

**MEPS HC-161:
2013 Person Round Plan Public Use File
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A. Data Use Agreement

Individual identifiers have been removed from the micro-data contained in these files. Nevertheless, under sections 308 (d) and 903 (c) of the Public Health Service Act (42 U.S.C. 242m and 42 U.S.C. 299 a-1), data collected by the Agency for Healthcare Research and Quality (AHRQ) and/or the National Center for Health Statistics (NCHS) may not be used for any purpose other than for the purpose for which they were supplied; any effort to determine the identity of any reported cases is prohibited by law.

Therefore in accordance with the above referenced Federal Statute, it is understood that:

1. No one is to use the data in this data set in any way except for statistical reporting and analysis; and
2. If the identity of any person or establishment should be discovered inadvertently, then (a) no use will be made of this knowledge, (b) the Director Office of Management AHRQ will be advised of this incident, (c) the information that would identify any individual or establishment will be safeguarded or destroyed, as requested by AHRQ, and (d) no one else will be informed of the discovered identity; and
3. No one will attempt to link this data set with individually identifiable records from any data sets other than the Medical Expenditure Panel Survey or the National Health Interview Survey.

By using these data you signify your agreement to comply with the above stated statutorily based requirements with the knowledge that deliberately making a false statement in any matter within the jurisdiction of any department or agency of the Federal Government violates Title 18 part 1 Chapter 47 Section 1001 and is punishable by a fine of up to \$10,000 or up to 5 years in prison.

The Agency for Healthcare Research and Quality requests that users cite AHRQ and the Medical Expenditure Panel Survey as the data source in any publications or research based upon these data.

B. Background

1.0 Household Component

The Medical Expenditure Panel Survey (MEPS) provides nationally representative estimates of health care use, expenditures, sources of payment, and health insurance coverage for the U.S. civilian non-institutionalized population. The MEPS Household Component (HC) also provides estimates of respondents' health status, demographic and socio-economic characteristics, employment, access to care, and satisfaction with health care. Estimates can be produced for individuals, families, and selected population subgroups. The panel design of the survey, which includes 5 Rounds of interviews covering 2 full calendar years, provides data for examining person level changes in selected variables such as expenditures, health insurance coverage, and health status. Using computer assisted personal interviewing (CAPI) technology, information about each household member is collected, and the survey builds on this information from interview to interview. All data for a sampled household are reported by a single household respondent.

The MEPS-HC was initiated in 1996. Each year a new panel of sample households is selected. Because the data collected are comparable to those from earlier medical expenditure surveys conducted in 1977 and 1987, it is possible to analyze long-term trends. Each annual MEPS-HC sample size is about 15,000 households. Data can be analyzed at either the person or event level. Data must be weighted to produce national estimates.

The set of households selected for each panel of the MEPS HC is a subsample of households participating in the previous year's National Health Interview Survey (NHIS) conducted by the National Center for Health Statistics. The NHIS sampling frame provides a nationally representative sample of the U.S. civilian non-institutionalized population and reflects an oversample of Blacks and Hispanics. In 2006, the NHIS implemented a new sample design, which included Asian persons in addition to households with Black and Hispanic persons in the oversampling of minority populations. MEPS further oversamples additional policy relevant subgroups such as low income households. The linkage of the MEPS to the previous year's NHIS provides additional data for longitudinal analytic purposes.

2.0 Medical Provider Component

Upon completion of the household CAPI interview and obtaining permission from the household survey respondents, a sample of medical providers are contacted by telephone to obtain information that household respondents can not accurately provide. This part of the MEPS is called the Medical Provider Component (MPC) and information is collected on dates of visit, diagnosis and procedure codes, charges and payments. The Pharmacy Component (PC), a subcomponent of the MPC, does not collect charges or diagnosis and procedure codes but does collect drug detail information, including National Drug Code (NDC) and medicine name, as well as date filled and sources and amounts of payment. The MPC is not designed to yield national estimates. It is primarily used as an imputation source to supplement/replace household reported expenditure information.

3.0 Survey Management and Data Collection

MEPS HC and MPC data are collected under the authority of the Public Health Service Act. Data are collected under contract with Westat, Inc. (MEPS HC) and Research Triangle Institute (MEPS MPC). Data sets and summary statistics are edited and published in accordance with the confidentiality provisions of the Public Health Service Act and the Privacy Act. The National Center for Health statistics (NCHS) provides consultation and technical assistance.

As soon as data collection and editing are completed, the MEPS survey data are released to the public in staged releases of summary reports, micro data files, and tables via the MEPS Web site: meps.ahrq.gov. Selected data can be analyzed through MEPSnet, an on-line interactive tool designed to give data users the capability to statistically analyze MEPS data in a menu-driven environment.

Additional information on MEPS is available from the MEPS project manager or the MEPS public use data manager at the Center for Financing, Access, and Cost Trends, Agency for Healthcare Research and Quality, 540 Gaither Road, Rockville, MD 20850 (301-427-1406).

C. Technical and Programming Information

1.0 General Information

This public use data file contains data for each person with private health insurance reported in Rounds 3, 4, and 5 of Panel 17 and Rounds 1, 2, and 3 of Panel 18 (i.e., the rounds for the survey panels covering calendar year 2013) of the Medical Expenditure Panel Survey Household Component (MEPS HC). Released as an ASCII file (with related SAS, SPSS, and Stata programming statements and data user information) and in SAS transport format, this public use file (PUF) provides information collected on a nationally representative sample of the civilian noninstitutionalized population of the United States during the calendar year 2013. The HC-161 file (Person-Round-Plan Public Use File) contains records for persons insured through private establishments providing hospital/physician, Medigap, dental, vision, or prescription medication coverage and includes variables pertaining to managed care. The file contains 71 variables and has a logical record length of 223 with an additional 2-byte carriage return/line feed at the end of each record.

2.0 Data File Description

The Person-Round-Plan (PRPL) file for 2013 is a complex file of privately insured persons and their private health insurance plans and links to the jobs providing insurance. The PRPL file is designed to facilitate research on the sometimes complex and dynamic relationships between consumers and their private insurance. It is not a person-level file, and linking the PRPL file to a person-level file (such as HC-151, the Point-in-Time Public Use File, and HC-157, the Full-Year Population Characteristics File) requires users to make analytic decisions based on understanding the complexity of the PRPL file.

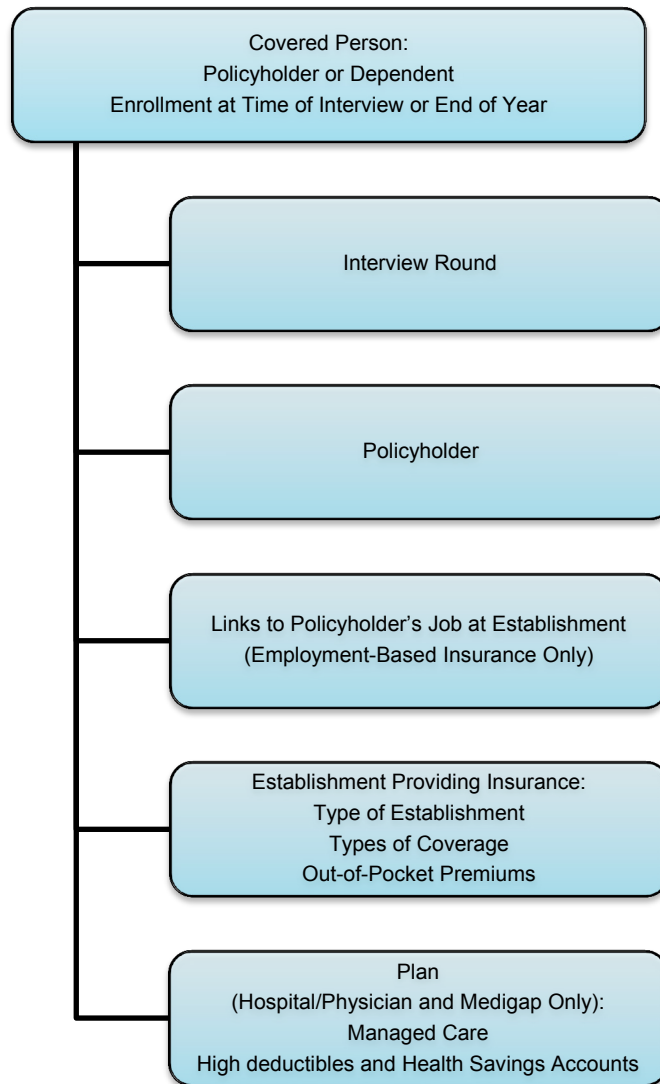
Records contain the following types of information (Figure 1):

- Covered person
 - Flags for whether the person is the policyholder or a dependent
 - Whether enrolled at time of interview
 - Months enrolled during the reference period of the interview
- Interview Round
- Policyholder
- Establishment providing insurance
 - Type of establishment (employer, union, insurance agent, etc.)
 - Types of coverage (hospital/physician, Medigap, dental, vision, prescription medication, Consolidated Omnibus Budget Reconciliation Act (COBRA), single or family)¹
 - Out-of-pocket premiums and employee contributions
- Plan (for hospital/physician and Medicare supplemental insurance coverage only)
 - Household reports of managed care

¹ No effort has been made to validate variables representing type of coverage with external sources.

- High deductibles and Health Savings Accounts (HSAs) for hospital/physician insurance coverage only
- Links to the job providing insurance (for employment-based insurance only, HC-158, the Jobs Public Use File)

**FIGURE 1
CONCEPTUAL OVERVIEW OF PRPL**



On the records for dependents, variables link to the *policyholder's* job providing insurance, rather than the dependent's job.

“Establishment” refers to the organization through which the policyholder obtains private insurance. The establishment may be an employer, a union, an insurance agent, an insurance company, a professional association, or another type of organization. Many questions in the MEPS HC instrument were asked in reference to the establishment providing insurance to the policyholder. For example, the MEPS HC asked about the “types of health insurance” or covered

services, such as hospital/physician and dental coverage, the policyholder gets through the establishment.

For each establishment, a “plan” is the insurance company or Health Maintenance Organization (HMO) or self-insured company from which the policyholder receives hospital/physician or Medicare supplemental (Medigap) coverage. For some focused analyses, it may be important to recognize that information collected at the establishment level does not necessarily pertain to the plan level. For example, if a policyholder obtains from the establishment two separate plans, a hospital/physician plan and a dental plan, then the dental plan may not have the same managed care characteristics as the hospital/physician plan.

2.1 Complex File Structure with Examples

The PRPL file is designed to reflect the sometimes complex and dynamic relationships between people and their private insurance. It allows maximum flexibility for researchers, but it also requires that they make analytical decisions in their research.

The PRPL file is a person-round-policyholder-establishment-level file. There is one unique record for each unique combination of establishment (source of private insurance), policyholder, interview round, and covered person (policyholder or dependent). Thus, the PRPL file contains at least one record for each person in each round with private health insurance, or 58,947 total records. The PRPL file contains records for persons insured through establishments providing hospital/physician, Medigap, dental, vision, or prescription medication coverage.

In most cases in this file, one person in the family has insurance from his or her employer, and this insurance covers everyone in the family. In this case, there is one record for each family member in each round, and each record flags the policyholder’s current main job and links to one job record in HC-158. However, other cases are more complex, and some hypothetical examples follow.

Multiple Establishments

- Juan and Maria are both employed parents, both have health insurance through their employers, and both parents choose family coverage. In this case, there are two PRPL records for each family member in each round.
- John and Jane are both employed parents. John has single coverage from his employer. Jane has family coverage from her employer. In this case, Jane and the children each have one PRPL record for each round. John has two records for each round.
- Jamie has Medicare and Medicare supplemental insurance. In this case, Jamie has one PRPL record in each round for the Medicare supplemental insurance. There is no record for Medicare, because it is public insurance.
- Arlene is a child living with her mother. Both have Medicaid. Arlene’s father, who does not live with them, has private insurance that covers Arlene. Arlene has one PRPL record in each round for the private insurance. There is no record for Medicaid, because it is public insurance.

No Private Insurance

- Paul is uninsured. In this case, Paul does not have any PRPL records.
- Mary has Medicaid instead of private coverage. In this case, Mary does not have any PRPL records.

Sources of Insurance: Employers and Other Establishments

- Dexter is an employed parent with family coverage through his current main job. In this case, each family member's PRPL record flags Dexter's current main job as the source of insurance, and each family member's PRPL record links to that job record in PUF HC-158.
- Claire is employed, but she does not have insurance through her job. Instead she buys a plan directly from an HMO. In this case, Claire's PRPL records do not flag her current main job, nor do they link to any job records in PUF HC-158.
- Fred has hospital/physician insurance through his employer, and he buys dental insurance through an insurance agent. In this case, Fred has two PRPL records, and only the employment-based insurance flags his current main job and links to a job record in PUF HC-158.

Policyholders Not in the Household

- Edith is a widow and has retiree insurance from her deceased husband's former job. In this case, Edith's PRPL record does not link to any employment information in the MEPS. There is also a PRPL record for Edith's deceased husband, where he is flagged as the policyholder and flagged as deceased, but this record does not link to any records on any PUFs.
- Matilda's parents are divorced. She lives with her father, but her insurance is through her mother's job. In this case, Matilda's PRPL record does not link to any employment information in the MEPS. There is also a PRPL record for Matilda's mother, where she is flagged as the policyholder and not residing in the Reporting Unit (RU), but this PRPL record does not link to any records on any PUFs.

Changes in Insurance

- Bob changes jobs between January 1st, 2013 and the date of his MEPS interview, and both jobs provide health insurance. In this case, Bob has two PRPL records for the round. EVALCOVR shows whether one or both plans covered Bob on the interview date.
- Julie quits her job in Round 1 (Panel 18) but pays her previous employer to continue her health insurance while she looks for another job in Round 2. In this case, Julie's Round 1 PRPL record flags her current main job as the source of her insurance and links to a job record in PUF HC-158. Julie's Round 2 PRPL record does not flag her current main job as the source of her insurance, but it links to the same job record from Round 1. Thus, the job variables from Round 1 are no longer current in Round 2, but the link exists for users.

2.2 Identifiers

Each record contains the following ID variables:

DUPERSID is the person identifier (either a dependent or a policyholder).

RN is the round of the interview in which the enrollment data were collected.

PHLDRIDX is the person identifier of the policyholder.

ESTBIDX is an ID number for the establishment – employer, union, insurance company, or other – i.e., the source of insurance coverage on the record.

EPRSIDX is a combination of ESTBIDX, PHLDRIDX, and RN and it uniquely identifies the insurance coverage that a policyholder obtains from an individual establishment.

EPCPIDX is a combination of DUPERSID and EPRSIDX, and it uniquely identifies each record.

JOBSIDX is a combination of the PHLDRIDX, a round identifier (RN), and a job number, and it uniquely identifies the policyholder’s job at the establishment that provided insurance (for employment-based coverage).

For each person covered by a policyholder-establishment combination, the PHLDRIDX, ESTBIDX, and EPRSIDX appear on each plan record for that coverage.

A person (DUPERSID) can be listed more than once on this file if (1) they are covered (as a policyholder or a dependent) by insurance policies from more than one establishment, or (2) they are covered in more than one round. Within each round, establishment-policyholder pairs (EPRSIDXs) can be listed more than once if the health plan a policyholder obtains from a given establishment also covers his/her dependents. As noted above, there is a PRPL record for each unique combination of establishment (source of insurance), round, and covered person (policyholder or dependent). The following table presents a hypothetical example that illustrates the relationship between the ID variables on this file.

ESTBIDX	DUPERSID	PHLDRIDX	RN	EPRSIDX	EPCPIDX	JOBSIDX
11	42	42	1	11421	1142142	42101
11	42	42	2	11422	1142242	42201
11	42	42	3	11423	1142342	42301
22	64	64	1	22641	2264164	64101
33	64	64	1	33641	3364164	-1
44	61	61	1	44611	4461161	61101
44	62	61	1	44611	4461162	61101
44	63	61	1	44611	4461163	61101

ESTBIDX	DUPERSID	PHLDRIDX	RN	EPRSIDX	EPCPIDX	JOBSIDX
55	71	71	1	55711	5571171	71102
55	71	71	2	55712	5571271	71102

The first three rows of the table represent a situation where a person (DUPERSID=42) is listed three times in the PRPL file because she obtains insurance from the same establishment in all three rounds. Since the person is the policyholder, her DUPERSID is the same as the PHLDRIDX, which is repeated in the EPRSIDX, EPCPIDX, and JOBSIDX.

The fourth and fifth rows of the table represent a situation where a person (DUPERSID=64) is listed twice in the PRPL file because she obtains insurance from more than one establishment. In this example, the second establishment is not an employer or union, so JOBSIDX is inapplicable (-1).

The sixth, seventh, and eighth rows of the table represent a situation where a policyholder and two dependents obtain coverage through the policyholder's employer (a unique establishment-policyholder pair within each round, EPRSIDX=44611). The policyholder's PHLDRIDX appears in the EPRSIDX and the JOBSIDX for all three covered persons.

The last two rows of the table represent a situation where a person is retired and has retiree insurance through a job that ended prior to 2013. In Panel 18, Round 1, the respondent reported the job from which the sample member retired, and MEPS does not ask about that job again. However, in each round we ask about the health insurance. So in Round 2 the JOBSIDX contains round number 1, when the jobs data were last collected.

Finally, note that EPCPIDX uniquely identifies each record on the file.

In order to conduct person-level analyses, it is necessary to identify all policies that cover each individual either as a policyholder or as a dependent. Since each *person* in the PRPL file is uniquely identified by the variable DUPERSID, person-level analyses can be conducted by examining all PRPL records containing each DUPERSID.

2.3 Adding the Characteristics of Covered Persons

The DUPERSID allows you to link on the age, sex, race, health status, or other person-level variables from the other HC files. However, this will result in multiple records per person, and estimates will not be nationally representative unless you use one PRPL record per person or summarize PRPL records to the person level (and use weights).

2.4 Adding the Policyholder's Characteristics

The PHLDRIDX allows you to link characteristics of the policyholder onto the records of every person covered by the plan. For example, suppose you wanted to study persons whose private employment-based insurance is through an employee working full time at a current main job as of the first interview of 2013 (Panel 18 Round 1 or Panel 17 Round 3). Then you would select PRPL records matching HC-151 (PITFLG=1) where the insurance is through a current main job (CMJINS=1) and [(PANEL=18 and RN=1) or (PANEL=17 and RN=3)]. From HC-151, select

the DUPERSID and HOUR13 variables and rename DUPERSID to PHLDRIDX. Merge HOUR13 onto the PRPL file by PHLDRIDX.

Some policyholders do not have records on HC-151 or HC-157. These include deceased policyholders and policyholders residing outside the RU. For these policyholders, PITFLG and FYFLG may be equal to 0, depending on when the policyholder left the RU. All of the covered person records for these establishment-policyholder pairs are flagged with DECPHLDR, OUTPHLDR, or NOPUFLG equal to 1. Deceased policyholders complicate the estimation of nationally representative statistics on active policies. For these establishment-policyholder pairs, users must choose a covered person with a positive weight. However, establishment-policyholder pairs where the policyholder resides outside the RU should not be included in estimates, because this will result in double counting, as RU members covering those outside the RU are already included.

2.5 Choosing PRPL Records for Your Research Question

In order to produce estimates from the data in this file, researchers must use the person (or family) level weights released in either of two previously released PUFs, HC-151 or HC-157. Researchers must consult the documentation for these PUFs for guidance on creating nationally representative estimates for different time periods.

Note that if there are multiple records per person (DUPERSID) when you merge on weights, you will double count some people, and your estimates will not be nationally representative. There are two solutions: select only one record per person, or aggregate information across PRPL records.

How you develop your analytical file depends on your research question. The PRPL file is designed to help answer a wide variety of research questions. AHRQ cannot anticipate all these questions, so this section provides examples of how to use the PRPL file for four research questions.

How many people were covered by two or more private hospital/physician insurance plans at the end of 2013?

Select the Panel 18 Round 3 and Panel 17 Round 5 records with PRIVCAT>0 and MSUPINSX ne 1 and EVALCOVR=1. Count the number of records for each person (DUPERSID). Create one person-level record for each DUPERSID that has the number of plans (PRPL records). Merge the count variable onto PUF HC-157 and use weights, strata, and PSUs to create nationally representative estimates.

How many people reported private dental coverage from an employer at the end of 2013?

Select the Panel 18 Round 3 and Panel 17 Round 5 records with DENTLINS=1 and PRIVCAT in (1, 4, 5) and EVALCOVR=1. Among these records, select one record for each person (DUPERSID). Merge each record onto PUF HC-157 and use weights, strata, and PSUs to create nationally representative estimates.

At the time of the first interview, how many private insurance policies for hospital/physician were not employment-based?

Select the Panel 18 Round 1 and Panel 17 Round 3 records with PRIVCAT in (2, 3, 99) and EVALCOVR=1. Select one record for each policyholder-establishment pair (EPRSIDX). To have a positive weight for the final count, we recommend choosing the covered person record of the policyholder (PHOLDER=1), unless the policyholder is deceased (DECPHLDR=1), in which case then the researcher should choose a different covered person's record. Merge each record onto PUF HC-151 and use weights, strata, and PSUs to create nationally representative estimates.

At the time of the first interview of 2013, how many people had insurance from jobs from which they retired?

Select the PRPL records for policyholders of employment-related insurance at the time of the first interview [(Panel 18 Round 1 or Panel 17 Round 3) and PHOLDER=1 and PRIVCAT=1 and EVALCOVR=1]. From the 2013 JOBS file, PUF HC-158, select the records with jobs from which the person retired (SUBTYPE=6 or RETIRJOB=1 or YLEFT=2 or YNOBUSN=2 or WHY_LEFT=3). Persons in Panel 17 may have reported retiring from a job in 2012, so, from the 2012 JOBS file, PUF HC-150, select the records with PANEL=17 and (SUBTYPE=6 or RETIRJOB=1 or YLEFT=2 or YNOBUSN=2 or WHY_LEFT=3). Combine the records from the two JOBS files, keeping only one record per JOBSIDX. Using the JOBSIDX, merge the selected JOBS records onto the selected PRPL records. Select the PRPL records with SUBTYPE=6 or RETIRJOB=1 or YLEFT=2 or YNOBUSN=2 or WHY_LEFT=3 or EMPLSTAT=2. Select one record for each DUPERSID. Merge each record onto PUF HC-157 and use weights, strata, and PSUs to create nationally representative estimates of the number of people with one of these PRPL records.

3.0 Data File Contents

3.1 ID Variables

In the MEPS Household Component, the definitions of Dwelling Units (DUs) and Group Quarters are generally consistent with the definitions employed for the National Health Interview Survey. The dwelling unit ID (DUID) is a five-digit random ID number assigned after the case was sampled for MEPS. The person number (PID) uniquely identifies all persons within the dwelling unit. The variable DUPERSID is the combination of the variables DUID and PID. The MEPS HC - PRPL file can be linked to other public use files such as MEPS HC-151 by using the DUPERSID.

PHLDRIDX is the person identifier (DUID + PID) of the policyholder of the private health insurance plan. Generally, the characteristics of the policyholder can be linked from person-level public use files by using the PHLDRIDX to match the DUPERSID on the person-level files. However, when the policyholder is deceased or resides outside the RU, then there are no person-level variables on public use files (unless the policyholder was alive and resided in the household at some point during the time periods covered by the interviews).

ESTBIDX is an ID number assigned to place of employment and to sources of insurance.

EPRSIDX is a combination of ESTBIDX, PHLDRIDX, and RN. In a few cases, more than one EPRSIDX may identify a policyholder-source of coverage pair. For example, when an RU splits, through divorce or because a child goes to college, each new RU separately reports insurance information, and hence MEPS cannot determine with certainty whether members in both RUs have the same policy. Although both RUs may report coverage through the same policyholder, the RUs will have different EPRSIDXs and ESTBIDXs. (The RU letter is embedded in the ESTBIDX and EPRSIDX.) For each RU (EPRSIDX), there is a PRPL record for the policyholder as a covered person, but for only one of the EPRSIDXs (the one in which the policyholder resides) is the policyholder coded as having coverage in the STATUS or EVALCOVR variables.

JOBSIDX is a combination of the PHLDRIDX, a round identifier (RN), and a job number, and it uniquely identifies the policyholder's job at the establishment that provided insurance (for employment-based coverage). The round identifier embedded in JOBSIDX is the round in which the job was last reported, which is not necessarily the round in which the insurance was last reported (for example, when the job ended but the insurance continued). JOBSIDX can be used to link on characteristics of the policyholder's job providing insurance from the Jobs public use file (HC-158).

3.2 Person Variables

There are four person-level variables. Binary variables indicate whether the person is the policy holder (PHOLDER) or a dependent (DEPNENT) on the coverage through the establishment. The variable PITFLG indicates whether the person has a record on HC-151, and FYFLG indicates whether the person has a record on HC-157.

There are 25 person-round-level variables. EVALCOVR is a binary variable indicating whether the person was covered by insurance from the establishment at the time of interview (Rounds 3 and 4 of Panel 17 and Rounds 1 and 2 of Panel 18) or on December 31 (Round 5 of Panel 17 and Round 3 of Panel 18). The variables STATUS1-STATUS24 indicate whether the respondent reported the person was covered by insurance from the establishment for at least one day during the month. For Panel 18, STATUS1-STATUS12 represent coverage from January 2013 through December 2013, and STATUS13-24 are inapplicable because this information is in the year 2014. For Panel 17, STATUS13-STATUS24 represent coverage from January 2013 through December 2013, and STATUS1-STATUS12 are inapplicable because this information is in the year 2012. Coverage is reported only for the interview reference period. For example, if a person from Panel 18 was first interviewed in February and reported she was covered in January and February, and then in the second interview in August she reported she was covered from March through August, then the PRPL record for the first round will have STATUS1 and STATUS2 set to 1 and the rest set to inapplicable, and the PRPL record for the second round will have STATUS3 through STATUS8 set to 1 and the rest set to inapplicable.

3.3 Policyholder Variables

The values of three variables describing the policyholder do not vary across the records of the persons covered by the plan, regardless of whether the covered person is the policyholder. The variable DECPHLDR indicates the policyholder is deceased. The variable OUTPHLDR

indicates the policyholder resides outside the RU. In each case, there are no person-level records on a person-level PUF, even though the PRPL file has a record for the policyholder as a covered person (that is, a record where PHOLDER=1). The variable NOPUFLG indicates there is another reason the policyholder does not have a record on a person-level PUF. The purpose of these flags is to explain any difficulty users may have linking policyholder information onto the PRPL file. These variables do not, however, measure mortality or policyholders' leaving the household, which should instead be obtained from the PSTATS variables on the person-level files. (For example, policyholders who die between Round 1 (Panel 18) or 3 (Panel 17) and the end of 2013 will have records on HC-151 and HC-157, and PITFLG and FYFLG will be set to 1.)

3.4 Establishment Variables

The values of establishment-level variables do not vary across the records of the persons insured through the policyholder-establishment pair.

3.4.1 Employers and Other Establishments

The type of establishment providing coverage (TYPEFLAG) is on the record. This variable is the source for types of establishments providing employer-based and non-employer-based, private coverage. In this file, TYPEFLAG includes the answers to HX03 and HX23. TYPEFLAG reflects the type of establishment when the establishment was first reported, but it is not necessarily updated. For example, users must link to the jobs file to obtain information on employees who left their job since the interview in which the employer was first reported (see Section 3.6). For employment-based coverage through both an employer and a union (such as insurance through a labor-management committee), for most cases, only the coverage record through the employer establishment is retained. These cases are identifiable through the PROVDINS variable on the JOBS File. In some cases, the union and employer may provide different types of coverage. It is important for researchers to review coverage type variables - HOSPINSX, MSUPINSX, PMEDINS, DENTLINS, VISIONIN, and COBRA - to determine which establishment would be most helpful in answering analytic questions.

As of Panel 14 Round 5 and Panel 15 Round 3, "High Risk Pool" (TYPEFLAG = 20) was added to the list of sources of coverage at HX03 and HX23, where information is collected about purchased insurance associated with a self-employed job and firm-size = 1, and privately purchased health insurance not obtained through an employer.

Note that through Panel 12 Round 1, 'Health Insurance Purchasing Alliance' was a source of coverage in HX03 (PURCHTYP = 4). Through Panel 12 Round 2, it was also a source of coverage at HX23 (PRIVINS = 2). It was removed as a source in subsequent rounds because it is ambiguous. No records created in subsequent panels will show 'Health Insurance Purchasing Alliance' as a source of coverage.

Note that when TYPEFLAG has a value of 10, "spouse's/deceased spouse's previous employer," and the spouse resides in the RU, and the respondent selects the spouse as the policyholder at HP11, then the policyholder's ID is the spouse's ID.

3.4.2 Types of Coverage through the Establishment

The establishments in the PRPL file provide private health insurance covering hospital/physician, Medicare supplemental insurance, dental, vision, or prescription medication insurance. The variable PRIVCAT identifies the type of source for hospital and physician or Medicare supplemental insurance. HOSPINSX and MSUPINSX are edited establishment-policyholder flags for whether the policyholder has physician/hospital and Medigap coverage, respectively, through the establishment. However, even when PRIVCAT indicates there is either hospital/physician or Medigap coverage, both HOSPINSX and MSUPINSX may have missing values. Note also that both HOSPINSX and MSUPINSX may be coded “yes” (1) on the same record. DENTLINS, VISIONIN, and PMEDINS flags indicate the establishment provides coverage for dental care, vision care, and prescription medications, respectively. Below are examples of how to use these variables to identify types of insurance:

<u>Identifying Types of Insurance</u>	<u>Variable and Values</u>
Hospital and physician or Medicare supplemental insurance	PRIVCAT in (1, 2, 3, 4, 5, 99)
Medicare supplemental insurance	MSUPINSX = 1
Hospital and physician insurance	PRIVCAT in (1, 2, 3, 4, 5, 99) & MSUPINSX ne 1
Dental insurance	DENTLINS = 1

The variable COBRA is a flag for whether the respondent reported that the coverage was obtained through the requirements of the COBRA of 1986. This act requires that certain employers allow some former employees to continue their employment-based coverage by paying the employer the premium (U.S. Department of Labor). This flag does not, however, indicate all the coverage through former employers, which can be determined using TYPEFLAG and links to former jobs in the JOBS file. COBRA is set to “yes” if any of the three following conditions are met:

1. The respondent said insurance from a previous job is the source of coverage and the respondent answered yes to either HP14 or OE14 (depending on when the job ended):

Some employer insurance can be continued after leaving the company by continuing to pay the premium. This is sometimes referred to as a COBRA plan.

{Is/Was} (POLICYHOLDER)'s (ESTABLISHMENT) insurance like that {on (END DATE)}?

Or

Did that health insurance continue through COBRA?

2. The respondent said COBRA is the source of insurance through a self-insured firm with firm-size one (HX03)
3. The respondent said COBRA is the source of insurance not elsewhere reported (HX23)

COBRA is set to “no” (2) when the insurance was not COBRA coverage. COBRA is set to “inapplicable” (-1) when the coverage was not employment-based, and when the coverage was through a current job. COBRA is set to “not ascertained” (-9) for retirement jobs first reported in the employment section in Round 1 (EM80), retirement jobs first reported in the employment section for new RU members (EM80), and insurance through unions reported in the insurance section (HX23).² In a few cases, self-employed persons with firm size = 1 reported buying coverage through a previous job, and these cases are coded as yes or no, while other insurance through self-employment with firm size = 1 is coded “inapplicable.”

The variable COVTYPIN flags whether coverage was single or family, based on the number of persons covered in the RU, whether the establishment’s insurance covers someone outside the household, and whether the policyholder is outside the household. For Panel 18 Rounds 1 and 2, and Panel 17 Rounds 3 and 4, the number of covered persons was measured at the time of the interview (or end of the reference period). For Panel 18 Round 3 and Panel 17 Round 5 the number is as of December 31st. Beginning with the 2010 data, when coverage ceased before the end of the reference period for every co-residing family member, COVTYPIN is set based on the number of persons ever covered during the round. The variable COVROUT indicates whether out-of-RU persons were covered by the plan.

3.4.3 Out-of-Pocket Premiums

In the MEPS, questions on out-of-pocket premiums were asked of all policyholders with private insurance coverage for all establishments. The variable OOPPREM provides the monthly out-of-pocket premium paid by the policyholder for coverage through the establishment for Panel 18 as of Round 1 and Panel 17 as of Round 3. OOPELIG flags these covered-person-policyholder-establishment triples. OOPPREMX provides an edited version of OOPPREM and the variable OOPFLAG identifies which records were edited. OOPX12X is provided as a convenience to researchers and contains the edited monthly out-of-pocket premium amount multiplied by 12, representing the annual amount.

The edited variable OOPPREMX includes imputed values for records which contained missing values as well as for a limited number of records with values that were implausibly low or high. For policyholders in Panel 17 Round 3 with missing out-of-pocket premiums, if coverage is through a continuation job which was originally reported in Panel 17 Round 1 and type of coverage (COVTYPIN) is the same as in Panel 17 Round 1, then OOPPREMX is set equal to OOPPREMX from Panel 17 Round 1 times the growth rate in out-of-pocket premiums from 2012 to 2013. The growth rate is assigned by type of coverage and is based on private sector out-of-pocket premiums reported in the MEPS Insurance Component in 2012 and 2013. For all other

² In these three cases, the survey was not designed to ascertain whether the coverage was COBRA or not, but the variable is coded as “not ascertained” to help analysts.

cases, imputed values were assigned by one of several imputation methods - hot deck imputation or MEANS substitution, both of which consider the following person/plan characteristics: source of insurance (private employer, state and local government, federal government, Medigap, other non-group policy), age of policyholder, educational attainment of policyholder, number of persons covered by the policy, if there is a high family deductible, size of employer, region and MSA, presence of supplemental benefits such as drug, dental and vision, and active or retired job.

Both OOPPREM and OOPPREMX are coded as zero for group policyholders who reported paying none of their premium.

OOPPREM was created using the out-of-pocket amount reported and the frequency of payments (HX61, HX62, and HX62OV1):

For the coverage through (ESTABLISHMENT), does anyone in the family pay all of the premium or cost, some of the premium or cost, or none of the premium or cost?

[Do not include the cost of any co-payments, coinsurance or deductibles anyone in the family may have had to pay.]

[Do include any contribution made to the plan as part of a paycheck.]

How much {(do/does)/did} (POLICYHOLDER) pay for the (ESTABLISHMENT) coverage?

{Is/Was} that per year, per month, per week, or what?

PREMLEVX shows whether OOPPREM was the full premium or part of it. When the respondent reported the person paid some or none of the premium, the variables BYFED, BYSTATE, BYLOCAL, BYSOMGOV, BYEMPL, BYUNION, BYOTHER indicate who paid the rest of the premium.

For the entire set of 13 variables (OOPPREM, OOPPREMX, OOPX12X, OOPELIG, OOPFLAG, PREMLEVX, BYFED, BYSTATE, BYLOCAL, BYSOMGOV, BYEMPL, BYUNION, BYOTHER), the same values are reported on the records of each dependent person covered through the policyholder's establishment, but the policyholder paid only once per establishment-policyholder.

3.5 Plan Variables

The values of plan-level variables do not vary across the records of the persons insured through the policyholder-establishment pair.

Beginning in Panel 15 Round 3 and Panel 16 Round 1, the variables ANNDEDCT (HX63A/OE09B/OE23B/OE35B) and HSAACCT (HX63B/OE09C/OE23C/OE35C) were added to capture whether a private health plan has a high deductible and whether that plan is associated with a Health Savings Account (HSA) or a similar special fund/account. These questions are asked during the first report and during the review of insurance in Rounds 1 and 3 for all private

plans except for individuals covered by disability, workers' compensation, accident insurance, or any combination thereof, and/or individuals covered by Medicare supplement/Medigap plans.

3.5.1 Household Reports of Managed Care

The variable UPRHMO identifies records for HMO coverage when the household respondent reported that the insurance was purchased through an HMO, reported the insurance company was an HMO, or described the plan as an HMO. In all cases the respondent answered a question using the term "HMO." UPRHMO is set to "yes" if any of the three following conditions are met:

1. If the respondent reported insurance purchased directly through an HMO (HX03, HX23)
2. If the respondent identified the type of insurance company as an HMO (HX49, HX51)
3. If the respondent answered yes to the following question (MC01):

{Is/Was} (POLICYHOLDER)'s {NAME OF INSURER BEING LOOPED ON} an HMO {as of (END DATE)}? {When answering this question, do not consider (POLICYHOLDER)'s insurance through Medicare.}

[With an HMO, you must generally receive care from HMO physicians. For other doctors, the expense is not covered unless you were referred by the HMO or there was a medical emergency.]

UPRHMO is set to "no" when the plan was not an HMO. UPRHMO is set to "inapplicable" when the plan was not hospital/physician or Medicare supplemental coverage.

As of Panel 17 Round 5 and Panel 18 Round 3, a series of variables regarding managed care and private insurance were dropped from the interview. These include questions MC02 – MC05 from the Managed Care section. Consequently, the following variables have been removed from this delivery: UPRMNC, DRLIST, VISITPAY.

3.5.2 Family Experience with Plan

Starting in Panel 17 Round 4 and Panel 18 Round 2, questions regarding the family's experience with a private insurance plan were removed from the interview. Consequently, the following variables have been removed from this delivery: SATELIG, GTDOCPRB, APRVTRET, APRVDLAY, LOOKINF, PRBFDINF, CUSTSERV, PRBCSTSV, PAPRWRK, PRBPPRWK, RATEPLAN.

3.5.3 Change in Plan Name

The variable NAMECHNG indicates whether the name of the plan obtained through the establishment changed from the prior round. For Panel 18 Rounds 2 and 3 and Panel 17 Rounds 3, 4 and 5, NAMECHNG is set to "yes" if someone in the RU had coverage through the

establishment in the prior round and still had coverage at the time of the interview, and the respondent answered yes to the following question (OE09, OE23, OE35):

{Last time we recorded that (POLICYHOLDER) (were/was) covered by {INSURER OF ESTAB-PERS-INSURER TRIPLE ON PREV RD INT DT}.}

{Since (START DATE), has there been/Between (START DATE) and (END DATE), was there} any change in the plan name of the health insurance (POLICYHOLDER) (have/has) through (ESTABLISHMENT)?

If the respondent answered no, then NAMECHNG is coded “no”. If no one in the RU had coverage through the establishment in the prior round, no one had coverage at the time of the interview, or it is a Round 1 record, then NAMECHNG is set to “inapplicable.”

When the respondent answered yes, then MEPS HC asked about types of benefits and managed care, which are updated on the PRPL file.

There are two important caveats to this variable. First, changes in plan name do not necessarily imply the plan itself changed. For example, the plan may have merely changed its name for marketing purposes. Second, the variable NAMECHNG pertains only to changes in plan names at the same establishment; a policyholder may switch plans if she or he switches the establishment (including employer) through which she or he obtains insurance. Switches in EPRIDs and ESTBIDs between rounds indicate those other types of changes.

3.6 Links to Job Providing Insurance

For employment-based insurance, there are two variables linking the insurance to details about the jobs through which the insurance was obtained, CMJINS and JOBSIDX.

Most people with employment-based insurance have it through current main jobs. The variable CMJINS indicates whether the insurance is through a current main job. When insurance is through a previous job or through self-employment and there is only one employee, then CMJINS is set to “no”. When the insurance is not employment-based, CMJINS is set to “inapplicable.” Generally, many edited and imputed variables describing policyholders’ current main jobs are available on HC-151 and HC-157. If CMJINS = 1 and the policyholder has a PUF record (PITFLG or FYFLG = 1), then edited and imputed current main jobs variables are available on the indicated PUF.

For other types of jobs (for example, former jobs), the JOBS files (HC-158 and HC-150) contain edited variables describing the job. JOBSFILE indicates which jobs file contains information about the source of coverage. In most cases, information about the job is in HC-158, but for Panel 17, if the job ended before 2013, information about the job is contained in HC-150. JOBSIDX is the link to the record for the job in the JOBS file that is the source of coverage. This link is slightly complicated, because the variable JOBSINFR indicates links that were inferred, rather than obtained directly from the respondent. Links were inferred because, when persons reported employment-based health insurance at the end of the insurance section (HX23), the plan was not always easily linked to a specific job. Most of these cases were directly linked by

establishment IDs, but others required inferences based on whether the insurance was through a current or former job (EMPLSTAT), and some could not be linked at all.

The variable EMPLSTAT contains the answers to question HP12, which is asked only about the policyholders of employment-related insurance first mentioned at the end of the insurance section of the interview (HX23), and it is asked only in the interview round where the insurance was first reported. Thus, it is useful only for the cases where links to jobs could not be inferred. Because it does not contain updated information about the policyholder's employment at each interview, the value is set to -2 in subsequent rounds, and users can link back to the PRPL record from the prior rounds, using the DUPERSID, ESTBIDX, and PHLDRIDX to get the original information.

4.0 Linking to Other Files

4.1 National Health Interview Survey

The set of households selected for MEPS is a subsample of those participating in the National Health Interview Survey (NHIS), thus, each MEPS panel can be linked back to the previous year's NHIS public use data files. For information on obtaining MEPS/NHIS link files please see meps.ahrq.gov/data_stats/more_info_download_data_files.jsp.

4.2 Longitudinal Analysis

Panel-specific longitudinal files are available for downloading in the data section of the MEPS Web site. For each panel, the longitudinal file comprises MEPS survey data obtained in Rounds 1 through 5 of the panel and can be used to analyze changes over a two-year period. Variables in the file pertaining to survey administration, demographics, employment, health status, disability days, quality of care, patient satisfaction, health insurance, and medical care use and expenditures were obtained from the MEPS full-year Consolidated files from the two years covered by that panel.

For more details or to download the data files, please see Longitudinal Weight Files at meps.ahrq.gov/data_stats/more_info_download_data_files.jsp.

5.0 Using MEPS Data for Trend Analysis

MEPS began in 1996, and the utility of the survey for analyzing health care trends expands with each additional year of data. However, it is important to consider a variety of factors when examining trends over time using MEPS. Statistical significance tests should be conducted to assess the likelihood that observed trends are not attributable to sampling variation. The length of time being analyzed should also be considered. In particular, large shifts in survey estimates over short periods of time (e.g. from one year to the next) that are statistically significant should be interpreted with caution, unless they are attributable to known factors such as changes in public policy, economic conditions, or MEPS survey methodology.

With respect to methodological considerations, in 2013 MEPS introduced an effort to obtain more complete information about health care utilization from MEPS respondents with full implementation in early 2014 at the start of the final rounds of data collection for 2013. This

effort likely resulted in improved data quality and a reduction in underreporting in 2013, but could have some modest impact on analyses involving trends in utilization across years.

There are also statistical factors to consider in interpreting trend analyses. Looking at changes over longer periods of time can provide a more complete picture of underlying trends. Analysts may wish to consider using techniques to evaluate, smooth or stabilize analyses of trends using MEPS data such as comparing pooled time periods (e.g. 1996-97 versus 2012-13), working with moving averages, or using modeling techniques with several consecutive years of MEPS data to test the fit of specified patterns over time. Finally, researchers should be aware of the impact of multiple comparisons on Type I error. Without making appropriate allowance for multiple comparisons, undertaking numerous statistical significance tests of trends increases the likelihood of concluding that a change has taken place when one has not.

References

U.S. Department of Labor. Employee Benefits Security Administration. 2006. An Employee's Guide to Health Benefits under COBRA, the Consolidated Omnibus Budget Reconciliation Act of 1986. Washington, DC. [Available online at: www.dol.gov/ebsa/pdf/cobraemployee.pdf]

D. Variable-Source Crosswalk

VARIABLE TO SOURCE CROSSWALK

FOR MEPS PUBLIC USE FILE HC-161

Health Insurance Variables - Source

Variable	Description	Source
EPCPIDX	UNIQUE RECORD IDENTIFIER (EPRSIDX + DUPERSID)	CONSTRUCTED
DUPERSID	PERSON IDENTIFIER (EITHER DEPENDENT OR POLICYHOLDER)	CONSTRUCTED
PHLDRIDX	PERSON IDENTIFIER OF THE POLICYHOLDER	CONSTRUCTED
ESTBIDX	ESTABLISHMENT ID	CONSTRUCTED
EPRSIDX	UNIQUELY IDENTIFIES INSURANCE COVERAGE THAT A POLICYHOLDER OBTAINS FROM ESTABLISHMENT (ESTBIDX+PHLDRIDX+RN)	CONSTRUCTED
PANEL	PANEL NUMBER	CONSTRUCTED
RN	ROUND NUMBER	CONSTRUCTED
JOBSIDX	JOB IDENTIFIER	CONSTRUCTED
JOBSINFR	JOBSIDX INFERRED RATHER THAN REPORTED ID	CONSTRUCTED
JOBSFILE	PUF NUMBER WITH JOBSIDX	CONSTRUCTED
PITFLG	PERSON IN POINT-IN-TIME PUF	CONSTRUCTED
FYFLG	PERSON IN FY PUF	CONSTRUCTED
CMJINS	CMJ AS THE SOURCE OF PLAN: 1 YES, 2 NO	CONSTRUCTED
EMPLSTAT	POLICYHOLDER EMPLOYMENT STATUS	HP12
PHOLDER	POLICY HOLDER	HP09, 11
DEPNNT	DEPENDENT OF POLICY HOLDER	CONSTRUCTED
EVALCOVR	COVERED @ INTERVIEW OR 12/31	HQ01, 02
STATUS1 – STATUS24	STATUS - MONTH 1 THROUGH STATUS - MONTH 24	HQ01, 02, 03, 04, 05
DECPHLDR	DECEASED POLICYHOLDER FLAG: 1 YES, 2 NO	CONSTRUCTED
OUTPHLDR	OUT-OF-RU POLICYHOLDER FLAG	CONSTRUCTED
NOPUFLG	PHLDR NOT IN FULL YEAR OR PIT PUF	CONSTRUCTED

Variable	Description	Source
COVROUT	POLICY COVERS PERS NOT IN RU	HP16, 17; OE08A, 22A, 32, 34A
TYPEFLAG	TYPE OF ESTABLISHMENT	HX03, 23; EM06, 08, 12, 14, 19, 22, 23, 28, 31, 32, 41, 44, 45, 57, 58, 71, 74, 75, 83, 86, 87, 118, 120
PRIVCAT	CATEGORY OF PRIVATE COVERAGE	CONSTRUCTED
HOSPINSX	TYPE OF HI GOTTEN: HOSPITAL/HMO (EDITED)	HX48
MSUPINSX	TYPE OF HI GOTTEN: MEDIGAP (EDITED)	HX48
DENTLINS	TYPE OF HI GOTTEN: DENTAL	HX48
VISIONIN	TYPE OF HI GOTTEN: VISION	HX48
PMEDINS	TYPE OF HI GOTTEN: PRESCRIPTION DRUG	HX48
COBRA	COBRA COVERAGE: 1=YES, 2=NO	CONSTRUCTED
COVTYPIN	COVERAGE @INTVW: 1=SINGLE, 2=FAMILY	HP15, 16, 17
OPELIG	FLAG: POLICYHOLDER ESTB HAS PREMIUM	CONSTRUCTED
OOPREM	MONTHLY OUT-OF-POCKET PREMIUM	HX61, 62
OOPREMX	MONTHLY OUT-OF-POCKET PREMIUM (ED/IMP)	CONSTRUCTED
OOPX12X	ANNUAL OUT-OF-POCKET PREMIUM (ED/IMP)	CONSTRUCTED
OOPFLAG	OOPREMX EDIT/IMPUTATION FLAG	CONSTRUCTED
PREMLEVX	HOW MUCH OF PREMIUM PAID BY FAM (ED)	HX61, 62
BYFED	FEDERAL GOVT PAID FOR PRIV PLAN PREMIUM	HX63
BYSTATE	STATE GOVT PAID FOR PRIV PLAN PREMIUM	HX63
BYLOCAL	LOCAL GOVT PAID FOR PRIV PLAN PREMIUM	HX63
BYSOMGOV	SOME GOVT PAID FOR PRIV PLAN PREMIUM	HX63
BYEMPL	EMPLOYER PAID FOR PRIV PLAN PREMIUM	HX63

Variable	Description	Source
BYUNION	UNION PAID FOR PRIV PLAN PREMIUM	HX63
BYOTHER	OTHER PAID FOR PRIV PLAN PREMIUM	HX63
ANNDEDCT	ANNUAL DEDUCTIBLE	HX63A, OE09B, 23B, 35B
HSAACCT	HSA W/THIS PLAN	HX63B, OE09C, 23C, 35C
UPRHMO	HMO COVERAGE (FROM PRPL)	CONSTRUCTED
NAMECHNG	HAS THERE BEEN A CHANGE IN PLAN NAME	OE09, 23, 35