Overview of NCHS' National Health Care Surveys

**Carol DeFrances, Ph.D., Acting Director,
Division of Health Care Statistics**

HITAC Public Health Data Systems Task Force Meeting
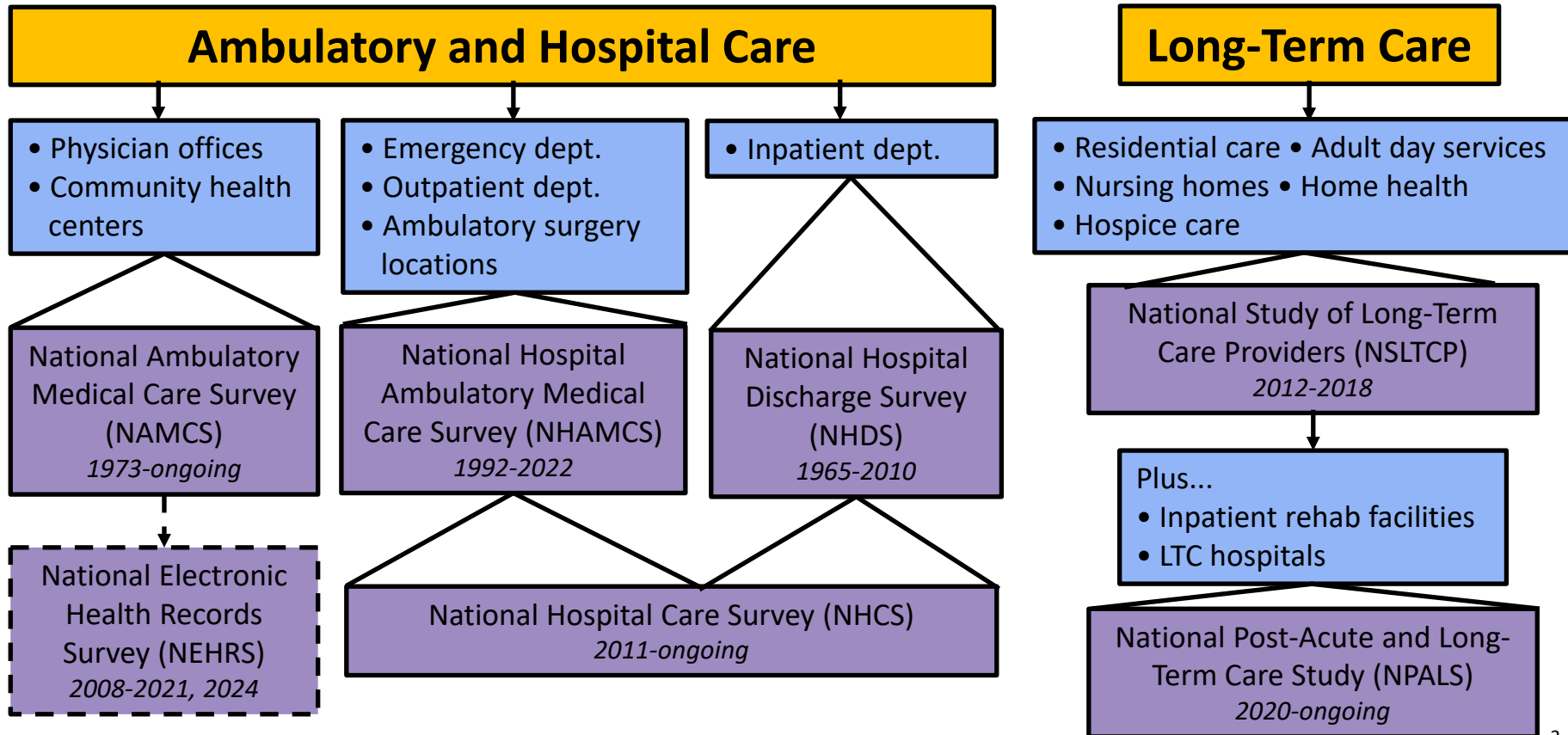
October 12, 2022

National Health Care Surveys

- Produce accurate objective, nationally-representative statistics on health care to inform health care policy and serve a variety of research needs.

- Are establishment surveys, not household surveys.

- Provide estimates about the universe of encounters with providers, not the population.

- Historically, patient-level data largely abstracted from medical or administrative data.

- Include health care provider surveys to understand this population's experience providing care.

National Health Care Surveys Spectrum of Care

Ambulatory and Hospital Care

- Physician offices
- Community health centers

- Emergency dept.
- Outpatient dept.
- Ambulatory surgery locations

- Inpatient dept.

National Ambulatory Medical Care Survey (NAMCS)
1973-ongoing

National Hospital Ambulatory Medical Care Survey (NHAMCS)
1992-2022

National Hospital Discharge Survey (NHDS)
1965-2010

National Electronic Health Records Survey (NEHRS)
2008-2021, 2024

National Hospital Care Survey (NHCS)
2011-ongoing

Long-Term Care

- Residential care • Adult day services
- Nursing homes • Home health
- Hospice care

National Study of Long-Term Care Providers (NSLTCP)
2012-2018

Plus...
- Inpatient rehab facilities
- LTC hospitals

National Post-Acute and Long-Term Care Study (NPALS)
2020-ongoing

Examples of the Data Elements Included in Surveys

Facility/practice level

- Type of practice
- Physician specialty
- Num./Type of providers
- Num. of inpatient beds
- Num. of inpatients
- Num. of ED visits
- Num. of births
- COVID-19 experiences
- Use of telemedicine

Patients

- Demographics
- Insurance status
- Residential zip
- Medical conditions
- Smoking history
- Personal identifiers for linkage (e.g., to the National Death Index)

Encounters

- Reason for visit
- Diagnosis
- Procedures and services
- Medications and immunizations
- Laboratory and other diagnostic tests
- Types of providers seen

Data Dissemination

- Preliminary data
- Data Files
  - Public use files and associated documentation available for download on NCHS website
  - Restricted use files available through the NCHS Research Data Center (RDC) Network
- NCHS Reports
- Peer-reviewed journal articles
- Official government reports

National Health Statistics Reports
Number 175 ■ September 28, 2022

Experiences Related to the COVID-19 Pandemic Among U.S. Physicians in Office-based Settings, 2020–2021

by Zachary J. Peters, M.P.H, Christopher Cairns, M.P.H., and Danielle Davis, M.P.H.
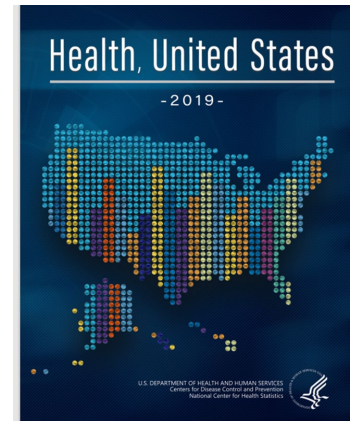
ORIGINAL RESEARCH

Assessment and Diagnosis of Mental Illness in EDs Among Individuals Without a Home: Findings from the National Hospital Ambulatory Care Survey

Hijab Ahmed, MS*†   *Texas Tech University Health Sciences Center School of Medicine, Department of Emergency
Jeff A. Dennis, PhD†   Medicine, Lubbock, Texas
                          †Texas Tech University Health Sciences Center, Department of Public Health, Lubbock, Texas

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Health, United States
- 2019 -

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
National Center for Health Statistics

Leveraging Healthcare Data & Interoperability *Standards* and Regulations to Enable EHR Data Collection

- **Standards**
  - **HL7 CDA National Health Care Surveys Implementation Guide (IG)**
    - Releases 1, 1.1, 1.2, 2, and 3
  - **HL7 Health Care Surveys (FHIR) Content IG**
    - Tightly aligned with USCDI
    - Uses the CDC MedMorph Reference Architecture IG

- **Regulations**
  - **CMS Promoting Interoperability (PI) Program**
    - 100+ EHR products are certified to:§ 170.315(f)(7) Transmission to public health agencies — health care surveys
- **ONC's Cures Act Final Rule (2020)**
  - **HL7 CDA National Health Care Surveys IG** – standard/format named for Health Care Surveys Certification Criteria in the rule.

Building Infrastructure and Enhancing Data Capacity To Support EHR Collection

- **Migration to the cloud to support the NHCS and NAMCS surveys for collecting and processing EHR data.**
  - Compliance with Confidential Information Protection and Statistical Efficiency Act (CIPSEA).
  - Collect, integrate, harmonize, store, and process EHRs and administrative claims data.

- **FHIR EHR Data Lake Pilot: 2022-2023**
  - Implement FHIR application inside provider's firewall.
  - Build data lake on CDC Enterprise Data Analytics and Visualization (EDAV) platform to process and store EHR data collected.
  - Build data governance structure to allow sharing of EHR data with other CDC programs.

Our Vision for the Future…

- All National Health Care Surveys public health reporting registry providers and hospitals submit data in FHIR IG format:
  - Continue creating nationally representative data sets
  - Develop surveillance and research data sets

- Build a data lake with hospital, ambulatory, and long-term EHR data for all CDC programs.

- Make timely and reliable estimates for conditions resulting from public health emergencies and rare conditions.

- Continue methodological work:
  - Explore other linkages (e.g., Medicaid and Veterans Affairs)
  - Continue NLP and algorithm development for opioid and other drug encounters, social determinants of health, and other medical conditions
  - Explore using Privacy Preserving Record Linkage (PPRL)
  - Consider developing synthetic data for public and restricted use files