



AGENCY FOR HEALTHCARE RESEARCH AND QUALITY



MEPS – HC

Health Care Utilization and Expenditures

Jerrod Anderson, PhD

MEPS Components

Medical Expenditure Panel Survey (MEPS)

Household
Component
(HC)

Medical Provider
Component
(MPC)

Insurance
Component
(IC)

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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

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 - ▶ Other medical expenses (OM)
[e.g. glasses, hearing aids]
- ‘Event’ definition:
- stay
- visit
- original script or refill
month of care
purchase

Event Files

https://meps.ahrq.gov/mepsweb/data_stats/download_data_files.jsp

- 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](#)
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~~Data for the calendar year on unique household reported medical events.~~
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 - ☐ [Appendix to MEPS Event files](#)

Event Files

Event Files

OB Event File, 2018

Person / Event IDs		Date		Payment/Charge		Person Weight
dupersid	evntidx	obdateyr	obdatemm	obxp18x	obtc18x	perwt18f
2290041105	2290041105206101	2018	12	1155.05	4086	7845.227
2290041105	2290041105206201	2018	11	263.50	728	7845.227
2290042102	2290042102100201	2018	5	896.00	950	20706.399

- 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, 2018

Event ID	OOP (SF)	Medicaid (MD)		Private (PV)	Total Pmt. (XP)	Total Charge (TC)
evntidx	obsf18x	obmd18x	...	obpv18x	obxp18x	obtc18x
2290041105206101	0	1155.05	...	0	1155.05	4086
2290041105206201	0	263.50	...	0	263.50	728
2290042102100201	30	0	...	866	896.00	950

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, 2018

Event ID	Facility payments (f)			Total facility pmt.	Facility charge	
evntidx	erfsf18x	...	erfmd18x	erfpv18x	erfxp18x	erftc18x
2290016102000501	0	...	0	251.01	251.01	533
2290051102103601	545.18	...	0	1580.72	2125.90	2504

SBD payments (d)				Total SBD pmt.	SBD charge
erdsf13x	...	erfmd18x	erdpv18x	erdxp18x	erdtc18x
0	...	0	0	0	0
14.66	...	0	0	14.66	72

Total payment (facility + SBD)	Total charge (facility + SBD)
erxp18x	ertc18x
251.01	533
2140.56	2576

Event File Expenditure Variables



RX ('PMED')

- **Multiple RX scripts can be linked to single visit**
- **Not all RX are linked to a medical visit**
- **12 expenditure by source of payment variables**
- **A total expenditure variable**
 - ▶ **sum of 12 source of payment variables**
- ~~**A total charge variable**~~

Event File Expenditure Variables

https://meps.ahrq.gov/mepsweb/data_stats/download_data_files.jsp

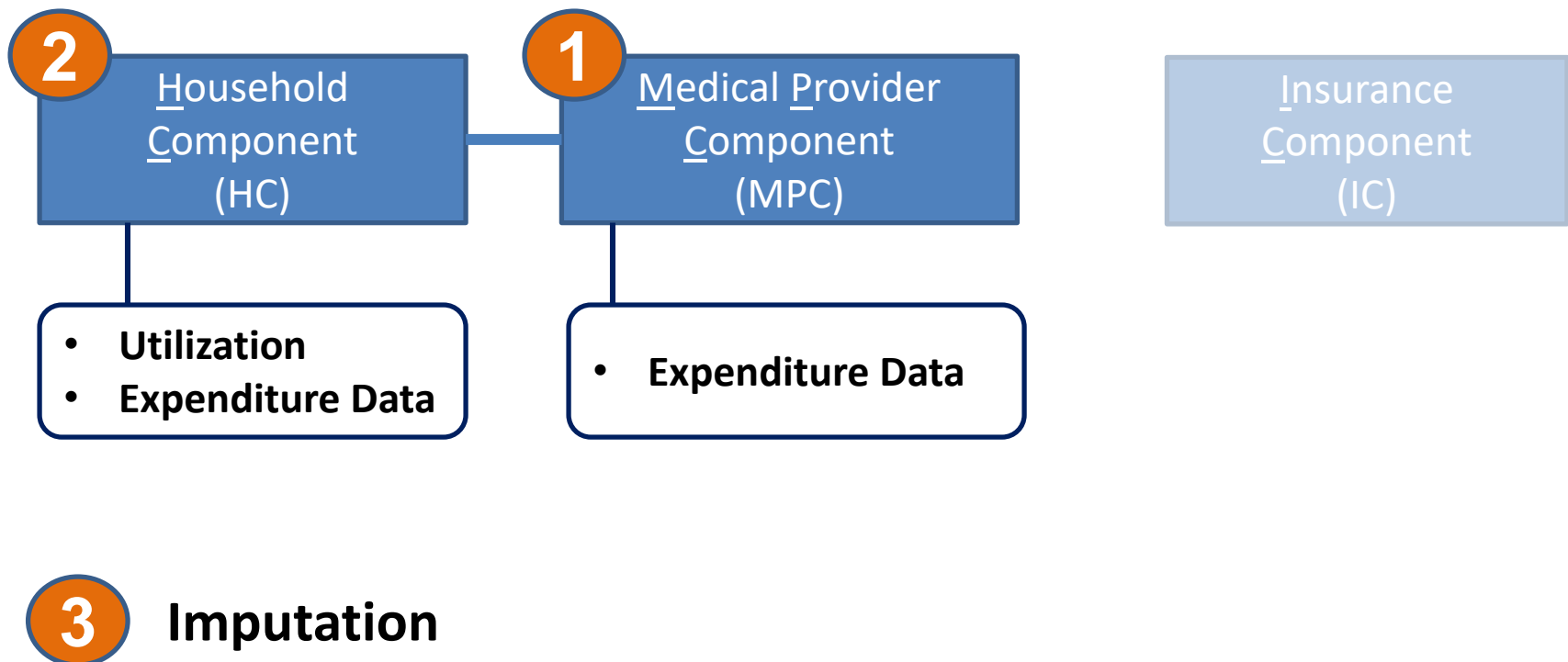
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RX Link Files

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	obxp18x	obtc18x
2290041105	2290041105206101	3	1155.05	4086
2290041105	2290041105206201	2	263.50	728
2290042102	2290042102100201	4	896.00	950

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 Cases

Flat fees

Zero-dollar events

Capitation

'-1' and other missing codes

Special Cases

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 Cases

Flat fees

Zero-dollar events

- Flat fee – leaf event
- Follow-up visit with no extra charge
- Free care
- Bad debt

Special Cases

Flat fees

Zero-dollar events

Capitation

- Imputed to fee-for-service equivalence
- **IMPFLAG = 5**

Special Cases

Flat fees

Zero-dollar events

Capitation

Missing data codes

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

'-1' and other missing codes

- 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, 2018

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2290041105	2290041105206201	2018	11	263.50	728	7845.227
2290042102	2290042102100201	2018	5	896.00	950	20706.399

Full Year Consolidated File, 2018

dupersid	obtotv18	obvexp18	obvtch18	perwt18f
2290041105	2	1419	454	7845.227
2290042102	1	896	950	20706.399
2290044101	0	0	0	11193.111

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Person-Level File

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Event Files

Thank you!



Jerrod.Anderson@ahrq.hhs.gov