

# MEPS-HC Prescribed Medicines (PMED) File

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## **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/mail/email contact with the 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

### **Multum Lexicon Variables**



- Each record has two types of Multum Lexicon variables:
  - TCn (therapeutic class: 1, 2, and 3)
    - TCnSn (therapeutic sub-class)
    - TCnSn\_n (therapeutic sub-sub-class)
  - RXDRGNAM (beginning in 2013)
- Drugs can have multiple therapeutic classes if they are combinations of active ingredients.
- For 2013 and earlier, RXDRGNAM and TC variables can be found as an addendum file at the MEPS website (MEPS HC-068).

## **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 the Medical Conditions Files
- DRUGIDX/RXNDC Drug-level IDs

DUPERSID	DRUGIDX	PURCHRD	LINKIDX	RXRECIDX
2710001101	2710001101002	1	2710001101002103	2710001101002103001
2710001101	2710001101002	1	2710001101002103	2710001101002103002
2710001101	2710001101002	2	2710001101002203	2710001101002203001

# How to Link PMED File With Medical Condition Files



:: What's New	☐ <u>Household Component Full-Year files</u> <b>(1)</b>		
:: Mailing List	Expenditure and utilization data for the calendar year from several rounds of data		
-	collection.		
:: Discussion Forum	<u>Full-Year Consolidated Data files</u>		
:: Participants' Corner	Full-Year Population Characteristics files		
	Medical Conditions files		
	Risk Adjustment Scores files		
	Employment Variables file		
	☐ <u>Jobs files</u>		
	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 ①		
	Data for the calendar year on unique household-reported medical events.		
	Prescribed Medicines files PMED 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		
	☐ <u>Home Health files</u>		
	Appendix to MEPS Event file Condition-event link file		
	(CLINK)		
	(OLIMI)		

# Linking PMED File to Medical Conditions File



#### **PMED File**

DUPERSID	DRUGIDX	PURCHRD	LINKIDX	RXRECIDX
2710001101	2710001101002	1	2710001101002103	2710001101002103001
2710001101	2710001101002	1	2710001101002103	2710001101002103002
2710001101	2710001101002	2	2710001101002203	2710001101002203001

#### **CLINK File**

### **Medical Conditions File**

DUPERSID	CONDIDX	EVNTIDX	EVENTYPE
2710001101	2710001101001	2710001101002103	8
2710001101	2710001101001	2710001101002203	8
2710001101	2710001101002	2710001101200501	1

DUPERSID	CONDIDX	ICD10CDX
2710001101	2710001101001	E11
2710001101	2710001101002	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.

## **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 annually.
- How to interpret year-to-year changes in utilization and expenditures?
  - Policy change
  - Other changes (e.g., demographics)
  - Improvements in MEPS PMED data editing methodology (2007–2008, 2017, 2020)
  - 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, 2017/2018, or 2020.
- Read the documentation for each year of data you are using.
- Read the latest Methodology Report #37 (<a href="https://meps.ahrq.gov/data\_files/publications/mr37/mr37.shtml">https://meps.ahrq.gov/data\_files/publications/mr37/mr37.shtml</a>).

# Statistical Reports and Applied Research



#### AHRQ regularly produces and posts findings from the PMED data.

#### Statistical Briefs

Wu X, Moriya AS, and Miller GE. Average Annual Total Expenses, Total Utilization, and Sources of Payment for Outpatient Prescription Opioids in the U.S. Adult Civilian Noninstitutionalized Population, 2021-2022. Statistical Brief #559. February 2025. Agency for Healthcare Research and Quality, Rockville, MD. <a href="https://meps.ahrq.gov/data">https://meps.ahrq.gov/data</a> files/publications/st559/stat559.shtml

Ahrnsbrak R and Stagnitti MN. Average Expenditures per Prescription Antidepressant Fill in the U.S. Civilian Noninstitutionalized Population by Select Sociodemographic Characteristics, 2013 and 2018. Statistical Brief #538. November 2021. Agency for Healthcare Research and Quality, Rockville, MD. <a href="https://meps.ahrq.gov/data\_files/publications/st538/stat538.shtml">https://meps.ahrq.gov/data\_files/publications/st538/stat538.shtml</a>

#### Methodology Reports

Abdus S, Hill SC, Ahrnsbrak R. "Outpatient Prescription Drugs: Data Collection and Editing in the 2021 Medical Expenditure Panel Survey". Methodology Report #37. January 2024. Agency for Healthcare Research and Quality, Rockville, MD. <a href="https://meps.ahrq.gov/data\_files/publications/mr37/mr37.shtml">https://meps.ahrq.gov/data\_files/publications/mr37/mr37.shtml</a>

#### Research Findings

Bernard D, Machlin SR, Fang Z, and Cohen J. Average Annual Opioid Use among Adults Treated for Conditions Associated with Chronic Pain versus Other Conditions, 2013-2015. Research Finding #43. August 2019. Agency for Healthcare Research and Quality, Rockville, MD. <a href="https://meps.ahrq.gov/data">https://meps.ahrq.gov/data</a> files/publications/rf43/rf43.shtml

# Thank you!



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