



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)

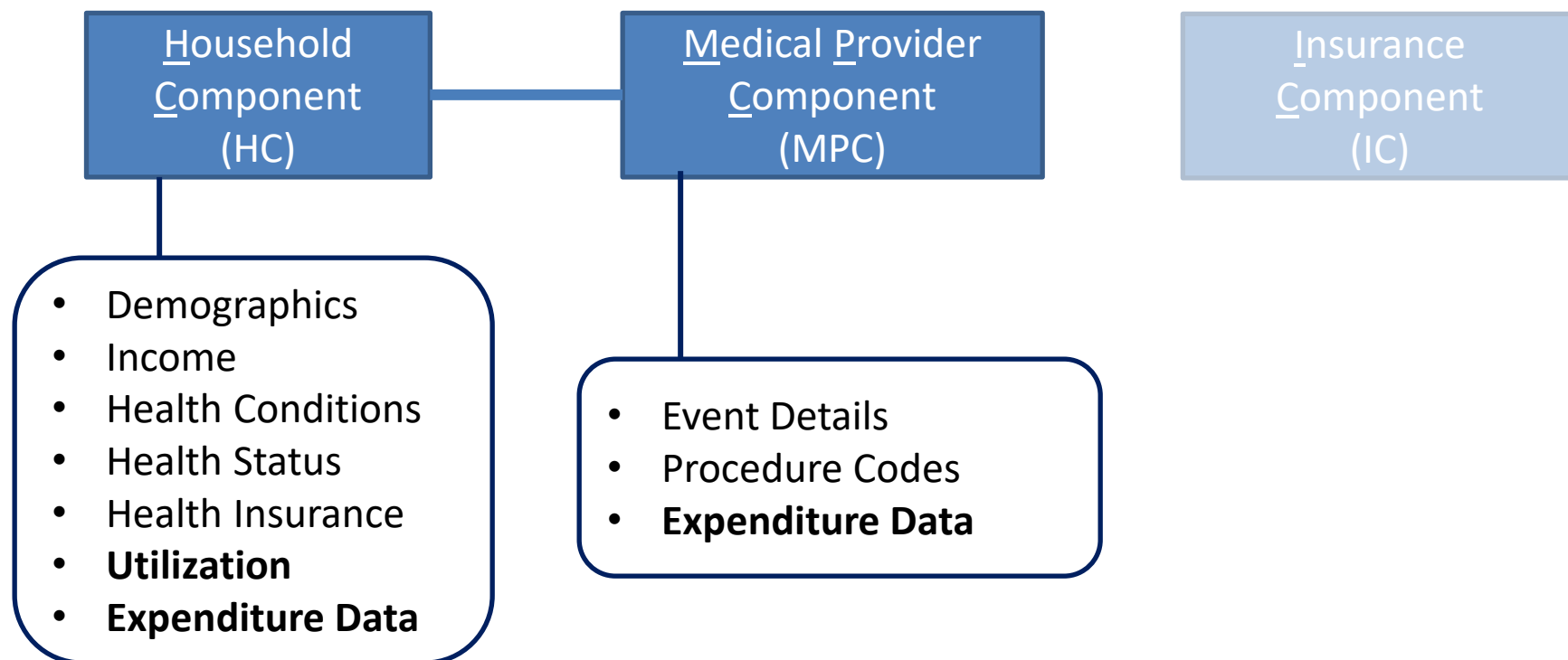
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MEPS Components

Medical Expenditure Panel Survey (MEPS)



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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'Event' definition:
stay

visit

-
- ▶ Prescription medicine purchases (RX)
 - ▶ Home health care (HH)
 - ▶ Other medical expenses (OM)
[e.g. glasses, hearing aids]

original script or refill
month of care
purchase

Event Files

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

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

Event Files

Event Files

OB Event File, 2021

Person / Event IDs		Date		Payment/Charge		Person Weight
dupersid	evntidx	obdateyr	obdatemm	obxp21x	obtc21x	perwt21f
2320275201	2320275201203201	2021	8	77	77	11,880
2320275201	2320275201203301	2021	4	303	619	11,880
2321392104	2321392104220301	2021	3	265	265	9,143

- 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, 2021

Event ID	OOP (SF)	Medicaid (MD)		Private (PV)	Total Pmt. (XP)	Total Charge (TC)
evntidx	obsf21x	obmd21x	...	obpv21x	obxp21x	obtc21x
2320275201203201	0	77	...	0	77	77
2320275201203301	0	303	...	0	303	619
2321392104220301	25	0	...	240	265	265

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, 2021

Event ID	Facility payments (f)			Total facility pmt.	Facility charge
evntidx	erfsf21x	erfmd21x	erfpv21x	erfxp21x	erftc21x
2320634102222201	175	0	1,561	1,736	6,870
2320800103209401	200	0	1,058	1,258	1,258

SBD payments (d)			Total SBD pmt.	SBD charge
erdsf21x	erfmd21x	erdpv21x	erdxp21x	erdtc21x
0	0	643	643	2,180
0	10	471	481	1,876

Total payment (facility + SBD)	Total charge (facility + SBD)
erxp21x	ertc21x
2,379	9,050
1,739	3,134

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

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RX Link Files

Event File Expenditure Variables

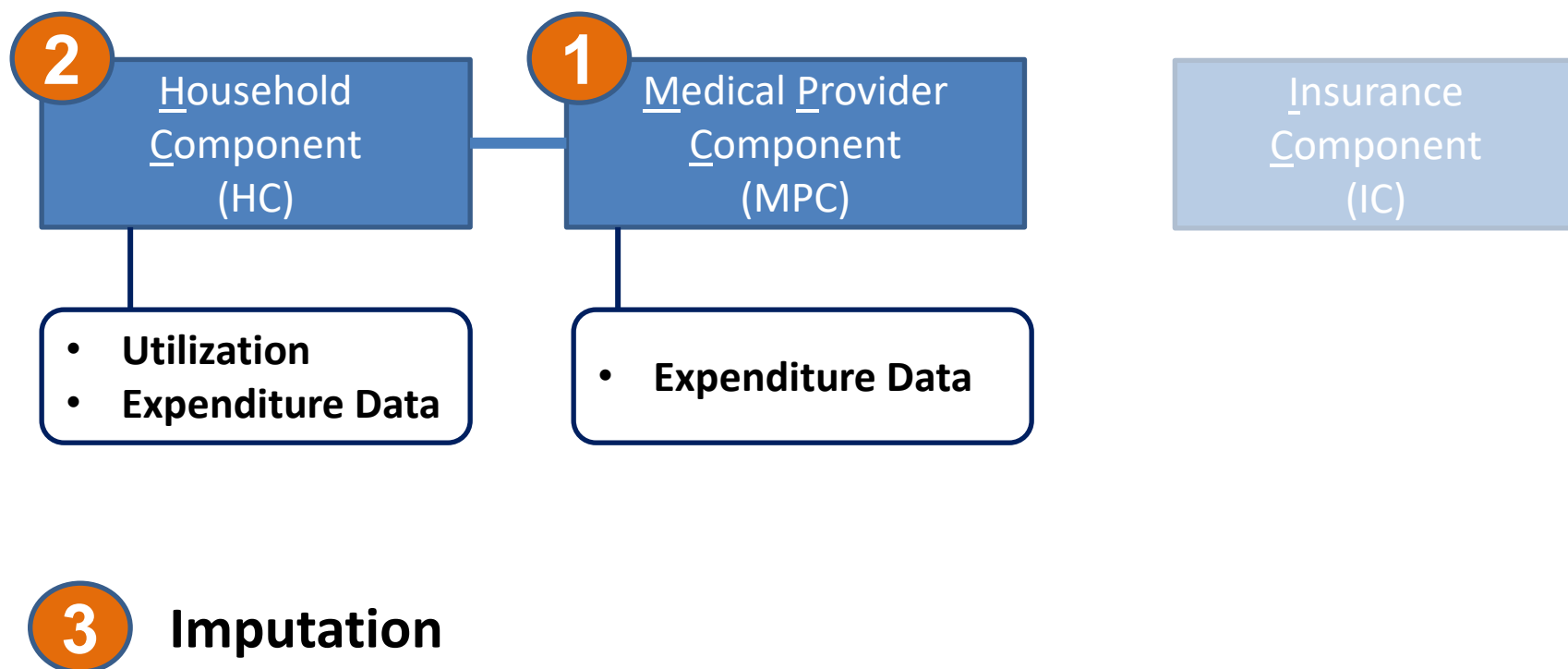


Telehealth visits:

- 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	obxp21x	obtc21x
2320275201	2320275201203201	3	77	77
2320275201	2320275201203301	3	303	619
2320006101	2320006101202401	1	140	140

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	obxp21x	obtc21x	perwt21f
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2321392104	2321392104220301	2021	3	265	265	9,143

Full Year Consolidated File, 2021

dupersid	obtotv21	obvexp21	obvtch21	perwt21f
2326049105	2	380	696	11,880
2321392104	1	265	265	9,143

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Event Files

Thank you!



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