

Air Quality (PM2.5 and Ozone)

The Air Quality System (AQS) contains ambient air pollution data collected by EPA, state, local, and tribal air pollution control agencies from over thousands of monitors. AQS also contains meteorological data, descriptive information about each monitoring station (including its geographic location and its operator), and data quality assurance/quality control information.

Data are from the **AirData** website, which gives you access to air quality data collected at outdoor monitors across the United States, Puerto Rico, and the U. S. Virgin Islands. The data comes primarily from the AQS (Air Quality System) database.

References:

EPA Air Quality System Monitoring Data, State Air Monitoring Data: <u>http://www2.epa.gov/aqs</u> Air quality monitoring data: EPA Air Explorer <u>http://www.epa.gov/airdata/</u> Air quality modeled data: <u>http://www.epa.gov/heasd/sources/projects/CDC/index.html</u>



American Community Survey (ACS)

The American Community Survey (ACS) is a national survey that uses continuous measurement methods. In this survey, a series of monthly samples produce annual estimates for the same small areas (census tracts and block groups) formerly surveyed via the decennial census long-form sample.

Methodology:

Through the <u>2014 Design and Methodology Report</u>, and supplemental pages, the Census Bureau provides detailed information about the methods used to collect and produce ACS estimates, including information about the following:

- the history and evolution of the ACS—including an archive of past questionnaires
- the ACS sample, as well as current and historical sample sizes
- ACS content and the process of testing new content
- data collection
- data processing—including weighting, estimation, and coding operations
- data product preparation and release
- how data quality is measured, as well as current and historical measures
- how future changes are considered and researched

References:

https://www.census.gov/programs-surveys/acs/methodology.html

Design and Methodology Report

The updated ACS Design and Methodology Report include information on changes to the ACS program through 2013, including the new internet response mode.

Sample Size and Data Quality

ACS samples about 3.54 million addresses each year. Discover how well that sample covers the population, and how we measure the reliability of ACS estimates.

Mandatory vs. Voluntary Methods

If the ACS was not mandatory, research shows reduced response rates, increased sample, more follow-up, and additional cost of more than \$90 million annually.



Behavioral Risk Factor Surveillance System (BRFSS)

In 1984, the Centers for Disease Control and Prevention (CDC) initiated the state-based Behavioral Risk Factor Surveillance System (BRFSS)--a cross-sectional telephone survey that state health departments conduct monthly over landline telephones and cellular telephones with a standardized questionnaire and technical and methodologic assistance from CDC. BRFSS is used to collect prevalence data among adult U.S. residents regarding their risk behaviors and preventive health practices that can affect their health status. Respondent data are forwarded to CDC to be aggregated for each state, returned with standard tabulations, and published at year's end by each state. BRFSS now collects data in all 50 states as well as the District of Columbia and three U.S. territories. BRFSS completes more than 400,000 adult interviews each year, making it the largest continuously conducted health survey system in the world.

Methodology:

The BRFSS Data User Guide is intended to provide a brief overview of BRFSS to data users <u>http://www.cdc.gov/brfss/data_documentation/pdf/userguidejune2013.pdf</u>. Specific information regarding data quality, response and/or cooperation rates, or calling outcome can be found in the Summary Data Quality Report produced each year in conjunction with the annual data release. Data users needing more information about comparability across years should refer to the annual Comparability of Data document, particularly before using the data to conduct trend analyses.

From the 1980s to 2010, CDC has used a statistical method called post stratification to weight BRFSS survey data to known proportions of age, race and ethnicity, sex, geographic region within a population. In 2011 the BRFSS moved to a new weighting methodology known as iterative proportional fitting or raking. Raking has several advantages over post stratification. First, it allows the introduction of more demographic variables—such as education level, marital status, and home ownership—into the statistical weighting process than would have been possible with post stratification. This advantage reduces the potential for bias and increases the representativeness of estimates. Second, raking allows for the incorporation of a now-crucial variable—telephone ownership (landline and/or cellular telephone)—into the BRFSS weighting methodology. Beginning with the 2011 dataset, raking succeeded post stratification as the BRFSS statistical weighting method. As noted in the previous paragraph, age, sex, categories of ethnicity, geographic regions within states, marital status, education level, home ownership and type of phone ownership are currently used to weight BRFSS data.

References:

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



Behavioral Risk Factor Surveillance System (BRFSS) Asthma Call-back Survey (ACBS)

The Asthma Call-back Survey (ACBS) is an in-depth asthma survey developed and funded by the Air Pollution and Respiratory Health Branch (APRHB) in the National Center for Environmental Health (NCEH). It is conducted with Behavioral Risk Factor Surveillance System Survey (BRFSS) respondents who report an asthma diagnosis.

Methodology:

Asthma surveillance data at the state level includes adult and child asthma prevalence from the Behavioral Risk Factor Surveillance System (BRFSS) and in-depth state and local asthma data through implementation of the BRFSS Asthma Call-back Survey (ACBS).

References:

http://www.cdc.gov/brfss/acbs/index.htm



Birth Conditions

Data are from the New Hampshire Birth Conditions Program (NHBCP) based at the Geisel School of Medicine at Dartmouth College. NHBCP began data collection activities in 2003. Data obtained in the NHBCP database are used to detect trends in the occurrence of birth conditions in NH; evaluate the need for and facilitate access to supportive health services; guide and assess the progress of statewide prevention activities; and educate the community, health care providers and service agencies regarding birth conditions.

Data are collected on births occurring in-state to NH residents. Data for NH residents who give birth or have care visits in out-of-state hospitals are not recorded. Birth termination data is collected by the NH Birth Conditions Program but excluded in the NH EPHT data. Birth defect cases are ascertained up to age 1 through active surveillance methods. The birth defects coding system is ICD-9-CM (CDC coding based on BPA).

Methodology:

Records of New Hampshire (NH) residents from birth certificates, hospital ICD codes for admissions, transports, discharges, fetal pathology reports, and other health care facilities related to caring for children with birth conditions. Source data are queried by ICD-9 code and confirmed through active medical chart review, then entered manually by the NHBCP staff into the database. The NHBCP does have an opt out procedure in which after cases are confirmed, a packet is sent to the case with the option to opt out of having identifiable information stored in the NHBCP dataset. To date there is no data on the rate of opt outs per year.

Limitations: Approximately 5% of cases annually opt out of allowing the NHBCP to geocode their location (via the Opt Out provision) which limits the ability to analyze the data by geographic location. The enabling language requires the NHBCP to contact each identified case and offer the option to "opt out" of having name, address and full birth date included in the dataset. Derived rates and counts measures by different level of aggregation; Non-zero counts less than 6 and corresponding rates have been suppressed to protect confidentiality.



Childhood Lead Testing

Methodology:

Limitations: Surveillance data are not randomly sampled or representative of the populations. Complete residential addresses are not available for all children test. Sometimes the address of the provider or another address is listed as the child's address when the data is not provided by the reporting authority.

References:

http://ephtracking.cdc.gov/showIndicatorPages.action?selectedContentAreaAbbreviation=6&sel ectedIndicatorId=77&selectedMeasureId=

Childhood Blood Lead Surveillance Data

Census Population Data: Vintage bridged-race post-censal population estimates available through NVSS: <u>http://www.cdc.gov/nchs/nvss/bridged_race.htm</u>



National Survey on Drug Use and Health (NSDUH)

The National Survey on Drug Use and Health (NSDUH) is an annual nationwide survey involving interviews with approximately 70,000 randomly selected individuals aged 12 and older. The <u>Substance Abuse and Mental Health Services Administration</u> (SAMHSA), which funds NSDUH, is an agency in the <u>U.S. Department of Health and Human Services</u> (DHHS). Supervision of the project comes from <u>SAMHSA's Center for Behavioral Health Statistics and Quality</u> (CBHSQ). Through a competitive bidding process, SAMHSA selected <u>RTI International</u> to conduct the NSDUH through 2017. RTI has successfully conducted the survey since 1988. RTI's role in this long-term national effort includes study design, sample selection, data collection, data processing, analysis, and reporting. NSDUH is authorized by <u>Section 505 of the Public Health Service Act</u>, which requires annual surveys to collect data on the level and patterns of substance use.

Methodology:

Selection Process: A scientific random sample of households is selected across the United States, and a professional RTI interviewer makes a personal visit to each selected household. Once a household is chosen, no other household can be substituted for any reason. This practice is to ensure the NSDUH data represent the many different types of people in the United States. After answering a few general questions during the in-person visit by the interviewer, one or two residents of the household may be asked to participate in the survey by completing an interview. It is possible no one will be selected for the interview. If an individual is selected for the interview, their participation is voluntary, but no other person can take their place. Since the survey is based on a random sample, each selected person represents more than 4,500 United States residents. At the end of the completed interview, the selected person will receive \$30 in cash.

Data Collection and Processing: Participants complete the interview in the privacy of their own home. A professional RTI interviewer personally visits each selected person to administer the interview using a laptop computer. No prior computer skills are necessary. Individuals answer most of the interview questions in private and enter their responses directly into the computer so even the interviewer does not know the answer entered. For some items, the interviewer reads the question aloud and enters the participant's response into the computer. The interview takes about an hour to complete.

References:

https://nsduhweb.rti.org/respweb/homepage.cfm



NH Uniform Hospital Discharge Data Set (UHDDS)

Methodology:

Inpatient and Emergency Department Acute Care Hospital Discharge data is collected under New Hampshire statute RSA 126:25 requiring all NH facilities to report discharge data to the NH Department of Health and Human Services. Records of discharges of NH residents that occurred in Massachusetts, Vermont, and Maine are obtained by the Department through interstate data exchange agreements with the agencies in those states responsible for collection of discharge data. Those agencies are the Center for Health Information and Analysis (CHIA) in Massachusetts, the Maine Health Data Organization, and the Vermont Department of Health. Discharge of NH residents from Maine, Massachusetts and Vermont hospitals are included in the dataset. Transfers of NH residents are also included in the dataset.

Limitations: Discharges are not de-duplicated. Many patients return repeatedly to the hospital for services. Multiple admissions for one person might falsely elevate the number of persons hospitalized. Hospital inpatient discharges may include in-state and out-of-state hospitalizations for NH residents. Only MA, ME, and VT out-of-state hospitals are included. Encrypted social security number is not available for discharges from ME or VT. MA uses a different encryption key than NH for encrypted social security number. Discharges from the NH Veterans Administration Hospital, other military hospitals and special facilities are not in the NH UHDDS. Due to small state population, counts and age-adjusted rates may not be feasible to display at the county levels.



NH Population (US Census to 2004, Claritas 2005-2013)

Claritas data is custom population data purchased by the New Hampshire Department of Health and Human Services (DHHS), Division of Public Health Services (DPHS) from Nielsen SiteReports. Claritas data consists of sex, race, Hispanic origin, single year of age, by town and census tract.

References:

https://www.claritas.com/sitereports/Default.jsp



NH State Cancer Registry Cancer (NHSCR):

The New Hampshire State Cancer Registry (NHSCR) is a statewide, population-based cancer surveillance program that collects incidence data on all cancer cases diagnosed or treated in the State of New Hampshire. Since its inception in 1985, the NHSCR has been contracted to Dartmouth Medical School by the DHHS Division of Public Health Services and the Health Statistics and Data Management Section.

Methodology:

The NHSCR collects incidence data on all cancer cases diagnosed or treated in New Hampshire. As required by the <u>NH Administrative Rules</u>, the NHSCR currently collects data from hospital registrars in the larger hospitals in NH. Hospitals with fewer than 105 cases per year that generally do not have their own cancer registry are assisted by NHSCR staff helps these hospitals with some of their reporting duties. NHSCR also receives case report from physician practices, free standing radiation oncology centers, pathology laboratories and other sources. In addition, the NHSCR receives case reports for NH residents who are diagnosed outside the state, based on interstate data exchange agreements.

The NHSCR has an innovative, two-phase reporting system. The initial rapid report provides basic aspects of case identification and is submitted within 45 days of diagnosis. A definitive case report is transmitted within 180 days from the date of diagnosis, and includes more detailed information, such as treatment and staging information. Timely reporting is essential for registry activities.

References:

http://geiselmed.dartmouth.edu/nhscr/about/



NH Vital Records Birth Certificate Data

The New Hampshire Department of Health and Human Services (DHHS), Division of Public Health Services (DPHS), Health Statistics & Data Management (HSDM):

- Receives access to birth data via the Bureau of Data and Systems Management in DHHS from the Division of Vital Records Administration under NH state law;
- Analyzes information from reported birth records for NH DHHS programs and for external community customers;
- Works collaboratively and in partnership with the <u>NH Birth Conditions Program</u> to provide surveillance data on birth conditions;
- Distributes statistical reports to government agencies and other requesting public and private organizations; and
- Prepares reports that contain tabulations of birth data.

Methodology:

The Division of Vital Records Administration in the Office of the Secretary of State collects:

- NH Birth information from hospital and midwife reporters;
- NH resident out-of-state births through an interstate exchange agreement; and
- Birth certificate data information, which includes:
- Newborn's sex, weight, period of gestation, date of birth and congenital anomalies;
- Mother's and father's residence, age, race and ancestry; and
- Many characteristics of the pregnancy and birth including maternal smoking and alcohol use, method of delivery, use of prenatal care and complications of the pregnancy.

References:

http://www.dhhs.state.nh.us/dphs/hsdm/birth/index.htm http://sos.nh.gov/vital_records.aspx http://nhvrinweb.sos.nh.gov/Default.aspx



NH Vital Records Death Certificate Data

The New Hampshire Department of Health and Human Services (DHHS), Division of Public Health Services (DPHS), Health Statistics & Data Management (HSDM):

- Receives access to death data via the NH DHHS Bureau of Data & Systems Management from the NH Division of Vital Records Administration under NH state law;
- Analyzes information from the records of reported deaths for NH DHHS and external community customers;
- Prepares reports that contain tabulations of death data; and,
- Distributes statistical reports to government agencies and other requesting public and private organizations.

Methodology:

The NH Division of Vital Records Administration in the Office of the Secretary of State is responsible for collecting information on deaths of NH residents and deaths occurring in NH. Funeral home directors and the medical examiner report the information to the Division of Vital Records Administration. Information about NH resident out-of-state deaths is reported to NH through an interstate exchange agreement.

This dataset is complete and available for analysis approximately 24-48 months after the close of a calendar year.

References:

http://www.dhhs.state.nh.us/dphs/hsdm/death/index.htm http://sos.nh.gov/vital_records.aspx http://nhvrinweb.sos.nh.gov/Default.aspx



Pediatric Nutrition Surveillance System (PedNSS)

The Pediatric Nutrition Surveillance System (PedNSS) and the Pregnancy Surveillance System (PNSS) are program-based surveillance systems that monitor the nutritional status of lowincome infants, children, and women in federally funded maternal and child health programs. PedNSS data represent over 8 million children from birth to age 5. PNSS data represent approximately 1.3 million pregnant and postpartum women. These surveillance systems provide data that describe prevalence and trends of nutrition, health, and behavioral indicators for mothers and children.

Methodology:

Demographic data collected by PedNSS include race or ethnicity, sex, migrant status, household income (where indicated), and zip code.

- Data collected to assess nutritional status include weight, length/height, and hemoglobin or hematocrit measurements. Weight, stature, and length are commonly used to assess the size and growth of children.
- Data on birthweight and breastfeeding status are collected on children from birth to two years of age.
- Health risk behavior data includes tv/video viewing and household smoking.

Data is collected at the clinic level then aggregated at the state level and submitted to CDC for analysis. When multiple visit records are submitted for a child during the reporting period, CDC creates a unique child record following specific selection criteria that may contain some data from all available records. The CDC then calculates the nutrition-related indices and sends each contributor agency a series of annual tables that summarize the nutritional status and infant feeding practices by age of child and race/ethnicity. The national PedNSS tables are included in the Pediatric Data Tables section.

Limitations of the PedNSS Data: PedNSS is a public health surveillance system based on data routinely collected from several federally funded public health programs serving low-income children. Contributors voluntarily participate in PedNSS. Not all contributors for a specific public health program participate in PedNSS. For example, not all states, U.S. territories, and tribal agencies that provide WIC services participate in PedNSS. Therefore, the national PedNSS report is not representative of all WIC programs. Similarly, PedNSS is not representative of all low-income children or children in the general population. It is representative of the population served by the public health program submitting the surveillance data. It is essential data for use in planning, implementing, monitoring, and evaluating the nutritional status of children served by a specific public health program.

References:

http://www.cdc.gov/pednss/ http://www.cdc.gov/pednss/what_is/pednss/what_data.htm



Public Water System: Quality Sampling Results and Inventory Information

NH community water systems (CWSs) are required to provide drinking water that meets federal standards established under the federal Safe Drinking Water Act (SDWA). The NH Department of Environment (NHDES) is the agency designated to supervise public water systems under SDWA, including maximum contaminant levels (MCLs), monitoring schedules, and water system inspections. The NH EPHT Program uses public drinking water data provided by NHDES to compile nationally consistent measures for the following key contaminants in public drinking water: arsenic, nitrate, disinfection by-products (TTHM and HAA5), atrazine, di(2-ethylhexyl) phthalate (DEHP), tetrachloroethylene (PCE), trichloroethylene (TCE), radium and uranium.

Methodology:

This dataset contains one record for each community water system (CWS; non-transient systems serving 25 or more people) for the mean and maximum annual concentrations of arsenic, disinfection byproducts (TTHM and HAA5), nitrates, atrazine, di(2-ethylhexyl) phthalate (DEHP), tetrachloroethene (PCE), trichloroethene (TCE), radium and uranium; and the mean quarterly concentrations of disinfection byproducts (TTHM and HAA5), nitrates and atrazine. This dataset also accommodates sample-level data and includes one record for each compliance sample for the same analytes used in calculating summary concentrations.

Limitations: Population estimates are updated at irregular intervals (every 1 to 5 years) by community water systems. Once population estimates are updated, historical information is no longer retained within the system. This may result in an overestimation or underestimation of the population in earlier years.

Exclusions: Water systems were constrained to non-transient (not seasonally operational) community water systems serving at least 25 residents which were active at the time of publication. Sample results were constrained to only compliance samples from community water systems contained in the PWS Inventory.



Third Grade Survey

The New Hampshire Department of Health and Human Services (DHHS), Division of Public Health Services (DPHS) has compared the results of the 2013–2014 Healthy Smiles–Healthy Growth Third Grade Survey with the 2008–2009 survey and finds improvements have been made. The statewide survey was funded by the HNH Foundation and Northeast Delta Dental. The data show a marked improvement over the last five years and demonstrate progress in reducing health disparities in both obesity and oral health status. Data were collected at public elementary schools in each county throughout New Hampshire.

Beginning in 2008, DPHS was awarded a five-year \$2.2 million CDC grant to establish an Obesity Prevention Program (OPP). OPP supported Healthy Eating Active Living (HEAL) NH by providing assistance and resources to schools, worksites, and communities. Additionally OPP focused efforts in child care settings training over 300 child care providers to improve nutrition and physical activity in their programs. Other key partners included HEAL NH, the Foundation for Healthy Communities, the NH Department of Transportation Safe Routes to School Program, NH Regional Planning Commissions, and the NH Child Development Bureau.

Methodology:

The HNH Foundation and Northeast Delta Dental Foundation provided funding for data collection, while the Association of State and Territorial Dental Directors contributed technical assistance for the sampling and data analysis of the Third Grade Survey. The purpose of the survey was to gather representative data on oral health and height/weight status for third grade students statewide.

References:

http://www.dhhs.nh.gov/media/pr/2014/10-oct/10212014survey.htm

The complete New Hampshire 2013–2014 <u>Healthy Smiles–Healthy Growth Third Grade Survey</u> is available on the DHHS website.



US Census (SES Child Poverty, Housing Age)

Housing built before 1950:

The percent of housing built before 1950 is a risk factor for childhood lead poisoning.

Child Poverty:

The percent of children under 5 years of age living below the federal poverty level.

Methodology:

Housing age comes from the 2000 Census long form which was sent to 16.7% of households. Housing age is calculated from data in table H034 "Year Structure Built". Child poverty is calculated from data in table P097 "Poverty Status in 1999 by Age.

References:

American FactFinder at: http://www.dhhs.nh.gov/media/pr/2014/10-oct/10212014survey.htm



Water Fluoridation Reporting System

There are ten public water systems in NH that adjust fluoride concentration in drinking water to the levels recommended by CDC and submit monthly operating reports (MOR) to the NH DES.

Methodology:

An employee of the DES enters MORs into a predesigned Excel spreadsheet that is forwarded to the Centers for Disease Control and Prevention (CDC) for an upload into the Water Fluoridation Reporting System (WFRS). WFRS is an online tool created by the CDC to help states to manage the quality of their water fluoridation programs. NH water systems submit MORs to the DES within one month of the data collection. Data processing at the state level (at the DES) currently takes one hour per month (compared with 16 hours per month in the past) and a negligible amount of time at the DHHS. The reduction of data processing time at the state level is a result of the quality improvement project between the DHHS and DES conducted during 2012. Data upload into WFRS at the CDC depends on staff availability, but is usually accomplished within two weeks of the data submission. The NH DES provides feedback to water systems to assure that fluoride levels remain optimal. Current default NH criteria for optimal fluoridation are:

- 1. Water system operators must report fluoride concentration for every day that the water plant is producing finished water.
- 2. Daily fluoride concentration may be determined by sample analysis or calculation.
- 3. 80% of daily samples must be within the optimal range (0.6-0.8 mg/L) (CDC minimum is 75%)
- 4. Water systems that adhere to the above criteria for at least 9 months each year are considered by the CDC to be optimally fluoridated.



Youth Risk Behavior Surveillance System (YRBSS)

The Youth Risk Behavior Surveillance System (YRBSS) was developed in 1990 to monitor priority health risk behaviors that contribute markedly to the leading causes of death, disability, and social problems among youth and adults in the United States. These behaviors, often established during childhood and early adolescence, include behaviors that contribute to unintentional injuries and violence; sexual behaviors that contribute to unintended pregnancy and sexually transmitted infections, including HIV infection; alcohol and other drug use; tobacco use; unhealthy dietary behaviors; and inadequate physical activity. In addition, the YRBSS monitors the prevalence of obesity and asthma.

Methodology:

From 1991 through 2013, the YRBSS has collected data from more than 2.6 million high school students in more than 1,100 separate surveys. The YRBSS was designed to:

- Determine the prevalence of health risk behaviors.
- Assess whether health risk behaviors increase, decrease, or stay the same over time.
- Examine the co-occurrence of health risk behaviors.
- Provide comparable national, state, territorial, tribal, and local data.
- Provide comparable data among subpopulations of youth.
- Monitor progress toward achieving the Healthy People objectives and other program indicators

The YRBSS includes national, state, territorial, tribal government, and local school-based surveys of representative samples of 9th through 12th grade students. These surveys are conducted every two years, usually during the spring semester. The national survey, conducted by CDC, provides data representative of 9th through 12th grade students in public and private schools in the United States. The state, territorial, tribal government, and local surveys, conducted by departments of health and education, provide data representative of mostly public high school students in each jurisdiction. See <u>Methodology of the Youth Risk Behavior</u> <u>Surveillance System—2013</u> for details about how the YRBS is conducted.

References:

http://www.cdc.gov/healthyyouth/data/yrbs/overview.htm



Youth Risk Behavior Surveillance System (YRBSS) Random Sample

Methodology:

Youth Risk Behavior Surveillance System (YRBSS) Random Sample data are weighted to adjust for school and student nonresponse and to make the data representative of the population of students from which the sample was drawn. Generally, these adjustments are made by applying a weight based on student sex, grade, and race/ethnicity. Weighting is a mathematical procedure that makes data representative of the population from which it was drawn. In the YRBSS, only surveys with a scientifically drawn sample, appropriate documentation, and an overall response rate of at least 60% are weighted. State and local YRBS data that are weighted are representative of all public school students in grades 9-12 in the respective jurisdiction.

References:

http://www.cdc.gov/healthyyouth/data/yrbs/faq.htm