

Overview of the National Ambulatory Medical Care Survey and the National Hospital Ambulatory Medical Care Survey

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Overview

Background

Uses of data

Survey methodology

Data collection procedures

Accessing data

- Data on the web
- NCHS Research Data Center

Analytical considerations

BACKGROUND

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National Ambulatory Medical Care Survey (NAMCS)

- National probability sample survey
- Patient visits to non-federal office-based physicians and community health centers (CHCs)
- History
 - Survey fielded 1973-1981, 1985, and 1989 – present
 - Sample expanded in 2006 to include 104 community health centers (CHCs)

National Hospital Ambulatory Medical Care Survey (NHAMCS)

- National probability sample survey
- Patient visits to emergency departments (EDs), outpatient departments (OPDs), and ambulatory surgery centers (ASCs)
- History
 - Survey fielded 1992 – present
 - Two major modifications in scope:
 - 2009, added hospital-based ambulatory surgery centers
 - 2010, added freestanding ambulatory surgery centers

USES OF DATA

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NAMCS/NHAMCS Survey Goals

- National statistics on ambulatory care utilization
- Provide data for health policy formulation
- Provide comparative data for medical practice management

Data Users

- Health professional associations
- State and federal policy makers
- Health services researchers
- Epidemiologists
- Universities and medical schools
- Broadcast and print media

How are NAMCS and NHAMCS Data Used?

Changes in utilization and practice

- diagnoses, tests/procedures, prescribing

Quality of care

- Impact of performance measures and educational campaigns
- Healthy People 2010 objectives

Health disparities

Adoption of new technologies

- Electronic health records

NAMCS AND NHAMCS METHODOLOGY

NAMCS Scope

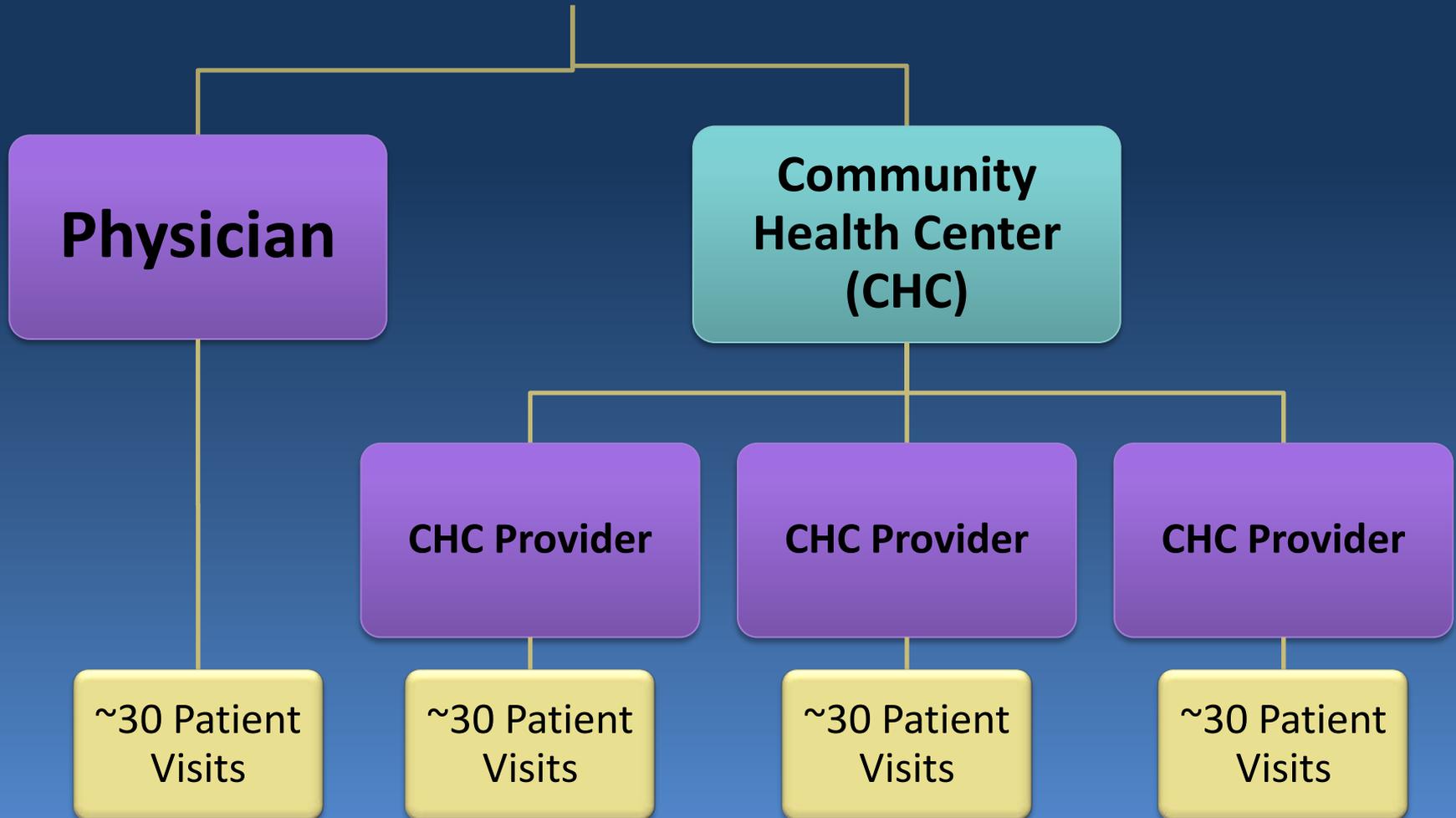
In-scope providers:

- Traditional physicians
 - Primarily engaged in office-based patient care
 - Not Federally employed
 - Not in anesthesiology, radiology, or pathology
- Community Health Centers (CHCs)
 - Physicians and non-physician clinicians
 - Federally qualified health centers
 - Urban Indian Health Service outpatient clinics

Sample of 30 visits per provider over one week period

NAMCS Sample Design

Primary Sampling Unit (PSU)



NAMCS Scope (cont.)

In-scope visits:

- Must occur in physician or CHC office
- Must be for medical purposes

Out of scope visits:

- Administrative visits
- House calls, emails, phone calls

2007 data

- 3,450 doctors sampled
- 104 CHCs sampled
- 32,778 total visits

NHAMCS Scope

In-scope hospitals

- Non-institutional general and short-stay
- Not Federal, military, or Veterans Administration facilities

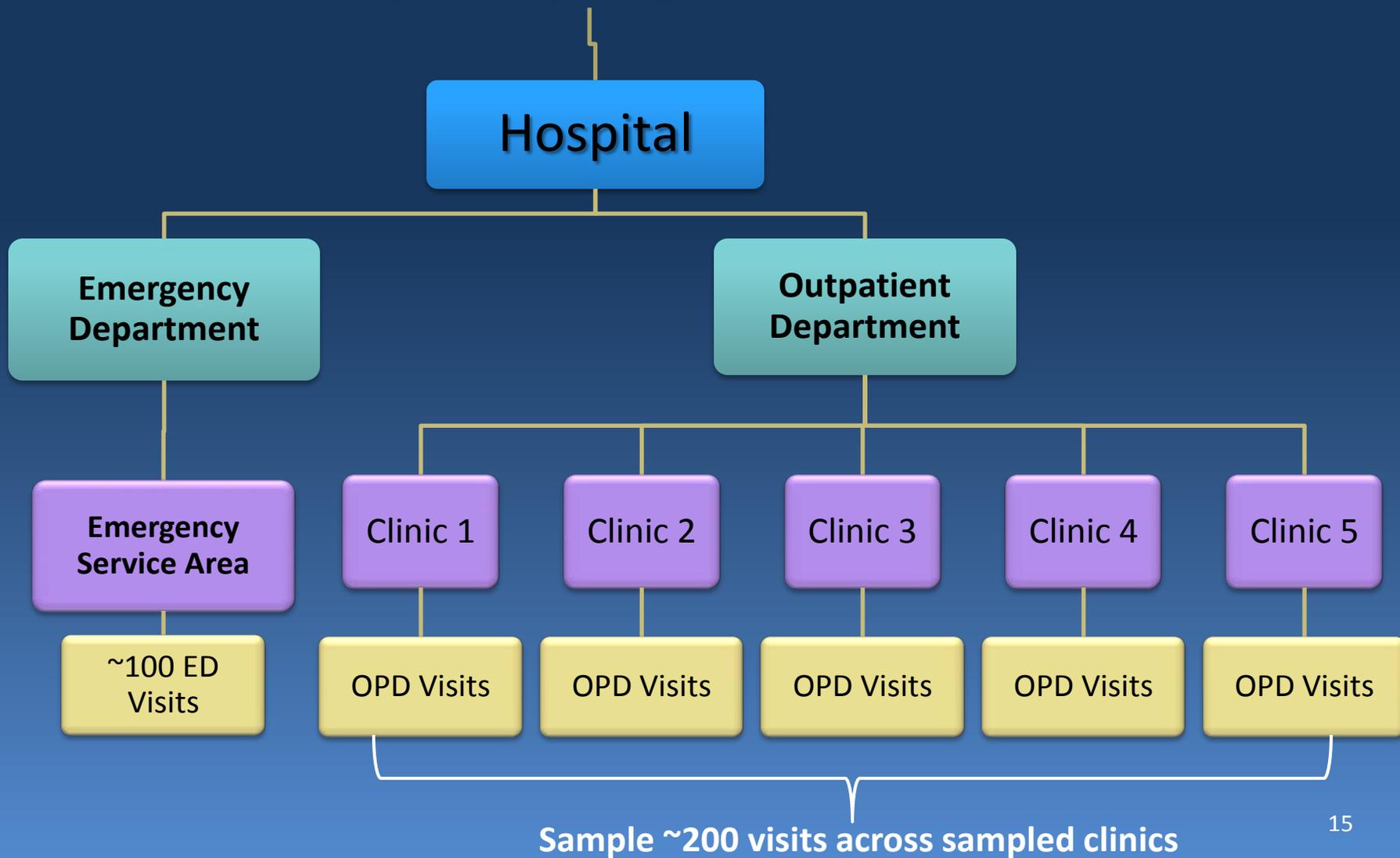
Sample patient visits during a 4-week reporting period

2007 Data

- 482 hospitals sampled
 - 35,490 ED visits
 - 34,473 OPD visits

2007 NHAMCS Sample Design

Primary Sampling Unit (PSU)



NAMCS AND NHAMCS DATA COLLECTION

Data Collection

Induction interview

- Determine eligibility
- Obtain data on facility characteristics
- Train facility staff on data abstraction

Office/hospital staff abstracts Patient Record forms (PRFs)

Induction forms and PRFs are keyed and coded by a contractor

Entered data are edited and analyzed at NCHS

Common Patient Record Form Items

- Patient demographic information
- Triage/Vital signs
- Reason for visit
- Injury/Poisoning/
Adverse effects
- Provider's diagnosis
- Diagnostic and screening services
- Treatment/procedures
- Medications
- Visit disposition
- Providers seen

Coding Systems Used

A Reason for Visit Classification (NCHS)

ICD-9-CM

- diagnoses
- external causes of injury
- procedures

Multum drug classification system

Drug Classification System

1985-2005, FDA's National Drug Code therapeutic classification was used

- Discontinued by FDA
- Only one level of sub-classification

2006-present, Multum Lexicon

- Two levels of sub-classification
- Regular updates

Accessing NAMCS/NHAMCS Data

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On the Internet at:

<http://www.cdc.gov/nchs/ahcd.htm>

The screenshot shows a Windows Internet Explorer browser window. The title bar reads "NAMCS/NHAMCS - Ambulatory Health Care Data Homepage - Windows Internet Explorer provided by ITSO". The address bar contains the URL "http://www.cdc.gov/nchs/ahcd.htm". The browser's menu bar includes "File", "Edit", "View", "Favorites", "Tools", and "Help". The address bar also shows a search engine dropdown set to "Google".

The main content area of the browser displays the CDC website. At the top left is the "CDC Home" logo and the text "Centers for Disease Control and Prevention" with the tagline "Your Online Source for Credible Health Information". A search box with a "SEARCH" button is located to the right. Below this is an alphabetical index from "A-Z Index" to "#".

The main heading is "Ambulatory Health Care Data". To the right of this heading is a logo for the "National Center for Health Statistics". Below the heading is a breadcrumb trail: "NCHS Home > Surveys and Data Collection Systems > National Health Care Surveys".

On the left side, there is a green sidebar menu titled "Ambulatory Health Care Data" with the following items: "About NAMCS/NHAMCS", "What's New", "Questionnaires, Datasets, and Related Documentation", "Research Tools", "Survey Results and Products", "Other Resources", and "Listserv".

The main content area contains a paragraph: "The National Ambulatory Medical Care Survey (NAMCS) is a national survey designed to meet the need for objective, reliable information about the provision and use of ambulatory medical care services in the United States. Findings are based".

To the right of this paragraph is a "What's New" section with a sub-heading "Data Products" and a bullet point: "The 2007 National Hospital Ambulatory Medical Care Survey public use micro-data files and documentation are now available for".

On the far right, there is a "Text size" section with buttons for "S", "M", "L", and "XL". Below this are links for "Email page", "Print page", and "Bookmark and share". At the bottom right of the content area is a graphic showing a bar chart with red and white bars.

The status bar at the bottom of the browser shows the URL "http://www.cdc.gov/nchs/ahcd/new_ahcd.htm", a "Trusted sites" icon, and a zoom level of "100%".

Microdata Files

Downloadable flat ASCII files

- NAMCS, 1973-2007
- NHAMCS, 1992-2007

CD-ROMs

- NAMCS, 1990-2005
- NHAMCS, 1992-2005

Anticipated Data Releases in Year 2010

2008 NAMCS public use file

2008 NHAMCS public use file

Combined 2006-2008 NAMCS community health center (CHC) visit file

- 2006 and 2007 NAMCS file only included CHC physician visits
- Combined file will include all 2006-2008 CHC visits (physicians, physician assistants, nurse practitioners, and nurse midwives)

NCHS RESEARCH DATA CENTER (RDC)

Advantages of the RDC

Gain access to information not available on public use files

- Patient: ZIP code linked income, education, etc.
- Provider: sex and age, teaching hospital
- Geographic: FIPS state and county codes
- Full list of variables on website

Data from NAMCS/NHAMCS supplements

NAMCS/NHAMCS Supplements

- Emergency Pediatric Services and Equipment Supplement (EPSES) - 2002-2003, 2006
- Pandemic and Emergency Response Preparedness Supplement – 2008
- Upcoming: Cervical Cancer Screening Supplement - 2006-2010

USER CONSIDERATIONS

NAMCS/NHAMCS Strengths

- Amount of utilization
- Health care users
- Treatment patterns
- Trends over time
- Springboard for future research

NAMCS/NHAMCS Limitations

- Few outcome measures
- Lacks longitudinal view
- Documents single episode of illness
- Rare event estimation is difficult

Reminders

- NAMCS / NHAMCS sample visits, not patients
- No estimates of incidence or prevalence
- No state-level estimates
- Except for CHCs, we do not sample by setting or by non-physician providers

Sample Weight

Sample data **MUST** be weighted to produce national estimates

Estimation process

- Adjusts for survey and item nonresponse
- Makes several ratio adjustments within and across physician specialties and hospitals

Where to Get More Information

- Website - <http://www.cdc.gov/nchs/ahcd.htm>
- Ambulatory Care Listserv (ACLIST) - http://www.cdc.gov/nchs/ahcd/ahcd_listserv.htm
- Call Ambulatory and Hospital Care Statistics Branch at (301) 458-4600
- Public Use Documentation

Thank You

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