



AGENCY FOR HEALTHCARE RESEARCH AND QUALITY



# MEPS – HC Utilization and Expenditures

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# MEPS Components

## Medical Expenditure Panel Survey (MEPS)

### Household Component (HC)

- Demographics
- Income
- Health Conditions
- Health Status
- Health Insurance
- **Utilization**
- **Expenditure Data**

### Medical Provider Component (MPC)

- Event Details
- Procedure Codes
- **Expenditure Data**

### Insurance Component (IC)

# Health care utilization

**MEPS household respondents asked to report all health care use for family members during reference period**

**Utilization is called an ‘event’ in MEPS**

**Event type categories:**

- ▶ Hospital inpatient stays (IP)
- ▶ Office-based medical provider visits (OB)
- ▶ Outpatient department visits (OP)
- ▶ Emergency room visits (ER)
- ▶ Dental visits (DN)
- ▶ Prescription medicine purchases (RX)
- ▶ Home health care (HH)
- ▶ Other medical expenses (OM)  
[e.g. glasses, hearing aids]

# Health care utilization

MEPS household respondents asked to report all health care use for family members during reference period

Utilization is called an ‘event’ in MEPS

## Event type categories:

## ‘Event’ definition

- ▶ Hospital inpatient stays (IP) . . . . . stay
  - ▶ Office-based medical provider visits (OB) . . . . .
  - ▶ Outpatient department visits (OP) . . . . .
  - ▶ Emergency room visits (ER) . . . . .
  - ▶ Dental visits (DN) . . . . .
- } visit
- 
- ▶ Prescription medicine purchases (RX) . . . . . script fill or refill
  - ▶ Home health care (HH) . . . . . month of care
  - ▶ Other medical expenses (OM) . . . . . purchase  
[e.g. glasses, hearing aids]

# Event files

[https://meps.ahrq.gov/mepsweb/data\\_stats/download\\_data\\_files.jsp](https://meps.ahrq.gov/mepsweb/data_stats/download_data_files.jsp)

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- ☐ **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](#)
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  - ☐ [Employment Variables file](#)
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  - ☐ [Person Round Plan files](#)
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  - ☐ [Supplemental Variables files \(1996-2000\)](#)
  - ☐ [Health Insurance Plan Abstraction file \(1996\)](#)
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Data for the calendar year on unique household-reported medical events.
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  - ☐ [Office-Based Medical Provider Visits files](#)
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  - ☐ [Appendix to MEPS Event files](#)

**Event Files**

# Event files

## OB Event File, 2013

Person / Event IDs		Date		Payment/Charge		Person Weight
dupersid	evntidx	obdateyr	obdatemm	obxp13x	obtc13x	perwt13f
20004101	200041010011	2013	8	300	300	6594.802
20004101	200041010021	2013	8	127.6	154	6594.802
20015102	200151020051	2013	2	124.23	208.12	2140.442

- + **Provider characteristics**
- + **Services/procedures (e.g. surgery, lab tests)**
- + **Health conditions**
- + **Detailed expenditure variables**

# Health care expenditures

**Collected at the event level**

**Represent payments to providers of the health care**

**Payments are reported by source**

- ▶ e.g. out-of-pocket, private insurance

**Total expenditure is the sum of payments across all sources of payment**

# Sources of payment

## Out of Pocket

- ▶ SF – self or family

## Public

- ▶ MR – Medicare
- ▶ MD – Medicaid
- ▶ VA – VA/CHAMPVA

## Private insurance

- ▶ PV – private Insurance
- ▶ TR – TRICARE

## Other

- ▶ OF – other federal government
- ▶ SL – state or local government
- ▶ WC – worker's comp
- ▶ OT – other insurance
- ▶ OR – other private
- ▶ OU – other public

**Total Expenditures (XP) =**  
Sum of payments from all  
12 sources



# Event File Expenditure Variables



**OB, DN, HH, and OM**

**12 expenditure by source of payment variables**

**A total expenditure variable**

- ▶ sum of 12 source of payment variables

**A total charge variable**

- ▶ provider's charge before adjustment or discount

# Event File Expenditure Variables



## OB Event File, 2013

Event ID	OOP (SF)	Medicare (MR)		Private (PV)	Total Pmt. (XP)	Total Charge (TC)
evntidx	obsf13x	obmr13x	...	obpv13x	obxp13x	obtc13x
200041010011	300	0	...	0	300	300
200041010021	50	0	...	77.6	127.6	154
200151020051	25	0	...	99.23	124.23	208.12

# Event File Expenditure Variables

## Hospital: IP, OP and ER

### Facility Expenditure Variables

- ▶ 12 expenditure by source of payment variables
- ▶ A total facility expenditure variable
- ▶ A total facility charge variable

### Separately Billing Doctor (SBD) Expenditure Variables

- ▶ 12 SBD expenditure by source of payment variables
- ▶ A total SBD expenditure variable
- ▶ A total SBD charge variable

Total expenditures for the event: facility + SBD expenditures

Total charges for the event: facility + SBD charges

# Event File Expenditure Variables

## ER Event File, 2013

Event ID	Facility payments (f)				Total facility pmt.	Facility charge
evntidx	erfsf13x	erfmr13x	...	erfpv13x	erfxp13x	erftc13x
200121010011	0	94.46	...	0	94.46	353
200161020101	208.54	0	...	334.16	542.7	1464

SBD payments (d)				Total SBD pmt.	SBD charge
erdsf13x	erdmr13x	...	erdpv13x	erdxp13x	erdtc13x
0	176.36	...	0	176.36	700
0	0	...	304.71	304.71	388

Total payment (facility + SBD)	Total charge (facility + SBD)
erxp13x	ertc13x
270.82	1053
847.41	1852

# Event File Expenditure Variables



**RX ('PMED')**

**12 expenditure by source of payment variables**

**A total expenditure variable**

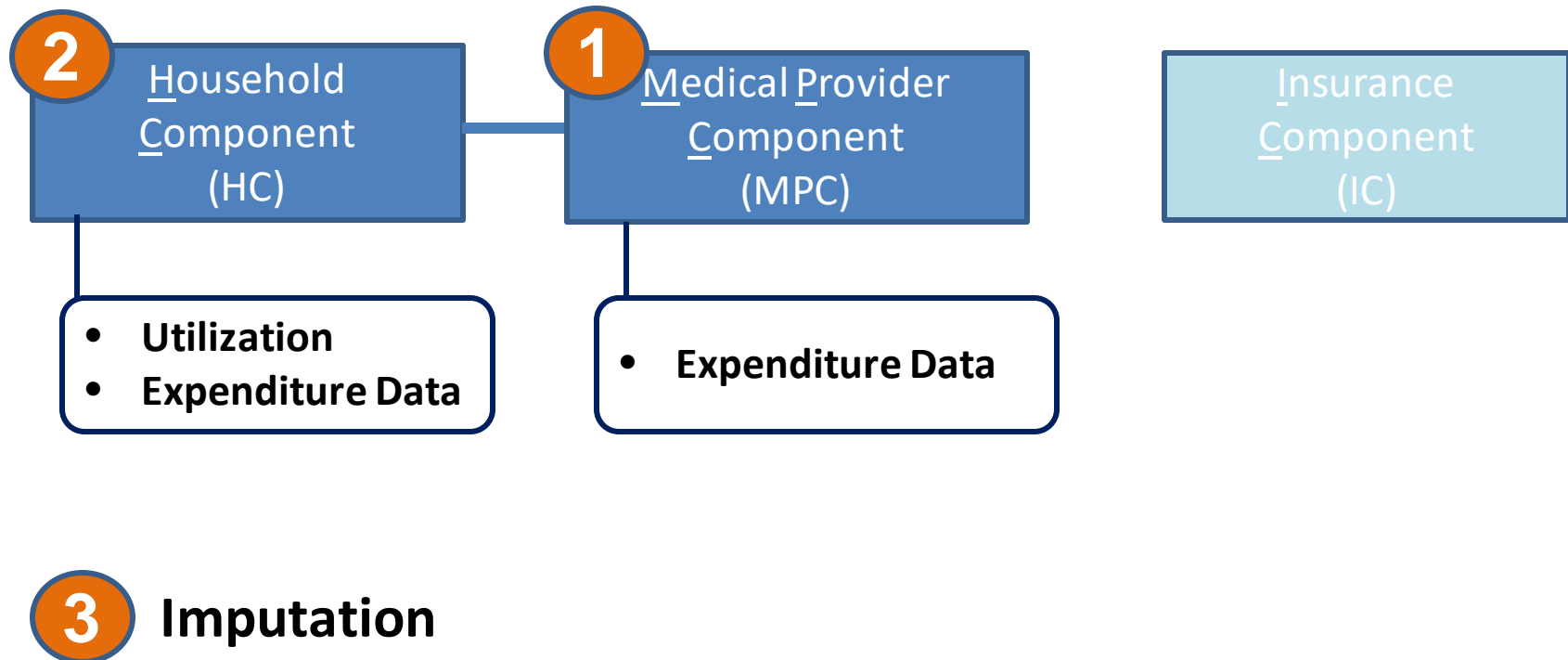
- ▶ **sum of 12 source of payment variables**

**No total charge variable**

**Most identified**

# Sources of expenditure data

## Medical Expenditure Panel Survey (MEPS)



# Sources of expenditure data by event type

Event type	HC	MPC
Office-based: physician	✓	✓
Office-based: non-physician	✓	
Inpatient	✓	✓
Outpatient	✓	✓
ER	✓	✓
Dental	✓	
RX		✓
Home health: agency		✓
Home health: paid independent	✓	
Other medical	✓	

# Sources of expenditure data

dupersid	evntidx	impflag	obxp13x	obtc13x
20004101	200041010011	1	300	300
20004101	200041010021	3	127.6	154
20015102	200151020051	4	124.23	208.12

## **impflag\***

- 0 Not eligible for imputation**
- 1 Complete HC data**
- 2 Complete MPC data**
- 3 Fully imputed**
- 4 Partially imputed**
- 5 Capitation imputation**

\* Codes are different for RX file



# Medical Provider Component

## The MPC is NOT...

- ...designed to yield national estimates
- ...available to the public

## The MPC is...

- ...a supplement to household-reported expenditure data
- ...used for internal methodological studies

# Special Case 1: Flat fees

## Flat fees

**Fixed dollar amount for a group of health care services**

- ▶ e.g. orthodontic, prenatal care

**Flat Fee ID: FFEEIDX**

**Flat fee structure (FFOBTYPE)**

- ▶ Stem - initial medical visit - expenditures
- ▶ Leaf - subsequent medical visits - zero expenditures

# Special Case 2: Zero dollar-events



Zero dollar-events

**Flat fee – leaf event**

**Follow-up visit with no extra charge**

**Free care**

**Bad debt**

# Special Case 3: Capitation

## Capitation

Imputed to fee-for-service equivalence

IMPFLAG = 5

# Special Case 4: Missing expenses

**Expense variables = '-1'**

## Missing data codes

- 1 Inapplicable
- 7 Refused
- 8 Don't know
- 9 Not ascertained

**OB, OP – phone calls (SEETLKPV = 2)**

**HH – informal care (MPCELIG = 3)**

# Annual person-level file

## Event level files

- ▶ Separated by type of service
- ▶ Unique record for each reported event
  - Some persons have no events
  - Some persons have multiple events

## Person-level file (full year consolidated)

- ▶ Variables derived from event level
- ▶ One record for each person in MEPS
- ▶ No detail on expenditures or characteristics of individual events
- ▶ Summary of all events and expenditures
  - See [Appendix 1](#) of documentation for naming conventions

# Annual person-level file



## OB Event File, 2013

<b>dupersid</b>	<b>evntidx</b>	<b>obdateyr</b>	<b>obdatemm</b>	<b>obxp13x</b>	<b>obtc13x</b>	<b>perwt13f</b>
<b>20004101</b>	200041010011	2013	8	<b>300</b>	<b>300</b>	6594.802
<b>20004101</b>	200041010021	2013	8	<b>127.6</b>	<b>154</b>	6594.802
<b>20015102</b>	200151020051	2013	2	<b>124.23</b>	<b>208.12</b>	2140.442

## Full Year Consolidated File, 2013

<b>dupersid</b>	<b>obtotv13</b>	<b>obvexp13</b>	<b>obvtch13</b>	<b>perwt13f</b>
<b>20004101</b>	<b>2</b>	<b>428</b>	<b>454</b>	6594.802
20004102	0	0	0	7144.183
20004103	0	0	0	5616.279
<b>20015102</b>	<b>1</b>	<b>124</b>	<b>208</b>	2140.442

# Event File Expenditure Variables

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**Person-Level File**

**Event Files**