Behavioral Risk Factor Surveillance System (BRFSS) Health Indicators by County and Region

OVERVIEW

Office of Public Health
Updated: February 2, 2023

Health Data NY

NEW YORK STATE | Department of Health

General Description:

The Behavioral Risk Factor Surveillance System (BRFSS) is an annual statewide random telephone and cellular surveillance survey designed by the Centers for Disease Control and Prevention (CDC). BRFSS monitors modifiable risk behaviors and other factors contributing to the leading causes of morbidity and mortality in the population. Data from the BRFSS are used for planning, initiating, and supporting health promotion and disease prevention programs at the state and federal level, and monitoring progress toward achieving health objectives for the state and nation. New York State's BRFSS sample is representative of the adult population living in private residences or college housing who have either a landline or cellular telephone, aged 18 years and older. Adults living in group homes or congregate settings are excluded from the survey.

To support planning and evaluation of local health and public health initiatives, the New York State Department of Health conducts expanded BRFSSs surveys. The expanded survey years involve many more surveys and enable estimates of key health indicators to be calculated for counties and regions.

The expanded 2013-14 Behavioral Risk Factor Surveillance System (eBRFSS) was a random digit dialing (RDD) phone survey of the health status and health behaviors of adult NYS residents. The eBRFSS was designed to provide estimates of health indicators at the county level. The sample consisted of 31,690 completed landline and cell phone interviews conducted between April 2013 and March 2014. The questionnaire used for the 2013-14 eBRFSS survey can be found in the attachments section.

The 2016 Behavioral Risk Factor Surveillance System (BRFSS) was an RDD phone survey of the health status and health behaviors of adult NYS residents. The annual BRFSS is administered by New York State in conjunction with the Centers for Disease Control and Prevention (CDC). In addition to state-level estimates, the 2016 annual BRFSS was designed to support estimates of health indicators at the county level. The 2016 BRFSS sample covered 34,190 completed landline and cell phone interviews conducted between January and December of 2016. The questionnaire used for the 2016 BRFSS survey can be found in the attachments section.

The 2018 Behavioral Risk Factor Surveillance System (BRFSS) was an RDD phone survey of the health status and health behaviors of adult NYS residents. The annual BRFSS is administered by New York State in conjunction with the Centers for Disease Control and Prevention (CDC). In addition to state-level estimates, the 2018 annual BRFSS was designed to support estimates of health indicators at the county level. The 2018 BRFSS sample covered 35,767 completed landline and cell phone interviews conducted between January and December of 2018. The questionnaire used for the 2018 BRFSS survey can be found in the attachments section.

NEW YORK STATE | Department of Health

The 2021 Behavioral Risk Factor Surveillance System (BRFSS) was an RDD phone survey of the health status and health behaviors of adult NYS residents. The annual BRFSS is administered by New York State in conjunction with the Centers for Disease Control and Prevention (CDC). In addition to state-level estimates, the 2021 annual BRFSS was designed to support estimates of health indicators at the county level. The 2021 BRFSS sample covered 39,095 completed landline and cell phone interviews conducted between January and December of 2021. The questionnaire used for the 2021 BRFSS survey can be found in the attachments section.

The 2013-14 eBRFSS, the 2016 BRFSS, 2018 BRFSS, and 2021 BFRSS provide estimates of a wide range of health indicators at the county level to facilitate county-level behavioral risk factor tracking and enables counties to effectively deploy resources for interventions specific to the health needs of their populations. The eBRFSS was previously conducted in NYS in 2008-2009 and did not include a cell phone component. Indicators were grouped into general health domains: Improve health status and reduce health disparities; Promote a healthy and safe environment; Prevent chronic diseases; Prevent HIV/STDs, vaccine preventable diseases and healthcare-associated infections; Promote healthy women, infants, and children; and Promote mental health and prevention substance abuse.

Data Methodology:
Data are collected via RDD calls to NYS adult residents. Both land line and cell phones were sampled. Respondents with invalid or missing responses to any question utilized in an indicator's calculation were excluded from the numerator and the denominator of that calculation. Percentages were generated using statistical software capable of accounting for the complex survey design and weighting. Percentages were generated for counties, Delivery System Redesign Incentive Program (DSRIP) regions, NYC/NYS exclusive of NYC, and NYS. Percentages for these public health metrics are provided as both unadjusted and age-adjusted rates. The age-adjustment process uses the 2000 Standard Population (Distribution #9). Estimates with confidentiality concerns were suppressed, and highly variable estimates were identified as unstable.

Not all indicators are defined consistently between the 2013-14 eBRFSS, 2016 BRFSS, 2018 BRFSS, and 2021 BRFSS. Some indicators were modified, and some introduced after the 2013-14 eBRFSS. Indicators that are consistent and comparable across years have identical names (Health Indicator and Health Indicator Short Name) and Health Indicator Sort Keys. Other indicators that have different definitions and should not be compared across years will have different names and sort keys.

Limitations of Use:
Data are sample based and therefore subject to sampling variability. The sampling variability for each indicator is highlighted by including the 95% confidence interval.

NEW YORK STATE | Department of Health

Data are based on respondents' answers to a telephone survey, so data are self-reported and therefore potentially subject to response bias, recall bias, social desirability bias, and other limitations associated with self-report. Great effort is undertaken when administering the BRFSS to mitigate or minimize the risk of such biases, but they cannot be eliminated altogether.

Indicator estimates are sometimes based on small samples, resulting in low precision of the estimates. If the eBRFSS or BRFSS sample has less than 10 respondents with the condition measured by the health indicator or less than 50 respondents at risk for the health condition, the crude and age-adjusted rates are suppressed. The suppression is noted in the "Notes" field. Some crude/age-adjusted rates that meet this requirement may still be estimated but with high variability. Highly variable rates are defined as having confidence limits greater than ±10%. These highly variable rates are flagged as being unreliable in the "Notes" section. In addition, the age-adjustment process may generate rates that are suspect, due to small (three or fewer observations) age-adjustment cells. The age-adjusted rates with which there are concerns are identified in the "Notes" field. Age-adjusted rates are not calculated for indicators that apply to a specific age-group (e.g., adults 50 to 75 years of age). The indicators with an age-restriction are identified in the "Notes" field.

Information on how to interpret rates based on small numbers can be found here: http://www.health.ny.gov/diseases/chronic/ratesmall.htm.

Information on how to interpret confidence intervals can be found here: http://www.health.ny.gov/diseases/chronic/confint.htm.

NEW YORK STATE | Department of Health