



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

Medical Expenditure Panel Survey (MEPS)

Household
Component
(HC)

Medical Provider
Component
(MPC)

Insurance
Component
(IC)

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:
 - ▶ 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]
- ‘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**
- ☐ **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)**

☐ **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, 2019

Person / Event IDs		Date		Payment/Charge		Person Weight
dupersid	evntidx	obdateyr	obdatemm	obxp19x	obtc19x	perwt19f
2320268102	2320268102200801	2019	4	517.00	568	15,968
2320268102	2320268102201101	2019	5	7.20	80	15,968
2320057101	2320057101200101	2019	2	85.10	217	23,186

- 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, 2019

Event ID	OOP (SF)	Medicaid (MD)		Private (PV)	Total Pmt. (XP)	Total Charge (TC)
evntidx	obsf19x	obmd19x	...	obpv19x	obxp19x	obtc19x
2320268102200801	35	482.00	...	0	517.00	568
2320268102200801	0	7.20	...	0	7.20	80
2320057101200101	0	0	...	85.10	85.10	217

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, 2019

Event ID	Facility payments (f)			Total facility pmt.	Facility charge
evntidx	erfsf19x	erfmd19x	erfpv19x	erfxp19x	Erftc19x
2320222101202101	100	0	3,059	3,159	9,487
2320222101202201	391	0	230	621	817

SBD payments (d)			Total SBD pmt.	SBD charge
erdsf19x	erfmd19x	erdpv19x	erdxp19x	erdtc19x
0	0	182	182	731
35	0	200	235	419

Total payment (facility + SBD)	Total charge (facility + SBD)
erxp19x	Ertc19x
3,342	10,218
856	1,236

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

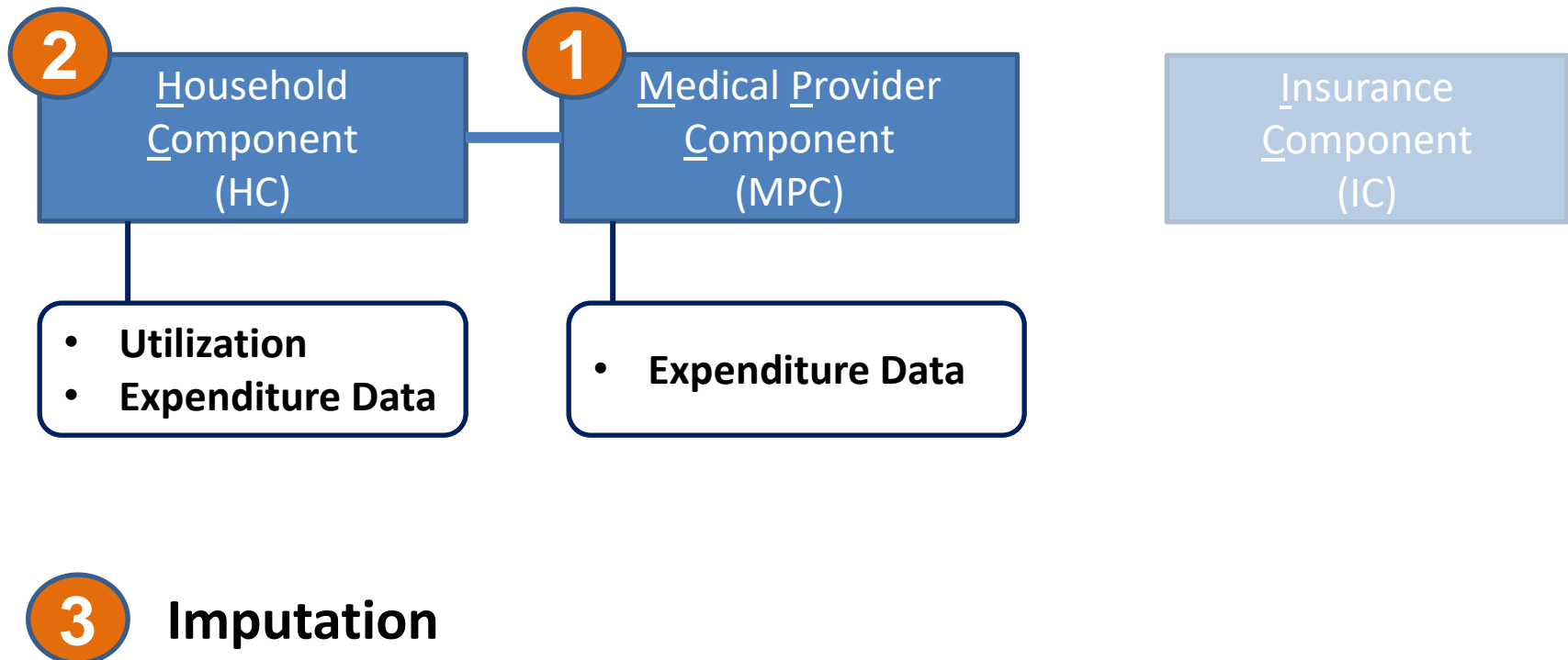
- What's New
- Mailing List
- Discussion Forum
- Participants' Corner

- ☐ **Household Component Full-Year files** ⓘ
Expenditure and utilization data for the calendar year from several rounds of data collection.
 - ☐ [Full-Year Consolidated Data files](#)
 - ☐ [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 \(1998\)](#)
- ☐ **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](#)

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	obxp19x	obtc19x
2320268102	2320268102200801	4	517.00	568
2320268102	2320268102201101	3	7.20	80
2320057101	2320057101200101	1	85.10	217

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 1 of documentation for naming conventions

Annual Person-Level File



OB Event File, 2019

dupersid	evntidx	obdate yr	obdatemm	obxp19x	obtc19x	perwt19f
2320268102	2320268102200801	2019	4	517.00	568	15,968
2320268102	2320268102201101	2019	5	7.20	80	15,968
2320057101	2320057101200101	2019	2	85.10	217	23,186

Full Year Consolidated File, 2019

dupersid	obtotv19	obvexp19	obvtch19	perwt19f
2320268102	2	524	648	15,968
2320057101	1	85.10	217	23,186
2320028102	0	0	0	8,465

MEPS 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**
- ☐ **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)**

Person-Level File

☐ **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

Thank you!



Jerrod.Anderson@ahrq.hhs.gov