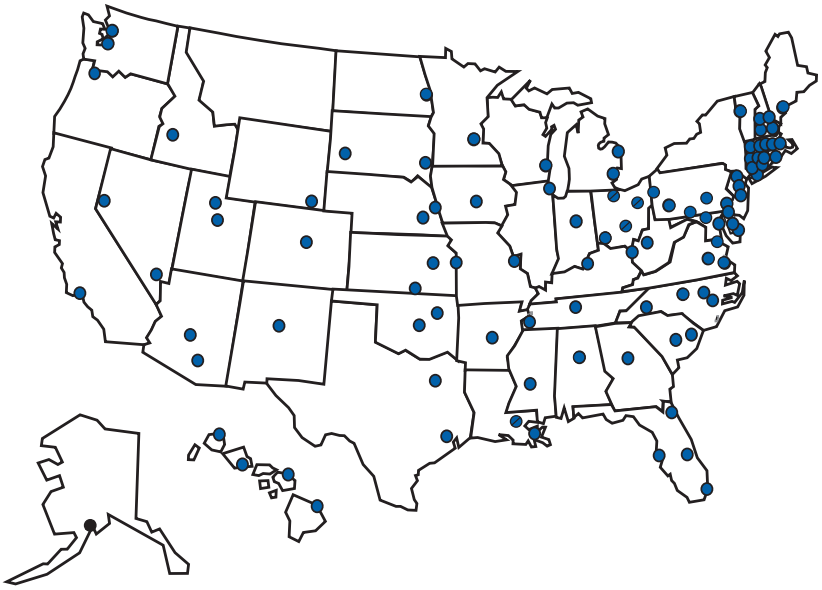
AT A GLANCE

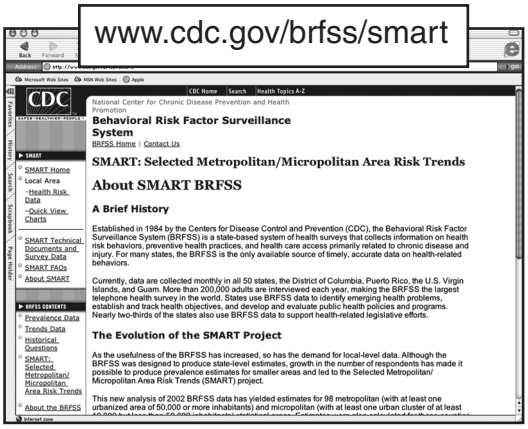
Health Risks in the United States:

Behavioral Risk Factor Surveillance System 2004

SMART BRFSS Makes Local Data Available Nationwide for the First Time

98 Communities Are Able to Measure Specific Local Health Problems





"Because the BRFSS is so flexible, New York State was able to use the survey to collect data in response to the terrorist attacks on the World Trade Center. I know of no other survey that would have enabled us to respond so quickly to the need for timely information. The BRFFS is a critical source of up-to-date information on many important health topics in our state."

Tom Melnick, DrPH
Director, Chronic Disease and Risk Factor Surveillance
New York State Department of Health

Revised March 2004

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION
SAFER • HEALTHIER • PEOPLE™

Measuring Health Risks Among Adults

For 20 years, CDC's Behavioral Risk Factor Surveillance System (BRFSS) has helped states survey U.S. adults to gather information about a wide range of behaviors that affect their health. The primary focus of these surveys has been on behaviors that are linked with the leading causes of death—heart disease, cancer, stroke, diabetes, and injury—and other important health issues. These behaviors include

- Not getting enough physical activity.
- Being overweight.
- Not using seatbelts.
- Using tobacco and alcohol.
- Not getting preventive medical care—mammograms, Pap smears, colorectal cancer screening tests, and flu shots—that is known to save lives.

Through the BRFSS surveys, CDC and the states have learned much about these and other harmful behaviors.

About half of all deaths in the United States are linked to behaviors that can be changed.

Source: McGinnis JM, Foege WH. Actual causes of death in the United States. JAMA 1993;270:2207-2212.

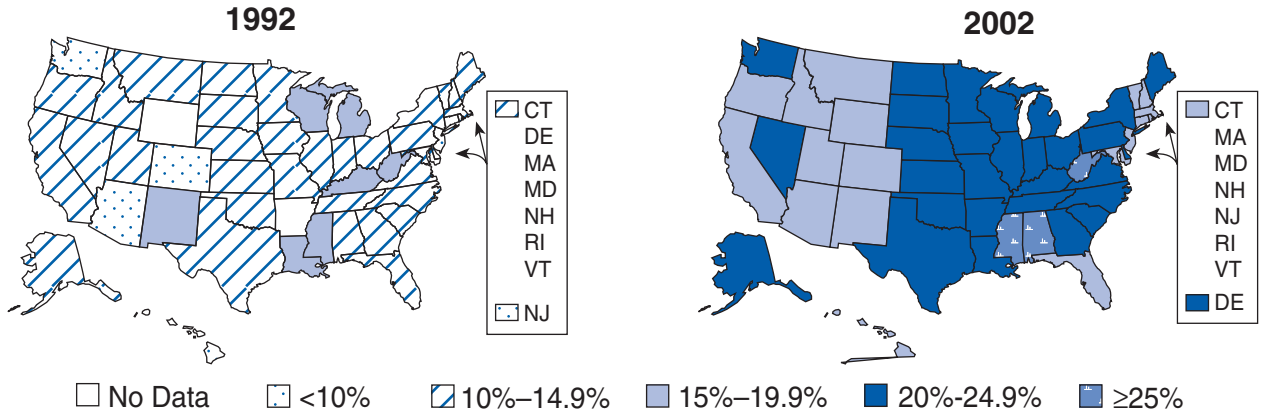
This information is essential for planning, conducting, and evaluating public health programs at the national, state, and local levels. Private organizations also rely on the survey data to develop health promotion programs to reduce the prevalence of unhealthy behaviors and to document the effectiveness of these programs.

CDC's Unique State-Based Surveillance System

The BRFSS is a telephone survey conducted by the health departments of all states, the District of Columbia, Puerto Rico, the Virgin Islands, and Guam with assistance from CDC. Congress appropriated $8 million for this system in fiscal year 2004.

The BRFSS is the largest continuously conducted telephone health survey in the world. States use BRFSS data to identify emerging health problems, to establish health objectives and track their progress toward meeting them, and to develop and evaluate public health polices and programs. The BRFSS is the primary source of information for states and the nation on the health-related behaviors of adults. States use standard procedures to collect data through monthly telephone interviews with adults aged 18 years or older. BRFSS interviewers ask questions related to behaviors that are associated with preventable chronic diseases, injuries, and infectious diseases.

Obesity* Trends Among U.S. Adults



*BMI ≥30, or about 30 lbs. overweight for 5' 4" person.
Source: CDC, Behavioral Risk Factor Surveillance System.

CDC works with states to ensure the success of the BRFSS. For example, CDC public health advisors provide states with technical assistance, and CDC epidemiologists offer assistance with survey methodology and data analysis.

To ensure that the BRFSS data are of high quality, CDC generates a household calling list for each state, processes survey data, produces monthly and annual quality assurance reports, and provides online training for state-based BRFSS coordinators and interviewers. CDC also helps states develop resources for analyzing, interpreting, and using their survey data.

State and local health departments rely on data from the BRFSS to

- Determine high-priority health issues and identify populations at highest risk for illness, disability, and death by analyzing data according to respondents' age, sex, education, income, and race/ethnicity.
- Develop strategic plans and targeted prevention programs.
- Examine trends in behaviors over time to monitor the effectiveness of public health programs and progress in meeting prevention goals.
- Support community policies that promote health and prevent disease—for example, by educating the public, the health community, and policy makers about disease prevention.

Researchers, professional organizations, managed care organizations, and community-based organizations use BRFSS data to develop targeted prevention activities and programs. In addition, public health professionals use the data to monitor the progress of the nation, states, and local areas toward meeting the health objectives in *Healthy People 2010*. Moreover, Canada, Australia, Russia, and several other countries, recognizing the value of the BRFSS, have asked CDC to help them establish similar surveillance systems.

Versatility of the BRFSS

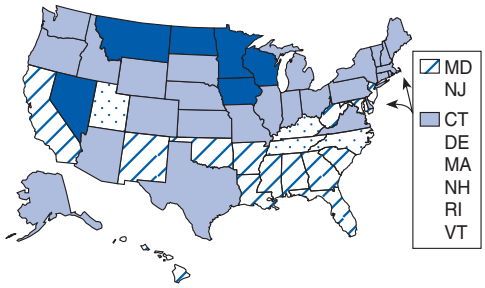
The BRFSS is flexible because it allows states to add timely questions specific to their needs. At the same time, standard core questions on the survey enable health professionals to make comparisons among states and local areas and also to reach national conclusions. BRFSS data have highlighted state-to-state differences in key health issues. In 2002, for example, the percentage of adults who smoked ranged from a low of 13% in Utah to a high of 33% in Kentucky.

BRFSS data can also be analyzed to examine smaller geographic areas within states. In 2003, CDC analyzed 2002 BRFSS state data for SMART BRFSS (Selected Metropolitan/ Micropolitan Area Risk Trends from the BRFSS). This project produced data for 98 metropolitan and micropolitan statistical areas (MMSAs) and showed that the prevalence of high-risk health behaviors varied substantially among selected MMSAs. For example, in the areas analyzed in 2002,

- Obesity prevalence ranged from 12.8% in the Bethesda-Frederick-Gaithersburg, MD, MMSA to 29.4% in the Charleston, WV, MMSA.
- The prevalence of binge drinking ranged from 8.2% in the Greensboro-High Point, NC, MMSA to 26.1% in the Fargo, ND-MN, MMSA.
- The prevalence of screening for colorectal cancer ranged from 67.9% in the Minneapolis-St. Paul-Bloomington, MN-WI, MMSA to 30.7% in the Kahului-Wailuku, HI, MMSA.

The BRFSS also can be used to address urgent and emerging health issues in a particular area. States can add questions on a wide range of important health issues, such as diabetes, arthritis, tobacco use, folic acid consumption, health care coverage, and even terrorism. For example, following the September 11, 2001, terrorist attack on the World Trade Center, New York, New Jersey, and Connecticut added questions to their Behavioral Risk Factor Surveys to measure the psychological and emotional effects of this traumatic event.

Percentage of Adults Who Reported Binge Drinking*



7%–10.9% 11%–14.9% 15%–18.9% ≥19%

* People 18 or older who reported having five or more drinks on one occasion, one or more times in the past month.
Source: CDC, Behavioral Risk Factor Surveillance System, 2002.

Importance of Local Data

Counties and cities have increasingly indicated that they need data specific to their geopolitical area. In response to these demands, many state health departments have increased the size of the BRFSS sample or over-sampled the areas or populations for which they needed local data.

North Carolina
North Carolina produced local-level data for 10 counties and 3 regions in 2001. These data were used to help allocate public health resources, to secure funding for public health programs, and to plan and assess programs, including evaluating the impact of a statewide folic acid campaign. In 2004, North Carolina will expand the BRFSS sample size to 15,000 to produce estimates for 22 counties, 13 regions, and the Native American population.

Washington
Washington provided data for each of its health jurisdictions in 2003. The Tobacco Prevention Program used the data to produce profiles for all 39 counties within the state. Jefferson County used its data to obtain funding to work with families at risk for alcohol, tobacco, and child abuse. Kittitas County used its data on oral health to mobilize a local coalition that obtained funding for and initiated a mobile prevention program. Washington will also use local data to evaluate the success of its programs funded by *Steps to a HealthierUS* grants.

Nebraska
Nebraska provided data for all six of its health districts. These data showed that the prevalence of risk behaviors and chronic diseases varied widely from one geographic area to the next. For example, the western area had high rates of cigarette smoking and chewing tobacco use, while the eastern area had high rates of diabetes. These data are used to plan and implement prevention programs that target the major health problems in each of the districts.

Future Directions for the BRFSS

The BRFSS is addressing the challenges presented by a growing demand for survey data. One such challenge is to keep phone interviews to a reasonable length while meeting these demands for additional data. This rising demand comes from not only state health departments but also legislators, planners, community-based organizations, city councils, mayors' offices, and others who want data on additional topics and subgroups.

To meet these challenges, the BRFSS has increased the number of adults interviewed in each state from 2,000 to 4,000. This increase allows sites to provide local-level data and to use split sampling. With split sampling, different portions of the sample population answer different sets of BRFSS questions. As a result, sites are now able to collect BRFSS data on a wider range of topics each year.

With the addition of SMART to BRFSS survey data, CDC is also able to provide data on health-specific risks for communities. As the number of respondents continues to grow, the number of areas included in SMART can increase.

To take advantage of advances in telecommunications technology, CDC is exploring the feasability of methods other than phone surveys to collect BRFSS data. The success of a 2003 study that used Web-based surveys to capitalize on the expanding number of people using the Internet indicates that Web surveys are a viable option for the future.

States and urban areas will continue to rely on the BRFSS to gather the high-quality data they need to plan and evaluate public health programs and to allocate scarce resources. CDC will work closely with state and federal partners to ensure that the BRFSS continues to provide data that are useful for public health research and practice and for state and local health policy decisions.

For more information or additional copies of this document, please contact the
Centers for Disease Control and Prevention,
National Center for Chronic Disease Prevention and Health Promotion, Mail Stop K-66,
4770 Buford Highway NE, Atlanta, GA 30341-3717
Telephone: (770) 488-2455; Fax: (770) 488-8150
ccdinfo@cdc.gov http://www.cdc.gov/brfss