

AGENCY FOR HEALTHCARE RESEARCH AND QUALITY



MEPS-HC: Linking Medical Conditions to Prescribed Medicines

Emily Mitchell

Jim Kirby

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MEPS Panel Design: Data Reference Periods

	2019				2020				2021				2022			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Panel 23																
Round 3																
Round 4																
Round 5																
Round 6																
Round 7																
Round 8																
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Panel 24																
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Panel 27																
Round 1																
Round 2																
Round 3																

MEPS Public Use Files

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

☐ Household Component Full-Year files ⓘ

Expenditure and utilization data for the calendar year collection.

☐ Full-Year Consolidated Data files

☐ Full-Year Population Characteristics files

☐ Medical Conditions files

☐ Risk Adjustment Scores files

☐ Employment Variables file

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☐ Supplemental Variables files (1996-2000)

☐ Health Insurance Plan Abstraction file (1996)

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☐ Appendix to MEPS Event files

FYC file:

- person-level file: one record for each MEPS sample member
- unique person identifier is **DUPERSID**

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- each record is a medical condition for a person
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FYC file:

- person-level file: one record for each MEPS sample member

Medical Conditions:

- each record is a medical condition for a person
- unique condition identifier is CONDIDX

PMED file:

- each record is a unique fill or refill of a prescribed medicine for a person
- unique (re)fill identifier is **RXRECIDX**
- unique drug identifier is **DRUGIDX**

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Medical Conditions:

- each record is a medical condition for a person
- unique condition identifier is CONDIDX

PMED file:

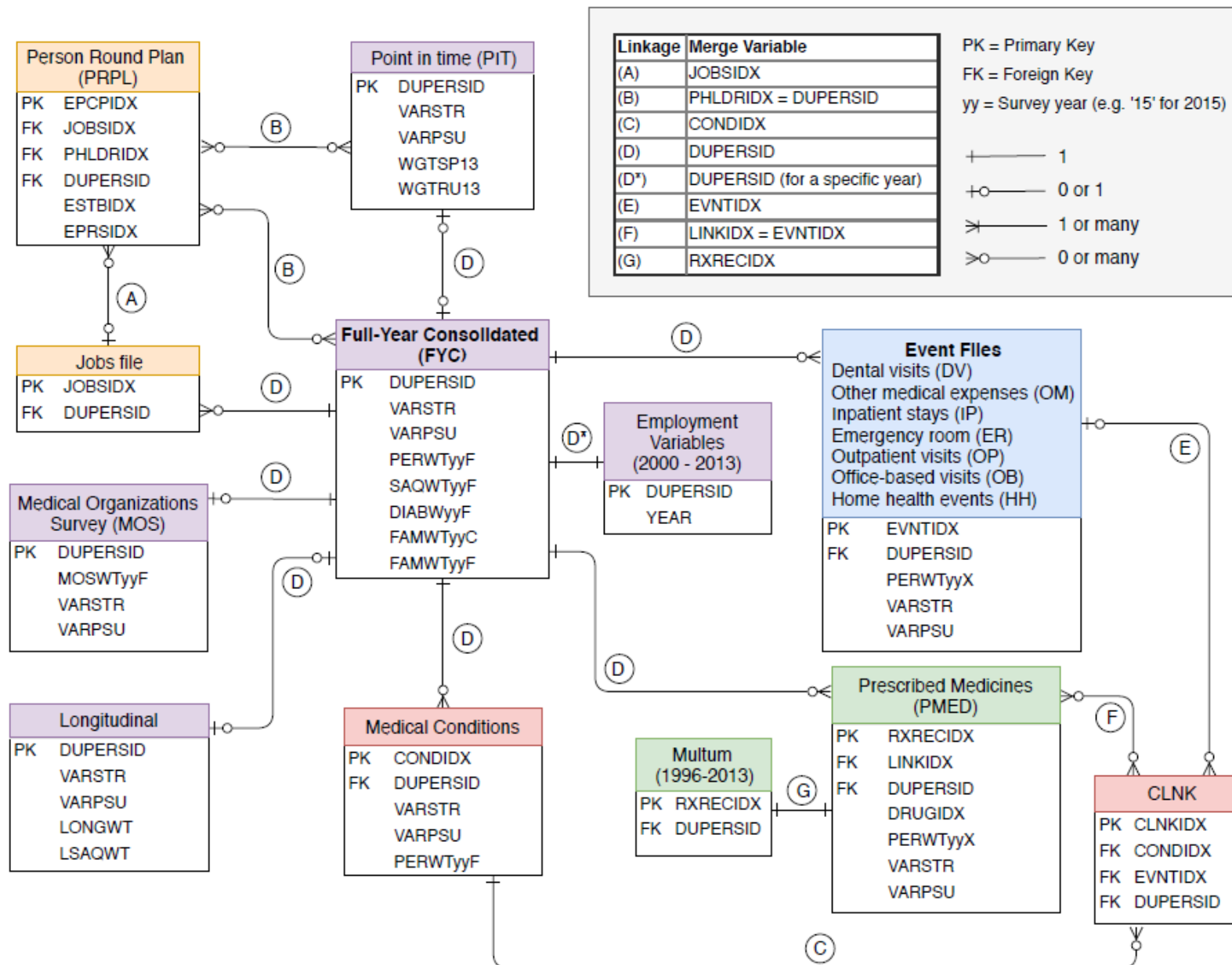
- each record is a unique fill or refill of a prescribed medicine for a person
- unique (re)fill identifier is RXRECIDX
- unique drug identifier is DRUGIDX

CLNK file:

- each record links a condition to a medical event or PMED (re)fill

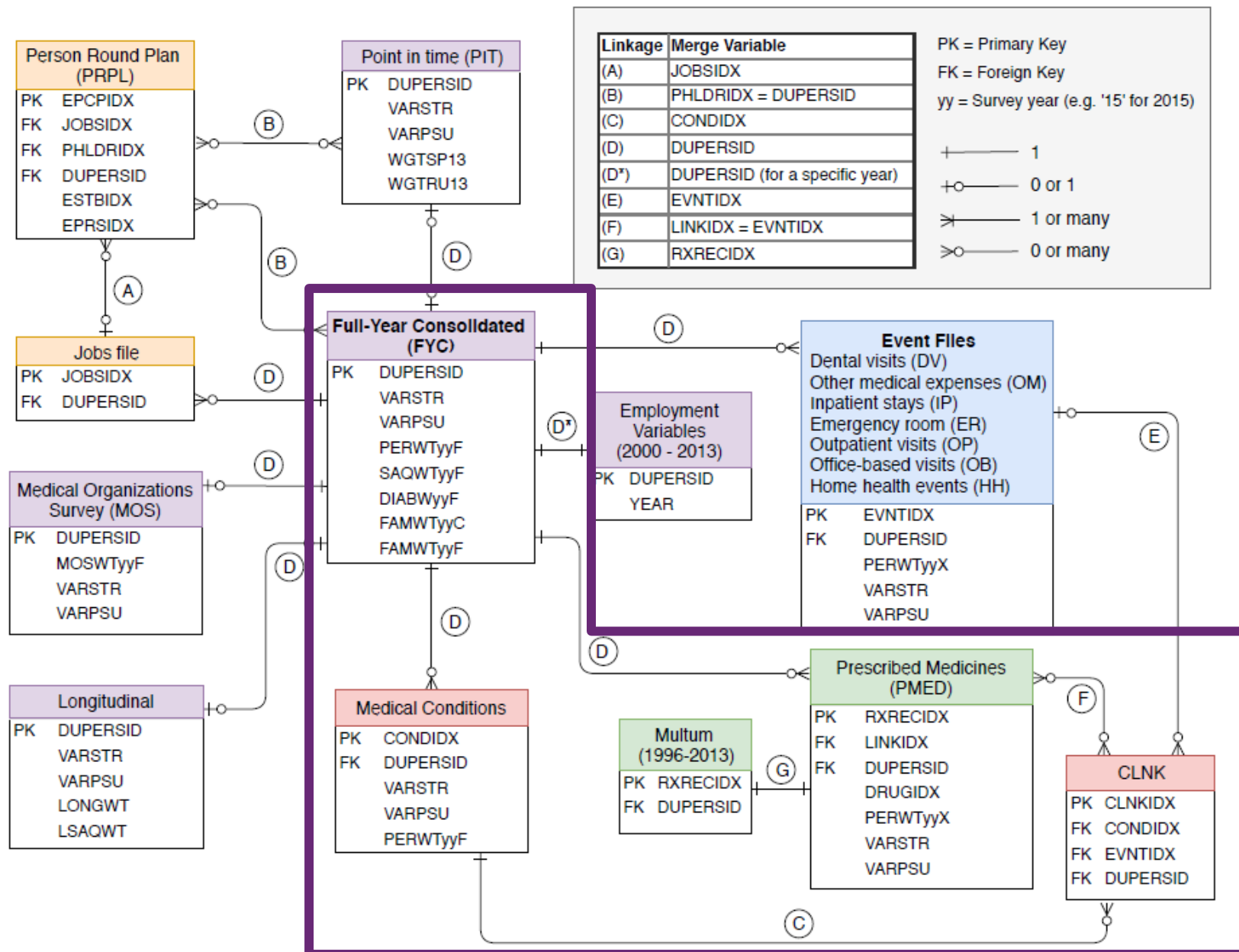
MEPS Public Use Files (PUFs)

Entity Relationship Diagram (ERD) with survey and linkage variables



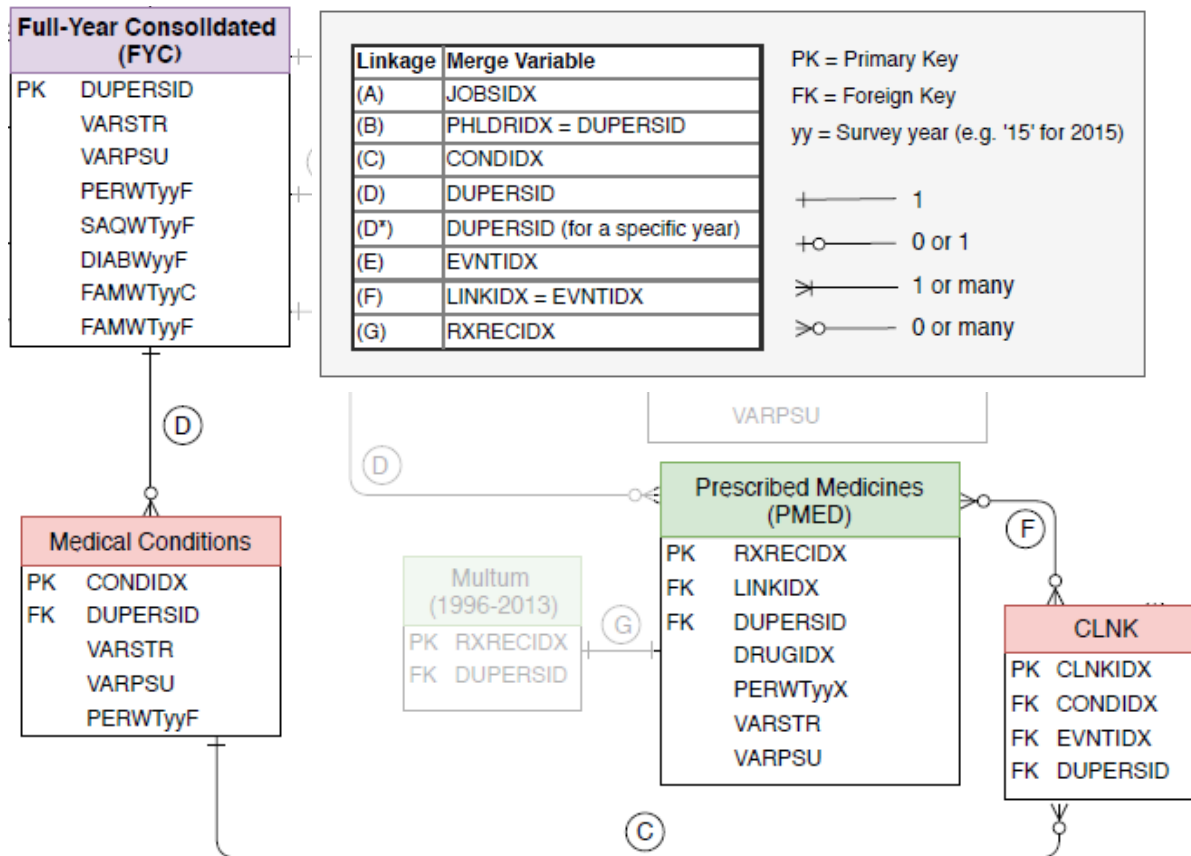
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Entity Relationship Diagram (ERD) with survey and linkage variables



Linking PMEDs to Conditions

Conditions-Event Link (CLNK) PUF: Crosswalk between medical conditions and medical events (including PMEDs)



- ▶ Not all conditions link to drugs
- ▶ Not all drugs link to conditions
- ▶ Not all MEPS sample members have reported drugs
- ▶ Not all MEPS sample members have reported conditions
- ▶ Merge EVNTIDX on CLNK to LINKIDX on PMED
- ▶ Many-to-many matching is possible
 - One drug can treat multiple conditions
 - One condition can be treated with multiple drugs

Linking Conditions to PMEDs

PMED File

DUPERSID	DRUGIDX	RXRECIDX	PURCHRD	LINKIDX	RXDRGNAM
2510001101	2510001101001	2510001101001103001	1	2510001101001103	ATORVASTATIN
2510001101	2510001101001	2510001101001103002	1	2510001101001103	ATORVASTATIN
2510001101	2510001101001	2510001101001203003	2	2510001101001203	ATORVASTATIN
2510001101	2510001101002	2510001101002203004	2	2510001101002203	AMOXICILLIN

'Lipitor'

Hyperlipidemia
(High Cholesterol)

CLNK File

DUPERSID	CONDIDX	EVNTIDX	EVENTYPE
2510001101	2510001101001	2510001101001103	8
2510001101	2510001101001	2510001101001203	8
2510001101	2510001101002	2510001101002203	8

Medical Conditions File

DUPERSID	CONDIDX	ICD10CDX	CCSR1X	CCSR2X
2510001101	2510001101001	E78	END010	-1
2510001101	2510001101002	J02	INF003	RSP006
2510001101	2510001101003	J00	RSP006	-1

Linking Conditions to PMEDs

PMED File

DUPERSID	DRUGIDX	RXRECIDX	PURCHRD	LINKIDX	RXDRGNAM
2510001101	2510001101001	2510001101001103001	1	2510001101001103	ATORVASTATIN
2510001101	2510001101001	2510001101001103002	1	2510001101001103	ATORVASTATIN
2510001101	2510001101001	2510001101001203003	2	2510001101001203	ATORVASTATIN
2510001101	2510001101002	2510001101002203004	2	2510001101002203	AMOXICILLIN

CLNK File

DUPERSID	CONDIDX	EVNTIDX	EVENTYPE
2510001101	2510001101001	2510001101001103	8
2510001101	2510001101001	2510001101001203	8
2510001101	2510001101002	2510001101002203	8

Medical Conditions File

DUPERSID	CONDIDX	ICD10CDX	CCSR1X	CCSR2X
2510001101	2510001101001	E78	END010	-1
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Linking Conditions to PMEDs

PMED File

DUPERSID	DRUGIDX	RXRECIDX	PURCHRD	LINKIDX	RXDRGNAM
2510001101	2510001101001	2510001101001103001	1	2510001101001103	ATORVASTATIN
2510001101	2510001101001	2510001101001103001	1	2510001101001103	ATORVASTATIN
2510001101	2510001101001	2510001101001103001	1	2510001101001103	ATORVASTATIN
2510001101	2510001101002	2510001101002203004	2	2510001101002203	AMOXICILLIN

Respondent Reports: "Strep throat"

Code to ICD-10: J02.0

CCSR codes: INF003 RSP006

Included on PUF:

Medical Conditions File

DUPERSID	CONDIDX	ICD10CDX	CCSR1X	CCSR2X
2510001101	2510001101001	E78	END010	-1
2510001101	2510001101002	J02	INF003	RSP006
2510001101	2510001101003	J00	RSP006	-1

Resources



MEPS Website:

<https://meps.ahrq.gov/mepsweb/>

MEPS GitHub:

<https://github.com/HHS-AHRQ/MEPS/>

MEPS-HC Online Data Tools:

<https://datatools.ahrq.gov/meps-hc>

The Impacts of the COVID-19 Pandemic on the Medical Expenditure Panel Survey:

<https://ajph.aphapublications.org/doi/abs/10.2105/AJPH.2021.306534?journalCode=ajph>

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