

# 2019 National Healthcare Quality and Disparities Report

## Data Sources

**U.S. DEPARTMENT OF  
HEALTH AND HUMAN SERVICES**  
Agency for Healthcare Research and Quality  
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# Agency for Healthcare Research and Quality (AHRQ)

## Healthcare Cost and Utilization Project (HCUP)

### Sponsor

U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality (AHRQ).

### Description

The Healthcare Cost and Utilization Project (HCUP) databases bring together the data collection efforts of state data organizations, hospital associations, private data organizations, and the federal government to create a national information resource of discharge-level healthcare data.

HCUP includes a collection of longitudinal hospital care data in the United States, with all-payer, encounter-level information beginning in 1988. These databases enable research on a broad range of health policy issues, including cost and quality of health services, medical practice patterns, access to healthcare programs, and outcomes of treatments at the national, state, and local market levels.

Four HCUP discharge datasets were used in this report:

1. The 2017 HCUP State Inpatient Databases (SID) include a powerful set of hospital databases from HCUP partner organizations in 47 states and the District of Columbia. Together, the SID encompasses about 97% of all U.S. community hospital discharges. The SID contains a core set of clinical and nonclinical information on all patients, regardless of payer, including people covered by Medicare, Medicaid, and private insurance, as well as uninsured people. In addition to the core set of uniform data elements common to all of the SID, some states report other data elements, such as patient race.
2. For generating national Quality Indicator estimates beginning in data year 2016, SID files were combined to create a nationally weighted analysis file because of variation in the availability of both race/ethnicity data and indicators of diagnoses being present on admission, which are required for some of the AHRQ Quality Indicators. SID files meeting the following inclusion criteria were included in the nationally weighted analysis file: (1) less than 10% of discharges failed edit checks on indicators of diagnoses being present on admission (POA); (2) the SID included information on day of principal and secondary procedure days; and (3) the SID included good reporting of race/ethnicity data. After hospitals and discharges that failed POA and race/ethnicity edits were excluded, the remaining discharges were weighted to the universe of community hospitals in the United States, excluding rehabilitation and long-term acute care facilities. In data year 2017, the nationally weighted analysis file included data from 36 SID and over 34 million discharges. The following states were included: AK, AR, AZ, CA, CO, DC, FL, GA, HI, IL, IN, KS, KY, LA, MA, MD, ME, MI, MN, MO, MS, MT, NC, NJ, NM, NV, NY, OH, OR, PA, RI, SC, TN, TX, VA, and WA.
3. The HCUP National Inpatient Sample (NIS) is drawn from all states participating in HCUP, covering more than 97% of the U.S. population. The NIS approximates a 20% stratified sample of discharges from U.S. community hospitals, excluding rehabilitation

and long-term acute care hospitals. The large sample size in the NIS enables analyses of rare conditions, uncommon treatments, and special patient populations. The 2017 NIS includes inpatient data from 47 states and the District of Columbia.

4. The Nationwide Emergency Department Sample (NEDS) was constructed using the HCUP State Emergency Department Databases (SEDD) and the SID. The SEDD captures encounter information on emergency department (ED) visits that do not result in an admission (i.e., treat-and-release visits and transfers to another hospital). The SID contains information on patients initially seen in the ED and then admitted to the same hospital. The NEDS was created to enable analyses of ED utilization patterns and is the largest all-payer ED database that is publicly available in the United States. The NEDS is a 20% stratified sample of hospital-owned EDs in the United States. Thirty-six states and the District of Columbia contributed data to the 2017 NEDS: AR, AZ, CA, CO, CT, DC, FL, GA, IA, IL, IN, KS, KY, MA, MD, ME, MN, MO, MS, MT, NC, ND, NE, NJ, NV, NY, OH, OR, RI, SC, SD, TN, TX, UT, VT, WI, and WY. These states are geographically dispersed and account for 80.9% of the total U.S. resident population and 79.2% of all U.S. ED visits.

## Primary Content

The HCUP NIS, NEDS, and SID contain more than 100 clinical and nonclinical data variables, including age, sex, patient race/ethnicity, diagnoses, procedures, length of stay, discharge status, expected source of payment, total charges, hospital size, ownership, region, and teaching status. The HCUP databases combine categories for patient race/ethnicity categories, resulting in the following subgroups: Hispanic of all races, and non-Hispanic African Americans, Asians and Pacific Islanders, and Whites. Not all states uniformly collect race and ethnicity data; when a state and its hospitals collect Hispanic ethnicity separately from race, HCUP uses Hispanic ethnicity to override any other race category.

Many of the QDR measures that use HCUP data are based on Version 2019.01 of the AHRQ Quality Indicators (QIs), a set of algorithms that may be applied to hospital administrative data to quantify quality issues among inpatient populations. The QIs fall into four categories:

1. Inpatient Quality Indicators (IQIs) reflect quality of care in hospitals. The Version 2019.01 software has 17 mortality indicators for conditions or procedures and 2 composite measures assessing hospital-level mortality for selected procedures overall and for selected conditions overall, respectively.
2. Prevention Quality Indicators (PQIs) assess hospital admissions for 10 ambulatory care-sensitive conditions that evidence suggests may be avoided, in part, through high-quality ambulatory care. Version 2019.01 of the PQI software also includes 4 composite measures assessing potentially avoidable hospitalizations overall, for acute conditions, for chronic conditions, and for diabetes-specific conditions.
3. Patient Safety Indicators (PSIs) reflect potential inpatient complications and other patient safety concerns following surgeries, other procedures, and childbirth. Version 2019.01 of the PSI software has 17 measures, in addition to 1 patient safety and adverse events composite measure reflecting performance on 10 component PSI measures.
4. Pediatric Quality Indicators (PDIs) examine 11 conditions that pediatric patients experience within the healthcare system that may be preventable by changes at the system or provider level. Version 2019.01 of the PQI software also includes 3 composite

measures assessing hospitalizations overall, for acute conditions, and for chronic conditions. In earlier versions of the QI software, some PDI measures were part of the IQI, PSI, and PQI modules.

Rates prior to 2016 are not reported because of the transition to the International Classification of Diseases, Tenth Edition, Clinical Modification/ Procedure Coding System. Risk-adjusted rates are available for selected provider-based measures in the AHRQ QI Version 2019.01 software. Observed (unadjusted) rates are provided for those provider-based measures where risk adjustment is not yet available in the AHRQ QI Version 2019.01 software. As in prior software versions with risk adjustment for area-based measures, the AHRQ QI Version 2019.01 software uses a risk adjustment methodology developed for county-level reporting. Therefore, a direct standardization method for risk adjustment was used for the area-based measures to allow reporting by patient characteristics not included in the QI software, including community income quartile and patient residence (urban/rural) location.

### **Population Targeted**

The population targeted by HCUP databases includes any person, U.S. citizen or foreign, using nonfederal, nonrehabilitation, community hospitals in the United States as defined by the American Hospital Association (AHA). AHA defines community hospitals as “all non-Federal, short-term, general, and other specialty hospitals, whose facilities and services are available to the public” (Health Forum, LLC ©2017). Included among community hospitals are specialty hospitals, such as obstetrics-gynecology, ear-nose-throat, short-term rehabilitation, orthopedic, and pediatric institutions. Also included are public hospitals and academic medical centers.

The NIS and analyses of the SID for this report excluded short-term rehabilitation hospitals, long-term acute-care hospitals, psychiatric hospitals, and alcoholism/chemical dependency treatment facilities.

Although not all states participate in the HCUP database, the NIS, the NEDS, and the nationally weighted analysis files are weighted to give national estimates of all U.S. community hospitals, excluding rehabilitation and long-term, acute-care hospitals, as identified by the AHA Annual Survey (Health Forum, LLC © 2019).

### **Demographic Data**

Age, sex, race/ethnicity, expected primary payer, median household income of the patient’s ZIP Code, urbanized location, and region of the United States.

### **Years Collected**

Since 1988.

### **Schedule**

Annual.

### **Geographic Estimates**

National, four U.S. Census Bureau regions, states (for states participating in SID that agree to the release).

## Contact Information

Agency home page: <http://www.ahrq.gov>.

Data system home page: <https://www.ahrq.gov/data/hcup/index.html>.

AHRQ Quality Indicators: <http://www.qualityindicators.ahrq.gov>.

## References

Barrett M, Mummert A, Kenney T, Heslin K. Methods Applying AHRQ Quality Indicators to Healthcare Cost and Utilization Project (HCUP) Data for the 2018 National Healthcare Quality and Disparities Report (QDR). HCUP Methods Series Report # 2019-01. Rockville, MD:

Agency for Healthcare Research and Quality; 2019. <http://www.hcup-us.ahrq.gov/reports/methods/methods.jsp>.

Agency for Healthcare Research and Quality. Inpatient Quality Indicators: Technical Specifications, AHRQ Quality Indicators, Version 2019.01 SAS. Rockville, MD: Agency for Healthcare Research and Quality, July 2019. Available:

[https://qualityindicators.ahrq.gov/Modules/IQI\\_TechSpec\\_ICD10\\_v2019.aspx](https://qualityindicators.ahrq.gov/Modules/IQI_TechSpec_ICD10_v2019.aspx).

Agency for Healthcare Research and Quality. Patient Safety Indicators: Technical Specifications, AHRQ Quality Indicators, Version 2019.01 SAS. Rockville, MD: Agency for Healthcare Research and Quality, September 2019. Available:

[https://qualityindicators.ahrq.gov/Modules/PSI\\_TechSpec\\_ICD10\\_v2019.aspx](https://qualityindicators.ahrq.gov/Modules/PSI_TechSpec_ICD10_v2019.aspx).

Agency for Healthcare Research and Quality. Pediatric Quality Indicators: Technical Specifications, AHRQ Quality Indicators, Version 2019.01 SAS. Rockville, MD: Agency for Healthcare Research and Quality, July 2019. Available:

[https://qualityindicators.ahrq.gov/Modules/PDI\\_TechSpec\\_ICD10\\_v2019.aspx](https://qualityindicators.ahrq.gov/Modules/PDI_TechSpec_ICD10_v2019.aspx).

Agency for Healthcare Research and Quality. Prevention Quality Indicators: Technical Specifications, AHRQ Quality Indicators, Version 2019.01 SAS. Rockville, MD: Agency for Healthcare Research and Quality, July 2019. [https://qualityindicators.ahrq.gov/Modules/PQI\\_TechSpec\\_ICD10\\_v2019.aspx](https://qualityindicators.ahrq.gov/Modules/PQI_TechSpec_ICD10_v2019.aspx).

For detailed information about QI measures, refer to the individual guides to the quality indicators listed below, available from the archives at <http://www.qualityindicators.ahrq.gov>.

## Sources of HCUP Data

**Alaska** Department of Health and Social Services

**Alaska** State Hospital and Nursing Home Association

**Arizona** Department of Health Services

**Arkansas** Department of Health

**California** Office of Statewide Health Planning and Development

**Colorado** Hospital Association

**Connecticut** Hospital Association

**Delaware** Division of Public Health

**District of Columbia** Hospital Association



**Florida** Agency for Health Care Administration  
**Georgia** Hospital Association  
**Hawaii** Lailima Data Alliance, a nonprofit subsidiary of the Healthcare Association of Hawaii  
**Illinois** Department of Public Health  
**Indiana** Hospital Association  
**Iowa** Hospital Association  
**Kansas** Hospital Association  
**Kentucky** Cabinet for Health and Family Services  
**Louisiana** Department of Health  
**Maine** Health Data Organization  
**Maryland** Health Services Cost Review Commission  
**Massachusetts** Center for Health Information and Analysis  
**Michigan** Health & Hospital Association  
**Minnesota** Hospital Association (provides data for Minnesota and North Dakota)  
**Mississippi** Department of Health  
**Missouri** Hospital Industry Data Institute  
**Montana** Hospital Association  
**Nebraska** Hospital Association  
**Nevada** Department of Health and Human Services  
**New Hampshire** Department of Health & Human Services  
**New Jersey** Department of Health  
**New Mexico** Department of Health  
**New York** State Department of Health  
**North Carolina** Department of Health and Human Services  
**North Dakota** (data provided by the Minnesota Hospital Association)  
**Ohio** Hospital Association  
**Oklahoma** State Department of Health  
**Oregon** Association of Hospitals and Health Systems  
**Oregon** Office of Health Analytics  
**Pennsylvania** Health Care Cost Containment Council  
**Rhode Island** Department of Health  
**South Carolina** Revenue and Fiscal Affairs Office  
**South Dakota** Association of Healthcare Organizations  
**Tennessee** Hospital Association  
**Texas** Department of State Health Services  
**Utah** Department of Health  
**Vermont** Association of Hospitals and Health Systems  
**Virginia** Health Information  
**Washington** State Department of Health  
**West Virginia** Department of Health and Human Resources, West Virginia Health Care Authority  
**Wisconsin** Department of Health Services  
**Wyoming** Hospital Association

## **National CAHPS Benchmarking Database (CAHPS Database)**

### **Sponsor**

U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality (AHRQ) in association with a consortium of public and private organizations.

### **Description**

By responding to a standardized set of questions administered through a mail or telephone questionnaire, health plan members report on their experiences and rate their health plans and providers in several areas. Participation in the CAHPS Database is voluntary.

Medicare Managed Care data were obtained from Centers for Medicare & Medicaid Services (CMS) for survey participants. The 5.0 Medicaid data were obtained from data submitted directly to the CAHPS Database by state Medicaid agencies and individual health plans.

### **Survey Sample Design**

CAHPS surveys are administered to a random sample of health plan members by independent survey vendors, following standardized procedures. Since 1998, health plans, purchaser groups, state organizations and others have participated in this component.

The CAHPS sampling recommendation is to achieve a minimum of 300 completed responses per health plan, with a target response rate of 50%. The plan samples are not adjusted for unequal probabilities of selection. This logic stems from the principle that the precision of the estimates depends primarily on the size of the sample and not on the size of the population from which it is drawn. Therefore, the given sample size will give the same precision for means or rates regardless of the overall size of the population.

### **Primary Survey Content**

The 5.0 version of the CAHPS Adult and Child Health Plan Surveys reporting questions fall into four major “composites” that summarize consumer experiences in the following areas, getting needed care, getting care quickly, how well doctors communicate, and health plan information and customer service.

### **Population Targeted**

CAHPS surveys several different populations, such as adults, children, children with chronic conditions, and beneficiaries of Medicaid, Medicare, and Medicare managed care.

Estimates for tables based on Medicaid CAHPS (Adult and Child) data were calculated using plan weights; i.e., all respondents in a plan received the same weight. In contrast, estimates for tables based on Medicare CAHPS (Fee for Service and Medicare Advantage) data were calculated using person-level weights; i.e., all respondents in a plan received a weight that had been calculated by multiplying the plan weight by a nonresponse adjustment factor based on the respondent’s demographic characteristics, including age, race, and geographic location.

### **Demographic Data**

Education, race, ethnicity, state.

## **Years Collected**

Since 1998.

## **Schedule**

Annual.

## **Geographic Estimates**

State.

## **Contact Information**

Agency home page: <https://www.cahps.ahrq.gov/default.asp>.

Data system home page: <https://www.cahps.ahrq.gov/default.asp>.

## **Reference**

The CAHPS Database, 2018 CAHPS Health Plan Survey Database, 2018 Chartbook: What Consumers Say About Their Experiences With Their Health Plans and Medical Care available from <http://cahpsdatabase.ahrq.gov/files/2018CAHPSHealthPlanChartbook.pdf>.

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# **Centers for Disease Control and Prevention (CDC)**

## **Behavioral Risk Factor Surveillance System (BRFSS)**

### **Sponsor**

U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), Office of Surveillance, Epidemiology, and Laboratory Services. Currently, there is a wide sponsorship of the BRFSS survey, including most divisions in the CDC National Center for Chronic Disease Prevention and Health Promotion; other CDC centers; and federal agencies, such as the Health Resources and Services Administration, Administration on Aging, Department of Veterans Affairs, and Substance Abuse and Mental Health Services Administration.

### **Description**

BRFSS is the nation's premier system of health-related telephone surveys that collect state data about U.S. residents regarding their health-related risk behaviors, chronic health conditions, and use of preventive services. Established in 1984 with 15 states, BRFSS now collects data in all 50 states, as well as the District of Columbia and 3 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.

### **Survey Sample Design**

BRFSS is a state-based system of telephone health surveys of noninstitutionalized adults age 18 and over who reside in households. BRFSS is conducted by landline and cell phone. Random-digit-dialed (RDD) probability design was used initially. Disproportionate stratified sample (DSS) design has been implemented for landline portions of the sample since 2003 and the number of states using DSS is increasing. In the DSS design most commonly used in BRFSS,

telephone numbers are divided into two strata, high density and medium density. Strata are sampled separately. Telephone numbers in the high-density stratum are sampled at the highest rate. In 2011, 50 states and the District of Columbia used DSS design. Guam, Puerto Rico, and the U.S. Virgin Islands used RDD design.

BRFSS piloted the Cell Phone Survey beginning in 2008. By including cell phones in the survey, BRFSS can reach previously inaccessible segments of the population—those who have a cell phone but not a landline—and produce a more representative sample and higher quality data.

Cell phone surveys were included in the public release dataset beginning in 2011. A second important change in 2011 was the move to a new weighting system (ranking) that incorporates cell phone data and includes new variables (education, marital status, and home ownership) as controls.

As BRFSS moved to incorporate cell phone data and changed weighting methods, a review of reliability and validity research indicated that past BRFSS landline-only data were reliable and valid as measured against other surveys. New analyses and comparisons of BRFSS data that include the new methodologies and cell phone data will be needed to ascertain the impact of these changes on estimates in the future. The 2003-2016 NHQDRs only used the BRFSS landline data collected before 2011.

### **Primary Survey Content**

The objective of BRFSS is to collect uniform, state-specific data on preventive health practices and risk behaviors linked to chronic diseases, injuries, and preventable infectious diseases in the adult population.

The survey consists of core questions asked in all states, standardized optional questions on selected topics administered at the state's discretion, a rotating set of core questions asked every other year in all states, and state-added questions developed to address state-specific needs. Questions cover behavioral risk factors (e.g., alcohol and tobacco use), preventive health measures, HIV/AIDS, health status, activity limitations, and healthcare access and utilization.

### **Population Targeted**

U.S. civilian noninstitutionalized population, age 18 and over who reside in households.

### **Demographic Data**

Sex, age, educational attainment, race/ethnicity, household income, employment status, and marital status.

### **Years Collected**

Since 1984. The number of states participating in the survey has increased from 15 in 1984 to 50 states, the District of Columbia, Puerto Rico, Guam, and the Virgin Islands since 2001.

### **Schedule**

Annual. Data are collected monthly.

## **Geographic Estimates**

National; state; smaller area estimates possible in some states.

## **Contact Information**

Agency home page: <http://www.cdc.gov>.

Data system home page: <http://www.cdc.gov/brfss>.

## **References**

Centers for Disease Control and Prevention. The BRFSS Data User Guide. Atlanta, GA: U.S. Department of Health and Human Services; August 15, 2013, [https://www.cdc.gov/brfss/data\\_documentation/pdf/UserguideJune2013.pdf](https://www.cdc.gov/brfss/data_documentation/pdf/UserguideJune2013.pdf).

Go to [https://www.cdc.gov/brfss/data\\_documentation/index.htm](https://www.cdc.gov/brfss/data_documentation/index.htm) for a collection of documents and survey data providing technical and statistical information regarding BRFSS, such as comparability and sampling information.

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## **National HIV/AIDS Surveillance System**

### **Sponsor**

U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), National Center for HIV, Viral Hepatitis, STD, and TB Prevention (NCHHSTP).

### **Description**

The National HIV Surveillance System is the nation's source for timely information on HIV infection. CDC funds and assists state and local health departments to collect the information. Health departments report their data to CDC.

Since the epidemic was first identified in the United States in 1981, population-based AIDS surveillance has been used to track the progression of HIV disease. Since 1985, states have gradually implemented a standardized confidential name-based approach for HIV surveillance. By April 2008, all 50 states, the District of Columbia, and 6 U.S. dependent areas had fully integrated HIV and AIDS surveillance and had laws or regulations requiring confidential reporting by name for adults, adolescents, and children with confirmed HIV infection.

All 50 states, the District of Columbia, and U.S. dependent areas report cases of HIV infection to CDC by using a uniform surveillance case definition and case report form. The original definition has been modified several times. The most recent modification was in 2008 when the surveillance case definition for HIV infection among adults and adolescents was revised to incorporate an HIV infection staging system that categorizes AIDS as HIV infection, stage 3.

### **Primary Content**

Mode of exposure to HIV, case definition category, and other clinical and demographic information.

## **Population Targeted**

Entire population of all 50 states, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, and other U.S. territories. HIV infection and AIDS data are nationally representative.

## **Demographic Data**

Age, sex, race, ethnicity, state and county of residence, country of birth, and whether alive.

## **Years Collected**

Since 1981.

## **Schedule**

The HIV Surveillance Report is published annually. Supplemental reports are published on an ad hoc basis and are available online at <http://www.cdc.gov/hiv/default.htm>.

## **Geographic Estimates**

National, state, region, and metropolitan statistical area.

## **Contact Information**

Agency home page: <http://www.cdc.gov>.

Data system home page: <https://www.cdc.gov/hiv/statistics/surveillance/systems/index.html>.

## **References**

HIV Surveillance Report. <https://www.cdc.gov/hiv/library/reports/hiv-surveillance.html>.

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## **National Ambulatory Medical Care Survey (NAMCS)**

### **Sponsor**

U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS).

### **Description**

NAMCS is an annual survey that collects visit, practice, and provider-level data from office-based physicians and community health center (CHC) providers in the United States. Field personnel meet with participating office-based physicians and instruct them in survey data collection methods. Physicians are asked to complete a 2-page questionnaire (Patient Record Form) on a sample of their office visits during their assigned reporting period. However, more than half of NAMCS Patient Record forms submitted in 2010 (54.6%) were abstracted by field personnel from the U.S. Census Bureau rather than by the physician or medical office personnel.

### **Survey Sample Design**

NAMCS has been fielded since 1989. The sampling frame for office-based physicians in NAMCS is derived from the American Medical Association and the American Osteopathic Association master files. Physicians are excluded if they are federally employed, do not provide

direct patient care, or specialize in anesthesiology, radiology, or pathology. A special stratum of CHC providers was first added in 2006. The sampling frame for CHC providers in NAMCS is developed using data from the Health Resources and Services Administration's Bureau of Primary Health Care Uniform Data System and the Indian Health Service.

Each participating CHC provides a list of physicians and midlevel providers who would be available during the predetermined 1-week reporting period. This list becomes the frame for selection of up to three physicians and midlevel providers in each CHC. To maintain consistency with measures included before 2006, this report excludes visits to CHC midlevel providers. In 2009 and 2010, data from a total of 63,510 visits were obtained from 2,585 office-based physicians. Unweighted and weighted response rates in these years ranged from 57% to 62%, respectively.

### **Primary Survey Content**

Data are collected from medical records and include type of provider seen; reason for visit; diagnoses; drugs ordered, provided, or continued; and selected procedures and tests ordered or performed during the visit. Patient data include age, sex, race, and expected source of payment. Data are also collected on selected characteristics of physician practices.

### **Population Targeted**

Sample data are weighted to produce national estimates of office visits. The basic sampling unit is the patient visit. The specialties of anesthesiology, pathology, and radiology are not included. Also not included are contacts by telephone, visits made outside the physician's office, visits in hospitals or institutional settings, and visits made for administrative purposes only.

### **Demographic Data**

Patient age, sex, race, and ethnicity.

### **Years Collected**

Annually from 1973-1981; 1985; an annual schedule was resumed in 1989.

### **Schedule**

Annual.

### **Geographic Estimates**

National; U.S. Census Bureau regions.

### **Notes**

NAMCS is a visit-based survey rather than a population-based survey. Therefore, estimates of incidence and prevalence of disease cannot be computed. The survey is cross-sectional in nature. Multiple visits may be made by the same person within the sample.

### **Contact Information**

Agency home page: <http://www.cdc.gov/nchs/>.

Data system home page: <http://www.cdc.gov/nchs/ahcd.htm>.

## References

National Ambulatory Medical Care Survey 2010 Summary Tables,  
[http://www.cdc.gov/nchs/data/ahcd/namcs\\_summary/2010\\_namcs\\_web\\_tables.pdf](http://www.cdc.gov/nchs/data/ahcd/namcs_summary/2010_namcs_web_tables.pdf).

National Ambulatory Medical Care Survey, 2010 NAMCS Micro-data File Documentation.  
[ftp://ftp.cdc.gov/pub/Health\\_Statistics/NCHS/Dataset\\_Documentation/NAMCS/doc2010.pdf](ftp://ftp.cdc.gov/pub/Health_Statistics/NCHS/Dataset_Documentation/NAMCS/doc2010.pdf).

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## National Electronic Health Records Survey (NEHRS)

### Sponsor

NEHRS is sponsored by the Office of the National Coordinator for Health Information Technology (ONC) and conducted by the National Center for Health Statistics (NCHS), Centers for Disease Control and Prevention (CDC), U.S Department of Health and Human Services.

### Description

NEHRS is an annual source of information on the adoption and use of electronic health record (EHR) systems by office-based physicians and their practices in the United States (excluding those in the specialties of anesthesiology, radiology, and pathology). Results from NEHRS have been instrumental in providing data to track adoption and use of EHR systems and progress physicians have made toward meeting the policy goals of the HITECH Act. In more recent years, survey data have been used to measure the sharing of patient health information, and participation in the Promoting Interoperability programs, sponsored by the Centers for Medicare & Medicaid Services (CMS).

### Survey Sample Design

NEHRS began in 2008 and was originally designed as an annual mail supplement to the National Ambulatory Medical Care Survey (NAMCS). Starting in 2010, funding permitted an increase in the sample size to allow measurement of EHR adoption rates by all 50 states and the District of Columbia. Since 2012, NEHRS has been administered as a survey independent of NAMCS, using data collection through web, postal mail, and telephone.

### Primary Survey Content

The survey collects information about basic computerized capacities, safety, patient engagement, population management, payment systems, information exchanges, and related matters. Detailed information is available in the NEHRS questionnaire, [https://www.cdc.gov/nchs/data/nehrs/2018\\_NEHRS\\_Questionnaire\\_08092018-508.pdf](https://www.cdc.gov/nchs/data/nehrs/2018_NEHRS_Questionnaire_08092018-508.pdf).

### Population Targeted

Office-based physicians and their practices in the United States (excluding those in the specialties of anesthesiology, radiology, and pathology).

### Demographic Data

Physician's age and specialty; practice size, ownership, and region; non-Hispanic White population; and metropolitan status of the practice.



**Years Collected**

Annually from 2010.

**Schedule**

Annual.

**Geographic Estimates**

National; state.

**Contact Information**

Agency home page: <http://www.cdc.gov/nchs/>.

Data system home page: <https://www.cdc.gov/nchs/nehrs/about.htm>.

**[Return to Contents](#)****National Hospital Ambulatory Medical Care Survey (NHAMCS)****Sponsor**

U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS).

**Description**

NHAMCS collects data on the utilization and provision of medical care services in hospital emergency departments (EDs) and outpatient departments (OPDs). Hospital staff are asked to complete 2-page questionnaires (Patient Record Forms, or PRFs) on a sample of their patient visits during an assigned reporting period. However, about one-third of NHAMCS PRFs submitted in 2010 (32%) were abstracted by field personnel from the U.S. Census Bureau rather than by hospital staff.

**Survey Sample Design**

NHAMCS is designed as a national probability sample of visits to EDs and OPDs of nonfederal, short-stay, and general hospitals in the United States. NHAMCS uses a 4-stage probability design that involves samples of primary sampling units (PSUs), hospitals within PSUs, clinics within hospitals, and patient visits within clinics or emergency service areas. Hospital staff are asked to complete PRFs for a systematic random sample of patient visits occurring during a randomly assigned 4-week reporting period during the survey year.

About 400 hospitals participate in NHAMCS each year. About 350 hospitals have eligible EDs and 200 have eligible OPDs. In 2009 and 2010, 69,878 PRFs were completed for ED visits and 68,269 PRFs were completed for OPD visits. Response rates in 2009 and 2010 ranged from 73% for OPDs to 87% for EDs.

**Primary Survey Content**

Information is obtained on various aspects of ED and OPD patient visits, including patient, hospital, and visit characteristics. The survey instrument is redesigned every 2 to 4 years to

address changing health data needs. Among the items collected are patient's age, sex, race, and ethnicity; patient's expressed reason for visit; intentionality of injury, if any; physician's diagnoses; diagnostic services ordered or provided; procedures provided; medications; providers seen; visit disposition; immediacy with which patient should be seen; and expected source of payment. Items collected that are specific to the ED include mode of arrival, waiting time, duration of time in the ED, initial vital signs, and cause of injury.

### **Population Targeted**

The survey is a representative sample of visits to EDs and OPDs of nonfederal, short-stay, or general hospitals, exclusive of federal, military, and Veterans Affairs hospitals, located in the 50 states and the District of Columbia. Telephone contacts and visits for administrative purposes are excluded. NHAMCS is weighted to give national estimates of ED and hospital OPD visits.

### **Demographic Data**

Patients' age, sex, race, and ethnicity.

### **Years Collected**

Since 1992.

### **Schedule**

Annual.

### **Geographic Estimates**

National; U.S. Census Bureau regions.

### **Contact Information**

Agency home page: <http://www.cdc.gov/nchs>.

Data system home page: <http://www.cdc.gov/nchs/ahcd.htm>.

### **References**

2010 NHAMCS Outpatient Department Web Tables,  
[http://www.cdc.gov/nchs/data/ahcd/nhamcs\\_outpatient/2010\\_opd\\_web\\_tables.pdf](http://www.cdc.gov/nchs/data/ahcd/nhamcs_outpatient/2010_opd_web_tables.pdf).

2010 NHAMCS Micro-data File Documentation,  
[ftp://ftp.cdc.gov/pub/Health\\_Statistics/NCHS/Dataset\\_Documentation/NHAMCS/doc2010.pdf](ftp://ftp.cdc.gov/pub/Health_Statistics/NCHS/Dataset_Documentation/NHAMCS/doc2010.pdf).

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## **National Health and Nutrition Examination Survey (NHANES)**

### **Sponsor**

U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS).

## **Description**

NHANES is a nationally representative survey of the resident civilian noninstitutionalized population. It consists of questionnaires administered in the home followed by a standardized physical examination in specially equipped mobile examination centers (MECs). The examination includes physical measurements, such as blood pressure and dental examinations, and collection of blood and urine specimens for laboratory testing.

## **Survey Sample Design**

A complex, multistage probability sampling design is used to select a sample representative of the civilian noninstitutionalized household population of the United States. The four stages of sampling are: first, the primary sampling units (i.e., mostly counties); second, segments within counties; third, dwelling units/households; and fourth, individuals within a household.

Since 1999, the annual sample size has been approximately 5,000 individuals from 15 different county locations selected from a sampling frame that includes all 50 states and the District of Columbia. Oversampled subgroups from 1999-2006 included non-Hispanic Blacks, Mexican Americans, low-income Whites, adolescents ages 12-19 years, and adults age 70 years and over. The 1999-2006 surveys also included a supplemental sample of pregnant women. Oversampled subgroups from 2007 to 2010 included all Hispanics, non-Hispanic Blacks, low-income Whites, and adults age 80 years and over. From 1999 to 2010, the household interview response rates ranged from 79% to 84%, and the examination response rates ranged from 75% to 80%.

## **Primary Survey Content**

Data collected include information on chronic diseases (including undiagnosed conditions) and health status, dietary intake and nutritional status, infectious disease and immunization status, environmental health and exposures, and related risk factors. Specific survey content may vary by survey cycle.

## **Population Targeted**

NHANES samples the civilian noninstitutionalized resident population of the United States. NHANES excludes all people in supervised care or custody in institutional settings, all active-duty military personnel, active-duty family members living overseas, and any other people residing outside the 50 United States and the District of Columbia. Beginning in 1999, NHANES has included people of all ages.

## **Demographic Data**

Sex, age, race and Hispanic origin, educational level, place of birth, income, and occupation.

## **Years Collected**

From 1959 to 1962 (National Health Examination Survey [NHES] I), 1963-1965 (NHES II), 1966-1970 (NHES III), 1971-1974 (NHANES I), 1976-1980 (NHANES II), 1982-1984 (Hispanic Health and Nutrition Examination Survey), 1988-1994 (NHANES III), 1999-2010 (NHANES). NHANES continues to be collected annually.

## **Schedule**

Fielded periodically (1960-1994); annually beginning in 1999, with data releases occurring in 2-year cycles.

## **Geographic Estimates**

National; four U.S. Census Bureau regions (from 1988).

## **Contact Information**

Agency home page: <http://www.cdc.gov/nchs>.

Data system home page: <http://www.cdc.gov/nchs/nhanes.htm>.

## **References**

Ezzati TM, Massey JT, Waksberg J, et al. Sample Design: Third National Health and Nutrition Examination Survey. *Vital Health Stat* 1992; 2(113).

National Center for Health Statistics. Plan and Operation of the Third National Health and Nutrition Examination Survey, 1988-94. *Vital Health Stat* 1994; 1(32).

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# **National Health Interview Survey (NHIS)**

## **Sponsor**

U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS).

## **Description**

NHIS monitors the health of the U.S. population through the collection and analysis of data on a broad range of health topics. The survey covers the civilian noninstitutionalized population residing in the United States at the time of the interview. Blacks, Hispanics, and Asians are oversampled. The questionnaire has core questions and supplements. Core questions remain largely unchanged from year to year and allow trend analysis and pooling of data from more than 1 year to increase sample size for analytic purposes.

The core survey contains four major components: Household, Family, Sample Adult, and Sample Child. The Household component collects limited demographic information on all individuals living in a particular house. The Family component verifies and collects additional demographic information on each member from each family in the house and collects data on topics including health status and limitations, injuries, healthcare access and utilization, health insurance, and income and assets. The supplements are used to respond to new public health data needs as they arise.

The questionnaires are sometimes fielded only once or are repeated as needed. These questionnaires may be used to provide additional detail on a subject already covered in the core survey or on a different topic not covered in other parts of NHIS.

## **Survey Sample Design**

NHIS is a cross-sectional household interview survey. Sampling and interviewing are continuous throughout each year. The sampling plan follows an area probability design that permits representative sampling of households and noninstitutional group quarters (e.g., college dormitories). The sampling plan is redesigned after every decennial census. The current sampling plan was implemented in 2016.

Clusters of addresses are defined within each state; the sizes of the clusters correspond generally to the size of an interviewer's workload over the course of the sample design period. Each cluster is located entirely within a county, a small group of contiguous counties, or a metropolitan statistical area. The current sampling plan is a sample of these clusters of addresses.

Detailed information is available at [https://www.cdc.gov/nchs/nhis/about\\_nhis.htm](https://www.cdc.gov/nchs/nhis/about_nhis.htm).

## **Primary Survey Content**

After household composition is established, the core family interview asks about everyone in each family within the household. Additional questions are asked of one sample adult and one sample child (under 18 years) per family in the household. The sample adult questionnaire includes chronic health conditions and activity limitations, health behaviors, healthcare access, healthcare provider contacts, and immunizations. The sample child questionnaire includes questions about chronic health conditions, activity limitations, health status, behavior problems, healthcare access and use, and immunizations.

Child data are proxy reported by a parent or other knowledgeable adult respondent. Adult sample person data are self-reported, except in limited cases where physical or mental impairments prevent sample adults from answering questions themselves. Supplemental modules are fielded periodically and cover areas such as cancer, prevention, disability, and use of complementary and alternative medicine.

## **Population Targeted**

Civilian noninstitutionalized population residing in the United States.

## **Demographic Data**

Sex, age, race/ethnicity, education, income, marital status, place of birth, industry, and occupation.

## **Years Collected**

Continuously, since 1957. Current sample design began in 2016; current questionnaire design began in 1997.

## **Schedule**

Annually.

## **Geographic Estimates**

National; U.S. Census Bureau regions; some of the 10 Health and Human Services regions; some states; metropolitan and nonmetropolitan areas.

## Notes

The annual NHIS response rate is close to 90% of the eligible households in the sample.

Metropolitan statistical areas are based on the Office of Management and Budget (OMB) standards for defining metropolitan and micropolitan areas:

- Metropolitan categories:
  - Large Central - Central counties in metro areas of 1 million or more population.
  - Large Fringe - Outlying counties in metro areas of 1 million or more population.
  - Medium - Counties in metro areas of 250,000-999,999 population.
  - Small - Counties in metro areas of 50,000-249,999 population.
  
- Nonmetropolitan categories:
  - Micropolitan - Counties in areas with an urban cluster of 10,000-49,999 population.
  - Noncore - Nonmicropolitan.

The 2000-2015 NHIS estimates for the 2003-2017 NHQDR used the 2006 NCHS metropolitan statistical areas file, which was based on the 2000 OMB standards and the 2000 census. For the 2018 NHQDR, NHIS estimates used the 2013 NCHS metropolitan statistical areas file, which was based on the 2013 OMB standards and vintage 2012 postcensal estimates of the resident U.S. population. More detail is available in the NCHS Urban-Rural Classification Schemes for Counties at <https://www.census.gov/programs-surveys/metro-micro.html> and [https://www.cdc.gov/nchs/data\\_access/urban\\_rural.htm](https://www.cdc.gov/nchs/data_access/urban_rural.htm).

Adults with a disability are defined as those with physical, sensory, or mental health conditions that can be associated with a decrease in functioning in such day-to-day activities as bathing, walking, doing everyday chores, and engaging in work or social activities.

Limitations in basic activities represent problems with mobility and other basic functioning at the person level. Basic activities include problems with mobility; self-care (activities of daily living, or ADLs); domestic life (instrumental ADLs); and activities dependent on sensory functioning (limited to people who are blind or deaf).

Limitations in complex activities represent limitations encountered when the person, in interaction with his or her environment, attempts to participate in community life. Complex activities include limitations experienced in work; and in community, social, and civic life. These two categories are not mutually exclusive since people may have limitations both in basic activities and in complex activities. The designation “Neither basic nor complex activities” refers to adults who do not have the activity limitations defined as basic or complex.

## Contact Information

Agency home page: <http://www.cdc.gov/nchs>.

Data system home page: <http://www.cdc.gov/nchs/nhis.htm>.

## References

For more details, refer to the NHIS description documents available from the datasets and documentation section at <https://www.cdc.gov/nchs/nhis/data-questionnaires-documentation.htm>.

National Center for Health Statistics. Data file documentation, National Health Interview Survey, 2006 (machine-readable data file and documentation). Hyattsville, MD: Centers for Disease Control and Prevention; 2007.

National Center for Health Statistics. Data file documentation, National Health Interview Survey, 2005 (machine-readable data file and documentation). Hyattsville, MD: Centers for Disease Control and Prevention; 2006.

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## National Immunization Survey – Child (NIS-Child)

### Sponsor

U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), National Center for Immunization and Respiratory Diseases (NCIRD) and National Center for Health Statistics (NCHS).

### Description

NIS is a continuing nationwide telephone sample survey to monitor vaccination coverage rates among children ages 19-35 months.

The first stage of survey administration is conducted using telephone interviews with households having age-eligible children. In the second stage, provider reports of vaccination information from the child's medical record are obtained.

### Survey Sample Design

In each of 56 or more state and local geographic areas (which together make up the United States), NIS draws independent quarterly samples of telephone numbers and then uses random-digit dialing to identify households with one or more children ages 19-35 months. Until 2011, NIS surveyed only landline telephones. A cellular telephone sample was added in 2011.

In the telephone interview, the interviewer collects vaccination information for each child who meets the age criterion and obtains permission to contact the providers of the child's vaccinations. In a second phase, a mail survey, NIS asks the providers to report vaccination information from the child's medical record. This information is generally more accurate and complete than the household information.

### Primary Survey Content

Data collected for children ages 19-35 months include vaccination status and timing for diphtheria, tetanus toxoids, and acellular pertussis vaccine (DTP/DT/DTaP); polio vaccine; measles, mumps, and rubella vaccine (MMR); *Haemophilus influenzae* type B vaccine (Hib); hepatitis B vaccine (Hep B); varicella zoster vaccine; pneumococcal conjugate vaccine (PCV);

hepatitis A (Hep A); influenza; and rotavirus vaccine. The data are collected by race and ethnicity, income, location of residence, geographic division, state, and selected urban areas.

### **Population Targeted**

Children ages 19-35 months living in the United States at the time of interview.

### **Demographic Data**

Sex, race/ethnicity, income, location of residence, four U.S. Census Bureau regions.

### **Years Collected**

Since 1994. Data collection for varicella began in July 1996; data collection for PCV began in July 2001.

### **Schedule**

Quarterly samples, reported annually.

### **Geographic Estimates**

National, state, and local areas.

### **Contact Information**

Agency home page: <https://www.cdc.gov/vaccines/index.html>.

NIS estimates home page: <https://www.cdc.gov/vaccines/imz-managers/nis/about.html>.

Data system and information for survey respondents' home page: <https://www.cdc.gov/vaccines/imz-managers/nis/participant/>.

### **References**

CDC. National Immunization Survey: A User's Guide to the 2011 Public Use Data File. [ftp://ftp.cdc.gov/pub/Health\\_Statistics/NCHS/Dataset\\_Documentation/NIS/NISPUF11\\_DUG.PDF](ftp://ftp.cdc.gov/pub/Health_Statistics/NCHS/Dataset_Documentation/NIS/NISPUF11_DUG.PDF) (does not open in Chrome).

Zell ER, Ezzati-Rice TM, Battaglia MP, et al. National Immunization Survey: the methodology of a vaccination surveillance system. *Public Health Rep* 2000;115(1):65-77.

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## **National Immunization Survey – TEEN (NIS-TEEN)**

### **Sponsor**

U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), National Center for Immunization and Respiratory Diseases (NCIRD) and National Center for Health Statistics (NCHS).

### **Description**

NIS is a continuing nationwide telephone sample survey to monitor vaccination coverage rates among children ages 19-35 months. Starting in 2006, NIS-Teen was established to collect similar



information for adolescents ages 13-17 years. NIS-Teen was conducted for a national sample in the 4<sup>th</sup> quarters of 2006 and 2007 and expanded to an annual sample in each of 56 or more state and local geographic areas starting in 2008.

The first stage of survey administration is conducted using telephone interviews with households having age-eligible children. In the second stage, provider reports of vaccination information from the child's medical record are obtained.

### **Survey Sample Design**

In each of 56 or more state and local geographic areas (which together make up the United States), NIS draws independent quarterly samples of telephone numbers and then uses random-digit dialing to identify households that have one or more children ages 19-35 months or 13-17 years. Until 2011, NIS surveyed only landline telephones. A cellular telephone sample was added in 2011.

In the telephone interview, the interviewer collects vaccination information for each child who meets the age criterion and obtains permission to contact the providers of the child's vaccinations. In a second phase, a mail survey, NIS asks providers to report vaccination information from the child's medical record. This information is generally more accurate and complete than the household information.

### **Primary Survey Content**

Data collected for children ages 13-17 years include vaccination status and timing for tetanus, diphtheria, and acellular pertussis vaccine (TDaP), varicella vaccine, meningococcal conjugate vaccine, and human papillomavirus (HPV) vaccine. The data are collected by race and ethnicity, income, location of residence, geographic division, state, and selected urban areas.

### **Population Targeted**

Children ages 13-17 years living in the United States at the time of the interview.

### **Demographic Data**

Sex, race/ethnicity, income, location of residence, four U.S. Census Bureau regions.

### **Years Collected**

Since 2006.

### **Schedule**

Quarterly samples, reported annually.

### **Geographic Estimates**

National, state, and local areas.

### **Contact Information**

Agency home page: <https://www.cdc.gov/vaccines/index.html>.

NIS estimates home page: <https://www.cdc.gov/vaccines/imz-managers/nis/about.html>.

Data system and information for survey respondents' home page: <https://www.cdc.gov/vaccines/imz-managers/nis/participant/>.

## References

CDC. National Immunization Survey: A User's Guide to the 2011 Public Use Data File. [ftp://ftp.cdc.gov/pub/Health\\_Statistics/NCHS/Dataset\\_Documentation/NIS/NISPUF11\\_DUG.PDF](ftp://ftp.cdc.gov/pub/Health_Statistics/NCHS/Dataset_Documentation/NIS/NISPUF11_DUG.PDF) (does not open in Chrome).

Zell ER, Ezzati-Rice TM, Battaglia MP, et al. National Immunization Survey: the methodology of a vaccination surveillance system. *Public Health Rep* 2000;115(1):65-77.

NIS-TEEN survey documentations: <https://www.cdc.gov/vaccines/imz-managers/nis/datasets-teen.html>.

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# National Program of Cancer Registries (NPCR)

## Sponsor

U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), National Center for Chronic Disease Prevention and Health Promotion.

## Description

NPCR provides funds and guidance to states and U.S. territories to implement and enhance their cancer registries. As of 2016, NPCR supports central registries and promotes the use of registry data in 46 states, the District of Columbia, Puerto Rico, the Pacific Island jurisdictions, and the U.S. Virgin Islands. Cancer registry data collected through NPCR are used to identify and monitor trends in cancer incidence and mortality; guide planning and evaluation of cancer control programs; help allocate health resources; contribute to clinical, epidemiologic, and health services research; and respond to concerns from citizens about cancer in their communities.

## Population Targeted

NPCR registries collect data about cancer cases occurring in approximately 97% of the U.S. population.

## Demographic Data

Sex, age, race.

## Years Collected

Since 1995.

## Schedule

Data collection is ongoing. Reports are published periodically. Since 2001, central cancer registries have been reporting data annually.

## Geographic Estimates

National, participating states, and DC.

## Contact Information

Agency homepage: <http://www.cdc.gov/>.

Data system homepage: <http://www.cdc.gov/cancer/npcr>.

## References

U.S. Cancer Statistics Working Group. U.S. Cancer Statistics Data Visualizations Tool, based on November 2018 submission data: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; June 2019. [www.cdc.gov/cancer/dataviz](http://www.cdc.gov/cancer/dataviz).

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## National Tuberculosis Surveillance System (NTSS)

### Sponsor

U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), National Center for HIV, Viral Hepatitis, STD, and TB Prevention (NCHHSTP), Division of Tuberculosis Elimination (DTBE).

### Description

Reports of verified cases of tuberculosis (RVCT) are submitted to DTBE, CDC, by 60 reporting areas (the 50 states, the District of Columbia, New York City, Puerto Rico, and 7 other jurisdictions in the Pacific and Caribbean). In January 1993, an expanded system was developed to collect additional information for each reported TB case to better monitor trends in TB and TB control. A software package (SURVS-TB) for data entry, analysis, and transmission of case reports to CDC was designed and implemented as part of the expanded TB surveillance system.

In 1998, the Tuberculosis Information Management System (TIMS) replaced SURVS-TB. Beginning in 2009, case reports no longer had a specific software requirement. Two CDC-sponsored software options, the NEDSS base system (NBS) and the electronic Report of Verified Case of Tuberculosis (eRVCT), were introduced as two options for reporting TB cases to CDC. In addition, commercial- and state-developed software came into use. TIMS was allowed to be used for reporting 2009 results in cases where other software was not yet available.

TIMS was officially retired for case completion in December 2010 for cases occurring in 2008 and prior years. In 2016, the platform for the eRVCT was replaced by the National Tuberculosis Surveillance System for Case Reporting (NTSS-CR), a web-based RVCT form to allow data entry for case management and reporting to CDC. All systems that report TB since TIMS report cases using HL7 messages following the TB Case Notification specification. In total, 9,105 TB cases were reported in the United States in 2017.

### Primary Content

Number of new TB cases, patient management, and program evaluation.

In the expanded system started in January 1993, the RVCT form for reporting TB cases was revised to collect information on occupation, initial drug regimen, HIV test results, history of

substance abuse and homelessness, and residence in correctional or long-term care facilities at the time of diagnosis. RVCT Follow up Report-1 was added to collect drug susceptibility results for the initial *M. tuberculosis* isolate from patients with culture-positive disease. To evaluate the outcomes of TB therapy, RVCT Follow up Report-2 was added. This report collects information on the reason and date therapy was stopped, type of healthcare provider, sputum culture conversion, use of directly observed therapy, and results of drug susceptibility testing for the final *M. tuberculosis* isolate from patients with culture-positive disease.

In 2009, the RVCT form was further expanded to collect variables to reflect the changing field of TB epidemiology and to collect more accurate data on TB cases. New variables include:

- Count status to address TB burden,
- Pediatric TB to collect information on guardians and travel outside the United States,
- Nucleic acid amplification test,
- Initial chest CT scan or other chest imaging study,
- Interferon gamma release assay blood test,
- Primary reason evaluated for TB disease,
- Additional TB risk factors,
- Immigration status,
- Genotyping accession number,
- Movement of patient to another location during treatment and where, and
- Reason therapy was extended for more than 12 months.

Other variables were modified to include the addition of dates specimens for diagnostic tests were collected and reported.

### **Population Targeted**

Civilian population residing in the United States with a diagnosis of TB.

### **Demographic Data**

Age, sex, race, and country of origin.

### **Years Collected**

In aggregate form, since 1953; in individual case forms since 1985.

### **Schedule**

Annual.

### **Geographic Estimates**

National and states.

### **Contact Information**

Agency home page: <http://www.cdc.gov>.

Data source home page: <http://www.cdc.gov/tb>.

## References

National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, Division of Tuberculosis Elimination. Reported tuberculosis in the United States, 2018. Atlanta, GA: Centers for Disease Control and Prevention; October 2019. <https://www.cdc.gov/tb/statistics/reports/2018/default.htm>.

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## National Vital Statistics System: Linked Birth and Infant Death Data (NVSS-L)

### Sponsor

U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS).

### Description

NCHS's Division of Vital Statistics obtains information on births and deaths from the registration offices of each of the 50 states, New York City, District of Columbia, Puerto Rico, U.S. Virgin Islands, Guam, American Samoa, and Northern Mariana Islands. Before 1972, NCHS processed microfilm copies of all death certificates and a 50% sample of birth certificates received from all registration areas. In 1972, some states began sending their data to NCHS through the Cooperative Health Statistics System (CHSS). States that participated in the CHSS program processed 100% of their death and birth records and sent the entire data file to NCHS on computer tapes.

Currently, data are sent to NCHS through the Vital Statistics Cooperative Program (VSCP), following the same procedures as CHSS. The number of participating states grew from 6 in 1972 to 46 in 1984. Since 1985, all 50 states and the District of Columbia have participated in VSCP.

In the linked birth and infant death dataset, the information from the death certificate is linked to the information from the birth certificate for each infant less than age 1 who dies in the United States, Puerto Rico, Virgin Islands, and Guam. Starting with data year 1995, linked file data are produced in a period data format preceding the release of the corresponding birth cohort format. The 2005 linked file contains a numerator file that consists of all infant deaths occurring in 2005 that have been linked to their corresponding birth certificates, whether the birth occurred in 2004 or 2005.

Other changes to the dataset, starting with 1995 data, include addition of record weights to correct for the 1.0% to 1.4% of records that could not be linked in 2000 to 2005 (2% in 1995 to 1999) and imputation for unstated birth weight.

### Primary Survey Content

The vital statistics general mortality data are a fundamental source of geographic and cause-of-death information and some demographic information. The birth certificate is the primary source of demographic information, such as age, race, and Hispanic origin of the parents; maternal education; live birth order; and mother's marital status; and of maternal and infant

health information, such as birth weight, period of gestation, plurality, prenatal care use, and maternal smoking.

### **Population Targeted**

Infants in 50 states and the District of Columbia.

### **Demographic Data**

Age, sex, race, and Hispanic origin of infant and parents, mother's education and marital status.

### **Years Collected**

Linked data are available for data years 1983-1991, 1995-2009, and 2011-2017.

### **Schedule**

Annual.

### **Geographic Estimates\***

National, state.

Place of death is classified by state and county. In residence classification, all deaths are allocated to the usual place of residence as reported on the death certificate and are classified by state, county, and city.

### **Notes**

Data on mother's educational attainment, tobacco use during pregnancy, and prenatal care based on the 2003 revision are not comparable with data based on the 1989 revision of the U.S. Standard Certificate of Live Birth.

### **Contact Information**

Agency home page: <http://www.cdc.gov/nchs>.

Data system home page: <https://www.cdc.gov/nchs/nvss/linked-birth.htm>.

### **References**

Mathews TJ, MacDorman MF. Infant mortality statistics from the 2010 period linked birth/infant death data set. Natl Vital Stat Rep 2013;62(8). [http://www.cdc.gov/nchs/data/nvsr/nvsr62/nvsr62\\_08.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr62/nvsr62_08.pdf).

## **National Vital Statistics System: Mortality (NVSS-M)**

### **Sponsor**

U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS).

### **Description**

National Vital Statistics System: Mortality (NVSS-M) files include data for the 50 states, the District of Columbia, and the territories of Puerto Rico, Virgin Islands, Guam, American Samoa,

and the Commonwealth of the Northern Marianas. All deaths occurring in those areas are included (approximately 2.4 to 2.5 million annually).

By law, registration of deaths is a funeral director's responsibility. Administrative records (death certificates) completed by funeral directors, physicians, medical examiners, and coroners are filed with state vital statistics offices. Selected statistical information is forwarded to NCHS to be merged into a national statistical file.

States are phasing in the 2003 revision of the standard certificates. Those that have not revised yet are using the 1989 version of the standard certificates. Demographic information on the death certificate is provided by the funeral director and is based on information supplied by an informant. Medical certification of cause of death is provided by a physician, medical examiner, or coroner.

Currently, data are sent to NCHS through the Vital Statistics Cooperative Program (VSCP). All 50 states and the District of Columbia have participated in VSCP since 1985.

### **Primary Content**

Demographic and medical information and information about death event such as age at death, Hispanic origin, race, sex, marital status, decedent's residence, place of birth, educational attainment, underlying and multiple causes of death, injury at work, place death occurred, day of week of death, month of death, and year of death.

### **Population Targeted**

U.S. population.

### **Demographic Data**

Sex, race, Hispanic origin, age at death, place of decedent's residence, educational attainment, and marital status.

Race and ethnic origin are separate items on the death certificate. As of 1997, all states report Hispanic origin. The categories reported include Mexican, Puerto Rican, Cuban, Central and South American, and Other Hispanic.

Beginning in 1992, California, Hawaii, Illinois, New Jersey, New York, Texas, and Washington reported expanded Asian and Pacific Islander categories to include Asian Indian, Korean, Vietnamese, Samoan, and Guamanian. The rest of the states reported a combined Other Asian and Pacific Islander category in addition to the categories of White, Black, American Indian, Chinese, Hawaiian, Japanese, and Filipino that all states report. Beginning with data for 2003, multiple-race data are available for selected states. In addition, the previous distinction about particular Asian groups is being replaced by the categories available on the 2003 revision of the standard certificate.

### **Years Collected**

The mortality reporting data system began in 1880, but not all states participated before 1933. Coverage for deaths has been complete since 1933.

## Schedule

Annual.

## Geographic Estimates\*

National, regional, state, and county but access below national has limitations.

## Notes

Beginning with 1989 data, some changes were initiated to increase confidentiality. Identifying information, including date of death and geographic identifiers for counties of fewer than 100,000 people, was not available for public use. Beginning with 2005 data, geographic identifiers below the national level were removed from the public use data files. Data are still accessible using tools such as WONDER (<http://wonder.cdc.gov>).

The item on educational attainment was changed on the 2003 revision of the standard certificate. Some states have implemented the 2003 revision, while others still use the 1989 revision of the U.S. Standard Certificate of Death. One state does not have either version of the item.

## Contact Information

Agency home page: <http://www.cdc.gov/nchs>.

Data system home page: <http://www.cdc.gov/nchs/deaths.htm>.

## References

Murphy SL, Xu J, Kochanek KD. Deaths: final data for 2010. Natl Vital Stat Rep 2013;61(4). [http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61\\_04.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61_04.pdf).

Hoyert DL, Xu JQ. Deaths: preliminary data for 2011. Natl Vital Stat Rep 2012;61(6). [http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61\\_06.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61_06.pdf).

## National Vital Statistics System: Natality (NVSS-N)

### Sponsor

U.S. Department of Health and Human Services, Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS).

### Description

National Vital Statistics System: Natality (NVSS files include approximately 4 million birth records annually, with data for the 50 states, the District of Columbia, and the territories of Puerto Rico, Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Marianas.

State laws require birth certificates to be completed for all births. The registration of births is the responsibility of the professional attendant at birth, generally a physician or midwife. Federal law mandates national collection and publication of birth and other vital statistics data.

Birth certificates completed by physicians and midwives are filed with state vital statistics offices; selected statistical information is forwarded to NCHS to be merged into a national statistical file. Standard forms for data collection and model procedures for uniform registration



of events are developed and recommended for state use through cooperative activities of the states and NCHS (Vital Statistics Cooperative Program).

The most recent revision of the U.S. Standard Certificate of Live Birth was effective in 2003. Implementation of the 2003 revision is being phased in by the states. As of 2011, 36 states and the District of Columbia, representing 83% of 2011 births, had implemented the 2003 revision. Those states that have not yet implemented the 2003 revision are using the 1989 revision. Full implementation of the 2003 revision of the standard certificate was expected by January 1, 2014.

### **Primary Content**

Demographic information about the birth, including year, date, place of birth, age, race and Hispanic origin of mother, and live-birth order.

Maternal and infant health information about the birth, including maternal age, live-birth order, race and Hispanic origin, marital status, attendant at birth, method of delivery, period of gestation, birth weight, plurality, medical risk factors, maternal weight gain, obstetric procedures, characteristics of labor and delivery, and congenital anomalies.

### **Population Targeted**

U.S. resident population.

### **Demographic Data**

Child: Sex.

Mother and father: Race, Hispanic origin (beginning in 1978), age, place of mother's residence, and educational attainment (beginning in 1978) (education of father is currently collected on the 2003 revision of the standard certificate).

Mother: marital status.

Race and Hispanic origin are separate items on the birth certificate. As of 1993, all states report Hispanic origin. The categories reported include Mexican, Puerto Rican, Cuban, Central and South American, and Other Hispanic.

Beginning with 1992 data, California, Hawaii, Illinois, New Jersey, New York, Texas, and Washington have reported expanded Asian and Pacific Islander categories of Asian Indian, Korean, Vietnamese, Samoan, and Guamanian. The rest of the states report a combined Other Asian and Pacific Islander category in addition to the categories of White, Black, American Indian, Chinese, Hawaiian, Japanese, and Filipino that all states report.

Beginning with data for 2003, multiple-race data are available for selected states and the previous distinction about particular Asian groups is being replaced by the categories available on the 2003 revision of the standard certificate.

### **Years Collected**

The national birth registration system was established in 1915. Not all states participated before 1933. Coverage for births has been complete since 1933.

## Schedule

Annual.

## Geographic Estimates\*

National, regional, state, county, and city, but access below national has limitations.

## Notes

Beginning with 1989 data, some changes were initiated to increase confidentiality. Identifying information, including geographic identifiers for counties of fewer than 100,000 people, is not available for public use. Beginning with 2005 data, geographic identifiers below the national level were removed from the public use data files. Data are still accessible using tools such as Vital Statistics Online ([https://www.cdc.gov/nchs/data\\_access/vitalstatsonline.htm](https://www.cdc.gov/nchs/data_access/vitalstatsonline.htm)) and WONDER (<http://wonder.cdc.gov>). In addition, restricted data files with geographic identifiers are available and may be requested ([http://www.cdc.gov/nchs/nvss/dvs\\_data\\_release.htm](http://www.cdc.gov/nchs/nvss/dvs_data_release.htm)).

Data on mother's educational attainment, tobacco use during pregnancy, and prenatal care based on the 2003 revision are not comparable with data based on the 1989 revision of the U.S. Standard Certificate of Live Birth.

The National Center for Health Statistics Urban-Rural Classification Scheme designates metropolitan and nonmetropolitan counties:

- Metropolitan counties include:
  - Large Central - Central counties in metro areas of 1 million or more population.
  - Large Fringe - Outlying counties in metro areas of 1 million or more population.
  - Medium - Counties in metro areas of 250,000-999,999 population.
  - Small - Counties in metro areas of 50,000-249,999 population.
- Nonmetropolitan counties include:
  - Micropolitan - Counties in areas with an urban cluster of 10,000-49,999 population.
  - Noncore - Nonmicropolitan.

The 2000-2015 NVSS estimates for the 2003-2017 NHQDR used the 2006 NCHS metropolitan statistical areas file, which was based on the 2000 Office of Management and Budget (OMB) standards and the 2000 census.

Since the 2018 NHQDR, NVSS estimates have used the 2013 NCHS metropolitan statistical areas file, which was based on the 2013 OMB standards and on vintage 2012 postcensal estimates of the resident U.S. population.

## Contact Information

Agency home page: <http://www.cdc.gov/nchs>.

Data system home page: <http://www.cdc.gov/nchs/births.htm>.

## References

Martin JA, Hamilton BE, Ventura SJ, et al. Births: final data for 2010. Natl Vital Stat Rep 2012;61(1). [https://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61\\_01.pdf](https://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61_01.pdf).

Hamilton BE, Martin JA, Ventura SJ. Births: preliminary data for 2011. Natl Vital Stat Rep 2012;61(5). [https://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61\\_05.pdf](https://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61_05.pdf).

National Center for Health Statistics (NCHS). NCHS Urban-Rural Classification Scheme for Counties. [https://www.cdc.gov/nchs/data\\_access/urban\\_rural.htm](https://www.cdc.gov/nchs/data_access/urban_rural.htm).

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# Centers for Medicare & Medicaid Services (CMS)

## Home Health Care CAHPS Survey

### Sponsor

U.S. Department of Health and Human Services, Centers for Medicare & Medicaid Services (CMS)

### Description

The Home Health Care Consumer Assessment of Healthcare Providers and Systems (HHCAHPS) Survey is the first and only national, standardized, publicly reported survey of patients' perspectives of skilled home health care. HHCAHPS (pronounced "HH-caps") is a 34-item survey instrument and data collection methodology for measuring patients' perceptions of their home health care experiences.

Many Medicare-certified home health agencies have collected information on patient satisfaction for their internal use. Until HHCAHPS, however, no common metrics and no national standards for collecting and publicly reporting information about home health patients' experiences of home health care were available. Since October 2010, HHCAHPS has allowed valid comparisons to be made across Medicare-certified home health care agencies locally, regionally, and nationally.

The HHCAHPS Survey asks current and discharged home health care patients about aspects of their home health care experiences they are uniquely suited to address. The core of the survey contains 25 items that ask "how often" or whether patients experienced significant aspects expected in their home health care, rather than whether they were "satisfied" with their home health care.

The survey also includes nine "About You" items about the patients' attributes, some of which are used in patient-mix adjustments (e.g., "Do you live alone?" and "What is the Primary Language that is spoken at home?" and the patients' educational levels). Home health agencies may add supplemental questions after the 25 core HHCAHPS items, but CMS advises agencies that too many questions on a survey may lower their response rates. Right now, the average response rate is 29.0%.

HHCAHPS is administered to patients age 18 years and over who have received at least two home health visits in the reference period of the past 2 months. The survey is administered to

Medicare-certified agency patients but HHCAHPS is not restricted to Medicare patients. Home health agencies must contract with an approved list of HHCAHPS Survey vendors (there are about 30 approved vendors) to conduct the survey on their behalf.

Agencies have a choice of requesting the survey vendor to conduct the HHCAHPS in one of three survey modes: mail only, telephone only, and mixed (mail with telephone followup), each of which requires multiple attempts to contact patients. Home health agencies must survey patients every month of the year.

HHCAHPS is available in official English, Spanish, Simplified and Traditional Chinese, Russian, and Vietnamese language translations. The survey and its protocols for sampling, data collection, coding, and submission can be found in the *HHCAHPS Protocols and Guidelines Manual, Version 9.0, January 2017*, on the official HHCAHPS website at <http://www.homehealthcahps.org>.

### **Survey Sample Design**

Official HHCAHPS scores, based on four consecutive quarters of home health care patient surveys, have been publicly reported on the Home Health Compare website ([www.medicare.gov/homehealthcompare](http://www.medicare.gov/homehealthcompare)) since April 2012. HHCAHPS scores are reported four times each year, with the oldest quarter of surveys rolling off as the newest quarter rolls on. A link to the downloadable version of HHCAHPS results is available on the website.

The most recent data submission covering January-March 2017, which was publicly reported on Home Health Compare, included 8,395 agencies submitting HHCAHPS data for 309,832 completed surveys. There were 1,070,225 patients sampled in that quarterly period, with a response rate of 29.0%.

The average age of the patient respondent on the HHCAHPS is 79 years old, and about 12% of the HHCAHPS surveys are completed by proxy respondents who are related to the patients or friends of the patients, but not home health care personnel.

### **Primary Survey Content**

Since April 2012, five HHCAHPS measures (three summary or composite measures and two global items) have been publicly reported on the Home Health Compare website at <http://www.medicare.gov/homehealthcompare>. Each of the three summary, or composite, measures is constructed from four or more content-related survey questions.

The three composites are named (1) Patient Care (Q9, Q16, Q19, and Q24); (2) Communications between providers and patients (Q2, Q15, Q17, Q18, Q22, and Q23); and (3) Specific care issues (Q3, Q4, Q5, Q10, Q12, Q13, and Q14). The two global ratings are (1) Overall rating of care given by the home health agency's care providers (Q20), and (2) Patient's willingness to recommend the home health agency to family and friends (Q25). CMS publicly reports the survey response rates and the number of completed surveys.

### **Population Targeted**

HHCAHPS survey-eligible patients at all Medicare-approved home health agencies in the United States.

## Demographic Data

Nine “About You” questions in the HHCAHPS Survey provide self-reported demographic data about the patients but the home health agencies also provide much of this information (such as age, sex, and all ICD-10 codes pertaining to the patients’ home health care). The HHCAHPS survey questions ask patients:

- How would you rate your overall health?
- How would you rate your overall mental or emotional health?
- Do you live alone?
- What is the highest grade or level of school you have completed?
- Are you Hispanic or Latino/Latina?
- What is your race?
- What language do you mainly speak at home?
- What other language do you mainly speak at home?
- Did someone help you complete this survey; (if yes) how did that person help you complete this survey?

## Years Collected

Since October 2010 (for publicly reported data).

## Data Collection Schedule

Continuous.

## Geographic Estimates

National and state.

## Contact Information

Agency home page: <http://www.cms.hhs.gov>.

Data system home page: <http://www.homehealthcahps.org>.

HHCAHPS technical assistance, [HHCAHPS@RTI.org](mailto:HHCAHPS@RTI.org) or [homehealthcahps@cms.hhs.gov](mailto:homehealthcahps@cms.hhs.gov).

## Consumer Assessment of Healthcare Providers and Systems (CAHPS®) Hospice Survey

### Sponsor

Centers for Medicare & Medicaid Services (CMS), CAHPS Hospice Survey

### Description

CMS has implemented the CAHPS Hospice Survey to measure the experiences patients and their caregivers have with hospice care. The survey was developed to (1) provide a source of information from which selected measures could be publicly reported to beneficiaries and their family members as a decision aid for selecting a hospice program; (2) aid hospices with their

internal quality improvement efforts and external benchmarking with other facilities; and (3) provide CMS with information for monitoring the care provided.

Hospices with fewer than 50 survey-eligible decedents/caregivers during the prior calendar year are exempt from the survey data collection and reporting requirements. Hospices with 50 to 699 survey-eligible decedents/caregivers in the prior year are required to survey all cases (conduct a census) and attempt to obtain as many completes as possible. Hospices with 700 or more survey eligible decedents/caregivers in the prior year are required to survey a minimum sample of 700 using an equal-probability design.

While there is no requirement for census administration, hospices with 700 or more survey-eligible decedents/caregivers may conduct a census, if desired. Survey-eligible decedents/caregivers are defined as that group of decedent and caregiver pairs who meet all the criteria for inclusion in the survey sample.

### **Primary Survey Content**

The CAHPS Hospice Survey consists of 47 questions and is administered to the primary informal caregiver of the decedent who died while receiving hospice care. The CAHPS Hospice Survey mail materials are available in English, Spanish, Chinese, Russian, Portuguese, Vietnamese, Polish, and Korean. The Chinese mail survey is provided in both traditional and simplified characters and targets both Mandarin and Cantonese speakers. The CAHPS Hospice Survey telephone script is available in English, Spanish, and Russian.

The CAHPS Hospice Survey is administered using three modes: mail only, telephone only, and mixed mode (mail with telephone followup). CAHPS Hospice Survey administration begins 2 months after the month of patient death. The data collection process must be completed within 42 calendar days after initial contact. Submission of data to the CAHPS Hospice Survey Data Warehouse will occur quarterly.

### **Population Targeted**

Decedents age 18 and over in a hospice facility in the United States.

### **Demographic Data**

Age, sex, race/ethnicity, language spoken at home, and education.

### **Years Collected**

Since 2015.

### **Schedule**

Monthly.

### **Geographic Estimates**

National and state.

## Contact Information

Agency home page: <http://www.cms.hhs.gov>.

Data system home page: <https://www.hospiceahpssurvey.org>.

More details are in the CAHPS Hospice Survey documents at <https://www.hospiceahpssurvey.org>.

## Home Health Outcome and Assessment Information Set (OASIS)

### Sponsor

U.S. Department of Health and Human Services, Centers for Medicare & Medicaid Services (CMS). Home Health Quality Initiative

### Description

OASIS is the instrument/data collection tool home health agencies use to collect and report performance data. Since 1999, CMS has required Medicare-certified home health agencies to collect and transmit OASIS data for all adult patients whose care is reimbursed by Medicare and Medicaid, except patients receiving pre- or postnatal services only.

Home health agencies encode and transmit data using software available from CMS or software that conforms to CMS standard electronic record layout, editing, and data dictionary specifications and includes the required OASIS dataset.

Beginning in January 2010, home health agencies have been required to collect a revised version of the OASIS dataset (OASIS-C). OASIS-C includes data items supporting measurement of rates for use of specific evidence-based care processes. From a national policy perspective, CMS anticipates these process measures will promote use of best practices across the home health industry.

The OASIS-based quality performance data have been posted on the Home Health Compare website (<https://www.medicare.gov/homehealthcompare/search.html>) since 2003. These measures include outcome measures that indicate how well home health agencies assist their patients in regaining or maintaining their ability to function and process measures that evaluate the rate of home health agency use of specific evidence-based processes of care.

### Primary Content

OASIS contains data elements that represent core items obtained from a comprehensive assessment of adult home care patients. These data are used to measure patient outcomes for the purpose of outcome-based quality improvement.

Data collected in OASIS include demographic and patient history, living arrangements, supportive assistance, sensory status, integumentary (skin) status, respiratory status, elimination status, neuro/emotional/behavioral status, activities of daily living, medications, equipment management, and information collected at inpatient facility admission or agency discharge.

## **Demographic Data**

Sex, age, race/ethnicity, state of residence, marital status, expected source of payment, and living arrangement.

## **Population Targeted**

U.S. adult home care patients who are responsive.

## **Mode of Administration**

Completed by home health agency personnel.

## **Years Collected**

Since 1999.

## **Data Collection Schedule**

Most OASIS data items are designed to be collected at the start of care and every 2 months thereafter until and including time of discharge.

## **Geographic Estimates**

National and state.

## **Change Over Time**

Since 1999, numerous changes have occurred within the healthcare system, including specific recommendations for changes in the area of home health care quality measurement. The OASIS User Manuals have documented the changes.

Effective January 1, 2017, OASIS-C2 is the current version of the OASIS dataset. It was developed from OASIS-C1/ICD-10 to accommodate new data being collected for the Home Health Quality Reporting Program in support of the IMPACT Act. The OASIS-C2 data item set was approved by the Office of Management and Budget on December 9, 2016, and implemented on January 1, 2017.

## **Contact Information**

Agency home page: <http://www.cms.hhs.gov>.

Data system home page: <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HomeHealthQualityInits/OASIS-Data-Sets.html>.

## **Notes**

Since 2018, the NHQDR has used the 100% OASIS annual assessment files residing on CMS's Chronic Conditions Data Warehouse as input. The sample includes the latest episode per patient in the calendar year. Numerators and denominators are defined based on the latest version of the OASIS User's Manual available at <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HomeHealthQualityInits/HHQIOASISUserManual>.



# Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) Survey

## Sponsor

Centers for Medicare & Medicaid Services (CMS).

## Description

The HCAHPS Survey is the first national, standardized, publicly reported survey of patients' perspectives of hospital care. Since 2008, HCAHPS has allowed valid comparisons to be made across hospitals locally, regionally, and nationally. Official HCAHPS scores, based on four consecutive quarters of patient surveys, have been publicly reported on the Hospital Compare website (<https://www.medicare.gov/care-compare/?providerType=Hospital&redirect=true>), since 2008. HCAHPS scores are reported four times each year, with the oldest quarter of surveys rolling off as the newest quarter rolls on.

A link to the downloadable version of HCAHPS results is available at <https://hcahpsonline.org/en/summary-analyses/>. In April 2017, 4,306 hospitals publicly reported HCAHPS scores based on more than 3.1 million completed surveys. On average, more than 8,500 patients complete the HCAHPS Survey everyday.

CAHPS® is a registered trademark of the Agency for Healthcare Research and Quality, a U.S. government agency.

## Survey Sample Design

HCAHPS is administered to a random sample of adult inpatients between 48 hours and 6 weeks after discharge. Patients admitted in the medical, surgical, and maternity care service lines are eligible for the survey; HCAHPS is not restricted to Medicare patients. Hospitals may use an approved survey vendor or collect their own HCAHPS data, if approved by CMS to do so. HCAHPS can be implemented in four survey modes: mail, telephone, mixed (mail with telephone followup), or active interactive voice recognition (IVR), each of which requires multiple attempts to contact patients.

Hospitals must survey patients throughout each month of the year. HCAHPS is available in official English, Spanish, Chinese, Russian, Vietnamese, and Portuguese translations. The survey and its protocols for sampling, data collection, coding, and submission can be found in the *HCAHPS Quality Assurance Guidelines* manual under the Quality Assurance section of the official HCAHPS website at <http://www.hcahpsonline.org>.

## Primary Survey Content

The HCAHPS Survey asks recently discharged patients about aspects of their hospital experience they are uniquely suited to address. The core of the survey contains 21 items that ask “how often” or whether patients experienced a critical aspect of hospital care, rather than whether they were “satisfied” with their care. The survey also includes four screener items that direct patients to relevant questions, five items to adjust for the mix of patients across hospitals, and two items that support congressionally mandated reports. Hospitals may add supplemental items after the core HCAHPS items.

## **Population Targeted**

Eligible patients at all acute-care hospitals in the United States.

## **Demographic Data**

Sex, age, educational attainment, race/ethnicity, language spoken at home, overall health status, and mental or emotional health status.

## **Years Collected**

Since 2006.

## **Data Collection Schedule**

Continuous.

## **Geographic Estimates**

National and state.

## **Contact Information**

Agency home page: <https://www.medicare.gov>.

Data system home page: <http://www.hcahpsonline.org>.

## **References**

Elliott MN, Cohen CW, Lehrman WG, et al. Accelerating improvement and narrowing gaps: trends in patients' experiences with hospital care reflected in HCAHPS public reporting. *Health Serv Res* 2015;50:1850-67.

Giordano LA, Elliott MN, Goldstein E, et al. Development, implementation, and public reporting of the HCAHPS Survey. *Med Care Res Rev* 2010;67(1):27-37.

## **Hospital Quality Initiative: Hospital Inpatient Quality Reporting Program (Hospital IQR)**

### **Sponsor**

U.S. Department of Health and Human Services, Centers for Medicare & Medicaid Services (CMS).

### **Description**

The Hospital IQR Program was originally mandated by Section 501(b) of the Medicare Prescription Drug, Improvement, and Modernization Act (MMA) of 2003. This section of the MMA authorized CMS to pay hospitals that successfully report designated quality measures a higher annual update to their payment rates.

Under the Hospital IQR program, CMS collects quality data from hospitals paid under the Inpatient Prospective Payment System. The goal is to drive quality improvement through measurement and transparency by publicly displaying data to help consumers make more informed decisions about their healthcare. It is also intended to encourage hospitals and clinicians to improve the quality and cost of inpatient care provided to all patients.

The data collected through the program are available to consumers and providers on the Hospital Compare website (<https://www.medicare.gov/care-compare/?providerType=Hospital&redirect=true>). Data for selected measures are also used to pay a portion of hospitals based on the quality and efficiency of care, including the Hospital Value-Based Purchasing Program, Hospital-Acquired Condition Reduction Program, and Hospital Readmissions Reduction Program.

## **Sampling**

Each hospital randomly selects patients or cases according to the sampling requirements outlined in the Hospital IQR manual at <https://www.qualitynet.org/inpatient/specifications-manuals>. Hospitals submit data to the CMS Clinical Data Warehouse, CMS's central repository for clinical data, according to the Hospital IQR manuals.

## **Population Targeted**

Hospital inpatients (Medicare and non-Medicare), required for the relevant measure in each state, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands.

## **Primary Content**

A set of hospital care measures approved by the National Quality Forum. These measures will permit consumers, providers, purchasers, and quality improvement professionals to evaluate and compare the quality of care in general acute care hospitals across the nation.

## **Demographic Data**

Patients' age, gender, race/ethnicity.

## **Contact Information**

Agency home page: <http://www.cms.hhs.gov>.

Data system home page: <https://www.qualitynet.org>.

## **References**

Hospital IQR manual. <https://www.qualitynet.org/inpatient/specifications-manuals>.

## **Hospital Outpatient Quality Reporting Program (Hospital OQR)**

### **Sponsor**

U.S. Department of Health and Human Services, Centers for Medicare & Medicaid Services (CMS).

### **Description**

The Hospital OQR is a pay-for-quality data reporting program CMS implemented for outpatient hospital services. The Hospital OQR Program was mandated by the Tax Relief and Health Care Act of 2006. This act requires subsection (d) hospitals to submit data on measures of the quality of care furnished by hospitals in outpatient settings. Measures of quality may be of various types, including process, structure, outcome, and efficiency.

Under the Hospital OQR Program, hospitals must meet administrative, data collection and submission, validation, and publication requirements or receive a 2 percentage point reduction in

payment for failing to meet these requirements. The reduction is determined by applying a reporting factor of 0.980 to the Outpatient Prospective Payment System payments and copayments for all applicable services.

In addition to providing hospitals with a financial incentive to report their quality of care measure data, the Hospital OQR Program provides CMS with data to help Medicare beneficiaries make more informed decisions about their healthcare. Hospital quality of care information gathered through the Hospital OQR Program is available on the Hospital Compare website (<https://www.medicare.gov/care-compare/?providerType=Hospital&redirect=true>).

## **Primary Content**

Outpatient care can refer to numerous types of health services, such as emergency department services, observation services, outpatient surgical services, lab tests, and x rays, provided to those who visit a hospital or other healthcare facility.

Hospital Compare provides results on emergency department (ED) and outpatient quality measures, which evaluate the quality of care provided to patients. A quality measure converts medical information from patient records into a rate or time that allows facilities to assess their performance. It also helps consumers compare how well patients are being cared for at their local hospitals.

The outpatient measures evaluate the regularity with which a healthcare provider administers the outpatient treatment known to provide the best results for most patients with a particular condition.

The Hospital OQR measures include data collected with various methods to measure patient care outcomes, process of care, imaging efficiency patterns, care transitions, ED-throughput efficiency, health information technology use, care coordination, and patient safety. Data may be collected through chart abstraction, assessment of claim volume, or reporting on a hospital process. CMS identified specialty areas that had common and frequent procedures in the hospital outpatient setting. These procedures were identified as colonoscopies and outpatient imaging procedures. Other areas of future focus are outpatient surgery and chemotherapy.

## **Population Targeted**

Hospital outpatients (Medicare and non-Medicare beneficiaries) required for the relevant measure in each state, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands.

## **Demographic Data**

Age, race, and sex.

## **Contact Information**

Agency home page: <http://www.cms.hhs.gov>.

Data system home page: <https://www.qualitynet.org>.

## **References**

Hospital outpatient specification manual available at <https://www.qualitynet.org/outpatient>.

## **Minimum Data Set (MDS)**

### **Sponsor**

U.S. Department of Health and Human Services, Centers for Medicare & Medicaid Services (CMS).

### **Description**

The Minimum Data Set (MDS) is a key component of Medicare's partnership with the nursing home industry to foster and monitor improved nursing home care outcomes. The MDS data are collected, encoded, and transmitted for all nursing home residents receiving skilled nursing or long-term services at a Medicare- or Medicaid-certified nursing home. Nursing homes encode and transmit data using software available from CMS or software that conforms to CMS standard electronic record layout, editing, and data dictionary specifications and includes the required MDS dataset.

### **Primary Content**

The MDS contains data elements that represent core items obtained from a comprehensive assessment of adult nursing home residents. These data are used to measure patient outcomes for the purpose of outcome-based quality improvement.

The information collected includes residents' health, physical functioning, mental status, and general well-being.

### **Demographic Data**

Sex, age, race/ethnicity, State of residence, marital status, and living arrangement.

### **Population Targeted**

U.S. nursing home residents.

### **Mode of Administration**

Completed by nursing home personnel.

### **Years Collected**

Since 1998.

### **Data Collection Schedule**

MDS data items are designed to be collected at admission to the nursing home and at regular intervals until transfer, discharge, or death.

### **Geographic Estimates**

National and state.

### **Contact Information**

Agency home page: <http://www.cms.hhs.gov>.

Data system home page: <http://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/NursingHomeQualityInits/NHQIMDS30.html>.

## Notes

Since 2018, the NHQDR has used the Nursing Home Assessment files, MDS 3.0, residing on the Chronic Conditions Data Warehouse, as input. The sample included the latest episode in the calendar year, including ongoing stays. Numerators and denominators are defined based on the MDS 3.0 Quality Measures User's Manual, available at <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/NursingHomeQualityInits/Downloads/MDS-30-QM-Users-Manual-V11-Final.pdf>. The estimates are not risk adjusted.

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## Health Resources and Services Administration (HRSA) Ryan White HIV/AIDS Program Information Technology Supplement

### Sponsor

U.S. Department of Health and Human Services, Health Resources and Services Administration (HRSA), HIV/AIDS Bureau (HAB).

### Description

The Ryan White HIV/AIDS Program (RWHAP) supports a comprehensive system of care that ensures ongoing access to high-quality HIV care, treatment, and support services. The RWHAP provides services to low-income people living with HIV, as well as their families, who are uninsured or underserved. The program links patients to medical care, including antiretroviral medications as early as possible, to achieve positive health outcomes.

RWHAP-funded grant recipients and providers annually submit client-level data through the Ryan White HIV/AIDS Services Report (RSR). Since 2010, client-level RSR data have been used to assess the numbers and types of clients receiving services and their HIV-related outcomes.

### Survey Sample Design

The RSR dataset is HAB's primary source of annual, client-level data collected from more than 2,000 funded grant recipients and subrecipients. The RSR includes clients receiving services from RWHAP-funded recipients and providers during the calendar year, regardless of the RWHAP funding stream. RSR data do not include information about the AIDS Drug Assistance Program (ADAP); all ADAP-related information is collected through another data system.

### Primary Survey Content

The RSR includes demographic composition of clients served; socioeconomic factors, such as income relative to the federal poverty level (e.g., <100%, healthcare coverage, and housing status; and clinical information.

### Population Targeted

All RWHAP Part A-D recipients and providers submit the annual RSR.

### Demographic Data

Client-level demographic data include age, race/ethnicity, sex, HIV transmission risk category, income relative to the federal poverty level, healthcare coverage, and housing status.

**Years Collected**

Since 2010.

**Data Collection Schedule**

Annual.

**Geographic Estimates**

National, HHS region, and state.

**Contact Information**

Agency home page: <https://www.hrsa.gov/>.

Data system home page: <https://hab.hrsa.gov/data/data-reports>.

**References**

None.

**Uniform Data System (UDS)****Sponsor**

Health Resources and Service Administration (HRSA), Bureau of Primary Health Care (BPHC).

**Description**

UDS is an integrated reporting system used by all grantees of BPHC's Community Health Centers, Migrant Health Centers, Health Care for the Homeless, and Public Housing Primary Care programs. Clinical, operational, and financial data collected are used to monitor and evaluate BPHC programs and to analyze annual trends.

**Primary Survey Content**

UDS tracks a variety of information, including patient demographics, services provided, staffing, clinical indicators, utilization rates, costs, and revenues. UDS data are collected from grantees and reported at the grantee, state, and national levels.

**Population Targeted**

Patients using HRSA-supported health centers in the United States.

**Demographic Data**

Age, sex, race, ethnicity and language, income.

**Years Collected**

Since 2006.

**Data Collection Schedule**

Data are reported annually in the first quarter of the year.

## **Geographic Estimates**

National and state.

## **Contact Information**

Agency home page: <http://www.hrsa.gov>.

Data system home page: <https://bphc.hrsa.gov/datareporting/index.html>.

## **References**

More details are in the UDS description documents available in the datasets and documentation section at <https://bphc.hrsa.gov/datareporting/index.html>.

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# **Indian Health Service (IHS)**

## **Indian Health Service (IHS) National Data Warehouse (NDW)**

### **Sponsor**

U.S. Department of Health and Human Services, Indian Health Service (IHS).

### **Description**

NDW is the national repository for all IHS healthcare data and includes information on patient registration and visit encounters. Data are derived from various government (Resource Patient Management System, or RPMS) and commercial healthcare information systems. These are largely transaction-based systems used to support patient care. NDW was upgraded from the National Patient Information Reporting System in 2006.

### **Primary Content**

NDW includes registration records and all encounter records (dated October 1, 2000, to the present). Registration tables contain patient information, including name, demographic data, medical chart data, aliases, and insurance eligibility data. Encounter tables contain encounter information, including location of treatment, clinic, provider, medications, and diagnosis codes.

### **Population Targeted**

Approximately 1.6 million American Indians and Alaska Natives who belong to 567 federally recognized tribes in 36 states.

### **Demographic Data**

Age, sex, and American Indian and Alaska Native status.

### **Years Collected**

2001 to present.

### **Schedule**

Daily.



## Geographic Estimates

National IHS service area estimates are available for the following regions: Aberdeen, Alaska, Albuquerque, Bemidji, Billings, Nashville, Navajo, Oklahoma, Phoenix, and Tucson (excluding the Portland and California service areas where no IHS direct care inpatient facilities exist as of this writing).

## Notes

In the calculation of indicators based on hospitalization, since no IHS inpatient facilities are located in either the Portland or California service areas and hospitalizations from these regions are not present in the data, the denominator is correspondingly reduced.

## Contact Information

Agency home page: <http://www.ihs.gov>.

Data system home page: <http://www.ihs.gov/NDW/>.

Division of Program Statistics home page: <http://www.ihs.gov/DPS>.

## References

Indian Health Service Division of Program Statistics Website. Trends in Indian Health, p. 13. <https://www.ihs.gov/dps/publications/trends2014/>.

Resource and Patient Management System (RPMS) and National Patient Information Reporting System (NPIRS). In: Data on Health and Well-Being of American Indians, Alaska Natives, and Other Native Americans. Washington, DC: U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation. <http://aspe.hhs.gov/hsp/06/catalog-ai-an-na/RPMS.htm>.

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# National Institutes of Health (NIH)

## United States Renal Data System (USRDS)

### Funding

Funding for USRDS is provided by the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), National Institutes of Health, U.S. Department of Health and Human Services, under contract with the University of Michigan. The Centers for Medicare & Medicaid Services (CMS) partners with NIDDK to support USRDS.

### Description

USRDS is a national data system that maintains a relational database of diagnostic and demographic characteristics of end stage renal disease (ESRD) patients. It includes information on the incidence, prevalence, morbidity, and mortality of this population, as well as biochemical lab results, dialysis and other institutional claims, physician/supplier services, treatment histories (useful for modality determination) and payer histories, hospitalization and modality events, and

details regarding providers. As the ESRD population typically includes Medicare beneficiaries, CMS is the main data source for this database.

These CMS-supplied data are supplemented by data from the Social Security Administration, Organ Procurement and Transplant Network Transplant Database, U.S. Census Bureau, local and national ESRD provider databases, international ESRD registries, and CROWNWeb (a web-based data collection system that captures clinical and administrative data from Medicare-certified dialysis facilities for all ESRD patients). Thus, the USRDS database contains demographic, diagnostic, and treatment history information for all patients with ESRD, regardless of whether they are Medicare beneficiaries.

### **Primary Content**

Date of onset of ESRD, treatment modality, causes of death, patient survival, hospitalization, cost and cost-effectiveness, and institutional providers of ESRD treatment. Special surveys cover behavioral risk factors, preventive health measures, health status, activity limitations, and healthcare access and utilization.

### **Population Targeted**

ESRD patients.

### **Demographic Data**

Sex, age, race, and ethnicity.

### **Years Collected**

Continuously since 1988.

### **Schedule**

Annual.

### **Geographic Estimates**

National, state, and county.

### **Contact Information**

Agency home page: <https://www.niddk.nih.gov>.

Data system home page: <https://www.usrds.org>.

### **References**

United States Renal Data System. 2016 USRDS annual data report: epidemiology of kidney disease in the United States. Bethesda, MD: National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases; 2016.

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# **Substance Abuse and Mental Health Services Administration (SAMHSA)**

## **National Survey on Drug Use and Health (NSDUH)**

### **Sponsor**

U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration (SAMHSA), Center for Behavioral Health Statistics and Quality (CBHSQ). CBHSQ (formerly the Office of Applied Studies) is the data collection agency.

### **Description**

NSDUH serves as the primary source of information on the prevalence and incidence of illicit drug, alcohol, and tobacco use in the U.S. civilian noninstitutionalized population age 12 and over. In-person interviews with sampled people and computer-assisted interviewing methods, including audio computer-assisted self-interviewing, are used to provide a private and confidential setting to complete the interview.

### **Survey Sample Design**

NSDUH covers residents of households (living in houses/townhouses, apartments, condominiums, etc.), people in noninstitutional group quarters (e.g., shelters, rooming/boarding houses, college dormitories, migratory workers' camps, halfway houses), and civilians living on military bases. The survey excludes homeless people who do not use shelters, active military personnel, and residents of institutional group quarters.

NSDUH data are representative of the nation and states. The survey design includes an independent, multistage area probability sample for each state and the District of Columbia to accommodate state estimates of substance use and mental health. The survey design also oversamples youths and young adults.

### **Primary Survey Content**

NSDUH collects a respondent's demographic characteristics; age at first use, lifetime, past-year, and past-month use of the following substances: illicit drugs (marijuana or hashish, cocaine [including crack], inhalants, hallucinogens, heroin, or prescription-type psychotherapeutics used nonmedically [e.g., stimulants, sedatives, tranquilizers, and pain relievers], alcohol, and tobacco; substance use disorders; substance use treatment; healthcare; mental health disorders; and mental health service utilization.

### **Population Targeted**

U.S. civilian noninstitutionalized population age 12 and over.

### **Demographic Data**

Age, sex, race/ethnicity, marital status, education, employment status, family income, health insurance, veteran status, current household composition, and metropolitan status of county.

### **Years Collected**

Since 1971.

## Schedule

Annual.

## Geographic Estimates

National, state, and substate estimates as well as estimates by county type and region.

## Notes

Public-use data files for 1979, 1982, 1985, 1988, and annually from 1990 to present are currently available through the Substance Abuse and Mental Health Data Archive (SAMHDA) and the archive's online data analysis system (<http://www.icpsr.umich.edu/SAMHDA/>).

## Contact Information

Agency home page: <https://www.samhsa.gov>.

Data system home page: <https://www.samhsa.gov/data/data-we-collect/nsduh-national-survey-drug-use-and-health>.

## References

Substance Abuse and Mental Health Services Administration. Results From the 2011 National Survey on Drug Use and Health: Summary of National Findings. NSDUH Series H-44. Rockville, MD: Substance Abuse and Mental Health Services Administration; 2012. HHS Publication No. (SMA) 12-4713. <http://www.samhsa.gov/data/sites/default/files/NSDUHresults2011/NSDUHresults2011.pdf>.

## Substance Abuse Treatment Episode Data Set (TEDS)

### Sponsor

U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration (SAMHSA), Center for Behavioral Health Statistics and Quality (CBHSQ).

### Description

TEDS is an admission-based system and is part of SAMHSA's Behavioral Health Services Information System. TEDS is a compilation of data on the demographic and substance abuse characteristics of admissions to substance abuse treatment. The data are routinely collected by state administrative systems and then submitted to SAMHSA in a standard format.

TEDS does not include all admissions to substance abuse treatment. It includes admissions to facilities that are licensed or certified or funded by the state substance abuse agency to provide substance abuse treatment (or are administratively tracked by the agency for other reasons). TEDS does not include data from facilities operated by federal agencies. The scope of facilities included in TEDS may differ by state due to differences in state systems of licensure, certification, accreditation, and funds disbursement.

### Primary Content

Patient demographics; primary, secondary, and tertiary substance; length of stay; reason for discharge.

## **Population Targeted**

Admissions to publicly funded substance abuse treatment facilities.

## **Demographic Data**

Age, sex, ethnicity, and education.

## **Years Collected**

Since 1992.

## **Schedule**

Monthly or quarterly submissions from states; annual report.

## **Geographic Estimates**

National and states.

## **Contact Information**

Agency home page: <http://www.samhsa.gov>.

Data system home page: <http://samhsa.gov/data/>.

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# **United States Census Bureau American Community Survey (ACS)**

## **Sponsor**

U.S. Department of Commerce, Census Bureau.

## **Description**

ACS is an ongoing survey that provides vital information on a yearly basis about our nation and its people. Information from the survey generates data that help determine how more than \$675 billion in federal and state funds are distributed each year.

Through ACS, we know more about jobs and occupations, educational attainment, veterans, owner/renter status, and other topics. Public officials, planners, and entrepreneurs use this information to assess the past and plan the future. The ACS helps communities plan for hospitals and schools, support school lunch programs, improve emergency services, build bridges, and inform businesses looking to add jobs and expand to new markets, and other efforts.

## **Survey Sample Design**

ACS forms are not mailed to specific people, but rather to specific addresses. The sample is designed to ensure good geographic coverage and does not target individuals. By focusing on quality geographic coverage, ACS can produce a good picture of the community's people and housing by surveying a representative sample of the population.

The Census Bureau selects a random sample of addresses to include in ACS. Each address has about a 1-in-480 chance of being selected in a month, and no address should be selected more than once every 5 years.

The Census Bureau mails questionnaires to approximately 295,000 addresses each month across the United States. This is a small percentage of the more than 140 million eligible addresses in the United States, and an address that receives ACS instructions will not likely find a neighbor or friend who has also received them.

ACS responses are collected in four different ways: internet, mail, telephone, and in-person interviews.

### **Primary Survey Content**

The most recent census consisted of a short form, which included basic questions about age, sex, race, Hispanic origin, household relationship, and owner/renter status. After the 2000 census, the long form became ACS, and this survey continues to collect long-form-type information each year.

ACS includes not only the basic short-form questions, but also detailed questions about population and housing characteristics. It is a nationwide, continuous survey designed to provide communities with reliable and timely social, economic, housing, and demographic data every year. Since its start, ACS has been providing a continuous stream of updated information for states and local areas.

An individual's responses are combined with others' responses to create and publish statistics for communities nationwide, which can then be used by community and local governments and the private sector. ACS estimates are often used to help establish priorities through a needs assessment, to develop general plans, and to further research, education, and advocacy work.

### **Population Targeted**

Civilian population residing in the United States.

### **Demographic Data**

Sex, age, race/ethnicity, education, income, marital status, place of birth, industry, and occupation.

### **Years Collected**

2006 to present.

### **Schedule**

Annually.

### **Contact Information**

Agency home page: <https://www.census.gov/>.

Data system home page: <https://www.census.gov/programs-surveys/acs/about.html>.

## References

American Community Survey Information Guide. Suitland, MD: U.S. Census Bureau; October 2017. Publication No. ACS-331(C)(2017). [https://www.census.gov/content/dam/Census/programs-surveysacs/about/ACS\\_Information\\_Guide.pdf](https://www.census.gov/content/dam/Census/programs-surveysacs/about/ACS_Information_Guide.pdf).

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## Academic Institutions

### University of Michigan Kidney Epidemiology and Cost Center (UM-KECC)

#### Sponsor

University of Michigan with funding from the U.S. Department of Health and Human Services, Centers for Medicare & Medicaid Services (CMS).

#### Description

UM-KECC is an interdisciplinary research group drawing from the Departments of Biostatistics, Health Management and Policy, Surgery, and Nephrology. UM-KECC carries out epidemiologic, clinical, medical outcomes, public policy, and economic research related to end stage renal disease (ESRD), chronic kidney disease (CKD), and organ transplantation.

UM-KECC maintains comprehensive historic patient- and provider-level data on more than 2 million ESRD patients. The UM-KECC ESRD patient database is largely derived from the following sources:

- CMS Consolidated Renal Operations in a Web-enabled Network (CROWN), which includes Renal Management Information System (REMIS), the CMS Annual Facility Survey (Form CMS-2744), the CMS Medical Evidence Form (Form CMS-2728), and the Death Notification Form (Form CMS-2746).
- Medicare dialysis and hospital payment records.
- Transplant data from the Organ Procurement and Transplantation Network (OPTN).
- Nursing Home Minimum Data Set.
- Quality Improvement Evaluation System (QIES) Business Intelligence Center (QBIC), which includes data from the Certification and Survey Provider Enhanced Report System (CASPER)
- Dialysis Facility Compare.

The database is comprehensive for Medicare patients. Non-Medicare patients are included in all sources except the Medicare payment records. CROWNWeb provides tracking by dialysis provider and treatment modality for non-Medicare patients.

#### Primary Content

Data include information about directly actionable practice patterns such as dose of dialysis, vascular access, and anemia management and patient outcomes (mortality, hospitalization, and transplantation) that can be used to inform and motivate reviews of practices.

The information in the report facilitates comparisons of facility data with local and national averages. Available data include:

- Patient characteristics (laboratory values, primary cause of ESRD, comorbidities),
- Treatment patterns (dialytic modality, hemoglobin levels),
- Treatment adequacy (Kt/V), and
- Outcomes (transplantation, wait list, hospitalization, mortality).

Facility information provides counts of patients treated, Medicare eligibility, treatment modality, staffing, survey and certification activity, and services provided.

### **Population Targeted**

ESRD patients in the United States.

### **Demographic Data**

Age, sex, race, ethnicity, and state of residence.

### **Years Collected**

1999 to present. (See entry for United States Renal Data System for information on prior years.)

### **Schedule**

Annually each July.

### **Geographic Estimates**

National, state, network, and regional levels.

### **Contact Information**

Organization home page: <http://kecc.sph.umich.edu/>

Data system home page: [www.dialysisdata.org](http://www.dialysisdata.org).

### **References**

UM-KECC. Methodology documents available at <https://dialysisdata.org/content/dialysis-facility-report-methodology>.

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## **Professional Organizations and Associations**

### **American Hospital Association (AHA) Information Technology (IT) Supplement**

#### **Sponsor**

American Hospital Association (AHA).



## **Description**

The AHA conducts an annual survey of all hospitals in the United States, including both registered and nonregistered hospitals. The focus is on four main areas, which include organization, facilities, community benefit, and utilization. Since 2008, the AHA has administered a supplemental Information Technology (IT) mail survey to gather information on the extent to which hospitals have fully functional health information systems, the characteristics of these systems, and the functions available and used by hospital staff.

## **Survey Sample Design**

The 2011 survey for the IT Supplement was sent to 6,253 nonfederal acute care hospitals in the United States, including non-AHA member hospitals. The response rate was 54.8%. If data are missing, the hospital is not included in the numerator or denominator of generated statistics.

## **Primary Survey Content**

The AHA Hospital Survey reports on statistics including current and historical data on utilization, personnel, revenue, expenses, managed care contracts, community health indicators, physician models, technology, electronic record system, number of beds and admissions, and urban/rural status. The 2011 IT supplement queries hospital representatives about the adoption of electronic medical records and the scope of computer functionalities used by the facility.

## **Population Targeted**

All hospitals in the United States.

## **Demographic Data**

Combined with the core survey, information collected includes identifying information about the hospitals, organizational structure, facilities and services, utilization data, community orientation indicators, physician arrangements, managed care relationships, expenses, staffing, use of electronic medical records, and use of electronic systems for prescriptions and sharing of patient information across providers.

## **Years Collected**

Since 2008.

## **Data Collection Schedule**

Annual.

## **Geographic Estimates**

National and regional.

## **Contact Information**

Agency home page: <http://www.aha.org>.

## **References**

Wolf L, Harvell J, Jha AK. Hospitals ineligible for federal meaningful-use incentives have dismally low rate of adoption of electronic health records. *Health Aff* 2012;31(3):505-13.

## **National Cancer Data Base (NCDB)**

### **Sponsors**

Operation of the NCDB is jointly supported by the Commission on Cancer (CoC) of the American College of Surgeons and the American Cancer Society.

### **Description**

NCDB is a nationwide facility-based oncology database that annually captures 70% of all newly diagnosed cancer cases in the United States. NCDB holds information on more than 29 million cases of reported cancer diagnoses since 1985 and continues to grow.

All CoC-accredited hospital cancer programs are annually required to submit data for all patients diagnosed or treated for a cancer diagnosis. More than 1,500 participating hospitals respond to a call for data, submitting case reports for a specified calendar year approximately 9 months after the calendar year.

CoC-accredited cancer program registries collect and submit data elements to NCDB using nationally standardized data item and coding definitions. These are found in CoC's *Facility Oncology Registry Data Standards (FORDS)* and the North American Association of Central Cancer Registries' nationally standardized data transmission format specifications.

### **Primary Survey Content**

NCDB contains standardized data elements on patient demographics, patient insurance status, tumor site, stage and morphology, comorbidities, first course of treatment, disease recurrence, and survival information. In addition, NCDB contains information on patient ZIP Code and county of residence, which are used to incorporate area-based sociodemographic characteristics. Selected characteristics of the reporting healthcare facility are also collected.

### **Population Targeted**

Cancer patients in the United States.

### **Demographic Data**

Sex, age at cancer diagnosis, and race/ethnicity.

### **Years Collected**

Continuously since 1985.

### **Schedule**

Annual.

### **Geographic Estimates**

National; nine U.S. Census Bureau regions; metropolitan and nonmetropolitan areas.

### **Contact Information**

NCDB home page: <http://www.facs.org/cancer/ncdb/>.

## References

Bilimoria KY, Stewart AK, Winchester DP, et al. The National Cancer Data Base: a powerful initiative to improve cancer care in America. *Ann Surg Oncol* 2008 Mar;15(3):683-90.

Stewart AK, Bland KI, McGinnis LS, et al. Clinical highlights from the National Cancer Data Base. *CA Cancer J Clin* 2000;50:171-83.

Sylvester J, Blankenship C, Carter A, et al. Quality control: the American College of Surgeons Commission on Cancer Standards, National Cancer Data Base, and Cancer Liaison Program. *J Reg Mgmt* 2000;27:68-74.

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## Multiple-Source Data Sponsors

### Medical Expenditure Panel Survey (MEPS)

#### Sponsor

U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality (AHRQ); and Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS).

#### Mode of Administration

The MEPS Household Component (HC), the core survey, is an interviewer-administered computer-assisted personal interview household survey. The Self-Administered Questionnaire (SAQ) and Diabetes Care Survey (DCS) are supplementary self-administered paper questionnaires.

#### Survey Sample Design

The sampling frame for the MEPS-HC is drawn from respondents to the National Health Interview Survey (NHIS), conducted by NCHS. The MEPS-HC augments NHIS by selecting a sample of NHIS respondents, collecting additional data on their healthcare expenditures, and linking these data with additional information from the respondents' medical providers, employers, and insurance providers.

Each year a new panel of households is selected from among those households that participated in the previous year's NHIS. Data covering 2 calendar years of information are collected for each new annual sample (referred to as a panel), through a series of five rounds of data collection over a 2.5-year period. This series of data collection activities is repeated each year on a new sample of households, resulting in overlapping panels of survey data. MEPS annual data are based on information from two separate panels, the panel that began that year and the panel that began in the previous year.

NHIS provides a nationally representative sample of the U.S. civilian noninstitutionalized population, with oversampling of Hispanics and Blacks. Since 2006, NHIS has also oversampled Asians. In addition to the oversampling by NHIS, MEPS oversamples policy-relevant groups such as low-income households.

## Primary Survey Content

MEPS consists of three component surveys: the HC, the Medical Provider Component, and the Insurance Component. The MEPS-HC collects detailed data on demographic characteristics, health conditions, health status, use of medical care services, charges and payments, access to care, satisfaction with care, health insurance coverage, income, and employment.

The data for the NHQDR are primarily from the following sections of the 2002-2017 MEPS-HC:

- SAQ: This paper questionnaire collects data on a variety of adult health and healthcare quality measures.
- DCS: This paper questionnaire, given to people identified as ever having had diabetes, asks about their diabetes care, such as services rendered.
- Child Health and Preventive Care (CHPR) section: In 2001, the CHPR section was added to the MEPS-HC interviews during the second half of the year. It included healthcare quality measures taken from the health plan version of CAHPS® (Consumer Assessment of Healthcare Providers and Systems); the Children With Special Health Care Needs screener questions; children's general health status as measured by several questions from the General Health Subscale of the Child Health Questionnaire; Columbia Impairment Scale questions about possible child behavioral problems; and child preventive care questions. Before 2001, the CAHPS questions and the Children with Special Health Care Needs screener questions had been in the Parent-Administered Questionnaire. Therefore, estimates from 2001 may not be comparable with estimates for 2000 or earlier years.
- Access to Care: The Access to Care section of the MEPS-HC gathers information on five main topic areas: family members' origins and preferred languages; family members' usual source of healthcare; characteristics of usual source of healthcare providers; satisfaction with and access to the usual source of healthcare provider; and access to medical treatment, dental treatment, and prescription medicines.
- Preventive Care: For each person, a series of questions was asked primarily about the receipt of preventive care or screening examinations.

## Population Targeted

Like the NHIS population from which its sample is drawn, the MEPS-HC is a nationally representative survey of the U.S. civilian noninstitutionalized population.

## Demographic Data

The MEPS-HC collects data on demographic characteristics, including age, sex, race, ethnicity, education, industry and occupation, employment status, household composition, and family income. Race and ethnicity variables and categories changed in 2002 in compliance with Office of Management and Budget standards.

## Years Collected

MEPS is the third in a series of national probability surveys conducted by AHRQ on the financing and use of medical care in the United States. The National Medical Care Expenditure Survey was conducted in 1977, the National Medical Expenditure Survey was conducted in 1987, and MEPS, an annual survey, began in 1996.

## Schedule

Annual.

## Geographic Estimates

National; four U.S. Census Bureau regions; selected states; metropolitan and nonmetropolitan areas; and urban-rural areas, based on frameworks such as the 2006 and 2013 Urban-Rural Classification Scheme for Counties ([https://www.cdc.gov/nchs/data\\_access/urban\\_rural.htm](https://www.cdc.gov/nchs/data_access/urban_rural.htm)).

## Notes

Estimates in the NHQDR data tables that are based on MEPS data are weighted to reflect the experiences of the U.S. civilian noninstitutionalized population. Standard errors of the estimates were derived using SUDAAN statistical software, which factors in MEPS complex survey design. MEPS estimates are suppressed when they are based on sample sizes of fewer than 100 or when their relative standard errors are 30% or more.

The combined response rate for MEPS, which includes the NHIS response rate, ranged from 46% to 65% during the 2002 to 2017 period.

## Contact Information

Agency home page: <http://www.ahrq.gov>.

Data system home page: <http://www.meps.ahrq.gov>.

## References

Cohen J. Design and methods of the Medical Expenditure Panel Survey Household Component. MEPS Methodology Report No. 1. Rockville, MD: Agency for Health Care Policy and Research; 1997. AHCPR Publication No. 97-0026. [http://www.meps.ahrq.gov/mepsweb/data\\_files/publications/mr1/mr1.pdf](http://www.meps.ahrq.gov/mepsweb/data_files/publications/mr1/mr1.pdf).

Cohen JW, Monheit AC, Beauregard KM, et al. The Medical Expenditure Panel Survey: a national health information resource. *Inquiry* 1996/1997; 33:373-89. Rockville, MD: Agency for Health Care Policy and Research; 1997. AHCPR Publication No. 97-R043. [http://www.meps.ahrq.gov/mepsweb/data\\_stats/Pub\\_ProdResults\\_Details.jsp?pt=Journal+Articles&opt=3&id=324](http://www.meps.ahrq.gov/mepsweb/data_stats/Pub_ProdResults_Details.jsp?pt=Journal+Articles&opt=3&id=324).

Cohen S. Sample design of the 1996 Medical Expenditure Panel Survey Household Component. MEPS Methodology Report No. 2. Rockville, MD: Agency for Health Care Policy and Research; 1997. AHCPR Publication No. 97-0027. [http://www.meps.ahrq.gov/mepsweb/data\\_files/publications/mr2/mr2.pdf](http://www.meps.ahrq.gov/mepsweb/data_files/publications/mr2/mr2.pdf).

Cohen SB. Sample design of the 1997 Medical Expenditure Panel Survey Household Component. MEPS Methodology Report No. 11. Rockville, MD: Agency for Healthcare Research and Quality; 2000. AHRQ Publication No. 01-0001. [http://www.meps.ahrq.gov/mepsweb/data\\_files/publications/mr11/mr11.pdf](http://www.meps.ahrq.gov/mepsweb/data_files/publications/mr11/mr11.pdf).

Ezzati-Rice TM, Rohde F, Greenblatt J. Sample design of the Medical Expenditure Panel Survey Household Component, 1998-2007. MEPS Methodology Report No. 22. Rockville, MD: Agency

for Healthcare Research and Quality; March 2008. [http://www.meps.ahrq.gov/mepsweb/data\\_files/publications/mr22/mr22.pdf](http://www.meps.ahrq.gov/mepsweb/data_files/publications/mr22/mr22.pdf).

Chowdhury SR, Machlin SR, Gwet KL. Sample Designs of the Medical Expenditure Panel Survey Household Component, 1996-2006 and 2007-2016. Methodology Report 33. Rockville, MD: Agency for Healthcare Research and Quality; 2019. [https://meps.ahrq.gov/data\\_files/publications/mr33/mr33.pdf](https://meps.ahrq.gov/data_files/publications/mr33/mr33.pdf).

## **Medicare Patient Safety Monitoring System (MPSMS)**

### **Sponsor**

From its inception in 2001, the Centers for Medicare & Medicaid Services (CMS) led the coordination and development of MPSMS with technical and administrative support from Qualidigm. In 2009, primary coordination of the project was transferred to the Agency for Healthcare Research and Quality (AHRQ). CMS continues as a partner with AHRQ on the project.

### **Description**

MPSMS is a nationwide surveillance system that aims to identify rates of specific adverse events, or unintended patient harm, injury, or loss, among hospitalized patients. The system tracks and monitors interactions with the healthcare system rather than health conditions.

MPSMS is composed of 21 measures representing six types of adverse drug events (ADEs); six types of hospital-acquired infections; seven types of adverse events associated with surgery; patient falls; and hospital-acquired pressure ulcers.

Approximately 20,000 to 30,000 records are selected annually as a subset of the CMS Hospital Inpatient Quality Reporting program (IQR) sample, which includes hospitalized patients age 18 years and over whose hospital stays are reimbursed by any payer. The IQR sample represents hospital admissions for four conditions: heart failure, acute myocardial infarction, pneumonia, and a subset of major surgical procedures.<sup>i</sup> In 2013, a global sample was added to the IQR sample and includes patients age 18 years and over hospitalized for all other conditions not included in the four-condition sample.

Records are sent to the Clinical Data Abstraction Center, where trained abstractors abstract each clinical chart by recording predefined questions and responses. The contractor uses algorithms to analyze the abstracted data to identify patient exposure to the processes of care, ascertain the occurrence of specific adverse events, and assess patient risk factors and outcomes. MPSMS data are used to develop a summary Patient Safety Event Rate based on the 21 measures.

### **Primary Content**

The purpose of MPSMS is to provide a tool to facilitate improvements in patient safety by gaining an understanding of the magnitude of specific patient safety issues associated with the processes of hospital care delivery.

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<sup>i</sup> Only inpatients whose surgical procedures are included in the CMS Surgical Care Improvement Project major surgical procedure category are selected.

Adverse event categories monitored by MPSMS include:

- ADEs.
- Adverse events associated with surgical procedures.
- Hospital-acquired infections.
- Adverse events associated with the hospital stay and not present on hospital admission (inpatient falls and pressure ulcers).

MPSMS also collects and examines patient risk factors, such as demographics and comorbid conditions, as well as data on outcomes, such as length of hospital stay and in-hospital mortality.

### Population Targeted

The four-condition sample includes hospital inpatients age 18 years and over admitted for one of four conditions of interest: heart failure, acute myocardial infarction, pneumonia, and a subset of major surgical procedures, which are covered by any payer.<sup>ii</sup> The global sample includes patients age 18 years and over hospitalized for all other conditions not included in the four-condition sample.

### Demographic Data

Age, race, sex, and payment source.

### Years Collected

2002-2007, 2009 -2017.

### Geographic Estimates

All states except Maryland.

### Schedule

Data are submitted and collected monthly and reported annually.

**Table 1. MPSMS Measures and Domains by Phase**

Measure	Primary Domain	Data Period
Adverse Events Associated With Hip Replacement Hip Replacement Due to Fractures Hip Replacement Due to Degeneration	Postoperative	2002-2007 and 2009-2017
Adverse Events Associated With Knee Replacement	Postoperative	2002-2007 and 2009-2017
Bloodstream Infection Associated With Central Line	Infection	2002-2007 and 2009-2017
Mechanical Complications Associated With Central Line	Postoperative	2002-2007 and 2009-2017
Postoperative Pneumonia	Infection	2002-2007 and 2009-2017

<sup>ii</sup> In 2009, the sample population changed to the sample described above from the 2002 to 2007 samples that only included Medicare fee-for-service beneficiaries who were admitted for any condition.

Measure	Primary Domain	Data Period
Postoperative Venous Thromboembolic Event	Postoperative	2002-2007 and 2009-2017
ADE - Hypoglycemic Agent	Adverse drug events	2004-2007 and 2009-2017
ADE - IV Heparin	Adverse drug events	2004-2007 and 2009-2017
ADE - Low Molecular Weight Heparin	Adverse drug events	2004-2007 and 2009-2017
ADE - Warfarin	Adverse drug events	2004-2007 and 2009-2017
Catheter-Associated Urinary Tract Infection	Infection	2005-2007 and 2009 -2017

## Contact Information

Agency home page: <http://www.ahrq.gov>.

Data system home page: <http://www.cms.hhs.gov>.

## References

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