

NAMCS and NHAMCS Restricted Data Available at the NCHS Research Data Center

For researchers who want to use NAMCS and NHAMCS data, but need data items that are not available on the downloadable public use micro-data files, the Research Data Center (RDC) at the National Center for Health Statistics is an alternative.

Researchers must submit a proposal which is reviewed by NCHS staff. Fees are charged for accessing the data. More information is available at <http://www.cdc.gov/rdc>.

What types of NAMCS and NHAMCS data can researchers get at the RDC? All of the publicly available data are contained on the restricted files, using the same layout as the downloadable public use files. But certain variables, which are masked on the downloadable files, are not masked on the restricted files, and a selection of confidential data items have been appended to the restricted files.

All of the restricted items on the basic (non-supplement) confidential files are listed below. If no year is listed, the item is available for all years from 1993 through the current year. Work is in progress to add masked design variables to the public use files for years prior to 1993; as this is accomplished, the restricted files will be enhanced as well.

National Ambulatory Medical Care Survey

In addition to the standard dataset, the restricted files include:

Non-masked design variables

CSTRAT, CPSU, POPCPSU, POPCPROV, SUBFILE, PROSTRAT, PROVIDER, DEPT, SUSTRAT, SU, CLINIC, POPSU, POPVIS

Note: Only CSTRAT AND CPSU are needed for variance estimation in most analyses, for example, with SUDAAN WR option, or SAS, SPSS, or Stata variance estimation based on an ultimate cluster model. For analyses with SUDAAN WOR option, or other full multi-stage models, the additional design variables are provided. If you are unsure which you need, please contact the Ambulatory and Hospital Care Statistics Branch for assistance.

Physician practice variables

MULTI - Single or multi-specialty practice (2001-current)

NUMPHYR – Number of physicians in this practice (2001-current)

FGRAD – Did physician graduate from foreign medical school? (2001-current)

PYOB – Physician year of birth

PHYSEX – Physician sex

PHYRACE – Physician race (added to the restricted file starting in 2001, but not available 2008-2009 except for community health center physicians; collected for all physicians 2010-current)

SPEC – Physician’s 3-digit alphanumeric specialty code (only available on the restricted file starting with the 2008 survey year; in previous years this variable was available on the public use file)

The following 12 variables were added to the restricted file starting with 2006 data but were not collected after 2008:

CTSCAN - Does practice have ability to perform CT scans on site?

CHEMO - Does practice have ability to perform chemotherapy on site?

COLONSC - Does practice have ability to perform colonoscopy on site?

EKGECG- Does practice have ability to perform EKG/ECG on site?

MAMMOPII - Does practice have ability to perform mammography on site?

MRIPII - Does practice have ability to perform MRI on site?

PETSCAN - Does practice have ability to perform PET scans on site?

RADITHR - Does practice have ability to perform radiation therapy on site?

SIGMOID - Does practice have ability to perform sigmoidoscopy on site?

SPIROM - Does practice have ability to perform spirometry on site?

ULTRSND - Does practice have ability to perform ultrasound on site?

XRAYPII - Does practice have ability to perform x-rays on site?

Visit variables

PASTVIS2 – Number of past visits in last 12 months (not capped) (2007-current)

Geographic variables

FIPSST - FIPS State Code (based on physician’s practice ZIP code)

FIPSCNY - FIPS County Code (based on physician’s practice ZIP code)

URBANRU – Nonmasked urban-rural classification of patient’s ZIP code of residence, using the NCHS Urban-Rural Classification (2005-current)

Census variables

The following five variables were first added to the restricted file in 2002. Starting with survey year 2006, two of them, PBAMORE and HINCOME, were added to the public use file using percent groupings based on quartiles in the population rather than actual percents. PCTPOV,

first added to the restricted file in 2005, was added to the public use file as a grouped percent variable starting in 2006.

PHSMORE - Percent of population 25 years and over in patient's ZIP code of residence

PBAMORE - Percent of population 25 years and over in patient's ZIP code of residence

PFOREIGN - Percent of population in patient's ZIP code that are foreign born

PNOTENGL - Percent of population in patient's ZIP code that do not speak English at all or very well

HINCOME - Median household income in patient's ZIP code of residence

PCTPOV - Percent of population in patient's ZIP code below the poverty level (2005-current)

National Hospital Ambulatory Medical Care Survey Emergency department file (ED)

First, here is an important reminder when preparing an RDC proposal. One should consider the NHAMCS sampling design when conducting analysis on emergency and/or outpatient department data. Hospitals were sampled prior to the selection of emergency service areas and outpatient clinics within hospitals. There are some hospitals in the panel with only an emergency department or only an outpatient department. If records from one file are used alone, one could potentially miss the sampling clusters for hospitals that only appear in the other file, and they would not be considered for variance estimation. To avoid this, when doing analysis on either the emergency or outpatient department files, both files should be used for variance estimation purposes.

In SUDAAN, this is accomplished by reading in the dataset of interest (for example, the emergency department file) along the corresponding design variables for the other dataset (the outpatient department file). The SUBPOPN or SUBPOPX statement can be used within the SUDAAN procedure to subset only the records of interest and obtain the most correct variance estimation. Records should never be dropped from the file prior to analysis, for the same reason.

In SAS, the same thing can be accomplished in PROC SURVEYMEANS or PROC SURVEYFREQ through the use of domain analysis, being sure to include the NOMCAR option to avoid dropping records with missing values for variance estimation. For more information, contact the Ambulatory and Hospital Care Statistics Branch at 301-458-4600.

Non-masked design variables

CSTRAT, CPSU, POPCPSU, POPCPROV, SUBFILE, PROSTRAT, PROVIDER, DEPT, SUSTRAT, SU, CLINIC, POPSU, POPVIS

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Hospital/ED characteristics

Type of emergency service area (2001-current)

Annual emergency department visit volume (2001-current)

Medical school affiliation (yes/no) (2001-current)

Geographic variables

FIPSST - FIPS State Code (based on hospital ZIP code)

FIPSCNY - FIPS County Code (based on hospital ZIP code)

URBANRU – Nonmasked urban-rural classification of patient's ZIP code of residence, using the NCHS Urban-Rural Classification (2005-current)

Census variables

The following five variables were first added to the restricted file in 2002. Starting with survey year 2006, two of them, PBAMORE and HINCOME, were added to the public use file using percent groupings based on quartiles in the population rather than actual percents. PCTPOV, first added to the restricted file in 2005, was added to the public use file as a grouped percent variable starting in 2006.

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PNOTENGL - Percent of population in patient's ZIP code that do not speak English at all or very well

HINCOME - Median household income in patient's ZIP code of residence

PCTPOV - Percent of population in patient's ZIP code below the poverty level (2005-current)

National Hospital Ambulatory Medical Care Survey Outpatient department file (OPD)

Non-masked design variables

CSTRAT, CPSU, POPCPSU, POPCPROV, SUBFILE, PROSTRAT, PROVIDER, DEPT, SUSTRAT, SU, CLINIC, POPSU, POPVIS

Note: Only CSTRAT AND CPSU are needed for variance estimation in most analyses, for example, with SUDAAN WR option, or SAS, SPSS, or Stata variance estimation based on an ultimate cluster model. For analyses with SUDAAN WOR option, or other full multi-stage

models, the additional design variables are provided. If you are unsure which you need, please contact the Ambulatory and Hospital Care Statistics Branch for assistance.

Hospital characteristics

Medical school affiliation (yes/no) (2001-current)

Geographic variables

FIPSST - FIPS State Code (based on hospital ZIP code)

FIPSCNY - FIPS County Code (based on hospital ZIP code)

URBANRU – Nonmasked urban-rural classification of patient’s ZIP code of residence, using the NCHS Urban-Rural Classification (2005-current)

Census variables

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HINCOME - Median household income in patient’s ZIP code of residence

PCTPOV - Percent of population in patient's ZIP code below the poverty level (2005-current)

IMPORTANT NOTES:

For some hospitals in NHAMCS, masking is sometimes used for a small number of records on the public use file for confidentiality purposes involving the variables of race, ethnicity, hospital ownership, metropolitan statistical area status, and selected electronic medical records items. The restricted files include non-masked versions of these variables. Typically, NAMCS data do not require as much masking as NHAMCS data, but, should they be masked, restricted files would include non-masked versions of these items as well.

Although some of the variables listed above were only added to the file in a specified year, they may have been collected prior to that time and could be added to a research file by special request.

In addition to the variables listed above, it may be possible to prepare a customized file that includes additional items collected as part of the physician or hospital induction interview. Such work would be subject to data availability and staff resources and would entail additional fees. Data users who wish to get a better idea of the questions that might be available can see the survey instruments here:

http://www.cdc.gov/nchs/ahcd/ahcd_survey_instruments.htm#namcs

http://www.cdc.gov/nchs/ahcd/ahcd_survey_instruments.htm#nhamcs

Additional Files

In addition to the standard RDC data files based on data collected on the Patient Records (the main survey questionnaire) and the induction interviews, special supplements conducted in various years may also be accessed, including the NHAMCS Bioterrorism and Mass Casualty Preparedness Supplement, the Emergency Pediatric Equipment and Surveillance Supplement, and the Staffing and Capacity and Ambulance Diversion Supplement.

Other supplement data include the NAMCS Electronic Medical Records (EMR) Supplement (2008-2011), renamed as the National Electronic Health Records Survey (NEHRS) (currently available for 2012 and 2013) and the 2008 NHAMCS Pandemic and Emergency Response Preparedness Supplement.

The NAMCS EMR supplement, which began in 2008, is a mail survey designed to collect information on the use of EMR systems and the availability of specific computerized functionalities in physician offices. In 2008 and 2009, the mail survey shared the same sampling files as the in-person NAMCS. Starting in 2010, the EMR mail survey sample was selected from the 50 states and the District of Columbia to provide state-level estimates. Data from the mail survey are available on one file, and a second file is available which combines data from both the mail survey and the in-person NAMCS. The EMR supplement became the National Electronic Health Records Survey starting in 2012.

The 2008 NHAMCS Pandemic and Emergency Response Preparedness Supplement was added to the 2008 NHAMCS. Information was obtained on the content of the hospital's emergency response plan, staff training, participation in mass casualty drills, and the hospital's resources and capabilities.

Data from the 2011 and 2012 NAMCS Physician Workflow Supplement are also available in the RDC. This survey is a follow-up data collection initiative sponsored by the Office of the National Coordinator for Health Information Technology (ONC) to provide a better understanding of physician experiences with adoption and use of electronic health records. For more information, please contact Eric Jamoom at 301-458-4798 (EJamoom@cdc.gov).

Last modified 1/14/14