



AGENCY FOR HEALTHCARE RESEARCH AND QUALITY



# MEPS – HC Medical Conditions Data

Jerrod Anderson, PhD

# MEPS-HC CAPI Medical Condition Data Collection



## Priority Conditions

- 15 specific condition questions

## Open-ended reporting

- Medical Events
- Condition Enumeration
- Disability Days

# Priority Conditions

## Ever told by health professional (18+)

- Hypertension/High Blood Pressure (HIBPDX)
- 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)
- Arthritis (ARTHDX)
- Asthma (ASTHDX)- All ages
- Attention Deficit Hyperactivity Disorder (ADHDADDX) – ages 5-17

# Priority Conditions

During past 12 months, have you had

- Chronic Bronchitis
  - CBRON31, CBRON53
- Joint pain/aching/stiffness/swelling
  - JTPAIN31, JTPAIN53

# Open-Ended Reporting of Conditions

## Medical Events

- **Main source of condition data (100% in 2018 on)**

## Condition Enumeration

- **1996-2017 (discontinued in P21R5, P22R3)**

## Disability Days

- **1996-2012 (discontinued in 2013)**

# Open-Ended Reporting Questions

## Condition Enumeration

- “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
- Home Health

Question: What health problem is medicine prescribed for?

- Prescribed Medicine purchases

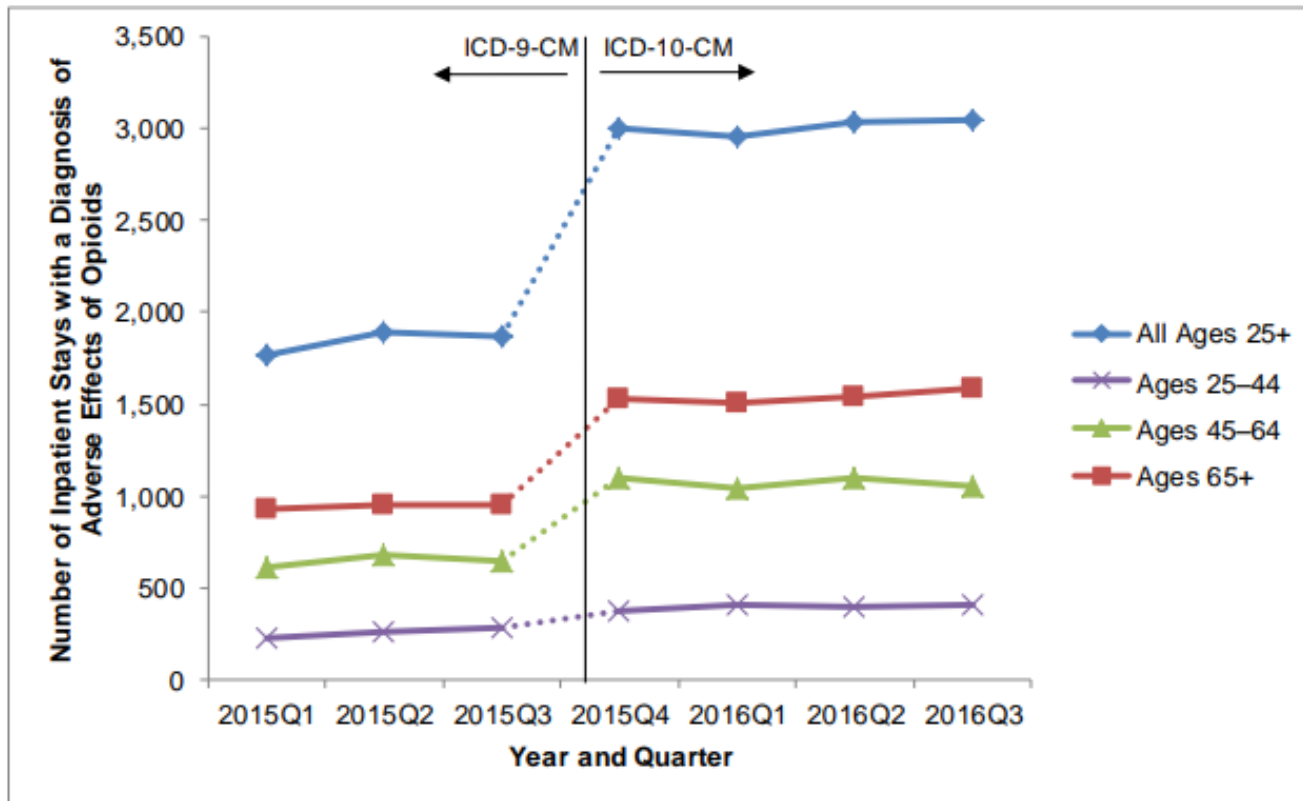
# Condition Coding and Editing

## Verbatim text recorded and coded to fully specified ICD codes

- ICD-9: 1996-2015 (3-digit codes on public files)
  - Collapsed to Clinical Classification Codes (aggregation of ICD-9 codes into broad clinically meaningful categories)
- ICD-10: 2016 on (3-digit codes on public files)
  - CCSR codes to be introduced on the 2018 conditions file



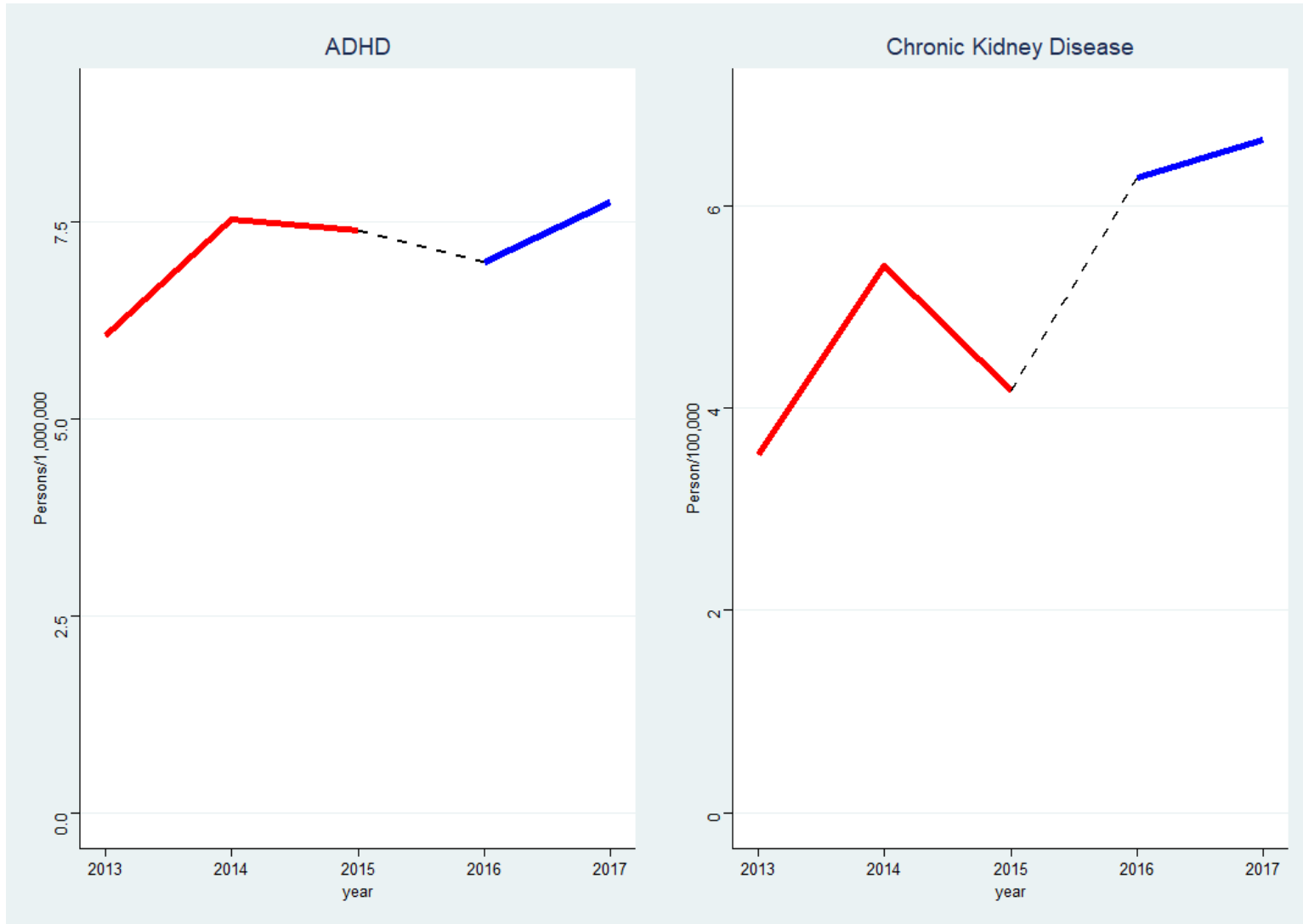
# Showing Trends with ICD-10 Transition



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



# Medical Conditions and Conditions Link Files

[https://meps.ahrq.gov/mepsweb/data\\_stats/download\\_data\\_files.jsp](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

## Conditions File

- Observations of unique person/condition pairs
- ICD-9 (1996-2015) and ICD-10 (2016-present)
- CCCs (1996-2015) and CCSRs (starting in 2018)
- Does NOT include priority conditions
- Variables that indicate the number and type of event a condition links to

## 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 Under-reporting

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

Some recorded text strings are not easily  
classified into ICD condition codes

# Caveats and National Estimates of Condition Prevalence

Cannot use MEPS to produce overall disease prevalence estimates

- See caveats on previous slide

MEPS can be used to produce “treated prevalence”

- From 2018 on, conditions (except priority conditions) are only linked to events

# 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](http://meps.ahrq.gov/mepsweb/survey_comp/MEPS_condition_data.pdf)



# Thank you!



**[Jerrod.Anderson@ahrq.hhs.gov](mailto:Jerrod.Anderson@ahrq.hhs.gov)**