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Health Status Indicators: Definitions and National Data

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In July 1991 the Centers for Disease Control (CDC) released a set of 18 health status indicators (1) and encouraged their use by federal, State, and local health agencies. The indicators were developed in response to Objective 22.1 of *Healthy People 2000* (2) through a consensus process described in a previous *Statistical Notes* (3). This article recommends detailed definitions, suggests national data sources, and provides national baseline data for each indicator.

Background

To facilitate wide use of the indicators, the definitions presented here reflect standard data categories that will often be available in published reports. For example, the *International Classification of Diseases, Ninth Revision*(4) (ICD–9) code definitions recommended for most of the mortality indicators are taken from established NCHS cause-of-death tabulations. Therefore, in some cases, these codes differ from those used to track similar objectives in *Healthy People 2000*. These cases are noted in the text.

Unless otherwise specified, we recommend that all death rates (except infant mortality) be age adjusted to the 1940 standard population. Age adjusting is a technique that allows the user to compare rates among populations with different age distributions by "adjusting" the crude rates in each population to a standard population. Thus the user can compare the rate for his or her county with the nation, compare race and sex groups with different age compositions, or can look at trends over time. The 1940 U.S. population is a recognized standard. An in-depth discussion of age adjustment will be forthcoming in a future issue of *Statistical Notes*.

All population-based death rates shown in this article (including 1990 provisional rates) use unpublished post-censal estimates based on the 1980 census enumeration (5). The 1990 incidence rates for measles, tuberculosis, syphilis, and poverty use the 1990 census population as the denominator. Incidence rates for acquired immunodeficiency syndrome (AIDS) for all years, and for other indicators before 1990 are based on the 1980 census.

Table 1 contains a summary of the data and ICD–9 codes (where applicable). The case definitions for several of the morbidity indicators (for example, tuberculosis) are presented in Appendix I. A list of publications containing data for specific indicators is given in Appendix II.

The indicators

The final set of Health Status Indicators includes 18 measures of health status outcome and/or factors that put individuals at increased risk of disease or premature mortality. No significance should be given to the order in which they are presented. They are:

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Table 1. Health Status Indicators: National Data

Indicator	Rates		ICD–9 Codes[c]
	Final[a]	Provisional[b]	
		9.1	
Infant mortality rate per 1,000 live births	9.8	8.9[d]	
White	8.1		
Black	18.6		
American Indian[e]	13.9[f]		
Chinese[e]	5.9[f]		
Japanese[e]	7.2[f]		
Filipino[e]	7.2[f]		
Other Asian or Pacific Islander[e,g]	8.6[f]		
Hispanic origin (23 states & D.C.)[e,h]	8.4[f]		
Total deaths per 100,000 population	523.0[i]	515.2[i]	0-E999
Motor vehicle crash deaths per 100,000 population	18.9[i]	18.9[i]	E810-E825
Work-related injury deaths per 100,000 population	2.3[f,j]		
Suicides per 100,000 population	11.3[i]	11.3[i]	E950-E959
Lung cancer deaths per 100,000 population	38.8[i]		162
Female breast cancer deaths per 100,000 population	23.0[i]	23.6[i]	174
Cardiovascular disease deaths per 100,000 population	194.2[i]	187.5[i]	390-448
Heart disease deaths per 100,000 population	155.9[i]	150.3[i]	390-398,402,404-429
Stroke per 100,000 population	28.0[i]	27.6[i]	430-438
Homicides per 100,000 population	9.4[i]	10.6[i]	E960-E978
Reported incidence (per 100,000 population):			
AIDS incidence	17.2[d]		
Measles incidence	11.2[b]		
Tuberculosis incidence	10.3[b]		
Primary and secondary syphilis incidence	20.1[b]		
Percent of low birth weight infants	7.0		
Percent of total live births to mothers aged 10-17	4.8		
Percent of mothers not receiving prenatal care in the first trimester	24.5		
Percent of children under 15 living in families at or below the poverty level	21.4[b]		
Percent of people living in counties exceeding EPA standards for air quality	32[b]		

[a]1989 data, unless otherwise noted.
[b]1990 data, unless otherwise noted.
[c]Some codes differ from those used in *HP2000*; see text for details.
[d]1991 data.
[e]Linked files data source.
[f]1986 data.
[g]Includes Hawaiians and part Hawaiians.
[h]Includes mothers of all races.
[i]Age-adjusted to the 1940 U.S. population.
[j]Crude rate.

■ **Race/ethnicity-specific infant mortality as measured by the rate (per 1,000 live births) of deaths among infants under one year of age.**

Data source: National Vital Statistics System.

The infant mortality rate is a universally acceptable and understandable measure of the overall health status of a community. Disparities in this measure among racial or ethnic groups are indicative of unmet public health needs. Each community should measure infant mortality for its total population and for all of its significant racial or ethnic groups.

In 1989 the latest year for which final data are available, the infant mortality rates by race of mother for the major racial groups were:

Total*	9.8
White	8.1
Black	18.6

*Includes races other than white and black.

Although infant mortality has been declining for both major racial groups for many years, the rate for black infants has declined more slowly than for white infants. Therefore, the difference in mortality rates between black and white infants has been gradually increasing since the mid-1970's.

Studies in which race on the birth and death certificates for the same infant were compared demonstrate that infant mortality rates for specified races other than white or black from the annual vital statistics files may be understated (6). As a result, infant mortality for smaller racial or ethnic subgroups is best measured using birth cohort data from linked infant death and birth files. Data from these files for local areas may be available from State health departments. In 1986 (the latest year data from the national linked file are available) the infant mortality rates by race or ethnicity of mother were:

	Linked file
Total	10.1
White	8.5
Black	18.2
American Indian	13.9
Chinese	5.9
Japanese	7.2
Filipino	7.2
Other Asian or Pacific Islander[a]	8.6
Hispanic origin (23 States + DC)	8.4

[a]Includes Hawaiians and part Hawaiians.
[b]Includes mothers of all races.

The 1990 provisional infant mortality rate for the total population was 9.1, a decrease of 7 percent from the 1989 final rate. For 1991 the rate declined an additional 2 percent to 8.9 per 1,000 live births. Infant mortality rates for specified racial or ethnic groups are not available from NCHS provisional data.

■ **Total deaths per 100,000 population.(*)**

ICD–9 Codes: **All causes of death combined**

Data source: National Vital Statistics System.

The age-adjusted death rate is an understandable, comprehensive measure that can be compared across all geographic levels. It is related to other aggregate measures, such as Years of Potential Life Lost, life expectancy, and Years of Healthy Life.

The age-adjusted rate for the total population was 523.0 in 1989. The rate dropped 1 percent to 515.2 provisionally in 1990. The total death rate has been generally declining for decades.

■ **Motor vehicle crash deaths per 100,000 population.(*)**

ICD–9 Codes: **E810-E825**

Data source: National Vital Statistics System.

One of the largest causes of unintentional injury resulting in death, affecting all age groups, and for which there are effective preventive measures (for example, protective restraints, environmental or engineering changes, education, and traffic law enforcement).

The age-adjusted death rate for motor vehicle crash deaths was 18.9 in 1989. The provisional 1990 rate remained at the same level. Mortality from motor vehicle accidents, which had been decreasing since the mid-1960's, has been generally increasing since reaching a low point of 18.5 in 1983.

■ **Work-related injury deaths per 100,000 population.**

Data sources: National Institute for Occupational Safety and Health (NIOSH), National Traumatic Occupational Fatalities: 1980–86. September 1989 (for number of deaths). Population denominators for 1986 are from U.S. Bureau of the Census, Current Population Reports: Series P-25 no. 1022.

The demographics of the workplace encompass all segments of the population, including minorities and females. Like other injury deaths, these occupational injury deaths are preventable.

The NIOSH data are expressed as the number of deaths and deaths per 100,000 workers. The indicator is based upon *population.* The 1986 rate, the latest available, is 2.3 deaths per 100,000 population.

The National Traumatic Occupational Fatalities (NTOF) receives copies of death certificates from the 52 vital statistics reporting units (the 50 States, New York City, and the District of Columbia). In order to be defined as an occupational fatality, the following criteria are required:

- Age at death—16 years of age and over,
- An "external" cause of death, ICD–9 codes of E800-E999, reported as immediate, underlying, or contributory,
- A positive response to the "injury at work" item on the certificate.

■ **Suicides per 100,000 population.(*)**

ICD–9 Codes: **E950-E959**

Data source: National Vital Statistics System.

Suicide is one of the leading causes of death for persons aged 15–64 years and one of the leading causes of Years of Potential Life Lost. It is preventable and is also an indirect measure of the mental health of a population.

In 1989 the age-adjusted suicide rate was 11.3 per 100,000 population. The 1990 provisional rate was also 11.3. Suicide mortality has been relatively stable, generally fluctuating within a rather narrow range since the late 1970's. In recent years there have been changes in the age-specific suicide rates with increases in mortality in the 15–24 years and 85 years and over age groups and decreases in the age group 45–64 years.

■ **Homicides per 100,000 population.(*)**

ICD–9 Codes: **E970-E978** (see comments below)

Data source: National Vital Statistics System.

This is a measure of intentional violence in a community. It may reflect substance abuse and other social correlates of poor health behavior and risk exposures.

The ICD codes recommended for homicide are those used in the NCHS standard mortality tabulation lists. Homicide data based on these codes are widely available in *Health, United States*(7) and the national vital statistics publications. These codes differ from those used for *Healthy People 2000* (2) objective 7.1, which is being tracked using E960-E969, and does not include the categories E970-E978 (legal intervention including legal execution). The effect of including legal intervention in this indicator is very small. Legal intervention accounts for only about 1 percent of all deaths from homicide and legal intervention.

The age-adjusted death rate for homicide (including "legal intervention") was 9.4 in 1989. Provisional data indicate that there was a substantial increase in homicide mortality in 1990 (to 10.6 per 100,000). This increase continues the trend of increasing mortality from this cause since 1985, although the change between 1989 and 1990 is greater than those for the preceding years. Young black males (15–34 years of age) are especially at risk, with rates about four times those for white males in the same age group.

■ **Lung cancer deaths per 100,000 population.(*)**

ICD–9 Code: **162** (see comments below)

Data source: National Vital Statistics System.

The ICD–9 code recommended for lung cancer (162—cancer of trachea, bronchus, and lung) is used by NCHS in the standard mortality cause-of-death lists. The

*Age adjusted to the 1940 population.

baseline data in *Healthy People 2000* used a more restricted ICD–9 structure (162.2–162.9). The difference between the two groupings, cancer of the trachea (ICD–9 162.0), is very small. Only about 0.1 percent of the deaths coded to ICD–9 162 are from cancer of the trachea.

Lung cancer is a major cause of death for persons aged 45–74 years. In 1989 it was the primary cause of cancer mortality for men and second leading cause of cancer deaths for women. To the extent that it is caused by factors such as smoking and exposure to radon, it is preventable.

In 1989 the rate for lung cancer mortality was 38.8 per 100,000 population. Comparable provisional figures are not available. While mortality from lung cancer has remained stable for men throughout the 1980's, for women it has increased about 50 percent since 1979 and has nearly tripled since the late 1960's. This is closely associated with trends in cigarette consumption by women and men during the middle part of this century (8).

- **Female breast cancer deaths per 100,000 women.(*)**

ICD–9 Code: **174**

Data source: National Vital Statistics System.

In 1989 breast cancer was the third leading cause of cancer mortality in all women and the leading cause of cancer deaths for women age 35–64 years.

The 1990 provisional rate of 23.6 was not statistically different from the 1989 final age-adjusted rate of 23.0. While breast cancer incidence rates in the United States have been climbing for the last 40 years, recent trends have shown a more dramatic increase since 1982. This recent rise has been the subject of much study and is due in part to increased mammographic screening (9). Survival rates for women with breast cancer have improved, due to earlier diagnosis and treatment advances. With increasing survival rates, a decline in mortality would be expected. However, because of the concomitant rise in incidence, mortality from breast cancer has shown little change since 1940 (10).

- **Cardiovascular disease deaths per 100,000 population.(*)**

ICD–9 Codes: **390–448** (see details below)

Data source: National Vital Statistics System.

The ICD codes recommended for cardiovascular disease (390–448)—and its major subcomponents heart disease (390–398, 402, 404–429) and stroke (430–438)—are those used in standard mortality lists. Although reducing cardiovascular disease overall is not one of the specific year 2000 objectives, two components (coronary heart disease and stroke) are addressed in *Healthy People 2000*. The ICD codes listed here for stroke are identical to those used to track the *Healthy People 2000* (2) objectives. The codes for the coronary heart disease objectives in *Healthy People 2000* (402, 410–414, 429.2) are a subset of the broader category—heart disease (accounting for about 80 percent of the heart disease deaths).

The 1989 rate for cardiovascular disease was 194.2. The 1990 provisional rate (187.5) was 3 percent lower than the final 1989 rate. Mortality from this cause, which accounts for nearly half of all deaths in the United States, has generally declined since 1940.

The 1989 levels for the two major components of cardiovascular disease—heart disease and stroke—were 155.9 and 28.0, respectively. The corresponding 1990 provisional rates were 150.3 and 27.6. The difference between the 1989 and 1990 rates for stroke was not statistically significant. Mortality from heart disease has been declining since about 1950 while stroke mortality has been dropping steadily since U.S. mortality statistics were first published in 1900. Despite the decline in cardiovascular mortality, significant racial disparities still exist. Mortality for the black population has historically been higher than that for the white population and in recent years has declined more slowly (11). As a result, black mortality from this cause in 1989 was 1.5 times that of the white population (up from 1.4 times as high in 1980).

- **Reported incidence (per 100,000 population) of acquired immunodeficiency syndrome.**

Data source: HIV/AIDS Surveillance.

Note: See Appendix I for citation for case definition.

This is a major public health problem with changing risk groups.

AIDS incidence data are reported two ways, by date of report and by date of diagnosis. Date of report is more commonly available; it is the method used in *HIV/AIDS Surveillance.* The national rates by date of diagnosis are shown below. Since date of diagnosis more accurately reflects the epidemiology of the disease, the date of diagnosis is preferable. However, the numbers for each year change as delayed reports are compiled and organized by appropriate year, and thus, the rates are not stable until several years after they are first reported.

As with other diseases, the two methods can be adjusted for underreporting. The data below are not adjusted for underreporting; however, they are adjusted for delays in reporting.

AIDS incidence
Rates per 100,000 population, by date of diagnosis

Year	Rate
1991	19.1*
1990	17.5*
1989	16.3*
1988	14.0*
1987	11.5*
1986	7.7
1985	4.8
1984	2.6
1983	1.3
1982	0.5
1981	0.1

*Data are estimated by National Center for Infectious Diseases.

*Age adjusted to the 1940 population.

NCHS is exploring a mechanism for making the date of diagnosis rates more publicly available.

- **Reported incidence (per 100,000 population) of measles.**

Note: See Appendix I for case definition.

Data source: National Notifiable Disease Surveillance System, published in the MMWR in the fall, for the previous year's rates.

Measles is a public health priority as a severe condition and a sentinel measure for vaccine preventable diseases. Its presence in the community is an indicator of need for preventive services and/or problems with access to health care.

As with other infectious diseases, there is considerable fluctuation in the magnitude of annual measles outbreaks. However, the rates have increased since the early 1980's.

Measles rate per 100,000 population

Year	Rate
1990	11.2
1989	7.3
1988	1.4
1985	1.2
1980	1.4

- **Reported incidence (per 100,000 population) of tuberculosis.**

Note: See Appendix I for case definition.

Data source: National Notifiable Disease Surveillance System.

Tuberculosis incidence is changing rapidly as a result of changes in HIV infection rates, demographics, and immigration patterns. It is a high priority condition for public health intervention.

Tuberculosis incidence per 100,000 population

Year	Rate
1990	10.3
1989	9.5
1988	9.1
1985	9.3
1980	12.3

In 1990 tuberculosis morbidity was characterized by an acceleration of the recent increase in cases among children and an increase in the proportion of cases occurring among foreign-born persons (12). The HIV epidemic is a major factor associated in the recent increase in TB cases; immunosuppression resulting from HIV infection allows persons with latent tuberculosis infection and newly infected persons to progress rapidly to clinical disease (13).

- **Reported incidence (per 100,000 population) of primary and secondary syphilis.**

Data source: National Notifiable Disease Surveillance System.

Note: See Appendix I for case definition.

This is a sentinel measure for other sexually transmitted diseases.

Syphilis rates per 100,000 population

Year	Rate
1990	20.1
1989	18.1
1988	16.4
1987	14.5
1986	11.7
1981	13.7

The rate is rising rapidly; the 1990 rate exceeds that for 1950 (16.73), and is more than double the rate for 1960 (9.06).

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

Data source: National Vital Statistics System.

This measure is directly associated with birth outcomes and is an indicator of access problems and/or need for prenatal care services.

In 1989, 7 percent of live born infants weighed less than 2,500 grams. However, there are significant disparities by race of mother; black mothers are more than twice as likely to give birth to a low-birth weight infant as are white mothers. Figures for 1989 by race and ethnic group of mother were:

White	5.7
Black	13.2
American Indian	6.3
Chinese	4.9
Japanese	6.7
Hawaiian[a]	7.3
Filipino	7.3
Other Asian or Pacific Islander	6.6
Hispanic origin[b] (47 States + DC)	6.2

[a]Includes Hawaiians and part Hawaiians.
[b]Includes mothers of all races.

While most racial or ethnic groups tend to have relatively low proportions of low-birth weight infants, the rate of low birth weight for black births remains considerably elevated and, in fact, has increased steadily since 1984.

- **Births to adolescents (ages 10–17 years) as a percentage of total live births.**

Data source: National Vital Statistics System.

This measure is a marker for other social and behavioral risk factors and represents a group with barriers to health care. Although the rate of births per 100,000 girls aged 10–17 years would be a better measure, the lack of population estimates for many communities led to the adoption of this surrogate.

In 1989, 4.8 percent of births were to mothers 10–17 years of age. The proportion of births to black and Hispanic adolescents was substantially greater than those to white adolescents. Figures for 1989 by race and ethnicity of mother were:

White	3.6
Black	10.5
American Indian	7.5
Chinese	0.3
Japanese	0.9
Hawaiian	5.9
Filipino	1.9
Other Asian or Pacific Islander[a]	2.4
Hispanic origin[b] (47 States + DC)	6.7

[a]Includes Hawaiians and part Hawaiians.
[b]Includes mothers of all races.

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

  Data source: National Vital Statistics System.

Early entry into prenatal care permits early identification of risks and appropriate interventions. This measure is also an indicator of problems with access to care.

As with many other health status measures, there is considerable variation by race and ethnicity in the proportion of mothers not receiving prenatal care in the first trimester of pregnancy. For 1989 the figures by race of mother were:

Total	24.5
White	21.1
Black	40.0
American Indian	42.1
Chinese	18.5
Japanese	13.5
Filipino	22.4
Other Asian or Pacific Islander[a]	29.2
Hispanic origin[b] (47 States + DC)	40.5

[a]Includes Hawaiians and part Hawaiians.
[b]Includes mothers of all races.

There is a strong association between the educational attainment of the mother and the timing of the first visit for prenatal care (14). For mothers 20 years of age and over in 1989, more than 90 percent of college graduates began care in the first trimester compared with only about half of mothers with a grade school education. In each education category, however, white mothers were more likely to obtain care early than were black mothers.

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

  Data source: Census of Population, Detailed Population Characteristics, U.S. Department of Commerce, Bureau of the Census.

This is an indicator of global risk factors that also has implications for access to preventive services.

The proportion of children under age 15, living in families below the poverty level in 1990 was 21.4 percent.

When this indicator was developed, the under-15 age group was chosen to depict the most family-dependent of children. However, the Bureau of the Census uses standard age tabulations of under 18 and under 6 years of age, and releases State-level data using those breakdowns. The indicator may be revised to under age 18 years, and below the poverty level. That figure is 20.6 percent for 1990.

Of those children under 18 years of age and below the poverty level, 21.8 percent were not covered by any type of health insurance in 1990, compared with 12.9 percent for all income levels.

- **Proportion of persons living in counties exceeding U.S. Environmental Protection Agency standards for air quality during the previous year.**

  Data source: National Air Quality and Emissions Trends Reports.

Air quality is one of society's most serious emerging environmental issues. It is also a surrogate for other environmental concerns.

The Environmental Protection Agency has issued National Ambient Air Quality Standards for six pollutants: particulate matter, sulfur dioxide, carbon monoxide, nitrogen dioxide, ozone, and lead. In 1990 over 74 million people (32 percent) in the United States resided in counties that exceeded at least one air quality standard. This estimate is based on 1990 air quality data and 1987 county population data.

We hope you find the definitions, national rates, and discussion useful in the application of the health status indicators to your needs. Comments are welcome. Contact: *Healthy People 2000, Room 630, National Center for Health Statistics, 6525 Belcrest Road, Hyattsville, MD 20782, Telephone (301) 436–3548, FAX (301) 436–3572.*

Appendix I
Case definitions

Note: Completeness of reporting may be more critical for achieving comparable data than is the case definition.

AIDS

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. The *MMWR* is available in medical libraries.

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.

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.

Primary and secondary syphilis

Case definition for primary syphilis: A clinically compatible case that is laboratory confirmed. Clinical description of primary syphilis: The characteristic lesion of primary syphilis is the chancre, but atypical primary lesions may occur. Laboratory criteria for diagnosis: demonstration of *Treponema pallidum* in clinical specimens by darkfield, fluorescent antibody, or equivalent microscopic methods.

Case definition for secondary syphilis: A clinically compatible case that is laboratory confirmed. Clinical description of secondary syphilis: A stage of infection due to *Treponema pallidum,* characterized by localized or diffuse mucocutaneous lesions and generalized lymphadenopathy. Constitutional symptoms are common, and clinical manifestations are protean. The primary chancre may still be present. Laboratory criteria for diagnosis: demonstration of *T. pallidum* in clinical specimens by darkfield, fluorescent antibody, or equivalent microscopic methods.

Appendix II Sources

Most of the publications described below are available from the Government Printing Office; exceptions are noted, and ordering information is given. To order a document, call (202) 783–3238 or write, *Superintendent of Documents, Government Printing Office, Washington, DC 20402.*

Health, United States. Annual publication from the National Center for Health Statistics, CDC. The 1990 *Health, United States* containes a chartbook on minority health, as well as 134 detailed tables organized around four major subject areas: health status and determinants, utilization of health resources, health care resources, and health care expenditures. The 1991 *Health, United States* features the *Prevention Profile,* which summarizes the final status of the 1990 health objectives for the nation, as well as several components of the three broad goals for the year 2000.

Vital Statistics of the United States (VSUS). Final data. Volume I (natality) and Volume II, parts A and B (mortality). Published annually. Latest edition was 1988. The VSUS are the primary vital statistics reference volumes. Volume I contains data sections on rates and characteristics, local area statistics, and U.S. territories. Volume II contains sections on general mortality, infant mortality, fetal mortality, perinatal mortality, accident mortality, life tables, local area statistics, and U.S. territories.

Advance Report of Final Natality Statistics and Advance Report of Final Mortality Statistics. Final data. Published annually. Latest edition was 1989. The advance reports represent summary tabulations from the final vital statistics files for each data year. To order, contact the Scientific and Technical Information Branch, National Center for Health Statistics, 6525 Belcrest Road, Hyattsville, MD 20782, Telephone (301) 436–8500.

Monthly Vital Statistics Report. Provisional data. Published monthly with an *Annual Summary* published annually. Latest *Annual Summary* was 1990. To order, contact the Scientific and Technical Information Branch, National Center for Health Statistics, 6525 Belcrest Road, Hyattsville, MD 20782, Telephone (301) 436–8500.

HIV/AIDS Surveillance. Published quarterly beginning April 1992 (previously monthly); it includes State and metropolitan area rates. To get on the mailing list write, Centers for Disease Control, OD/OPS/MASO, 1/B49, Mailstop A-22, Atlanta, GA 30333.

National Air Quality and Emissions Trends Reports. (Annual Reports, issued each fall, from the Office of Air Quality and Standards, Environmental Protection Agency). The report has county-level data in U.S.-map form; it contains peak statistics for selected pollutants by metropolitan statistical area.

"Summary of Notifiable Diseases, United States," from the National Notifiable Disease Surveillance System, published in the *MMWR* in the fall, for the previous year's rates. The report contains three parts: Part I contains information on morbidity for each of the nine currently notifiable conditions; also shown is the distribution of cases by month, geographic location, patient's age, and race and ethnicity. Part II contains graphs and maps depicting summary data from Part I, and Part III includes historical tables. The 1990 report, published October 4, 1991, included a bibliography that identifies references for most notifiable diseases.

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References

1. Centers for Disease Control. Consensus set of health status indicators for the general assessment of community health status, United States. MMWR 40(27):449–51. 1991.
2. U.S. Department of Health and Human Services. Healthy People 2000: National health promotion and disease prevention objectives for the nation. Washington: Public Health Service. 1991.
3. Freedman MA. Health status indicators for the year 2000. Statistical notes; vol 1 no 1. Hyattsville, Maryland: National Center for Health Statistics. 1991.
4. World Health Organization. Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death, based on the recommendations of the Ninth Revision Conference, 1975. Geneva: World Health Organization. 1977.
5. National Center for Health Statistics. Annual summary of births, marriages, divorces, and deaths: United States, 1990. Monthly vital statistics report; vol 39 no 13. Hyattsville, Maryland. Public Health Service. 1991.
6. Frost F, Shy KK. Racial differences between linked birth and infant death records in Washington State. Am J Public Health 70:974–6. 1980.
7. National Center for Health Statistics. Health, United States, 1990. Hyattsville, Maryland: Public Health Service. 1991.
8. U.S. Department of Health and Human Services. Reducing the health consequences of smoking: 25 years of progress. A report of the Surgeon General. Public Health Service, Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. (CDC) 89–8411. 1989.
9. Kessler LG, Feuer EJ, Brown ML. Projections of the breast cancer burden to U.S. women: 1990–2000. Prev Med 20(1):170–82. 1991.
10. Miller BA, Feuer EJ, Hankey BF. The increasing incidence of breast cancer since 1982: Relevance of early detection. Cancer Causes Control 2(2):67–74. 1991.
11. Sempos C, et al. Divergence of recent trends in coronary mortality for the four major race-sex groups in the United States. Am J Public Health 78:1422–7. 1988.
12. Centers for Disease Control. Tuberculosis morbidity in the United States: Final data, 1990. MMWR 1192; 40(no.SS-3)23–7. 1990.
13. Centers for Disease Control. Prevention and control of tuberculosis in U.S. communities with at-risk minority populations: Recommendations of the Advisory Council for the Elimination of Tuberculosis. MMWR 41(RR-55):1–11. 1992.
14. Taffel SM. Prenatal care, United States, 1969N. National Center for Health Statistics. Vital Health Stat 21(33). 1978.

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