



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) | } visit |
| ▶ Outpatient department visits (OP) | |
| ▶ Emergency room visits (ER) | |
| ▶ Dental visits (DN) | |
-
- | | |
|--|-----------------------|
| ▶ 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

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☐ **Household Component Full-Year files** ⓘ
Expenditure and utilization data for the calendar year from several rounds of data collection.

☐ **Household Component Event files** ⓘ
Data for the calendar year on unique household-reported medical events.

☐ [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 \(1998\)](#)

☐ [Prescribed Medicines files](#)

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☐ [Office-Based Medical Provider Visits files](#)

☐ [Home Health files](#)

☐ [Appendix to MEPS Event files](#)

Event Files

Event file Example

Office-Based Medical Provider Visits, 2017

Person / Event IDs		Date		Payment/Charge		Person Weight
dupersid	evntidx	obdateyr	obdatemm	obxp17x	obtc17x	perwt17f
10001103	100011030381	2017	8	390.84	562	12308.919
10001103	100011030391	2017	7	79.48	105	12308.919
10005101	100051010141	2017	2	149.23	385	5740.632

- + 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, 2017

Event ID	OOP (SF)	Medicare (MR)		Private (PV)	Total Pmt. (XP)	Total Charge (TC)
evntidx	obsf17x	obmr17x	...	obpv17x	obxp17x	obtc17x
100011030381	0	0	...	390.84	390.84	562
100011030391	10	0	...	69.48	79.48	105
100051010141	5	144.23		0	149.23	385

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, 2017

Event ID	Facility payments (f)				Total facility pmt.	Facility charge
evntidx	erfsf17x	erfmr17x	...	erfpv17x	erfxp17x	erftc17x
100471010411	50.00	526.02		0	576.02	7186.29
101381020231	84.56	849.01		132.06	1065.63	7198.00

SBD payments (d)				Total SBD pmt.	SBD charge
erdsf17x	erdmr17x	...	erdpv17x	erdxp17x	erdtc17x
0	155.74		39.66	195.40	1019
0	1386.97		366.71	1753.68	2627

Total payment (facility + SBD)	Total charge (facility + SBD)
erxp17x	ertc17x
771.42	8205.29
2819.31	9825.00

Event File Expenditure Variables



RX ('PMED')

12 expenditure by source of payment variables

A total expenditure variable

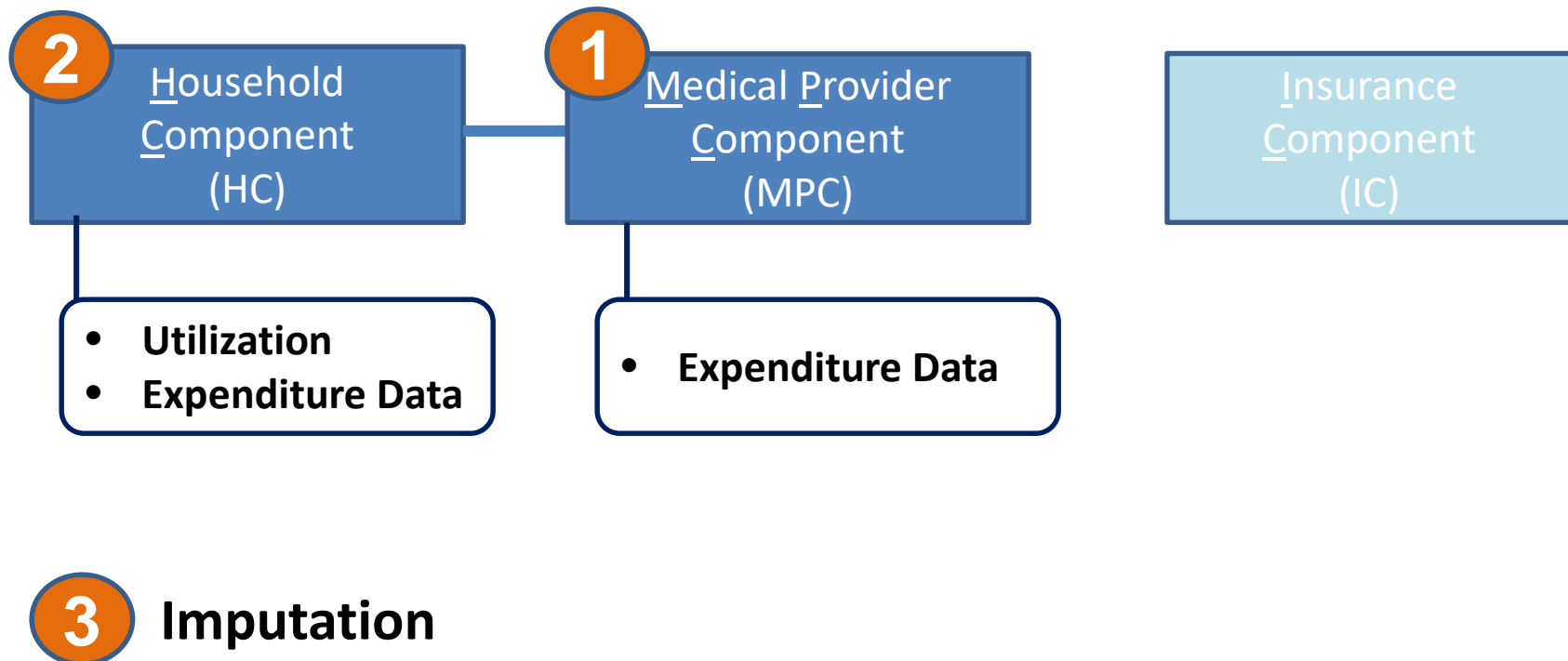
- ▶ **sum of 12 source of payment variables**

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	obxp17x	obtc17x
10001103	100011030381	2	390.84	562
10001103	100011030391	4	79.48	105
10005101	100051010141	4	149.23	385

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

Event File Rolled up to Annual Person-level file (FY Consolidated)



OB Event File, 2017

dupersid	evntidx	obdateyr	obdatemm	obxp17x	obtc17x	perwt17f
10001103	100011030381	2017	8	390.84	562	12308.919
10001103	100011030391	2017	7	79.48	105	12308.919
10005101	100051010141	2017	2	149.23	385	5740.632

Full Year Consolidated File, 2017

dupersid	obtotv17	obvexp17	obvtch17	perwt17f
10001103	2	470	667	12308.919
10002102	0	0	0	8537.25
10008101	0	0	0	13283.91
10005101	1	149	385	5740.632

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Person-Level File

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