



AGENCY FOR HEALTHCARE RESEARCH AND QUALITY



MEPS-HC Medical Conditions Data

Rebecca Ahrnsbrak

MEPS-HC CAPI Medical Condition Data Collection



Priority conditions

- **Fifteen specific condition questions**

Open-ended reporting

- **Medical events**
- **Condition enumeration (prior to 2018)**
- **Disability days (prior to 2013)**

Priority Conditions

Ever told by health professional (18+ except where noted)

- Hypertension/high blood pressure (HIBPDX, BPMLDX)
- Coronary heart disease (CHDDX)
- Angina (ANGIDX)
- Heart attack/myocardial infarction (MIDX)
- Other heart disease (OHRTDX)
- Stroke/transient ischemic attack (STRKDX)
- Emphysema (EMPHDX)
- High cholesterol (CHOLDX)
- Cancer/malignancy (CANCERDX)
- Diabetes (DIABDX_M18)—All ages
- Arthritis (ARTHDX)
- Asthma (ASTHDX)—All ages
- Attention deficit hyperactivity disorder (ADHDADDX)—ages 5–17

Priority Conditions (cont.)

During past 12 months, have you had

- **Chronic bronchitis**
 - CHBRON31
- **Joint pain/aching/stiffness/swelling**
 - JTPAIN31_M18

Open-Ended Reporting of Conditions

Medical Events

- Main source of condition data (100% 2018 onward)

Condition Enumeration

- 1996–2017 (discontinued in Panel 21 Round 5 and Panel 22 Round 3)

Disability Days

- 1996–2012 (discontinued in 2013)

Open-Ended Reporting Questions

Condition Enumeration (discontinued 2017)

- **“Between (START DATE) and (END DATE), did (PERSON) have any physical or mental health problems, accidents, or injuries?”**
- **“What did (PERSON) have?”**

Medical Events

Non-prescription events

- **“What conditions were discovered or led (PERSON) to make this visit?”**

Medical Events

Prescription events

- **“What health problem is medicine prescribed for?”**

Medical Event Condition Questions

Question: What conditions were discovered or led (PERSON) to make this visit?

- **Hospital inpatient**
- **Hospital outpatient**
- **Emergency room**
- **Office-based medical providers**
- **Home health**

Question: What health problem is (MEDICINE) prescribed for?

- **Prescribed medicine purchases**

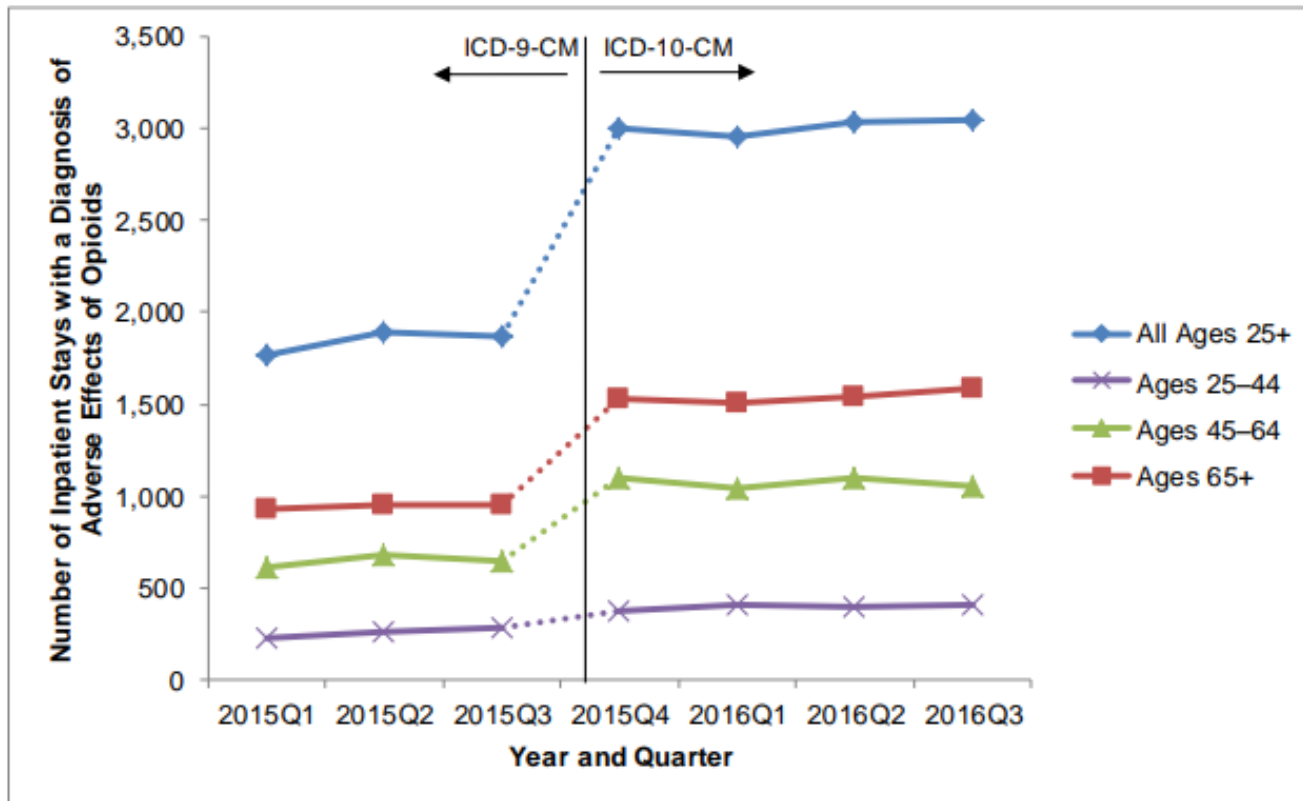
Condition Coding and Editing

Verbatim text recorded and coded to fully specified ICD codes

- **Public use files contain 3-digit codes**
- **ICD-9: 1996–2015**
 - **Also collapsed to clinical classification codes—Clinical Classification Software (CCS) (aggregation of ICD-9 codes into broad, clinically meaningful categories)**
- **ICD-10: 2016 onward**
 - **Also collapsed to Clinical Classification Software Refined (CCSR) codes on the 2018 and later conditions files**
 - **2016 and 2017 public use conditions files have only ICD-10 codes currently (no CCSRs)**

Beginning in 2020: Condition look-up tool in CAPI

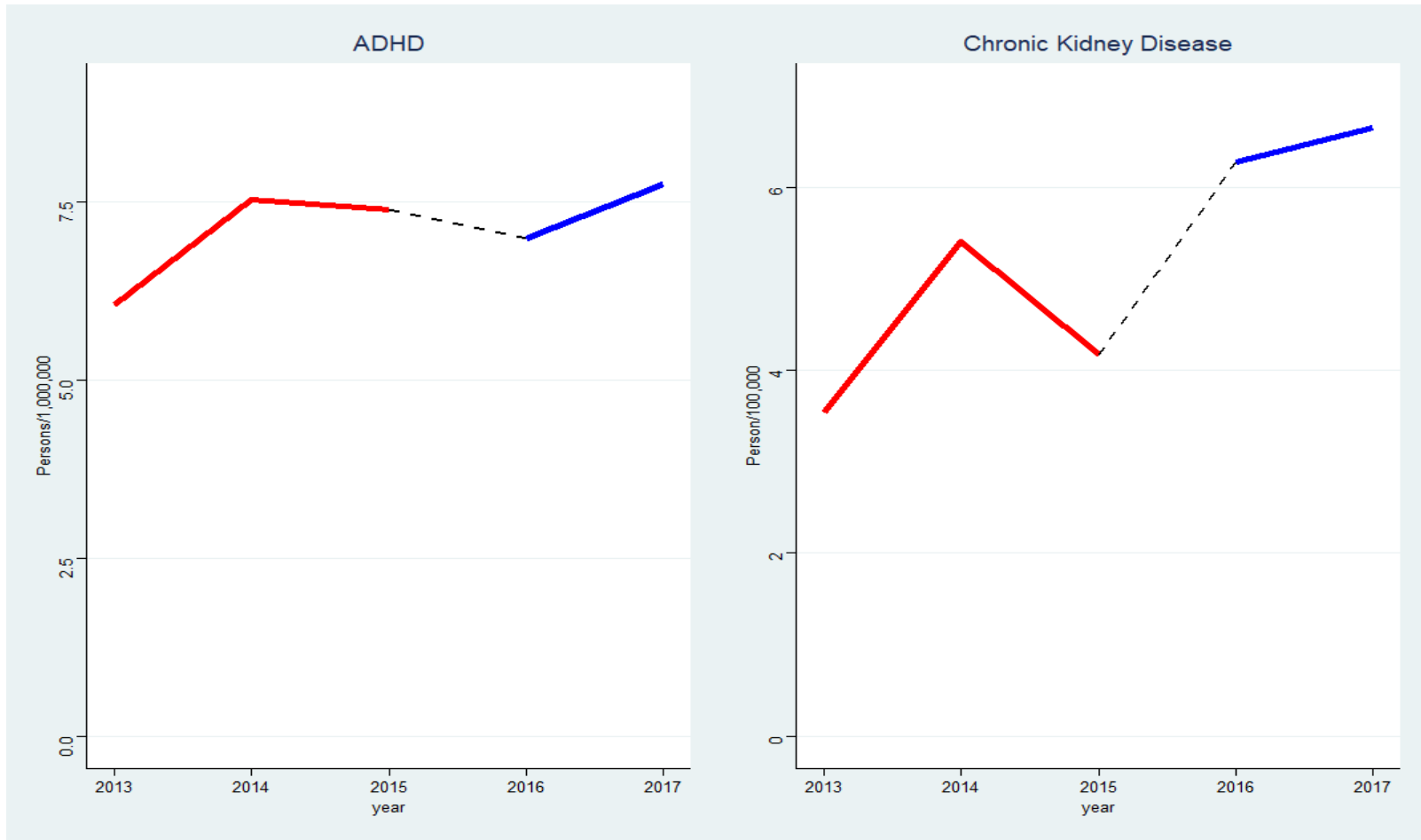
Showing Trends with ICD-10 Transition



Source: Agency for Healthcare Research and Quality, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, State Inpatient Databases for 2015 and quarterly inpatient data for 2016 from three States (Colorado, Kentucky, and Minnesota).

From <https://www.hcup-us.ahrq.gov/datainnovations/ICD-10CaseStudyonOpioid-RelatedIPStays042417.pdf>

Showing Trends with ICD-10 Transition (cont.)



 ICD-9

 ICD-10

Medical Conditions and Conditions Link 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

Condition Files

Condition Link Files

Medical Conditions and Conditions Link Files (cont.)

Conditions File

- Observations of unique person/condition pairs
- ICD-9 (1996–2015) and ICD-10 (2016–present)
- CCS codes (1996–2015) and CCSR codes (starting in 2018)
- Priority conditions NOT included unless the condition is also reported as current (for 2018 onward the condition must be associated with an event)
- Variables that indicate the number and type of event a condition links to (e.g., ERNUM – number of ER events associated with a condition)

Conditions Link File

- Condition ID (CONDIX) and event ID (EVNTIDX) for linking conditions with events
- Event type (EVNTYPE)

Linking Conditions to Events

Conditions File

Event Type and Counts

DUPERSID	CONDIDX	ICD10CDX	HHNUM	IPNUM	OPNUM	OBNUM	ERNUM	RXNUM
10001101	100011010021	J00	0	0	0	0	0	1
10001101	100011010031	M76	0	0	0	1	0	0
10001101	100011010041	H52	0	0	0	6	0	0

Link File

DUPERSID	CONDIDX	EVNTIDX	EVENTTYPE
10001101	100011010021	100011010211	8
10001101	100011010031	100011010351	1
10001101	100011010041	100011010291	1
10001101	100011010041	100011010301	1
10001101	100011010041	100011010311	1
10001101	100011010041	100011010321	1
10001101	100011010041	100011010331	1
10001101	100011010041	100011010341	1

OB File

DUPERSID	EVNTIDX
10001101	100011010351
10001101	100011010291
10001101	100011010301
10001101	100011010311
10001101	100011010321
10001101	100011010331
10001101	100011010341

Medical Conditions Data: Caveats and Limitations

Potential Underreporting

- Respondent not aware or asked
- One respondent per household
- Sensitive conditions underreported in surveys
- Condition not salient or bothersome
- No medical care received

Some Recorded Text Strings Not Easily
Classified into ICD Condition Codes

Caveats and National Estimates of Condition Prevalence

MEPS cannot be used to produce overall disease prevalence estimates.

- **See caveats on previous slide.**

MEPS can be used to produce “treated prevalence.”

- **From 2018 onward, current conditions (those on the conditions files) are only those linked to events in the relevant year.**

Condition Data References

- ❑ Public use file documentation
- ❑ Report titled *Understanding and Analyzing MEPS Household Component Medical Condition Data*
 - http://meps.ahrq.gov/mepsweb/survey_comp/MEPS_condition_data.pdf

Thank you!



Rebecca.Ahrnsbrak@ahrq.hhs.gov