



AGENCY FOR HEALTHCARE RESEARCH AND QUALITY



Medical Expenditure Panel Survey (MEPS) OVERVIEW

Anita Soni, PhD, MBA

Who Uses MEPS?



- ☐ **Academic Researchers**
- ☐ **Policymakers (federal, state, local)**
- ☐ **Non-profit organizations**
- ☐ **For profit companies**
- ☐ **Media**

MEPS OVERVIEW: Outline



☐ What is MEPS:

- ☐ Components
- ☐ Purpose
- ☐ Design and Sample

☐ What MEPS collects

- ☐ Core and Supplemental Content
- ☐ Supplemental CAPI sections & Questionnaires

☐ Data Dissemination

- ☐ Website
- ☐ Data Files
- ☐ Web Tools
- ☐ AHRQ Data Center

MEPS Survey Components



☐ MEPS-HC: Household Component

- ☐ Collects data from a sample of families and individuals in selected communities across the United States
- ☐ Annual Survey of about 15,000 households since 1996
- ☐ Provides national estimates of health care use, expenditures, insurance coverage, sources of payment, access to care and health care quality

☐ MEPS-IC: Insurance Component

- ☐ Collects data from a sample of private and public sector employers on the health insurance plans they offer their employees.
- ☐ An independent survey of employers and unions not linked to the household survey

MEPS Survey Components



☐ **MEPS-MPC: Medical Provider Component**

- ☐ **Survey of medical providers linked to respondents of the HC**
 - ☐ **MPC collects data from a sample of providers (physicians, hospitals, home health agencies, and pharmacies) who provided medical care to MEPS-HC respondents.**
 - ☐ **A sample of medical providers are contacted by telephone to obtain information that household respondents can not accurately provide.**
 - ☐ **MPC collects data on dates of visits/services, use of medical care services, charges and sources of payments and amounts, and diagnoses and procedure codes for medical visits/encounters. It also collects data on drug detail information, including National Drug Code (NDC) and medicine name, as well as date filled and sources and amounts of payment.**
- ☐ **MPC data is not designed to yield national estimates, used solely for editing and imputation purposes of the Household Component data.**
- ☐ **Data files with only this supplemental respondent information are not available for public use.**

MEPS-Household Component

Purpose & Uses



- ☐ Provides data collected from individual households and their members, which is supplemented by data from their medical providers.
- ☐ Provides nationally representative estimates of health care use, expenditures, sources of payment, and health insurance coverage for the U.S. civilian noninstitutionalized population.
- ☐ Estimates can be produced for individuals, families, and selected population subgroups and socio-economic characteristics.
- ☐ Used for policy-related and behavioral research on the determinants of health care use, spending, and insurance coverage
- ☐ Used in microsimulation models to analyze alternative health care delivery proposals

MEPS-HC Survey Design



- ☐ Since 1996, each year a new panel of sample households is selected.
- ☐ MEPS-HC sample is a subsample of households participating in the previous year's National Health Interview Survey (NHIS) conducted by NCHS.
- ☐ Sample is representative of the civilian non-institutionalized population of the USA.
- ☐ Data collected for two years of healthcare usage from each panel.

MEPS-HC Survey Interviews





















- ☐ **Five in-person interviews using CAPI (Computer-assisted Personal Interviewer) technology.**
- ☐ **All data reported by a single household respondent.**
- ☐ **To collect two years of healthcare usage data, it can take up to two and half years.**
- ☐ **Interviews can last anywhere from one to four hours.**

MEPS-HC Sample Sizes



Year	Number of families	Number of persons
2017	12,756	30,716
2016	13,587	33,259
2015	13,800	33,893
2014	13,421	33,162
2013	13,936	35,068
2012	14,763	37,182
2011	13,449	33,622
2010	12,445	31,228
2009	13,875	34,920
2008	12,316	31,262
2007	11,615	29,370
2006	12,811	32,577
2005	12,810	32,320
2004	13,018	32,737
2003	12,860	32,681
2002	14,828	37,418
2001	12,852	32,122
2000	9,515	23,839
1999	9,345	23,565
1998	9,023	22,953
1997	13,087	32,636
1996	8,655	21,571

MEPS Panel Design: Data Reference Periods

	2016				2017				2018			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Panel 20												
Round 3												
Round 4												
Round 5												
Panel 21												
Round 1												
Round 2												
Round 3												
Round 4												
Round 5												
Panel 22												
Round 1												
Round 2												
Round 3												
Round 4												
Round 5												
Panel 23												
Round 1												
Round 2												
Round 3												
Sample Size	N = 33,259				N = 30,716				N = 29,415			

N is equal to the number of people with a positive person weight on the file.

MEPS-HC Core Interview Content



- ☐ **Demographics**
- ☐ **Geographic**
- ☐ **Access to Care**
- ☐ **Charges and Payments**
- ☐ **Priority Conditions**
- ☐ **Employment**
- ☐ **Health Status**
- ☐ **Income**
- ☐ **Disability Days**
- ☐ **Health Insurance**
- ☐ **Utilization and Expenditures**

MEPS-HC: Core Content



☐ Demographics

- ☐ Age
- ☐ Sex
- ☐ Race and Ethnicity
- ☐ Language and English Proficiency
- ☐ Marital Status
- ☐ Foreign Born Status
- ☐ Student Status and Educational Attainment
- ☐ Military Service and Honorable Discharge
- ☐ Income and Poverty Status

MEPS-HC: Core Content



- ☐ **Charge and Payments (CP)**
 - ☐ Tracks total charges and sources of payment for medical events reported in earlier sections.
- ☐ **Employment (EM)**
 - ☐ Covers questions about each person's employment or self-employment status.
- ☐ **Health Insurance (HX)**
 - ☐ Collects information about health insurance including private and public health insurance programs.

MEPS-HC: Core Content



☐ Health Status (HE)

- ☐ Assesses the physical and mental health status for both children and adults. For children it obtains additional information on childhood immunizations, limitations to school attendance etc.

☐ Utilization

- ☐ Collects data in each round on use and expenditures for office- and hospital-based care, home health care, dental services, vision aids, and prescribed medicines. Data were collected for each sample person at the event level (e.g., doctor visit, hospital stay).

MEPS-HC: Supplemental Sections



- ☐ **Access to care**
- ☐ **Child Health and Preventive Care**
- ☐ **Income**
- ☐ **Preventive Care – revised**
- ☐ **Priority Condition Enumeration**
- ☐ **Assets (round 5 only)**

MEPS-HC: Supplemental Sections Rounds 2 and 4



☐ Access to Care (AC)

- ☐ Identifies whether each household member has a medical provider who provides the usual source of care (USC).

☐ Child Preventive Health (CS)

- ☐ Collects information on general health status, special health care needs, potential behavioral problems, accessibility to health care, preventative care, height, and weight of any child in the family.

MEPS-HC: Supplemental Sections Rounds 3 and 5



- ☐ **Income (IN)**
 - ☐ Collects information about income and tax returns.
- ☐ **Preventive Care (AP)**
 - ☐ Collected information on any preventive care received (dental and physical check-ups, flu shots, and other preventative health exams). (until 2016)
 - ☐ Starting 2017, most of the variables in this section were dropped – new questionnaire is called Additional Health Questions and has only 3 questions (Lost teeth and physical activity and how often do you smoke)
- ☐ **Assets (AS)**
 - ☐ To supplement financial data collected in the Income section, the Assets section asks about household members' real estate, businesses, vehicles, investments, other assets, and debts.

MEPS Supplemental Paper Instruments

DCS	Round 5	Round 5	Round 5	Round 5	Round 5
	Round 3	Round 3	Round 3	Round 3	Round 3
MSAQ				Round 5	
				Round 3	
				Round 1	
VSAQ			Round 5		
			Round 3		
			Round 1		
PSAQ		Round 4		Round 4	
		Round 2		Round 2	
SAQ	Round 4		Round 4		Round 4
	Round 2		Round 2		Round 2
	2017	2018	2019	2020	2021

MEPS-HC: Supplemental Questionnaires



- ☐ **Diabetes Care Survey (DCS)**
- ☐ **Given once a year (in rounds 3 and 5) to each adult identified as having diabetes.**
- ☐ **A total of 14 questions related to various tests and managing the diabetes.**

MEPS-HC: Supplemental Questionnaires



□ Adult Self-Administered Questionnaire (SAQ)

- Given once a year (in rounds 2 and 4) to each adult 18 years old and older until 2016. Starting in 2017, this will be administered in every other year.
- A total of 46 questions on self-reported opinions on one's physical and mental health, receiving care from specialists; communication and quality of health care received from providers.
- Contains CAHPS® health care quality measures, as well as three measures of health status: SF-12v2, K6 and PHQ-2.

MEPS-HC: Supplemental Questionnaires



- ☐ **The Preventive Care Self-Administered Questionnaire (PSAQ)**
 - ☐ First time fielded during Panel 18 Round 5 of the 2014 MEPS survey. The questionnaires were administered in early 2015.
 - ☐ Collects a variety of person-level preventive health care data for adults.
 - ☐ There are separate versions of the survey for males (30 questions) and females (35 questions).
 - ☐ Starting with 2018, PSAQ would be administered every other year in rounds 2 and 4.

MEPS-HC: Supplemental Questionnaires



- ❑ **Cancer Self- Administered Questionnaire**
 - ❑ **The 2011 CSAQ was developed and administered to the respondents identified as having cancer with questions about the burden of cancer, long lasting effects of the disease, financial impacts, and employment outcomes for cancer survivors and their families. 93 questions**
 - ❑ **The CSAQ was updated and administered for data year 2016. 62 questions**
 - ❑ **The same CSAQ was administered in 2017**

MEPS-HC: Supplemental Questionnaires



- ☐ **The 2015 Medical Organizations survey (MOS)**
 - ☐ Collects information on office-based usual source of care (USC) practice characteristics for MEPS sample persons who saw their office-based USC during the year
 - ☐ Funding provided by the Robert Wood Johnson Foundation
 - ☐ Support studies of association between practice characteristics and consumer access, service use, expenditures and quality of care.
 - ☐ Questionnaire located under MPC questionnaires
 - ☐ Data is publically available
 - ☐ MOS was administered in 2015 and 2016.

MEPS-HC: Caveats and Limitations



- ❑ **Sample size limitations preclude some analyses**
- ❑ **Typically, one respondent provides data for the entire household**
- ❑ **Household respondents may not be able to report accurately certain types of information**
 - ❑ **type of health plan**
 - ❑ **detailed event information**
 - ❑ **diagnoses**

MEPS Website



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

☐ Materials on the MEPS Web site:

- ☐ Micro Data Files - Public Use Files (PUF's)
- ☐ Questionnaires - Core and Supplemental
- ☐ Redesigned HC Summary Data Tables Platform
- ☐ Publications
- ☐ Mailing List and List Serve
- ☐ What's New
- ☐ Workshops and Events – workshops, webinars and seminars
- ☐ MEPSnet Query Tools

MEPS-HC: Data Files for Public Use (PUFs): Levels



- ☐ **Person Level - detailed person information**
 - ☐ Each record represents a person, has all of person's demographics, health, income, expenses, etc.
- ☐ **Event Level - detailed event information**
 - ☐ Each record represents an event, such as a hospital visit, has all details on conditions, expenditures, etc. for that visit.
- ☐ **Condition Level - detailed condition information**
 - ☐ Each record represents a condition, all details on that condition are on that record.
- ☐ **Job Level - detailed job information**
 - ☐ Each record represents a job and all details associated with it.

MEPS-HC: Data Files for Public Use (PUFs): Types



- ☐ **Full-year Files – Contain expenditure and utilization data for the calendar year from several rounds of data collection.**
 - ☐ **Consolidated Data File**
 - ☐ **Event File**
 - ☐ **Medical Conditions File**
 - ☐ **Jobs File**
 - ☐ **Person Round Plan Public Use File**

MEPS-HC: Data Files for Public Use (PUFs): Supporting Documents



- ☐ **Documentation Files**
 - ☐ **Contain general information about MEPS**
 - ☐ **List and discuss file variables including variable-source crosswalk to link back to questionnaire items**
 - ☐ **Instructions on how to link files**
- ☐ **File Codebooks**
 - ☐ **Contains names and location of all variables**
 - ☐ **Provides formatted frequencies for all variables on the file**
- ☐ **Users notes**
- ☐ **SAS Programming Statements**
- ☐ **SPSS Programming Statements**
- ☐ **STATA Programming Statements**
- ☐ **Data file in SAS transport and ASCII formats**
- ☐ **Sample code**

MEPS Data Tools

www.meps.ahrq.gov

MEPS Home		
About MEPS		
• Survey Background		
• Workshops & Events		
• Data Release Schedule		
Survey Components		
• Household		
• Insurance/Employer		
• Medical Provider		
• Survey Questionnaires		
Data and Statistics		
• Data Overview		
• MEPS Topics		
• Publications Search		
• Summary Data Tables <small>New</small>		
• MEPSnet Query Tools		
• Data Files		
• Data Centers		
Communication		

The Medical Expenditure Panel Survey (MEPS) is a set of large-scale surveys of families and individuals, their medical providers, and employers across the United States. MEPS is the most complete source of data on the cost and use of health care and health insurance coverage. [Learn more about MEPS.](#)

MEPS Topics

• Access to Health Care	• Health Insurance	• Prescription Drugs
• Children's Health	• Medical Conditions	• Projected Data/Expenditures
• Children's Insurance Coverage	• Medicare/Medicaid/SCHIP	• Quality of Health Care
• Elderly Health Care	• Men's Health	• State and Metro Area Estimates
• Health Care Costs/Expenditures	• Mental Health	• The Uninsured
• Health Care Disparities	• Obesity	• Women's Health

[Click here for full topic list ...](#)

What's New Highlights

Upcoming Events

Registration is now OPEN for the **MEPS Data Users' Workshop**, April 10, 2018, Rockville, MD. [More details. . .](#)

Contact MEPS
New to MEPS?
Select a profile:

- [General user](#)
- [Researcher](#)
- [Policymaker](#)
- [Media](#)
- [Survey participant](#)

AHRQ Data Center (ADC)



☐ Purpose

- ☐ Provides researchers access to non-public use MEPS data (except directly identifiable information)
- ☐ Examples: *State and County FIPS Codes, Non-Public Use Data Elements, Fully Specified ICD-9 Codes etc.*

☐ Location and Access

- ☐ Secure room with no internet connectivity, terminal connected to secure LAN

☐ Statistical software and staff support

- ☐ SAS, STATA, SUDAAN, R

AHRQ Data Center: Procedures



- ☐ **Proposal and Review - 2 weeks for feasibility, and data availability**
- ☐ **Requirements - Institutional Review Board (IRB) review from users' institute; signing the data use agreement and \$300 one-time fee to cover technical assistance**
- ☐ **Access - Researcher may bring data in, but not out; given access only to data needed for approved project; run analysis – on or off-site (rarely)**
- ☐ **All tabular data is reviewed for confidentiality before release from Center - only approved tables can leave the Center**
- ☐ **MEPS data can be accessed in many data centers across the country including Census Bureau and many universities.**
- ☐ **Center will store data files, foreign merge files, and all outputs needed for replication – may be accessed remotely in special circumstances.**

Thank you!



Anita.Soni@ahrq.hhs.gov