National Health Care Surveys

Jane E. Sisk
Division of Health Care Statistics
National Center for Health Statistics

Subcommittee on Population Health
National Committee on Vital and Health Statistics
February 9, 2010
Division of Health Care Statistics

Mission

To collect, analyze, and disseminate data on

• the use, access, quality, and cost of health care provided in the United States and

• the health-care organizations and professionals who deliver that care
National Health Care Surveys: Ambulatory and Hospital Care

- National Ambulatory Medical Care Survey
  visits to physicians in offices and clinicians in community health centers
- National Hospital Ambulatory Medical Care Survey
  visits to hospital emergency and outpatient departments, ambulatory surgery centers
- National Hospital Discharge Survey
  discharges from hospital inpatient departments
National Health Care Surveys: Long-Term Care Surveys

• National Nursing Home Survey
care for current residents
supplement on nursing assistants, 2004

• National Home and Hospice Care Survey
current home health care patient
discharged hospice patients
supplement on home health aides, 2007

• National Survey of Residential Care Facilities
current residents
Data Uses

- Assessment of quality and disparities
- Comparative effectiveness research
- Epidemiology of specific conditions
- Management of medical conditions
- Use and financing of services
- Diffusion of health-care technologies
- Effects of policy changes
- Monitoring changes over time
Examples of Provider-Based Data

Provider Organizations
Setting
Sources of revenue
Ownership/staffing
Technologies
Electronic medical records

Clinicians
Specialty and training
Visits
Gender
Race/ethnicity
Region

Patients
Demographics, including race/ethnicity
Medical conditions
Continuity
Vital signs
Insurance status
Residential zip code

Clinical Management
Medications
Services provided/ordered
Duration of visit
Disease Management
Counseling
Disposition
Current Data Collection Methods

- In-person interviews for facilities and clinicians
- Abstractions from medical records for encounter-level data
- CAPI/CATI for long-term care survey data
- Redesigned NHDS to use laptop tools, computer-assisted data entry (CADE)
- NAMCS, NHAMCS, and NHDS now using paper forms
- Mail state-level survey of physicians’ adoption of EMRs/EHRs
Data Linkages

- National Nursing Home Survey resident and facility data linked to Medicare data for 2004
- National Home and Hospice Care Survey to be linked to Medicare data for 2007
- Redesigned National Hospital Discharge Survey to be linked to National Death Index
Improvements Underway

• More facility/practice characteristics

• Free-standing and hospital-based ambulatory surgery centers included in NHAMCS

• Selected laboratory results collected in NAMCS and in 2011 in NHAMCS

• Redesigned National Hospital Discharge Survey medications, test results, observation patients, actual payments, better race data

NOTES: Any EMR/EHR is a medical or health record system that is either all or partially electronic (excluding systems solely for billing). The 2009 data are preliminary estimates (as shown on dashed lines), based only on the mail survey. Estimates of basic and fully functional systems prior to 2006 could not be computed because some items were not collected in the survey. Starting in 2007, the skip pattern after the all or partial EMR/EHR systems question was removed. Includes nonfederal, office-based physicians. Excludes radiologists, anesthesiologists, and pathologists.
SOURCE: CDC/NCHS, National Ambulatory Medical Care Survey.
Potential of Electronic Data Collection

- Faster data release for NAMCS, NHAMCS, and NHDS, especially at facility and clinician levels
- May be more accurate and complete, if errors and missings from paper data collection
- Once set up, less burden for hospitals
Challenges of EMRs/EHRs as Data Sources

- Not pervasive enough to support nationally-representative surveys
- Mixed modes of data collection necessary during transition
- Technical issues of data extraction
- Lack of interoperability of systems within same provider
- Willingness of providers to participate
- Funding to support developmental work and set up by providers
Next Steps, 2010-2015

- Recruiting informatics service fellow
- Arrange developmental work with providers with EHR systems and with HIEs
  - To receive encounter-specific data electronically and extract key data elements
  - To evaluate resulting data quality, procedures, and costs
- Pretest obtaining data from sampled providers with EHR systems, starting with EDs
- Monitor development of HIEs as option
- Transition to electronic data collection from sampled providers with EHR systems
Office-based physician and hospital emergency department trends significant ($p<.05$).

Sources: National Ambulatory Medical Care Survey and National Hospital Ambulatory Care Survey
Clostridium difficile
Inpatient Discharges, 1996-2006

Standing Orders* for Pain Management
Home Health Care Patients, 2007

PAIN LEVEL AT LAST ASSESSMENT

*Standing order alone or in combination
Source: National Home and Hospice Care Survey, 2007
Citation: Caffrey C., et al., in progress
Visits per 10,000 children

*Statistically significant p < .05
Source: National Hospital Ambulatory Medical Care Survey
Children < 18 years of age
Visits by adults 20 years and older with atrial fibrillation and no recorded contraindications to treatment to physician offices and outpatient departments.
Source: National Ambulatory Medical Care Survey, 2001-2006
Antibiotic Prescribing for Children Physician Office Visits, 1980-2006

Source: National Ambulatory Medical Care Survey, 1980-2006
Tobacco Screening and Counseling, Physician Office Visits, 2001-2005

Source: National Ambulatory Medical Care Survey. * Statistically significant p < .05