Introduction

The attached set of data charts were provided by the National Center for Health Statistics (NCHS), part of the Centers for Disease Control and Prevention (CDC). The charts are designed to provide a "snapshot" of the demographic and health characteristics of the Region IV area at the beginning of the new century. They are divided into 4 main sections:

- Demographic data from the U.S. Bureau of the Census
- Mortality data from the National Vital Statistics System
- Data on the Leading Health Indicators, which are a part of the Healthy People 2010 initiative
- Data on oral health and preventive services

The charts show data for the U.S. as a whole, for all of Region IV, and for each State in Region IV (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee). Where possible the data are shown for the black population as compared to the total population and for specified race and Hispanic origin groups.

Healthy People 2010 and the Leading Health Indicators—Some of the charts are based on measures identified through the Healthy People 2010 process. Healthy People 2010 is a comprehensive, nationwide health promotion and disease prevention agenda launched by the Department of Health and Human Services in January 2000. Healthy People 2010 contains 467 objectives designed to serve as a road map for improving the health of all people in the United States by the year 2010.

Healthy People 2010 builds on similar initiatives pursued over the past two decades. Two overarching goals--increase quality and years of healthy life, and eliminate health disparities--served as a guide for developing objectives that will actually measure progress. The objectives are organized in 28 focus areas, each representing an important public health area. Each objective has a target for improvements to be achieved by the year 2010.

A limited set of the objectives, known as the Leading Health Indicators, are intended to help everyone more easily understand the importance of health promotion and disease prevention and to encourage wide participation in improving health in the next decade. These Indicators were chosen based on their ability to motivate action, the availability of data to measure their progress, and their relevance as broad public health issues.

Website: http://www.health.gov/healthypeople/

Data systems

The data presented in the charts were obtained from the following U.S. Department of Health and Human Services and U.S. Census Bureau data systems.

National Vital Statistics System - Mortality (NVSS)

The NVSS mortality data are based on 100 percent of the death certificates filed in the 50 States and the District of Columbia. Demographic information is provided by the funeral director and is based on information supplied by an informant. Medical certification of cause of death is provided by the physician, medical examiner, or coroner. Reported data include only deaths to U.S. residents occurring in the U.S.- deaths to nonresidents of the United States or deaths to residents occurring outside of U.S. are not included.

This system is sponsored by CDC's National Center for Health Statistics.

Website: http://www.cdc.gov/nchs/nvss.htm

National Vital Statistics System - Natality (NVSS)

The NVSS natality data are based on 100 percent of the birth certificates filed in the 50 States and the District of Columbia. Demographic information is provided by each mother. Medical and health information is generally based on hospital and other records. Reported data include only births to U.S. residents occurring in the U.S.- births to nonresidents of the United States or births to residents occurring outside of U.S. are not included.

This system is sponsored by CDC's National Center for Health Statistics.

Website: http://www.cdc.gov/nchs/nvss.htm

Census 2000 (decennial)

A complete enumeration of the U.S. population taken by the Census Bureau in 2000. Article I of the Constitution requires that a census be taken every ten years for the purpose of reapportioning the U.S. House of Representatives.

The Summary File presents 100-percent population and housing figures for the total population, for 63 race categories, and for many other race and Hispanic or Latino categories. This includes age, sex, households, household relationship, housing units, and tenure (whether the residence is owned or rented). Also included are selected

characteristics for a limited number of race and Hispanic or Latino categories.

Website: http://www.census.gov/main/www/cen2000.html

Census 2000 Supplementary Survey

The Census 2000 Supplementary Survey is a Decennial Census program designed to demonstrate the feasibility of collecting long form type information at the same time as, but separate from, the Decennial Census. It used the questionnaire and methods developed for the American Community Survey to collect demographic, social, economic, and housing data from a national sample of 700,000 households. Group quarters were not included in the sample. The Census 2000 Supplementary Survey was conducted in 1,203 counties with monthly samples of about 58,000 housing units. The Census 2000 Supplementary Survey is designed to be used in combination with data from the ACS comparison site tests to produce annual estimates. Economic, demographic, and housing characteristics from the Census 2000 Supplementary Survey are reported for the United States as a whole, the 50 states, and the District of Columbia, as well as large counties and cities.

Website: http://www.census.gov/c2ss/www/

National Health and Nutrition Examination Survey (NHANES)

The NHANES is a national sample survey that collects extensive data on health and nutrition by interview, physical examination, and laboratory analysis. NHANES III, conducted between 1988 and 1994, included about 40,000 people selected from households in 81 counties across the United States. To obtain reliable estimates, infants and young children (aged 1 to 5 years), older persons (aged 60 years and older), Black Americans and Mexican Americans were sampled at a higher rate. NHANES III also placed an additional emphasis on the effects of the environment upon health. Data were gathered to measure the levels of pesticide exposure, the presence of certain trace elements in the blood, and the amounts of carbon monoxide present in the blood.

NHANES IV began in April 1999 and will be a continuous survey visiting 15 U.S. locations per year. Approximately 5,000 people will be surveyed annually.

This survey is sponsored by CDC's National Center for Health Statistics.

Website: http://www.cdc.gov/nchs/nhanes.htm

National Health Interview Survey (NHIS)

The NHIS is an annual household interview survey on the health of the civilian, noninstitutionalized population of the United States. The sampling plan follows a multistage area probability design that permits the representative sampling of households. NHIS data are collected annually from approximately 43,000 households including about 106,000 persons.

This survey is sponsored by CDC's National Center for Health Statistics.

Website: http://www.cdc.gov/nchs/nhis.htm

National Household Survey on Drug Abuse (NHSDA)

The NHSDA is an annual survey of the civilian, noninstitutionalized population of the United States,12 years old or older. The 2000 NHSDA sample employed a 50-state design with an independent, multi-stage area probability sample for each of the 50 States and the District of Columbia. Data are collected on the use of illicit drugs, the non-medical use of licit drugs, and use of alcohol and tobacco products. In 2000 a total of 71,764 persons were interviewed.

This survey is sponsored by the Substance Abuse and Mental Health Service Administration.

Website: http://www.samhsa.gov/oas/nhsda.htm

Behavioral Risk Factor Surveillance System (BRFSS)

The BRFSS is a state-based, ongoing data collection program designed to measure behavioral risk factors in the adult, non-institutionalized population 18 years of age or older. Every month, states select a random sample of adults for a telephone interview. This selection process results in a representative sample for each state so that statistical inferences can be made from the information collected.

This survey is sponsored by CDC's National Center for Chronic Disease Prevention and Health Promotion.

Website: http://www.cdc.gov/brfss/

Youth Risk Behavior Surveillance System (YRBSS)

The YRBSS is a school-based survey conducted biennially to assess the prevalence of health risk behaviors among high school students. YRBSS includes national, state, territorial and local school-based surveys of high school students. The school-based survey employed a cluster sample design to produce a representative sample of students in grades 9-12. Survey procedures were designed to protect the students' privacy by allowing for anonymous and voluntary participation.

This survey is sponsored by CDC's National Center for Chronic Disease Prevention and Health Promotion.

Website: http://www.cdc.gov/nccdphp/dash/yrbs/index.htm

Aerometric Information Retrieval System (AIRS)

AIRS is a computer-based repository of information about airborne pollution in the United States and various World Health Organization (WHO) member countries. The AIRS database is updated daily, primarily by the staff of state and local environmental agencies. AIRData has information about where air pollution comes from (emissions) and how much pollution is in the air (monitoring).

Ambient concentrations of pollutants in outdoor air are measured at more than 4000 monitoring stations owned and operated mainly by state environmental agencies. The hourly or daily measurements of pollutant concentration are forwarded to EPA's database, and EPA computes a yearly summary for each monitoring station (maximum value, average value, number of measurements, etc.).

This system is administered by the U.S. Environmental Protection Agency (EPA), Office of Air Quality Planning and Standards (OAQPS).

Website: http://www.epa.gov/airs/

National Immunization Survey (NIS)

The NIS provides current, estimates of vaccination coverage of children 19 to 35 months in all 50 states, the District of Columbia, and 27 urban areas. The interviews are conducted by telephone with randomly selected households. Immunization data for surveyed children are also collected through a mail survey of their pediatricians, family physicians, and other health care providers. The parents and guardians of NIS-eligible children are asked during the telephone interview for consent to contact childrens' medical providers. Types of immunizations, dates of administration, and additional data about facility characteristics are requested from immunization providers identified during the telephone interview. The NIS estimates of vaccination coverage reflect a comparison of information provided by both

immunization providers and households. In 2000, 34,087 household interviews were completed and contacted providers submitted data for 22,958 children.

This study is sponsored by CDC's National Immunization Program and National Center for Health Statistics.

Website: http://www.cdc.gov/nis/

Data issues

Age adjustment

The data for the mortality measures and most of the health measures are age adjusted. Age adjustment is the application of age-specific rates in a population of interest to a standardized age distribution in order to eliminate differences that result from age differences in the population composition. This adjustment is usually done when comparing two or more populations (such as race/ethnic groups) at one point in time or one population at two or more points in time.

Age-adjusted rates are useful for comparison purposes only, not to measure absolute magnitude. (To compare absolute magnitude, numbers or crude rates are used.) The actual numerical value of an age-adjusted rate is dependent on the standard population used and, therefore, has no intrinsic meaning. Because age-adjusted rates are adjusted to a predetermined standard, they should be viewed as constructs or indexes rather than as direct or actual measures. It is important to note that in order to compare age-adjusted rates they must be adjusted to the same standard population.

All data shown in the charts were age adjusted to the 2000 Standard Population. Details have been published in other reports:

http://www.cdc.gov/nchs/data/statnt/statnt06rv.pdf
http://www.cdc.gov/nchs/data/statnt/statnt20.pdf

Cause-of-death classification and definitions

Cause-of-death data shown are classified according to the Tenth Revision of the International Classification of Diseases (ICD-10), which was implemented for coding of mortality data in the United States in 1999.

Most of the definitions used in the leading causes of death table and in the mortality charts are based on the Healthy People 2010/Leading Health Indicators. However, there are three that are different:

- The category used for coronary heart disease deaths for Healthy People 2010 is a subset of the category diseases of heart used for leading causes of death.
- The leading causes of death data for chronic lower respiratory diseases are for all ages. The Healthy People 2010 data are for ages 45 and over.
- The leading cause of death data for diabetes are based on underlying cause of death only. The Healthy People data are based on diabetes as an underlying or contributing cause of death.

Data reliability

The data shown in the charts meet basic standards of statistical reliability. If there are not a sufficient number of events to produce a reliable statistic, the figure is not shown. The general criteria for reliability is (a) at least 20 deaths for mortality data or (b) a relative standard error of <30% for the data derived from health surveys.

Race and ethnicity classification

The racial and ethnic categories used in the charts are based on those recommended by the Office of Management and Budget (OMB) Directive 15, adopted in 1977. The standards were revised in 1997 and are gradually being implemented by all Federal data systems. Along with some changes in terminology, the 1997 revision includes two major changes: (1) Agencies are now required to offer respondents the option of selecting one or more races and must tabulate multiple race when reporting data and (2) the Asian or Pacific Islander category is split into 2 categories - Asian and Native Hawaiian or Other Pacific Islander.

Death rates by race and Hispanic origin may be biased from misreporting of race and Hispanic origin in the numerator of the rates and misreporting and undercoverage in the denominator of the rates. Numerator information is from the death certificate as reported by the funeral director based on information from an informant, usually a family member; while denominator information, from surveys or the Census of Population, is either self-reported or is reported by a member of the household. Based on comparisons of death certificate information with that from independent sources such as the Current Population Survey, the quality of reporting of race and Hispanic origin on the death certificate is good for the white and African American populations; however, reporting of other groups may be seriously under-reported. Additional reporting problems, such as net census undercount affect population counts and estimates. As a consequence of the combined effect of numerator and denominator biases, it has been estimated that death rates for the white population are overestimated by about 1 percent and for the African American population by about 5 percent; and are underestimated for the American Indian or Alaska Native population by approximately 21 percent; Asian or Pacific Islanders, 11 percent; and Hispanics, 2 percent. (Rosenberg HM, Maurer JD, Sorlie PD, Johnson NJ, et al. Quality of death rates by race and Hispanic origin: A summary of current research, 1999. National Center for Health Statistics. Vital Health Stat 2(128). 1999).

Telephone coverage

Two of the data systems used for the charts (Behavioral Risk Factor Surveillance System (BRFSS) and National Immunization Survey (NIS)) obtain data from telephone-based surveys. Although 94 percent of U.S. households have telephones, coverage ranges from 87-98 percent across states and varies for subgroups as well. For example, persons living in the South, some minorities, and those in lower socioeconomic groups typically have lower telephone coverage.

For the BRFSS, no direct method of compensating for non-telephone coverage is employed; however, post-stratification weights are used, and may partially correct for any bias caused by non-telephone coverage. These weights adjust for differences in probability of selection and nonresponse, as well as noncoverage, and are used to derive representative population-based estimates of risk behavior prevalences.

Post-stratification weights are also used for the NIS. In addition, data from the NIS are adjusted to account for non-telephone coverage.

The percent of households with telephones for 1998 from the Census Bureau for specified groups are shown below:

U.S.

Total - 94.1
White, non-Hispanic - 95.7
Black, non-Hispanic - 88.5
Asian, non-Hispanic - 95.3
American Indian, non-Hispanic - 84.9
Hispanic - 87.7
Household income <$10,000 - 82.7
Household income $10,000-$14,999 - 88.7

Region IV States

Alabama - 93.6
Georgia - 90.3
Florida - 93.3
Kentucky - 94.1
Mississippi - 89.3
North Carolina - 93.1
South Carolina - 92.1
Tennessee - 93.9