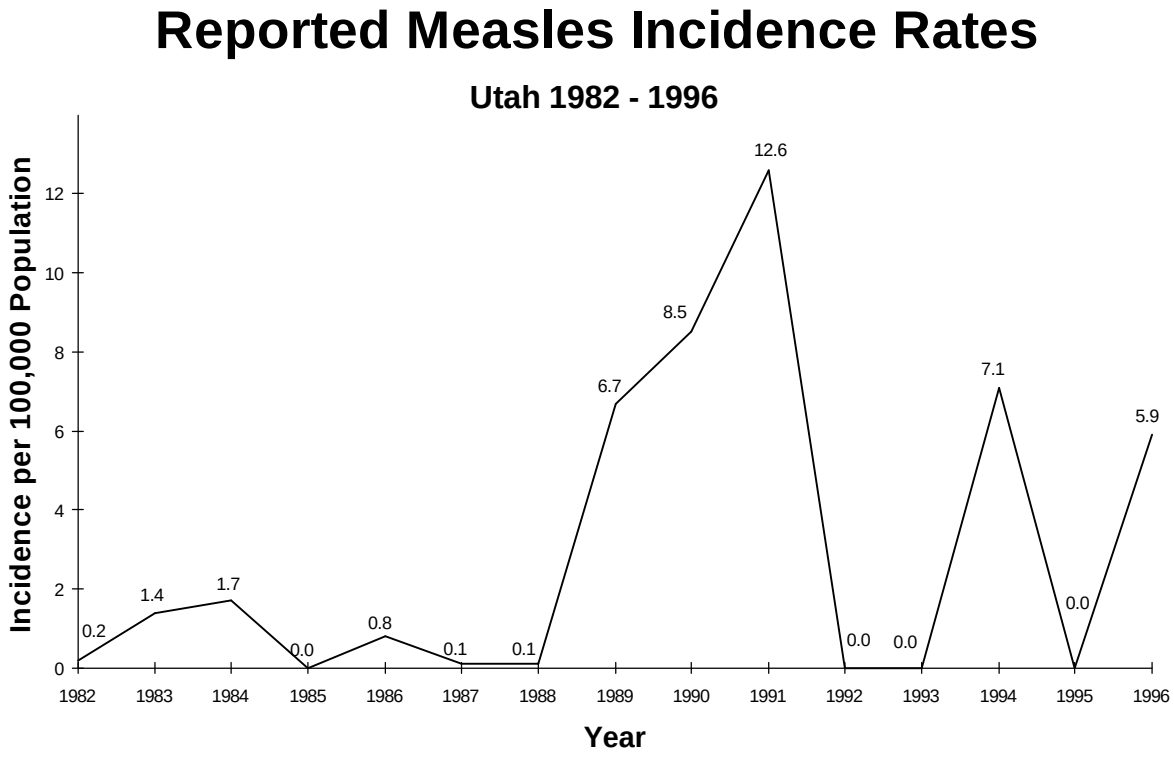
* These provisional data are current as of 3/21/97; numbers will change due to delayed reporting.

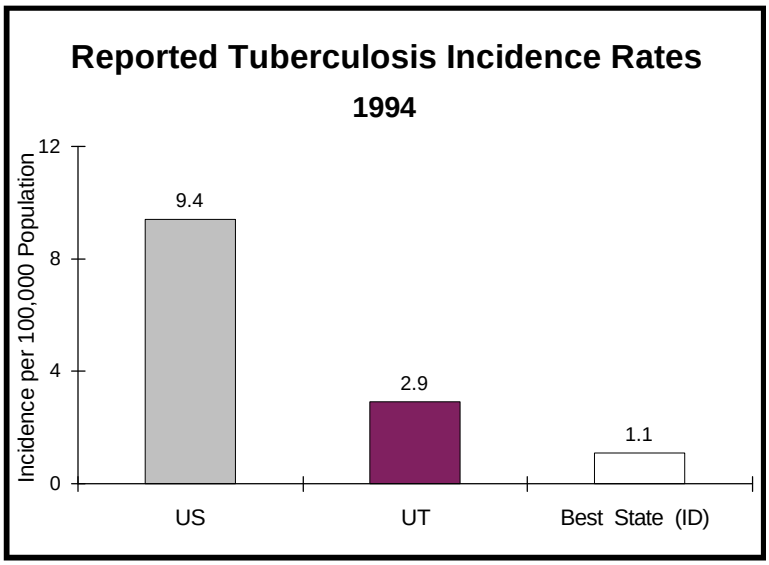
Footnote: Monitoring incidence of HIV infection using reported AIDS cases is difficult for several reasons. First, it takes about 10 years on average from the time a person becomes infected with HIV until the onset of the disease, AIDS. Thus, the reported AIDS cases in 1996 actually represent infections that were acquired in about 1986. Second, reporting is not complete and the completeness can vary from year to year. Third, the date a person is reported can occur at varying times after the diagnosis of AIDS is made. For this report, AIDS incidence was calculated by year of diagnosis. While this removes some of the effect of lags in reporting, it also means that the rate for the most recent years is artificially low (e.g., additional cases diagnosed in 1996 will almost certainly be reported in future years.).



Measles is a viral infection that primarily affects children, and often occurs as outbreaks or epidemics. In some years no cases occur while in other years many cases occur (e.g., 1994 and 1996 in Utah). Utah had the highest measles incidence rates in the United States during 1994 and 1996. Several factors contribute to Utah's susceptibility to the large outbreaks that produced those high rates. Utah's immunization rates are lower than for the United States, overall; measles outbreaks often begin among unvaccinated persons, and can then spread to persons who have been vaccinated but are not fully protected by the vaccination. Utah's larger families may also increase the state's susceptibility to measles outbreaks; studies have shown that the younger children in larger families are less likely to be immunized.

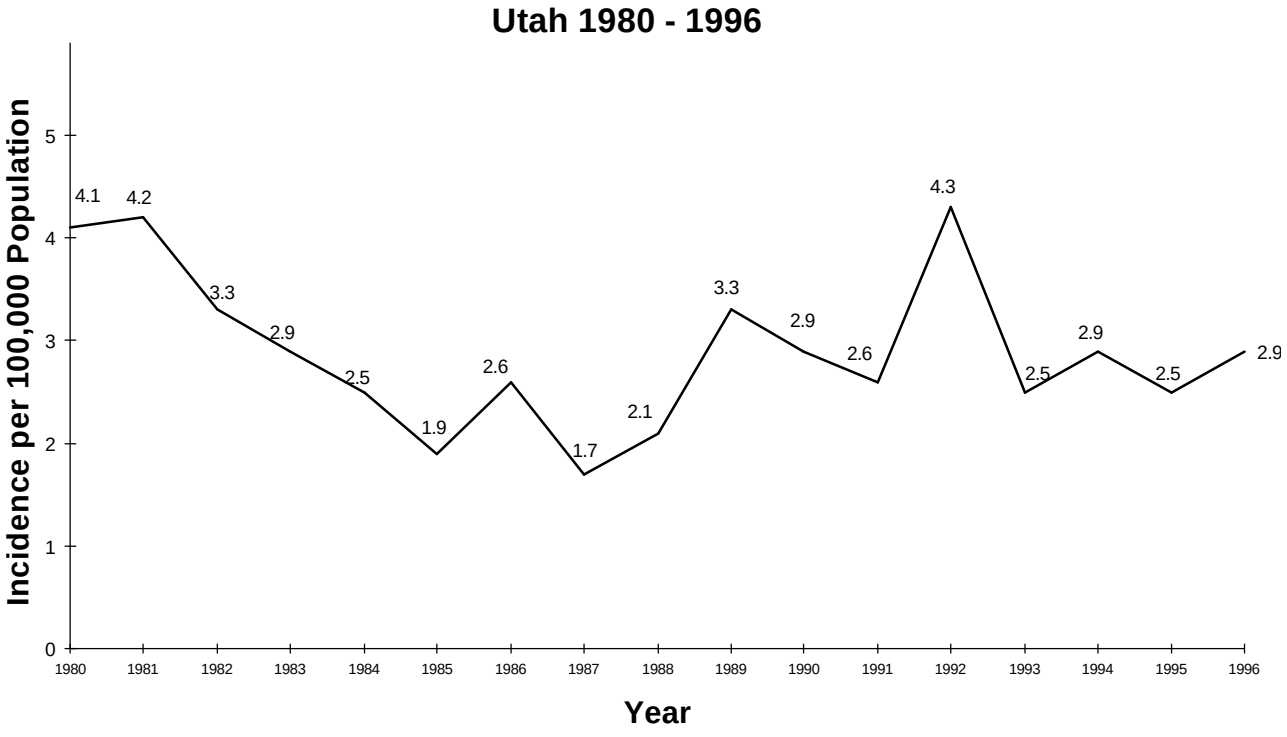
Utah has mounted a substantial effort to improve immunization rates; that effort includes 1) a media campaign, 2) a statewide data system to track immunization status to allow reminder cards to be mailed to parents and to allow physicians to find out a child's immunization status, and 3) provision of free vaccines for certain populations with financial barriers to immunization.

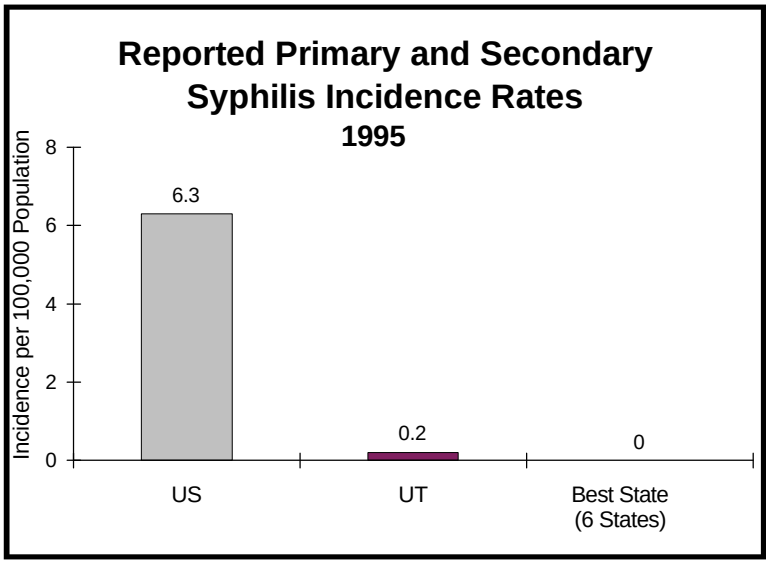




The incidence of tuberculosis, a serious infection, decreased steadily in the United States during the latter half of this century until the late 1980s, but then increased by 20% from 1985 to 1992. This increase was accompanied by an increase in the frequency of tuberculosis cases where the infection was resistant to commonly used drugs. A similar increase also occurred in Utah. The number of cases has subsequently leveled out. Utah's reported tuberculosis rate is substantially lower than for the United States overall. Utah's relatively low rate of tuberculosis is primarily due to there being smaller populations of high risk individuals in Utah. Populations at highest risk for tuberculosis include the homeless, migrant workers, Native Americans, HIV-infected individuals (especially those who acquired HIV by injecting drug use), and individuals born in foreign countries with high risk of tuberculosis exposure. Efforts to control tuberculosis are focused on screening and on directly observed therapy (DOT). DOT involves a public health worker observing the individual take each dose of medicine to assure therapy compliance. DOT is particularly important for preventing the emergence of drug resistant tuberculosis.

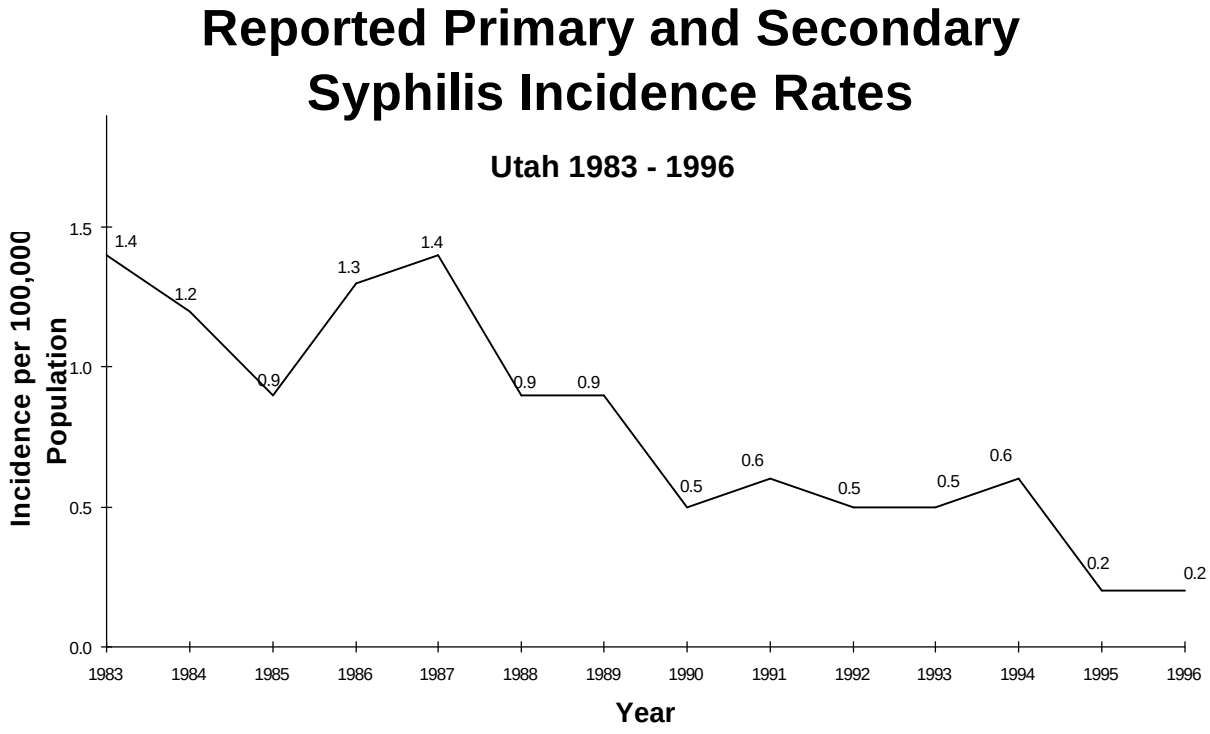
Reported Tuberculosis Incidence Rates





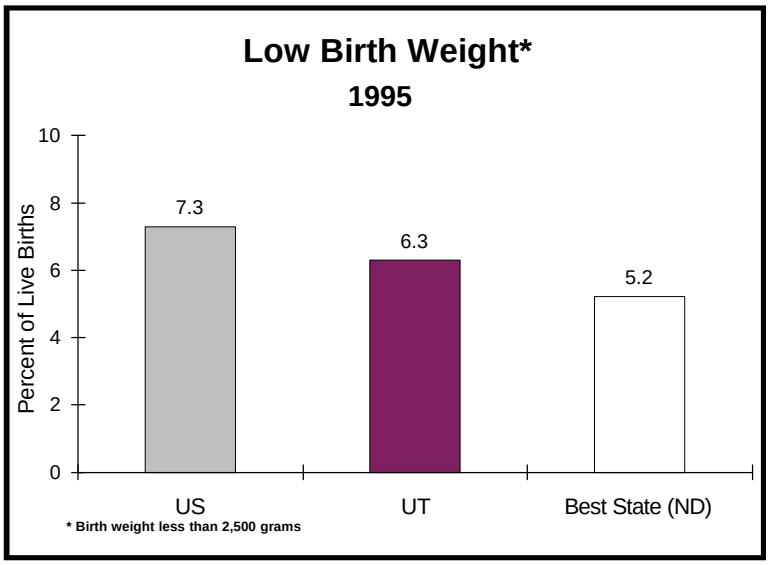
Syphilis is a sexually transmitted infection that was very common prior to the advent of penicillin therapy in the 1940s; rates in the general population declined substantially after that time. Today, syphilis remains a problem in certain high risk populations. Risk factors include illicit drug use, and contact with prostitutes. Utah's rate of syphilis is substantially lower than that of the United States overall. Only 3 cases were reported during 1996, indicating that Utah is one of several states where endemic syphilis transmission has been essentially eliminated. Most cases in Utah result from importation from an area where endemic transmission continues. Control efforts in Utah focus on detecting such cases promptly and preventing further transmission.

The low incidence of primary and secondary syphilis in Utah should not be interpreted to mean that sexually transmitted diseases are not a problem here. Chlamydia is a sexually transmitted infection that is of much more concern for Utah. Chlamydia disproportionately affects girls and young women, and can lead to infertility, chronic pain, and ectopic pregnancy. Prevention efforts focus on screening and prompt treatment of those found to be infected; Utah has benefited from involvement in a collaborative regional project focusing on such screening.



Low Birth Weight Infants

Low birthweight, defined as the birth of an infant weighing less than 2,500 grams (about 5 1/2 lb.), is a major determinant of infant mortality. Low birthweight may result from premature birth, from poor fetal weight gain for a given pregnancy duration, or both. Low birthweight infants are also at higher risk of morbidity, such as developmental disorders, and lower respiratory infections.[1]

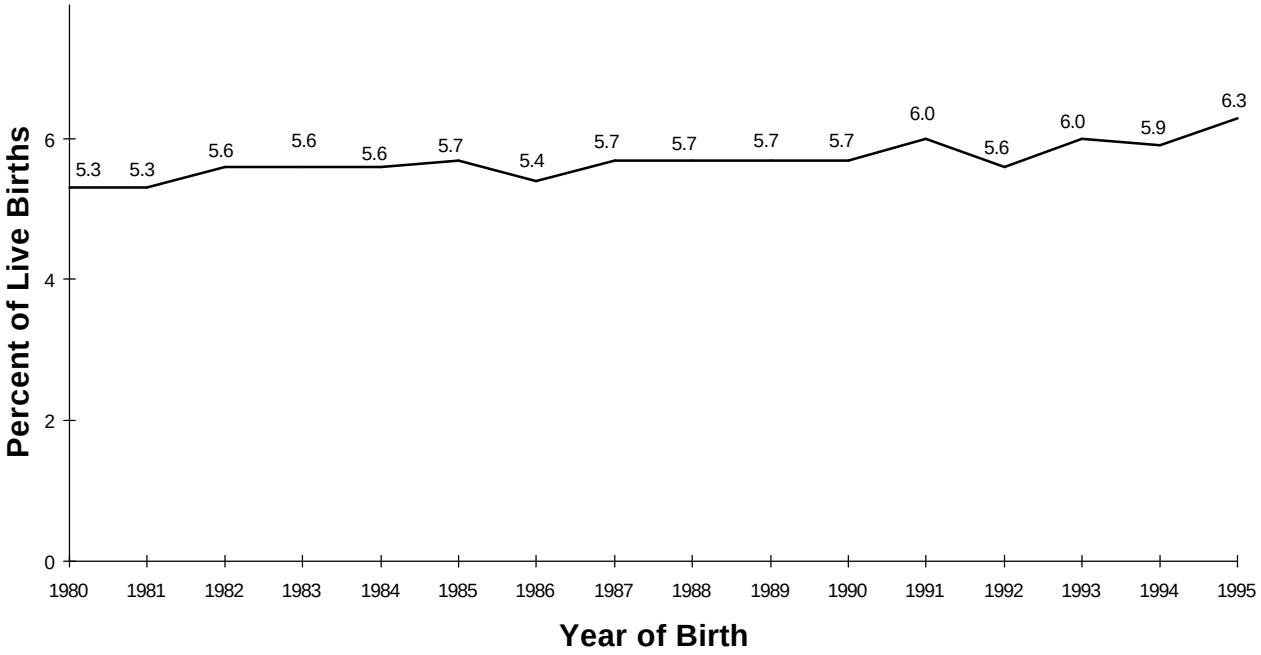


Low birthweight rates have increased slightly in Utah and the United States overall. Some of that increase may be due to improved prevention of fetal deaths. Utah's rates are lower than the overall U.S. rates due to its healthier population, low rates of alcohol and tobacco use, and its good health care system, including good public health programs to encourage early prenatal care. Utah's low birthweight rates are higher than those of the best states and of other developed nations, suggesting the potential for further improvement.

[1] Institute of Medicine. *Preventing Low Birthweight.* Washington, D.C.: National Academy Press. 1985.

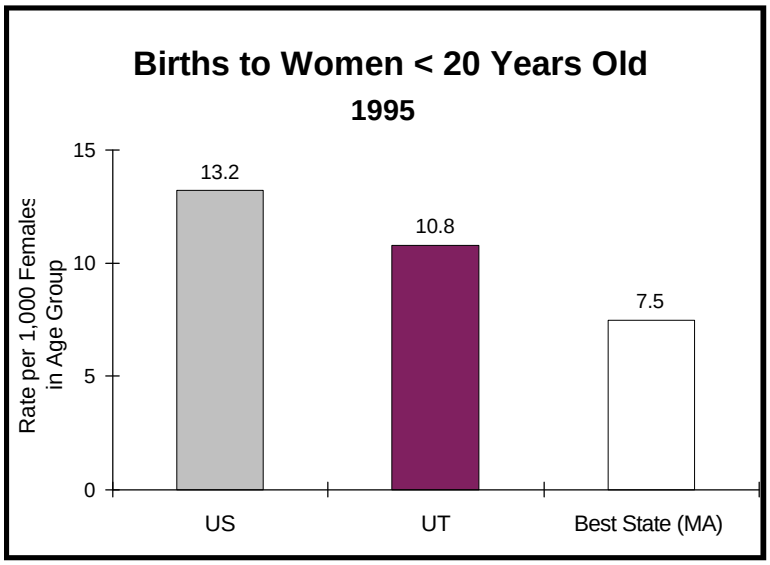
Low Birth Weight* Rate

Utah 1980 - 1995



* Birth weight less than 2,500 grams.

Pregnancy during adolescence poses health problems for mothers and their infants. Teen pregnancy increases a family's chances of living in poverty, and results in high costs for health care and public assistance. Utah's adolescent birth rate has been lower than for the United States overall since about 1982, but is higher than several other states. Utah's adolescent pregnancy rate has not changed appreciably over the past decade.

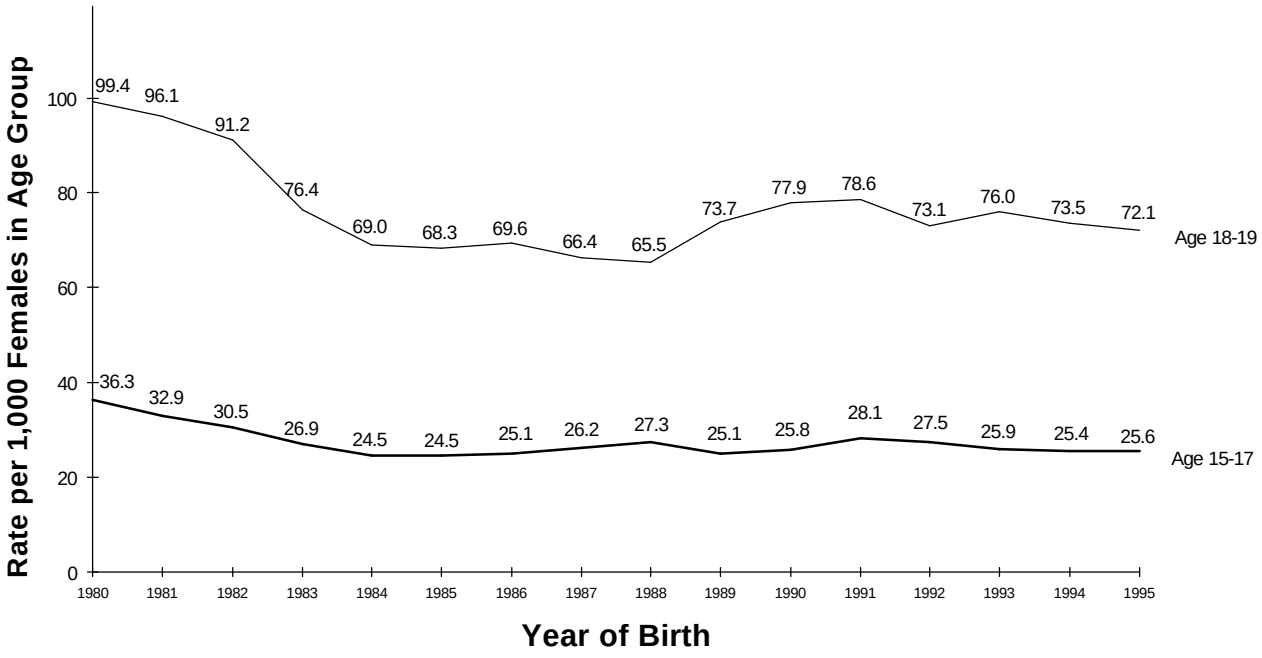


Prevention of teen pregnancy includes school-based programs to encourage sexual abstinence, and family planning services such as those provided by Planned Parenthood Association of Utah. A very detailed report on the problem of adolescent pregnancy in Utah was recently published by the Utah Department of Health.[2]

[2] Division of Community and Family Services and Office of Public Health Data. *Report on Adolescent Pregnancy in Utah*. Salt Lake City: Utah Department of Health, April 1996.

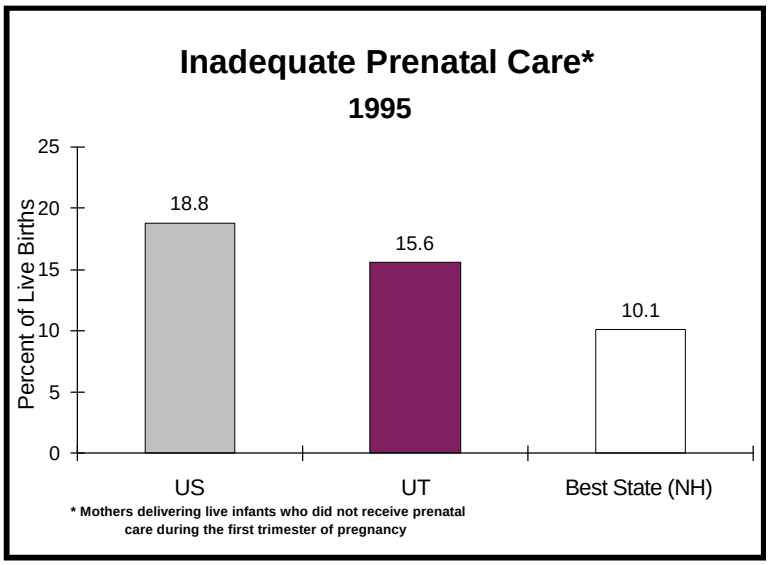
Births to Adolescents

Utah 1980 - 1995



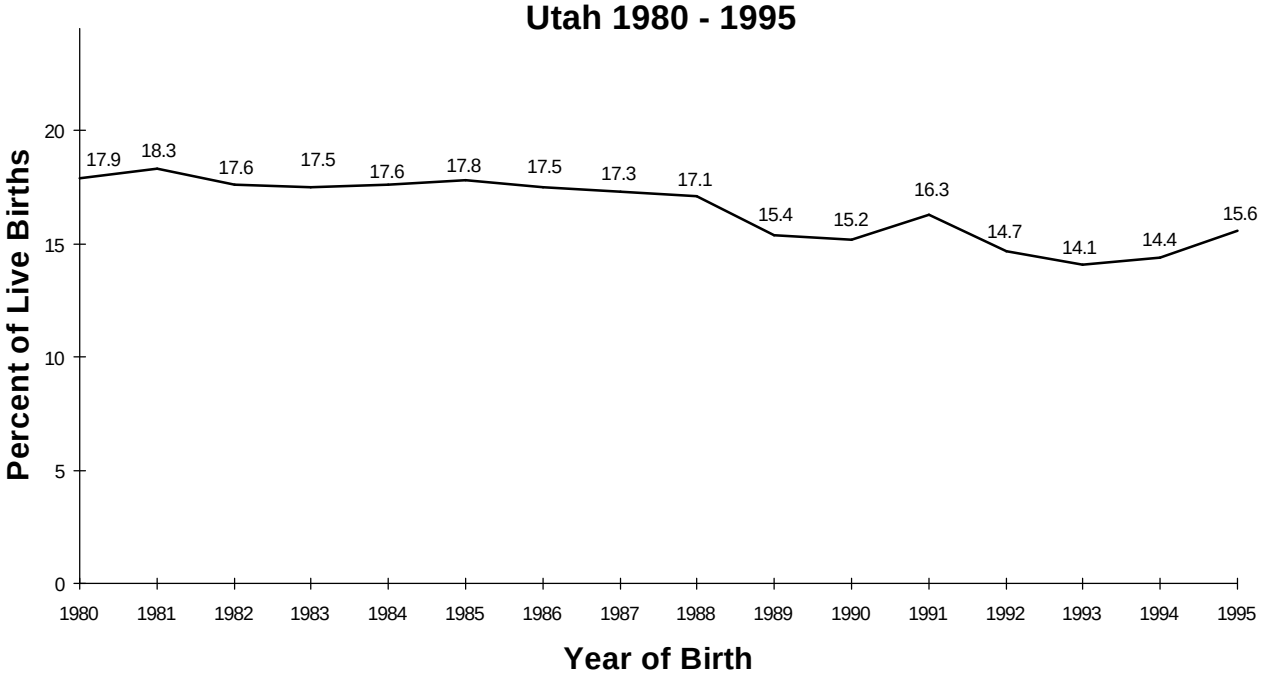
Prenatal Care

Prenatal care is an important measure of the adequacy of the public health and health care delivery systems, and an important means of preventing adverse outcomes of pregnancy, such as low birthweight and infant mortality. Measuring adequacy of prenatal care is complicated; the measure used here focuses on those mothers not obtaining prenatal care early, that is during the first trimester. Utah's rate is better than for the United States overall, but substantially poorer than that of the state with the best rate. The trend for this indicator shows little change over the past 5 years. Efforts to improve the provision of prenatal care include increasing public awareness of its importance, and identifying and developing outreach programs for high risk populations.

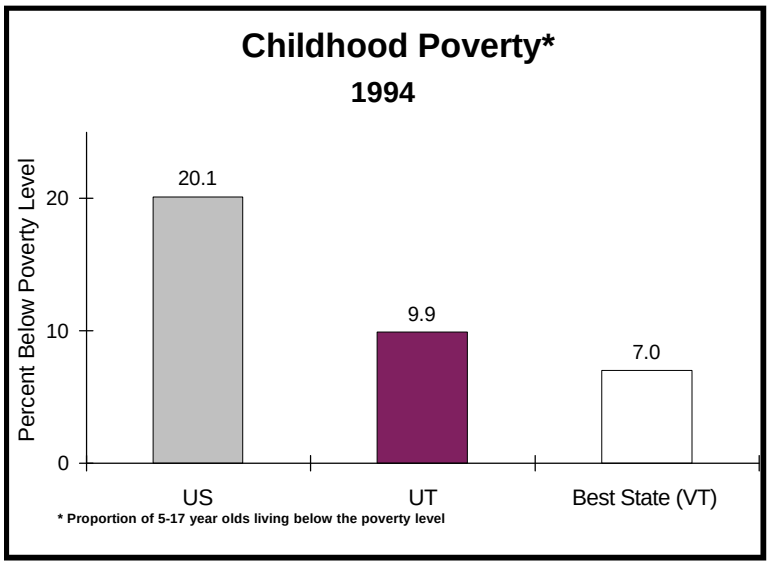


Inadequate Prenatal Care*

Utah 1980 - 1995

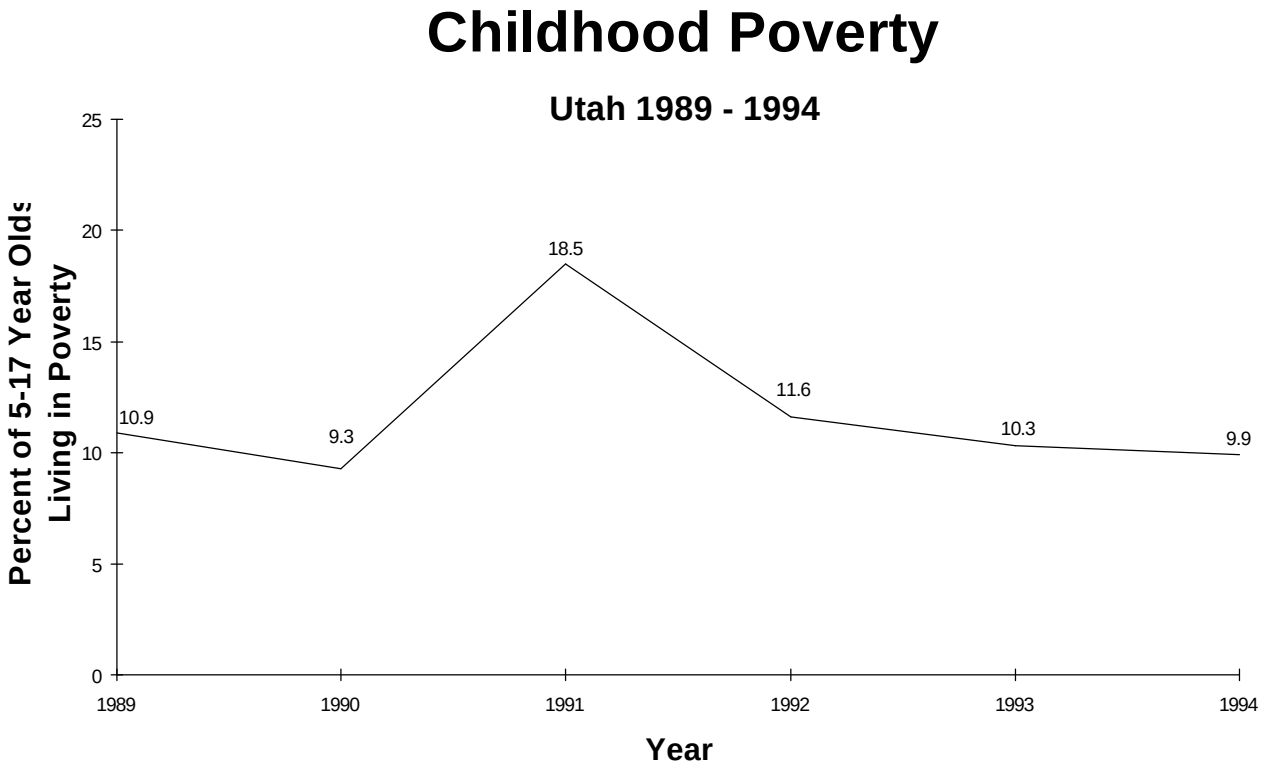


* Mothers delivering live infants who did not receive prenatal care during the first trimester of pregnancy.



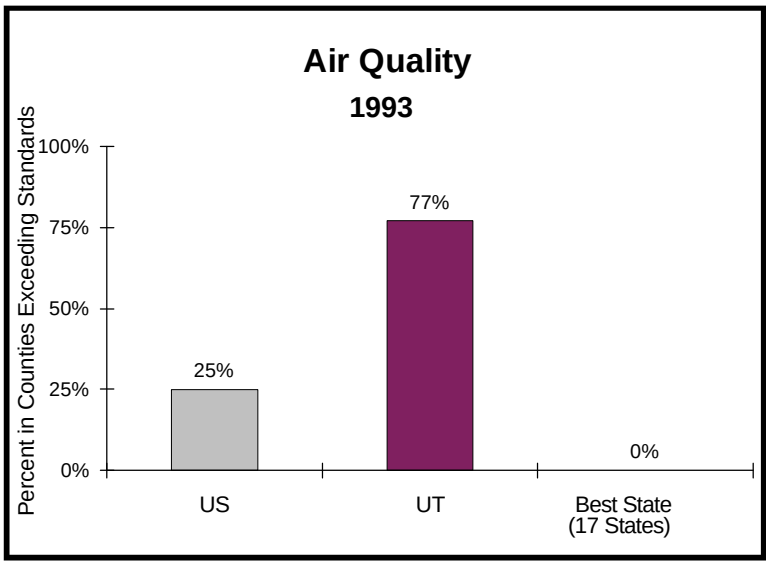
This is an important indicator of child welfare. Living in poverty adversely affects the health of children in many ways. The percentage of children living in poverty is lower in Utah than in the United States overall. Public health programs are not able to improve this indicator, but can moderate its effects on children's health. Children living in poverty are eligible for health insurance coverage through Utah's Medicaid program. The 1996 Health Status Survey showed that coverage of children living in poverty improved substantially from 1991 to 1996. About 11,000 such children (19% of children living in poverty) skill did not have health insurance coverage in 1996, however.[3] This represents an important opportunity to help more of these vulnerable children.

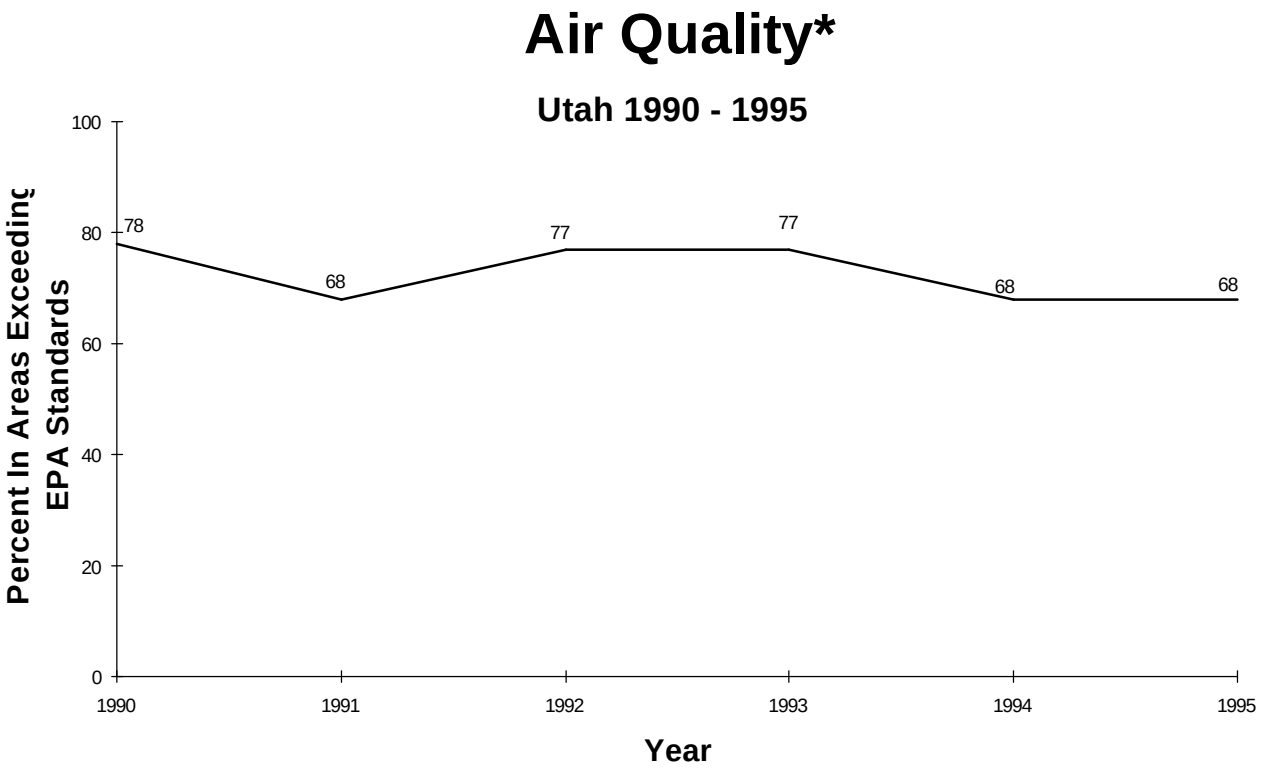
[3] Bureau of Surveillance and Analysis, Utah Department of Health. *1996 Utah Health Status Survey Report: Health Insurance Coverage*. Salt Lake City, UT: Utah Department of Health 1997.



Air Quality

Air quality is a serious health concern for the United States and for Utah. Despite its large land area, Utah's population is very highly concentrated in urban areas compared to other parts of the United States. The Environmental Protection Agency has set standards for six pollutants: particulate matter, sulfur dioxide, carbon monoxide, nitrogen dioxide, ozone, and lead. The pollutant for which Utah exceeded national air quality standards was particulate matter. The major sources of these pollutants are automobiles and process industries.





* Proportion of persons living in counties exceeding U.S. Environmental Protection Agency standards for air quality.

Sources

Bureau of Vital Records ..... Deaths from All Causes
Utah Department of Health — Infant Mortality
288 North 1460 West — Motor Vehicle Crash Deaths
Box 142855 — Work-related Injury Deaths
Salt Lake City, Utah 84114-2855 — Suicide
Phone: (801) 538-6186 — Homicide
Lung Cancer Deaths
Female Breast Cancer Deaths
Cardiovascular Disease Deaths
Low Birth Weight Infants
Births to Adolescents (Age 10-17)
Prenatal Care

Bureau of HIV/AIDS/Tuberculosis/Refugee Health ..... Reported Tuberculosis
Utah Department of Health — Acquired Immunodeficiency Syndrome (AIDS)
288 North 1460 West
Box 142867
Salt Lake City, Utah 84114-2867
Phone: (801) 538-6096

Bureau of Epidemiology ..... Reported Measles
Utah Department of Health — Reported Primary and Secondary Syphilis
288 North 1460 West
Box 142870
Salt Lake City, Utah 84114-2870
Phone: (801) 538-6191

Housing & Household Economic Statistics Division ..... Childhood Poverty
U.S. Census Bureau
Washington, D.C. 20233
Phone: (301) 763-8576

Division of Air Quality ..... Air Quality
Department of Environmental Quality
150 North 1950 West
Salt Lake City, Utah 84114
Phone: (801) 536-4000

Health Status Indicator Definitions

Infant Mortality Rate - Infant mortality as measured by the rate (per 1,000 live births) of deaths among infants under one year of age.

Deaths from All Causes - Total deaths per 100,000 population (age-adjusted to the 1940 population). ICD-9 codes: All causes of death combined.

Motor Vehicle Crash Deaths - Motor vehicle crash deaths per 100,000 population (age-adjusted to the 1940 population). ICD-9 codes: E810-E825.

Work-related Injury Deaths - Work-related injury deaths per 100,000 population where the following criteria are met: 1) age at death -- 16 years of age and over, 2) an "external" cause of death, ICD-9 codes of E800-E999, reported as immediate, underlying, or contributory, and 3) a positive response to the "injury at work" item on the certificate.

Suicide - Suicides per 100,000 population (age-adjusted to the 1940 population). ICD-9 codes E950-E959.

Homicide - Deaths due to homicide and legal intervention per 100,000 population (age-adjusted to the 1940 population). ICD-9 codes: E960-E978.

Lung Cancer Deaths - Lung cancer deaths per 100,000 population (age-adjusted to the 1940 population). ICD-9 code: 162.

Female Breast Cancer Deaths - Female breast cancer deaths per 100,000 women (age-adjusted to the 1940 population). ICD-9 code: 174.

Cardiovascular Disease Deaths - Cardiovascular disease deaths per 100,000 population (age-adjusted to the 1940 population). ICD-9 codes: 390-448.

Acquired Immunodeficiency Syndrome (AIDS) - Reported incidence (per 100,000 population) of Acquired Immunodeficiency Syndrome according to year of diagnosis. The current case definition for Acquired Immunodeficiency Syndrome is too lengthy to reproduce here. It is contained in the *Morbidity and Mortality Weekly Report*, Supplement 1S, vol. 36, August 14, 1987, MMWR 1992; 41(No. RR-17), and MMWR 1995; 44:64-67. The*MMWR* is available in medical libraries.

Reported Measles - Reported incidence (per 100,000 population) of measles. The case definition for a confirmed case of measles is a case that is laboratory confirmed (isolation of measles virus from a clinical specimen, or significant rise in measles antibody level by any standard serologic assay, or positive serologic test for measles IgM antibody), or that meets the clinical case definition (an illness characterized by all of the following clinical features: a generalized rash lasting$\geq$ 3 days; a temperature $\geq$ 38.3 C [101 F]; and a cough or coryza, or conjunctivitis) and is epidemiologically linked to a confirmed or probable case. A laboratory-confirmed case does not have to meet the clinical case definition.

Reported Tuberculosis - Reported incidence (per 100,000 population) of tuberculosis.*Case definition*: A case that is laboratory confirmed isolation of*M. tuberculosis* from a clinical specimen, or

demonstration of *M. tuberculosis* from a clinical specimen by DNA probe or mycolic acid pattern on high-pressure liquid chromatography, or demonstration of acid-fact bacilli on clinical specimen when a culture has not been or cannot be obtained) or, in the absence of laboratory confirmation, a case that meets the clinical case definition (a positive tuberculin skin test); other signs and symptoms compatible with tuberculosis such as an abnormal, unstable (worsening or improving) chest x ray, or clinical evidence of current disease; or treatment with two or more antituberculosis medications; or completed diagnostic evaluation.

Reported Primary and Secondary Syphilis - Reported incidence (per 100,000 population) of primary and secondary syphilis. The case definition for Primary and Secondary Syphilis can be found in MMWR Recommentations and Reports (Oct 19, 1990; vol. 39:No. RR-13)

Low Birth Weight Infants - Prevalence of low birth weight as measured by the percentage of live born infants weighing under 2,500 grams at birth.

Births to Adolescents (Ages 10-17) - Births to adolescents (ages 10-17 years) as the rate per 1,000 females in that age group.

Prenatal Care - Prenatal care as measured by the percentage of mothers delivering live infants who did not receive care during the first trimester of pregnancy.

Childhood Poverty - Childhood poverty as measured by the proportion of children under 15 years of age living in families at or below the poverty level.

Air Quality - Proportion of persons living in counties exceeding U.S. Environmental Protection Agency (EPA) standards for air quality during the previous year. EPA standards have been issued for six pollutants: particulate matter, sulfur dioxide, carbon monoxide, notrogen dioxide, ozone, and lead.