

National Ambulatory Medical Care Survey Health Center Component

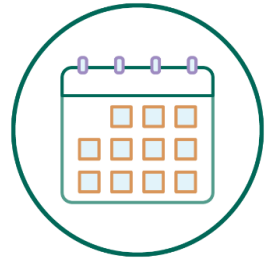
Division of Health Care Statistics
National Center for Health Statistics

National Center for Health Statistics Webinar
October 9, 2024



NAMCSTM
National Ambulatory Medical Care Survey

Agenda



National Ambulatory Medical Care Survey (NAMCS):

- Background and modernization
- Details about the redesigned Health Center Component
- Available data and resources:
 - Data files
 - Preliminary estimates dashboard
 - Data linkage
- Future plans

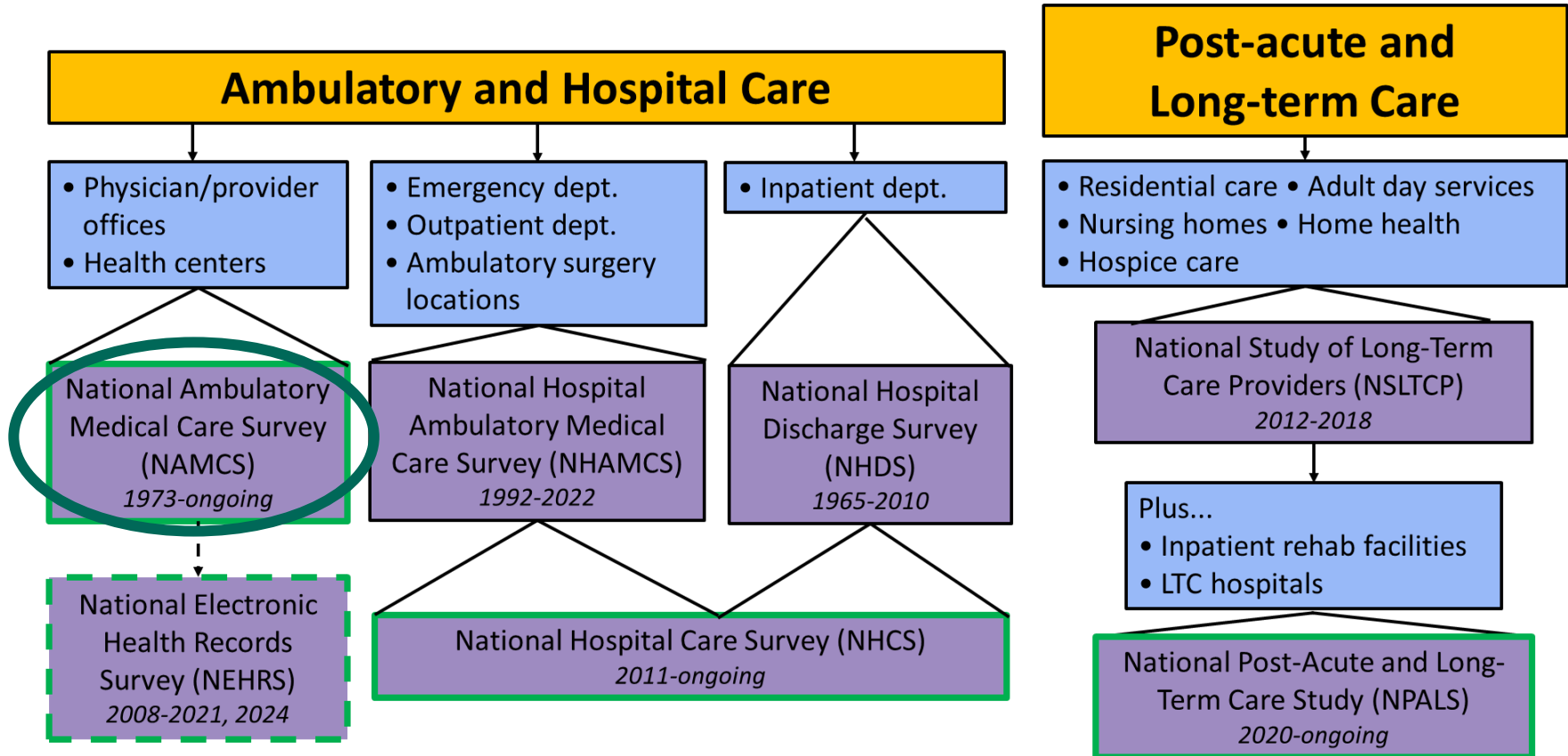


NAMCS: Background & Modernization

About the National Health Care Surveys

- Produce accurate, objective, and nationally-representative statistics on health care to inform policy and research
- Span a wide spectrum of health care settings, from ambulatory to hospital to long-term care
- Include establishments, not households
- Provide estimates about the universe of encounters with providers, not the population
- Use electronic health records for data collection (recent change)
 - Historically, patient-level data was abstracted from medical or administrative data

National Health Care Surveys: Spectrum of Care



National Ambulatory Medical Care Survey (NAMCS): History & Background

Goal: Meet the need for objective, reliable information about access and use of ambulatory medical care services in the United States

NAMCS milestones:

- **1973:** NAMCS was established and began collecting visit data from non-federal office-based physicians
- **2006:** NAMCS began collecting visit data from community health centers
- **2012:** NAMCS released separate files for visits to non-federal office-based physicians and visits to community health centers
- **2021:** NAMCS modernized its data collection by leveraging EHRs and broadening its focus by collecting data from health care providers as well as physicians

NAMCS: Push to Modernization



- The movement to modernize NAMCS was based on the following factors:
 - Diversification of ambulatory care settings
 - More care being provided by non-physician health providers
 - Greater use of EHRs by health centers
 - Increased telemedicine use because of COVID-19
- Movement toward **two separate NAMCS components**:
 - Provider component
 - **Health center component**



Redesigned NAMCS Health Center Component

Health Center Definition



- The term “health center” includes:
 - **Federally qualified health center:** A center that receives funding from the Health Resources and Services Administration (HRSA) Health Center Program
 - **FQHC look-alike:** A center that meets requirements of the HRSA Health Center Program but does not receive program funding

Health Center Component: Current Sample Design & Methods



- **Sample:** Federally qualified health centers (FQHCs) and FQHC look-alikes as classified by the Health Resources and Services Administration throughout the 50 U.S. states and Washington, D.C.
- **Mode:** EHR data transmitted to NCHS
- **Data collection:** January–December annually
- **Sample size and year:** 50 health centers in 2021, 50–100 health centers in 2022, 50–150 health centers in 2023, and 50–200 health centers in 2024
- **Linkage capability:** Collect personally identifiable information, which allows linkage to the National Death Index, HUD, and Medicaid data

Health Center Component: Sampling Procedures

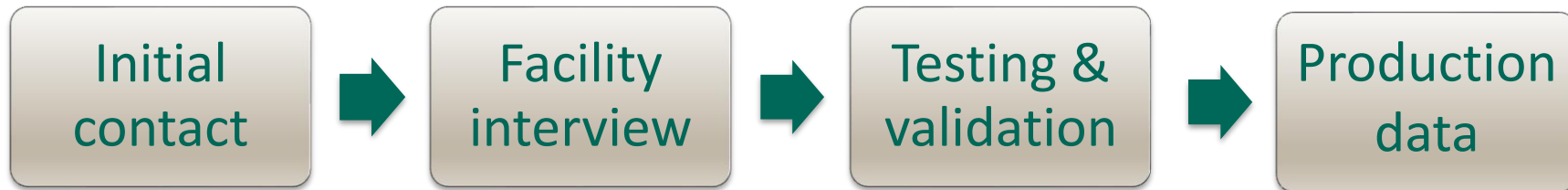


Sample year	Primary (target) sample	Reserve sample	Total participating health centers
2021	50	100	29
2022	54	120	64
2023	50	100	95 (preliminary)

Note: If a health center declined or was unable to participate, a similar center from the reserve sample was contacted for participation.

For more on sampling procedures: www.cdc.gov/nchs/data/series/sr_02/sr02-203.pdf.

NAMCS Health Center Component: Data Collection



NAMCS Health Center Component: Data Collection



Initial contact

- Make phone calls to reach health center and the appropriate individual
- Explain the process to participate
- Gain agreement to participate

NAMCS Health Center Component: Data Collection



Facility interview

- Schedule interview with a knowledgeable health center staff member
- Complete ~45-minute Computer Assisted Telephone Interview
 - In 2023, this was moved to a self-administered web survey

NAMCS Health Center Component: Data Collection



Testing and validation (T&V)

- Identify staff with the skills needed to assist with data collection
- Contact EHR vendor
- Coordinate installation of the Implementation Guide collaboratively with health center staff, vendor, and federal staff and contractors
- Complete iterative submissions of T&V data to ensure passable delivery
- Pay one-time set-up fee of up to \$5,000

NAMCS Health Center Component: Data Collection



Production data

- Coordinate submission of production data with health center staff and NCHS
 - Multiple XML data submissions (based on data delivery sizes)
- Pay second payment of up to \$5,000

NAMCS Health Center Component: Visit Data Elements

Data elements

- | | |
|---|---|
| <ul style="list-style-type: none">• Patient personally identifiable information• Patient's age and sex• Patient's race and ethnicity• Patient's marital status• Encounter dates• Encounter start and end times | <ul style="list-style-type: none">• Diagnoses and procedures (unrestricted)• Lab tests and results• Medications• Clinical notes• Pregnancy flag |
|---|---|

NAMCS Health Center Component: Data Collection & Processing Status

	2021	2022	2023	2024
Sampling	√	√	√	√
Data collection	√	√	√	In progress
Quality assessment	√	√	√	In progress
Weighting	√	√	√	Not started
Disclosure risk analysis	√	√	In progress	Not started
Data release	√	√	Expected 01/2025	Expected 12/2025



Data and Resources Available: Data Files

Restricted and Public Use Data Files: Availability



- **2021 NAMCS Health Center Component**
 - Restricted data file available in the Research Data Center (RDC)
- **2022 NAMCS Health Center Component**
 - Restricted data file available in the RDC
 - Public-use data file available on the NAMCS website
 - Public use file is a “5% sample” of the complete data file ($n = 282,017$)
 - Weights designed to allow for national estimates from the public-use file

Data Files: Visit Counts



Year	Participating health centers	Unweighted visits (millions)
2021	29	3.5
2022	64	5.6
2023	95 (preliminary)	9.0 (preliminary)

Restricted Data Files

An official website of the United States government Here's how you know

CDC National Center for Health Statistics Search

🏠 RDC

- Restricted Data
 - NCHS Public Use
 - NCHS Restricted
 - NCHS Rapid Surveys System
 - RANDS
 - NHANES Restricted Variables
 - NAMCS and NHAMCS Restricted Variables**
 - NHDS Restricted Variables
 - NNHS and NNAS Restricted Variables
 - NHHCS and NHHAS Restricted

National Ambulatory Medical Care Survey (NAMCS) and National Hospital Ambulatory Medical Care Survey (NHAMCS) Restricted Variables

[Print](#)

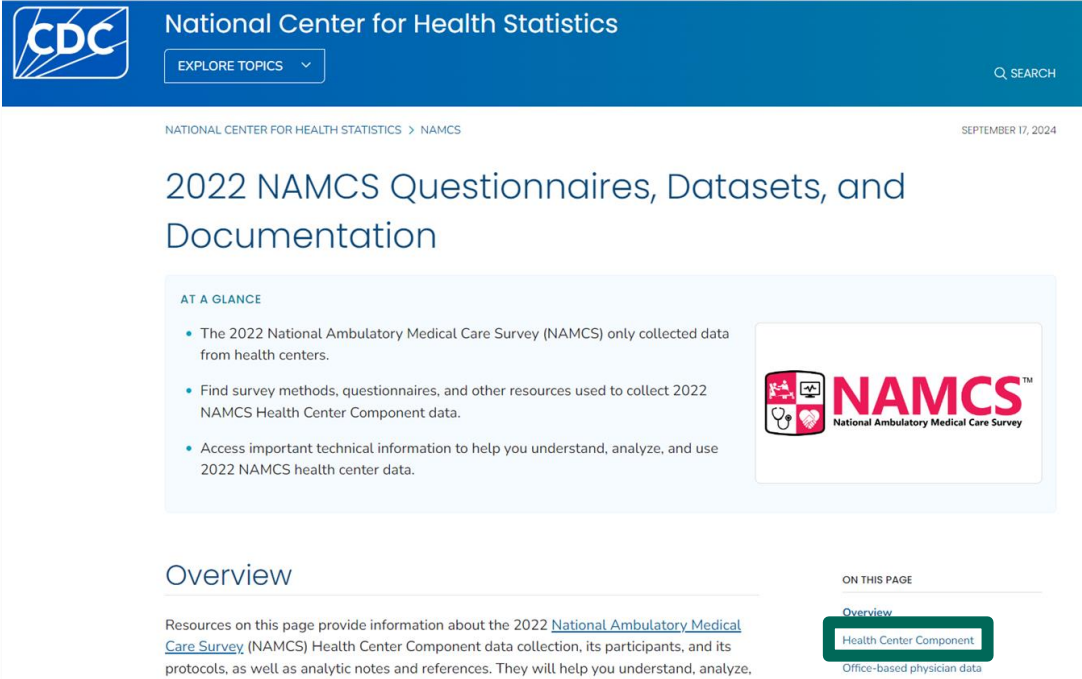
The majority of NAMCS/NHAMCS variables are publicly available and researchers are highly encouraged to conduct preliminary analyses using these data. Researchers interested in accessing and/or conducting analyses using restricted NAMCS/NHAMCS variables must seek RDC approval. As part of the approval process, researchers are required to have a proposal approved by the RDC. Each proposal must include a data dictionary that describes the variables needed for analysis. Below is a list of the standard restricted variables. Please use this list when creating the data dictionary for your RDC Proposal.

[NAMCS and NHAMCS Restricted Data](#) [PDF – 37 KB]

If you are interested in using variables from NAMCS/NHAMCS that are not on the public files nor listed on the above file.

For more on restricted files: www.cdc.gov/rdc/b1datatype/dt1224a.htm

Public Use Data Files



The screenshot shows the CDC National Center for Health Statistics website. The header includes the CDC logo, the text "National Center for Health Statistics", a search bar, and a date of "SEPTEMBER 17, 2024". The main heading is "2022 NAMCS Questionnaires, Datasets, and Documentation". Below this is a section titled "AT A GLANCE" with three bullet points: "The 2022 National Ambulatory Medical Care Survey (NAMCS) only collected data from health centers.", "Find survey methods, questionnaires, and other resources used to collect 2022 NAMCS Health Center Component data.", and "Access important technical information to help you understand, analyze, and use 2022 NAMCS health center data." To the right of the text is a logo for "NAMCS National Ambulatory Medical Care Survey". Below the main heading is an "Overview" section with a sub-heading "ON THIS PAGE" and a list of links: "Overview", "Health Center Component", and "Office-based physician data".

CDC National Center for Health Statistics

EXPLORE TOPICS

SEARCH


NATIONAL CENTER FOR HEALTH STATISTICS > NAMCS

SEPTEMBER 17, 2024

2022 NAMCS Questionnaires, Datasets, and Documentation

AT A GLANCE

- The 2022 National Ambulatory Medical Care Survey (NAMCS) only collected data from health centers.
- Find survey methods, questionnaires, and other resources used to collect 2022 NAMCS Health Center Component data.
- Access important technical information to help you understand, analyze, and use 2022 NAMCS health center data.



Overview

Resources on this page provide information about the 2022 [National Ambulatory Medical Care Survey](#) (NAMCS) Health Center Component data collection, its participants, and its protocols, as well as analytic notes and references. They will help you understand, analyze,

ON THIS PAGE

- Overview
- Health Center Component
- Office-based physician data

Health Center Component

Public use files

- [Technical documentation](#) 
- [Codebook](#) 
- [SAS data file](#)
 - [SAS input statements](#)
- [Stata data file](#)
 - [Stata input statements](#)
- [R data file](#)
 - [R Readme document](#)

Restricted data

Researchers can access restricted 2022 NAMCS data through the [National Center for Health Statistics Research Data Center](#).

- [Data Dictionary](#) 

For more on NAMCS HC Component:

<https://www.cdc.gov/nchs/namcs/documentation/about-the-data-2022.html>



Data and Resources Available: Preliminary Estimates

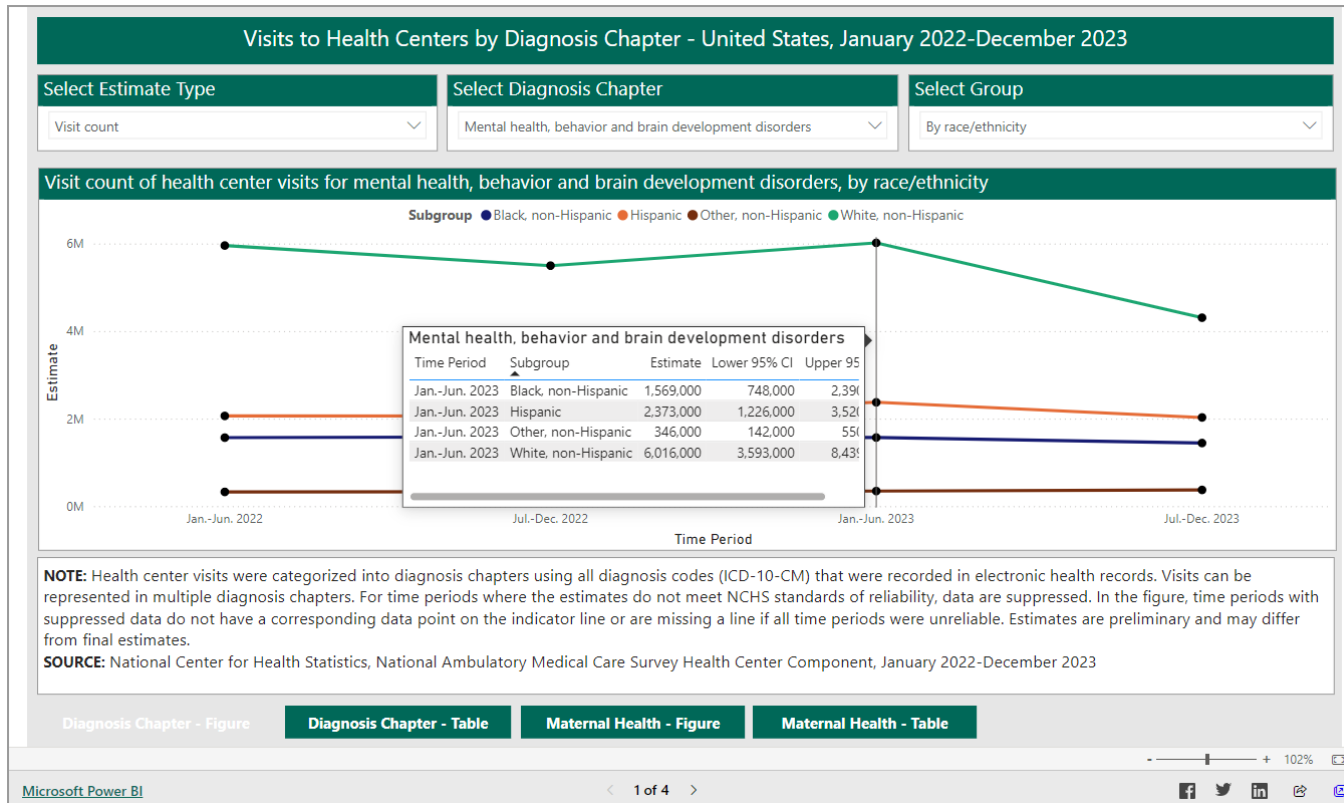
Preliminary Estimates for Health Center Visits: Motivation

- COVID-19 highlighted the need for timely data
- The shift to collect health center data through EHR submission enabled the release of preliminary estimates:
 - Data collected for all annual visits
 - Data delivered in a more timely and regular fashion
- Development of the **Preliminary Estimates of Visits to Health Centers in the United States** interactive dashboard:
 - Marks the **first-time** preliminary estimates for health centers have been available

Dashboard Overview and Details: Preliminary Estimates for Health Center Visits

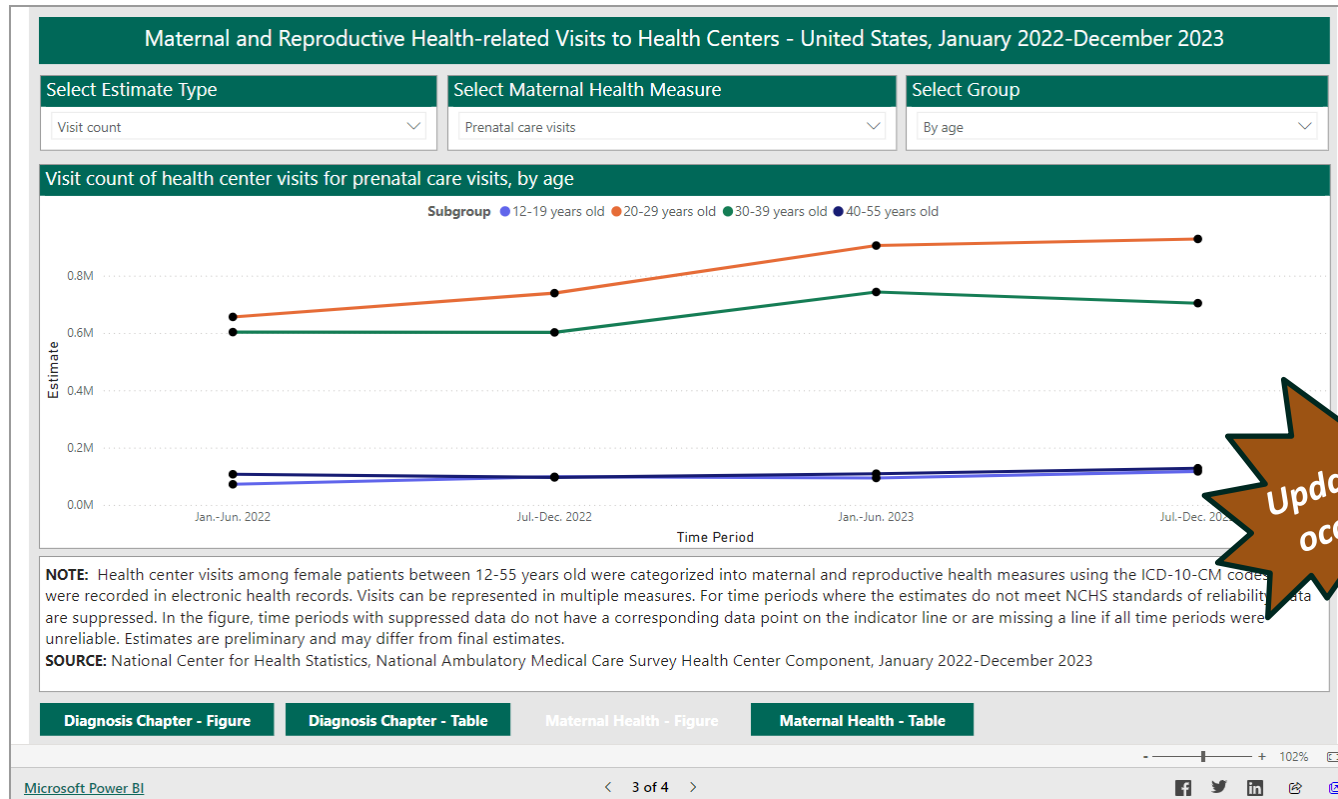
- Preliminary, nationally representative biannual estimates of visits to health centers in the United States
- Data points show visit counts and rates for January-June and July-December for each calendar year
 - Estimates currently available for **January 2022–December 2023**
- Interactive with drop down menus allowing users to examine estimates by sex, age group, and race/ethnicity
- A module on maternal health visits is currently available
 - Additional topic-specific modules currently in development

Preliminary Estimates for Health Center Visits: Dashboard Example



For more on the dashboard: www.cdc.gov/nchs/dhcs/prelim-hc-visits/index.htm

Preliminary Estimates for Health Center Visits: Dashboard Example



Updates still occurring!

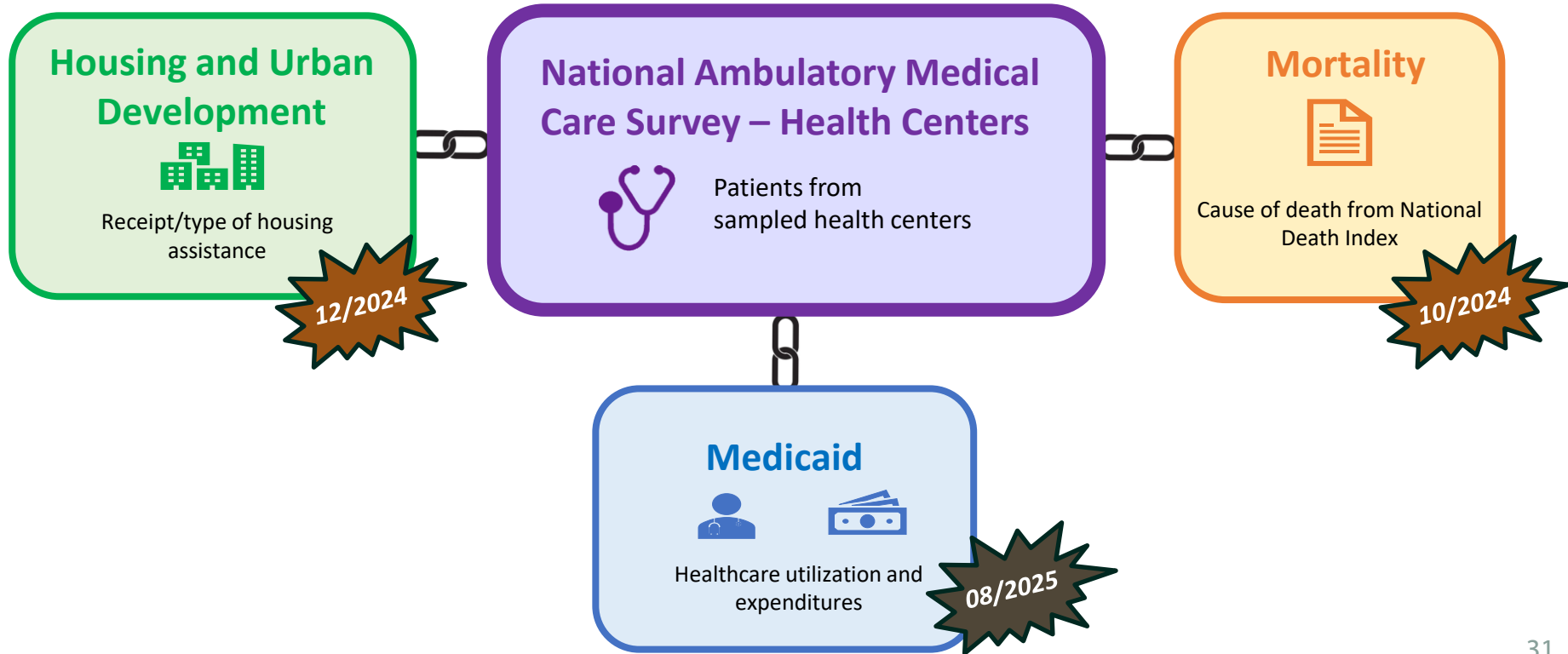


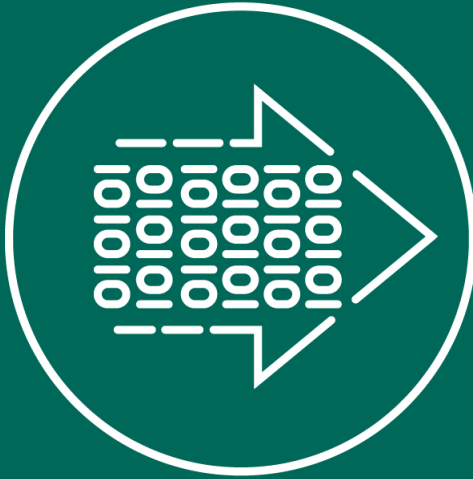
Data and Resources Available: Data Linkage

Linkage to NAMCS Health Center Data: Motivation

- Data collection through EHR submission enables NCHS to collect personally identifiable information (PII)
 - PII, not previously collected via NAMCS, allows for patient-level linkage to other data sources
- The HHS Office of the Secretary Patient-Centered Outcomes Research Trust Fund provided the support needed for the NAMCS Health Center Component data linkage projects
 - **FY2021**: Enhancing the Surveillance of Maternal Health and Clinical Practices and Outcomes with Federally Qualified Health Centers' Electronic Health Records Visit Data
 - **FY2023**: Linking Federally Qualified Health Center EHR and Medicaid Data for Increased Data Capacity to Understand Maternal Health Care

Linkage to NAMCS Health Center Data: Current & Forthcoming





NAMCS: Future Plans

What to Expect for the NAMCS Health Center Component

- **Data collection**
 - 2024 data collection currently in progress
 - Planning underway for 2025 data collection
- **Data files**
 - 2023 restricted and public-use files expected in early 2025
 - Explore the release of additional data elements to restricted and public-use files
 - Vitals
 - Lab Tests
 - Medications
 - Use National Language Processing and Machine Learning techniques to explore unstructured clinical notes data

What to Expect for the NAMCS Health Center Component (cont.)

- **Preliminary estimates**

- January–June 2024 estimates planned for release in December 2024 or January 2025
- Topical modules are currently under development (e.g., respiratory and mental health)

- **Data linkage**

- NAMCS Health Center Component & Centers for Medicaid and Medicare Services: Transformed-Medicaid Statistical Information System data linkage expected in August 2025
- Exploring additional linkages using the 2022 NAMCS Health Center Component

Publications

2022 NATIONAL AMBULATORY MEDICAL CARE SURVEY HEALTH CENTER (NAMCS HC) COMPONENT TECHNICAL DOCUMENTATION

For Public Use Data File



Division of Health Care Statistics
National Center for Health Statistics
May 2024

NATIONAL CENTER FOR HEALTH STATISTICS
Vital and Health Statistics
Series 2, Number 203 June 2023

**Sampling Procedures for the
Collection of Electronic Health
Record Data From Federally Qualified
Health Centers, 2021–2022 National
Ambulatory Medical Care Survey**

Data Evaluation and Methods Research

Centers for Disease
Control and Prevention
National Center for
Health Statistics

NCHS reports can be downloaded from:
<https://www.cdc.gov/nchs/products/index.htm>.

NATIONAL CENTER FOR HEALTH STATISTICS
Health E-Stats SEPTEMBER 2024

Visit Rates for Adolescents and Adults With Mental Health Disorders, Substance Use Disorders, or Both Disorders at Health Centers, by Age: United States 2022

by Loredana Santo, M.D., M.P.H., Lello Gulum, M.P.H., and Jill J. Ashman, Ph.D.

In 2022, 84.2 million adults and 6.1 million adolescents were diagnosed with a mental health disorder (MHD) or substance use disorder (SUD) (1). Health centers are community-based clinics that offer primary care to underserved communities. In 2022, health centers offered MHD services to 2.7 million patients and SUD services to about 299,000 patients (2). This report presents rates for MHDs, SUDs, and both MHDs and SUDs by age group for visits to health centers by people age 12 and older, based on the 2022 National Ambulatory Medical Care Survey Health Center Component.

In 2022, the health center visit rate for people age 12 and older with an MHD only was 50.5 visits per 1,000 people. This was higher than rates for people with an SUD only (10.3 visits) and both an MHD and SUD (12.8) (Figure). Similar patterns were observed across all age groups, with rates for MHD only higher than rates for SUD only and both MHD and SUD. Rates for adolescents ages 12–17 with an SUD only (0.6) and with both an MHD and SUD (1.1) were the lowest. Rates for adults ages 26–49 (13.3) and 50 and older (11.9) with an SUD only were higher than rates for young adults ages 18–25 (3.2). Similarly, rates for adults ages 26–49 (19.0) and 50 and older (12.0) with both an MHD and SUD were higher than rates for young adults ages 18–25 (6.2). Rates for MHD only were not significantly different across age groups.

Data source and methods

The 2022 National Ambulatory Medical Care Survey Health Center Component includes visit data from electronic health records from federally qualified health centers and federally qualified health center look-alikes (health centers that meet federally qualified health center eligibility requirements but do not receive program funding) (3). Sampled health centers submitted data for more than 5.6 million visits (unweighted). Sampling design details for the National Ambulatory Medical Care Survey Health Center Component are described elsewhere (4). Weighting, which accounts for sampling probabilities and nonresponse, was conducted to produce national visit-level estimates of health centers from all 50 U.S. states and the District of Columbia (5). Visit

U.S. CENTERS FOR DISEASE
CONTROL AND PREVENTION

NCHS reports can be downloaded from:
<https://www.cdc.gov/nchs/products/index.htm>.



Resources

NAMCS Health Center Component Resources

- Public use data files:

<https://www.cdc.gov/nchs/namcs/documentation/about-the-data-2022.html>

- Preliminary estimates dashboard:

www.cdc.gov/nchs/dhcs/prelim-hc-visits/index.htm

- Restricted data files and linked data:

www.cdc.gov/rdc/b1datatype/Dt1224a.htm

- NCHS Research Data Center:

www.cdc.gov/rdc/index.htm

- NAMCS Health Center Component Participant Website:

<https://www.cdc.gov/nchs/namcs-health-center/about/index.html>

Explore the National Health Care Surveys Family!



Contact Us

- Email: ambcare@cdc.gov
- Phone: 301-458-4600

For more information, contact CDC
1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348 www.cdc.gov

The findings and conclusions in this presentation are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention or National Center for Health Statistics.

