



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)

MEPS Components

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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]

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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
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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](#)
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- ☐ [Risk Adjustment Scores files](#)
- ☐ [Employment Variables file](#)
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- ☐ [Supplemental Variables files \(1996-2000\)](#)
- ☐ [Health Insurance Plan Abstraction file \(1996\)](#)
- ☐ [Long Term Care file \(1998\)](#)

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

- ☐ [Prescribed Medicines 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](#)
- ☐ [Home Health files](#)

☐ [Appendix to MEPS Event files](#)

Event Files

Event Files

OB Event File, 2022

| Person / Event IDs | | Date | | Payment/Charge | | Person Weight |
|--------------------|------------------|----------|----------|----------------|---------|---------------|
| dupersid | evntidx | obdateyr | obdatemm | obxp22x | obtc22x | perwt22f |
| 2462070101 | 2462070101003301 | 2022 | 3 | 132 | 497 | 5,242 |
| 2462070101 | 2462070101003401 | 2022 | 1 | 319 | 462 | 5,242 |
| 2461266102 | 2461266102004401 | 2022 | 9 | 280 | 538 | 6,686 |

- **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

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

Event File Expenditure Variables

OB, DN, HH, and OM

- 10 expenditure by source of payment variables
- A total expenditure variable
 - ▶ sum of 10 source of payment variables
- A total charge variable
 - ▶ provider's charge before adjustment or discount

Event File Expenditure Variables

OB Event File, 2022

| Event ID | OOP (SF) | Medicaid (MD) | | Private (PV) | Total Pmt. (XP) | Total Charge (TC) |
|------------------|-------------|------------------|-----|-----------------|--------------------|----------------------|
| evntidx | obsf22x | obmd22x | ... | obpv22x | obxp22x | obtc22x |
| 2462070101003301 | 0 | 132 | ... | 0 | 132 | 497 |
| 2462070101003401 | 0 | 319 | ... | 0 | 319 | 462 |
| 2461266102004401 | 25 | 0 | ... | 255 | 280 | 538 |

Event File Expenditure Variables

Hospital: IP, OP and ER

- **Facility Expenditure Variables**
 - ▶ 10 expenditure by source of payment variables
 - ▶ A total facility expenditure variable
 - ▶ A total facility charge variable
 - **Separately Billing Doctor (SBD) Expenditure Variables**
 - ▶ 10 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, 2022

| Event ID | Facility payments (f) | | | Total facility pmt. | Facility charge |
|------------------|-----------------------|----------|----------|---------------------|-----------------|
| evntidx | erfsf22x | erfmd22x | erfpv22x | erfxp22x | erftc22x |
| 2460114103026401 | 50 | 0 | 1,481 | 1,531 | 2,730 |
| 2460115101001801 | 498 | 0 | 2,822 | 3,321 | 4,427 |

| SBD payments (d) | | | | Total SBD pmt. | SBD charge |
|------------------|-----|----------|----------|----------------|------------|
| erdsf22x | ... | erfmd22x | erdpv22x | erdxp22x | erdtc22x |
| 0 | ... | 0 | 54 | 54 | 83 |
| 0 | ... | 0 | 30 | 152 | 992 |

| Total payment (facility + SBD) | Total charge (facility + SBD) |
|--------------------------------|-------------------------------|
| erxp22x | ertc22x |
| 1,584 | 2,813 |
| 3,472 | 5,419 |

Event File Expenditure Variables

RX ('PMED')

- Multiple RX scripts can be linked to single visit
- Not all RX are linked to a medical visit
- 10 expenditure by source of payment variables
- A total expenditure variable
 - ▶ sum of 10 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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 - ☐ Appendix to MEPS Event files

RX Link Files

Event File Expenditure Variables

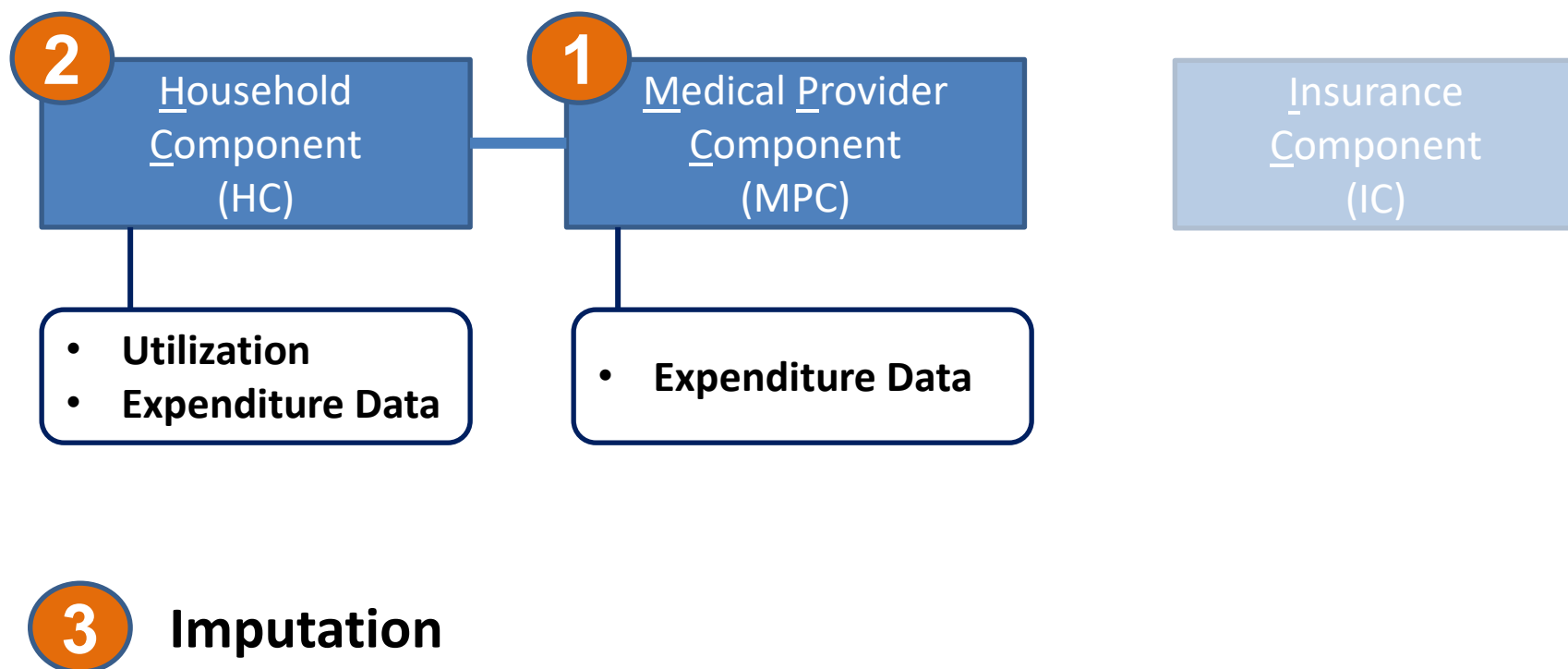


Telehealth visits:

- A telehealth module was fielded starting with P23 R7, P24 R5, P25 R3
- These were then reclassified as either OB or OP based on whether the respondent identified the provider or facility as owned and operated by a hospital or not.

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 | obxp22x | obtc22x |
|------------|------------------|---------|---------|---------|
| 2462070101 | 2462070101003301 | 2 | 132 | 497 |
| 2462070101 | 2462070101003401 | 3 | 319 | 462 |
| 2461266102 | 2461266102004401 | 2 | 280 | 538 |

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

‘-1’ and other missing codes

- HH – informal care (MPCELIG = 3)

Missing data codes

- 1 Inapplicable
- 7 Refused
- 8 Don't know
- 15 Value cannot be derived

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 3](#) of documentation for naming conventions

Annual Person-Level File



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| dupersid | evntidx | obdateyr | obdatemm | obxp22x | obtc22x | perwt22f |
|------------|------------------|----------|----------|------------|------------|----------|
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Full Year Consolidated File, 2022

| dupersid | obtotv22 | obvexp22 | obvtch22 | perwt22f |
|------------|----------|------------|------------|----------|
| 2462070101 | 2 | 451 | 959 | 5,242 |
| 2461266102 | 1 | 280 | 538 | 6,686 |

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Person-Level File

Event Files

Thank you!



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