



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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 - ▶ Dental visits (DN)

 - ▶ Prescription medicine purchases (RX) script or refill
 - ▶ Home health care (HH)
 - ▶ Other medical expenses (OM)
[e.g. glasses, hearing aids]
- ‘Event’ definition
- stay
- visit
- original
- month of care purchase

Event Files

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

- What's New
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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](#)
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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')

- **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

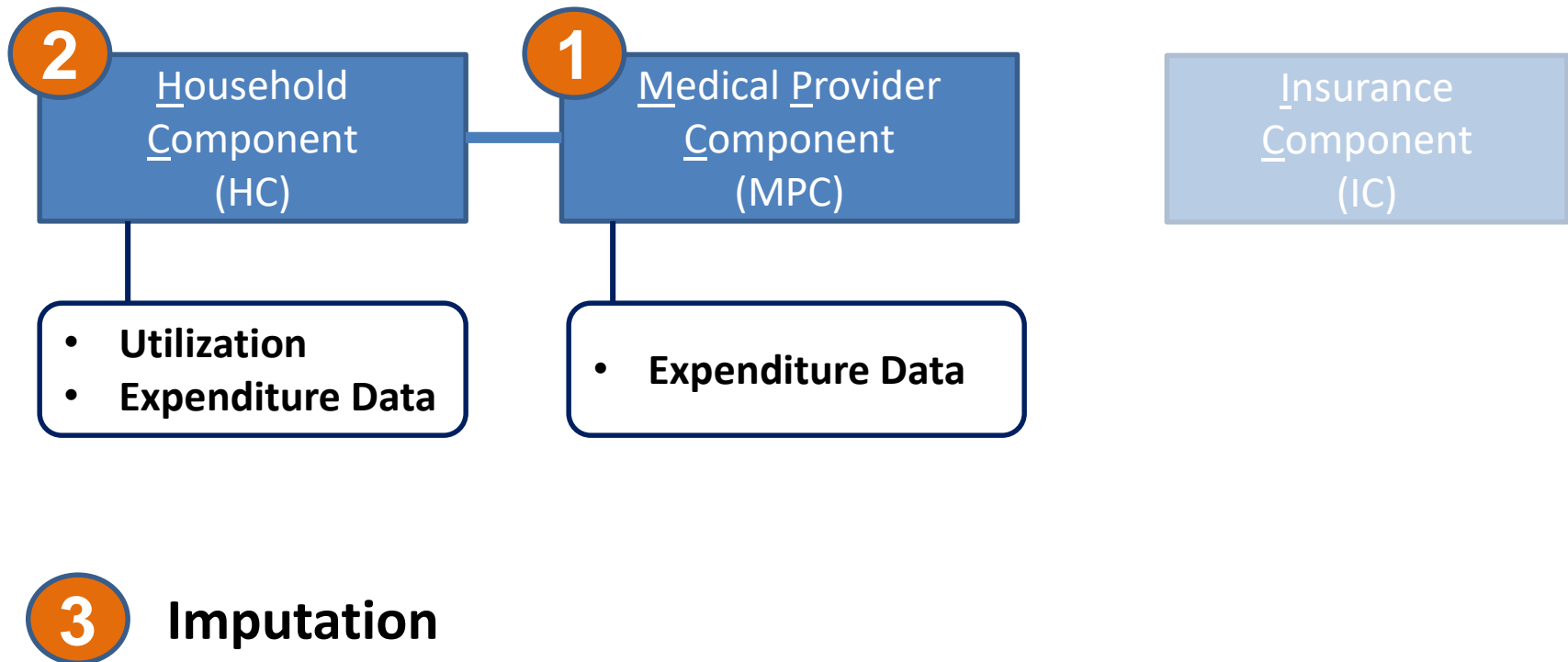
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RX Link Files

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	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 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, 2013

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

Full Year Consolidated File, 2013

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

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Event Files

Thank you!



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