



AGENCY FOR HEALTHCARE RESEARCH AND QUALITY



MEPS-HC Prescribed Medicines (PMED) File

Salam Abdus, PhD

PMED File Structure

- Each record represents a unique instance of prescribed medicine acquisition (fill or refill) and the characteristics of the drug.
- File includes medicines prescribed, obtained, and reported.
- The file incorporates data collected in the Household and Pharmacy Components (a subcomponent of the Medical Provider Component).

Household Component (HC)

- **Medicine name**
- **Number of times acquired in the round**
- **Associated condition(s)**
- **Date first used**
- **Pharmacy information**

Pharmacy Component (PC)

- Requires written permission from household members
- Involves telephone and mail contact with pharmacy
- Asks for “patient profile” to include:
 - Drug name
 - National Drug Code (NDC) number
 - Drug characteristics
 - Payers and amounts of payment

Editing HC and PC Data

- **Household Component: Number of fills**

- **Pharmacy Component**
 - **Missing NDC number**
 - **Missing third-party payer (based on HC)**
 - **Missing or unrealistically low or high prices**
 - **Missing payments**

Combining HC and PC

- No common identifier is shared by HC and PC.
- A code (Generic Product Identifier, or GPI) is assigned to each HC and PC drug to facilitate matching.
 - Machine (70%) and human coders (30%) for HC
 - NDC (95%) and human coders (5%) for PC
- Post-match editing is performed.
- Utilization is based on household data.
- Payments are based almost entirely on pharmacy data.

Drug Characteristics (PC)

Characteristics included for each acquisition:

- Medication name
- NDC number
- Quantity dispensed (10, 30, 50, . . .)
- Form (capsule, tablet, liquid, cream, . . .)
- Strength (10, 200, . . .)
- Unit of measurement for form (ounces . . .)
- Unit of measurement for strength (mg, mL, . . .)

Other Variables

Additional information included for each acquisition

- Round
- When the drug was first taken
- Pharmacy type(s)
- Condition(s) associated with the drug (by linking with the medical conditions file)
- Days supplied (since 2010)
- Sources and amounts of payment
- Total payment

Record Identifier Variables

- **RXRECIDX**—Unique identifier for each record in the file
- **LINKIDX**—Drug-round-level ID that can be used to link a prescribed medicine event to other MEPS event files and to the Medical Conditions Files
- **DRUGIDX/RXNDC**—Drug-level IDs

DUPERSID	DRUGIDX	PURCHRD	LINKIDX	RXRECIDX
2310001101	2310001101002	1	2310001101002103	2310001101002103001
2310001101	2310001101002	1	2310001101002103	2310001101002103002
2310001101	2310001101002	2	2310001101002203	2310001101002203001

How to link PMED file with other files

- What's New
- Mailing List
- Discussion Forum
- Participants' Corner

- ☐ **Household Component Full-Year files** ⓘ
Expenditure and utilization data for the calendar year from several rounds of data collection.
 - ☐ [Full-Year Consolidated Data files](#)
 - ☐ [Full-Year Population Characteristics files](#)
 - ☐ [Medical Conditions files](#)
 - ☐ [Risk Adjustment Scores files](#)
 - ☐ [Employment Variables file](#)
 - ☐ [Jobs files](#)
 - ☐ [Person Round Plan files](#)
 - ☐ [Longitudinal Data files](#)
 - ☐ [Supplemental Variables files \(1996-2000\)](#)
 - ☐ [Health Insurance Plan Abstraction file \(1996\)](#)
 - ☐ [Long Term Care file \(1998\)](#)
- ☐ **Household Component Event files** ⓘ
~~Data for the calendar year on unique~~ household-reported medical events.
 - ☐ [Prescribed Medicines files](#)
 - ☐ [Dental Visits files](#)
 - ☐ [Other Medical Expenses files](#)
 - ☐ [Hospital Inpatient Stays files](#)
 - ☐ [Emergency Room Visits files](#)
 - ☐ [Outpatient Visits files](#)
 - ☐ [Office-Based Medical Provider Visits files](#)
 - ☐ [Home Health files](#)
 - ☐ [Appendix to MEPS Event files](#)

PMED Files

Condition-event link file (CLINK) and PMED-event link file (RXLINK)

Linking PMED file to Medical Conditions file

PMED File

DUPERSID	DRUGIDX	PURCHRD	LINKIDX	RXRECIDX
2310001101	2310001101002	1	2310001101002103	2310001101002103001
2310001101	2310001101002	1	2310001101002103	2310001101002103002
2310001101	2310001101002	2	2310001101002203	2310001101002203001

CLINK File

DUPERSID	CONDIDX	EVNTIDX	EVENTYPE
2310001101	2310001101001	2310001101002103	8
2310001101	2310001101001	2310001101002203	8
2310001101	2310001101002	2310001101200501	1

Medical Conditions File

DUPERSID	CONDIDX	ICD10CDX
2310001101	2310001101001	Z13
2310001101	2310001101002	I10

- In Condition link file, EVNTIDX are the same as LINKIDX for PMED events (EVENTYPE=8)
 - Merge the link file with PMED file using the LINKIDX variable, after renaming EVNTIDX as LINKIDX in the link file.
 - Merge with the Medical Conditions file using the CONDIDX variable

Linking PMED file to Other Event Files

PMED File

DUPERSID	DRUGIDX	PURCHRD	LINKIDX	RXRECIDX
2310001101	2310001101002	1	2310001101002103	2310001101002103001
2310001101	2310001101002	1	2310001101002103	2310001101002103002
2310001101	2310001101002	2	2310001101002203	2310001101002203001

RX Link File

DUPERSID	LINKIDX	EVNTIDX	EVENTTYPE
2310001101	2310001101002103	2310001101200501	1

OB File

DUPERSID	EVNTIDX	VSTCTGRY
2310001101	2310001101200501	2

- Merge RX Link File with PMED File using the LINKIDX variable
- Merge with other event files using EVNTIDX (Office-based Medical Provider Visits file in the example above)

Multum Lexicon Variables

- **Each record has three types of Multum Lexicon variables:**
 - PREGCAT (pregnancy category)
 - TCn (therapeutic class: 1, 2, and 3)
 - TCnSn (therapeutic sub-class)
 - TCnSn_n (therapeutic sub-sub-class)
 - RXDRGNAM (beginning in 2013)
- **For 2013 and earlier, RXDRGNAM and corrected TC and PREGCAT variables can be found as an addendum file at the MEPS website (MEPS HC-068: Multum Lexicon Addendum Files to MEPS Prescribed Medicines Files 1996–2013).**

PMED File Peculiarities

- **Different meanings of imputation flags**
 - **RXFLG**
 - **PCIMPFLG**
 - **IMPFLAG**
 - **INPCFLG**

- **No total charge variable**
 - ▶ **No rebate or discount information**

- **No date of service**

Trend Analysis

- **Beginning in 1996, the PMED file has been released yearly.**
- **How to interpret year-to-year changes?**
 - **Policy change**
 - **Other changes (e.g., demographics)**
 - **Change in MEPS PMED data editing methodology (especially 2007–2008 and 2017)**
 - **MEPS instrument design change (since spring of 2018)**

Trend Analysis (continued)

- Be cautious with the types of comparisons you make before and after 2007/2008 and before and after 2017/2018.
- Consider techniques to smooth or stabilize trends, such as pooling time periods.
- Read the documentation for each year of data you are using.
- Read Methodology Report #29 (https://www.meps.ahrq.gov/mepsweb/data_stats/PubProdResults_Details.jsp?pt=Methodology+Report&opt=2&id=1132).

Statistical Reports and Applied Research



AHRQ regularly produces and posts findings from the PMED data.

- **Statistical Briefs**

Ding, Y., and Miller, G. E. *Total Expenses, Total Utilization, and Sources of Payment for Outpatient Prescription Opioids in the U.S. Adult Civilian Noninstitutionalized Population, 2017*. Statistical Brief #529. April 2020. Agency for Healthcare Research and Quality, Rockville, MD. https://www.meps.ahrq.gov/data_files/publications/st529/stat529.pdf

Carroll, W. A., Miller, G. E., and Hill, S. C. *Out-of-Pocket Spending for Retail Prescribed Drugs by Age and Type of Prescription Drug Coverage, 2009 to 2018*. Statistical Brief #532. December 2020. Agency for Healthcare Research and Quality, Rockville, MD. https://www.meps.ahrq.gov/data_files/publications/st532/stat532.pdf

- **Methodology Reports**

Hill, S. C., Roemer, M., and Stagnitti, M. N. *Outpatient Prescription Drugs: Data Collection and Editing in the 2011 Medical Expenditure Panel Survey*. Methodology Report #29. March 2014. Agency for Healthcare Research and Quality, Rockville, MD. https://www.meps.ahrq.gov/data_files/publications/mr29/mr29.pdf

- **Research Findings**

Ding, Y., Miller, G.E., and Hill, S. C.. *Pre-COVID-19 Retail Use and Expenditures for Drugs That Were Subsequently Used to Treat COVID-19*. Research Finding #49. July 2021. Agency for Healthcare Research and Quality, Rockville, MD. https://meps.ahrq.gov/data_files/publications/rf49/rf49.pdf

Thank you!



Salam.Abdus@ahrq.hhs.gov