



A Demonstration of the National Hospital Care Survey's Annual Hospital Report Portal (beta)

Geoff Jackson
Team Lead, Hospital Care Team
Division of Health Care Statistics

August 24, 2020

Webinar Essentials

- To preserve confidentiality of hospitals in the sample, please use your first name only when identifying yourself in the webinar discussion today.
- When you are not speaking, please mute your phone to keep background noise to a minimum.

Webinar Overview

1. Overview of the National Hospital Care Survey (NHCS)
2. Demonstration of the Annual Hospital Report Portal
3. NHCS Participation
4. Question & Answer

Overview of the National Hospital Care Survey (NHCS)

NHCS – Goal and Objectives

- **Goal:**

- Provide reliable and timely healthcare utilization data for hospital-based settings.

- **Objectives:**

- Provide national data for benchmarking.
- Link episodes of care across hospital units as well as link to other data sources, such as the National Death Index (NDI) and Centers for Medicare & Medicaid Services (CMS) data such as the Master Beneficiary Summary File.

NHCS – Sample Design and Data Coverage

- **Sample Design:**
 - Hospitals are randomly selected and each hospital selected for the survey uniquely represents facilities of similar size, service type, and/or geographic location and cannot be replaced.
 - The 2020 NHCS sample consists of **608** non-institutional, non-federal hospitals with six or more staffed inpatient beds.
 - Participation is voluntary and there is no penalty for not participating.
- **Data coverage:**
 - All inpatient discharges and emergency department (ED) visits for up to a 12-month period.
 - Includes patient personally identifiable information (PII) so patient as well as encounter level counts can be determined.

NHCS – Data Sources

- Electronic Health Records (EHRs)
 - For the 2020 NHCS, hospitals submitting EHR data to participate will need to transmit data using the format of the HL7 CDA[®] R2 Implementation Guide (IG): National Health Care Surveys, STU Release 1.2 – US Realm
- Uniform Bill (UB) -04 administrative claims
- State files
- Vizient

NHCS – Data Elements

UB-04:

- Patient PII
- Demographic information
- Encounter dates
- Diagnoses and procedures
- Revenue codes

EHR:

- Patient PII
- Demographic information
- Encounter dates
- Diagnoses and procedures
- Procedure outcomes
- Lab tests and results
- Medications
- Vital signs
- Clinical notes (for ED visits only)

NHCS – Participation Benefits

- Improve quality of health care and other health benchmarks
- Promoting Interoperability (formerly MU) credit
- Community Health Benefit
- Continuing Education Units credits
- Access to NCHS-created reports and analytic papers
- Payment of \$500 for a test file and \$500 for 12 months of data
- **Access to your data via the Hospital Data Reporting Portal**

National Hospital Care Survey: Annual Hospital Report Portal

Annual Hospital Report Portal

- FY18 PCORTF project includes the development of the Annual Hospital Report (AHR) portal for NHCS participants.
- Acute care hospitals that submit 12 months of inpatient and ED data will receive access to the AHR portal to produce visualizations of their submitted data. Specialty hospitals will be added in the future.
- Hospitals that submit patient PII will gain access to a patient mortality report that links their data to the NDI.
- Beta demo version is available using synthetic data.
- Production version will be available in late 2020 for sampled hospitals that submitted twelve months of 2019 data.

AHR Landing Page

<https://hehr.nchs.cdc.gov/ahr-beta/#!/landing>



National Center for Health Statistics

Welcome to the Annual Hospital Report Portal for the National Hospital Care Survey (Beta)

The National Hospital Care Survey (NHCS) provides nationally representative data on health care utilization across hospital-based settings. The primary purpose of this portal is to provide a means for various participating hospitals to perform analysis and derive a defined set of statistics using data from the NHCS that would be helpful for the hospital. The portal will provide several data visualizations to the user with customizations and options to save or print the reports and dashboards. While the NHCS was designed to produce national estimates, the statistics currently produced on this portal are synthetic and not nationally representative.



Patient Mortality

View the inpatient data from the NHCS linked to the National Death Index (NDI), which provides information on in-hospital and posthospital discharge (1-30, 31-60, and 61-90 days post discharge) mortality and causes of death.

[View »](#)



Emergency Department Visits

View statistics on emergency department (ED) discharges on patient and visit characteristics including patient sex, patient age group, services provided, encounter diagnosis, and discharge disposition.

[View »](#)



Inpatient Visits

View statistics on inpatient (IP) discharges on patient and visit characteristics including patient sex, patient age group, average length of stay, services provided, encounter diagnosis, and discharge disposition.

[View »](#)

AHR: Types of Reports available

Inpatient

Demographics

- Age
- Sex

Visit Information

- Diagnosis
- Services
- Discharge Disposition

Average Length of Stay

- Average Length of Stay
- Average Length of ICU Stay

Emergency Department

Demographics

- Age
- Sex

Visit Information

- Diagnosis
- Services
- Discharge Disposition

Mortality

- Patient Mortality (30-, 60-, 90-day mortality)
- Cause of death

AHR: Inpatient report

National Center for Health Statistics

Select Topic:

Demographic Characteristic

Age

Sex

Visit Information

Diagnosis

Services

Discharge Disposition

Average Length of Stay

Average Length of Stay

Average Length of ICU Stay

Group By Demographic Characteristics:

No Grouping

Sex

Submit

Custom reports
based on topic

For each topic there are
demographic distributions by

- Age
- Sex
- Age and Sex

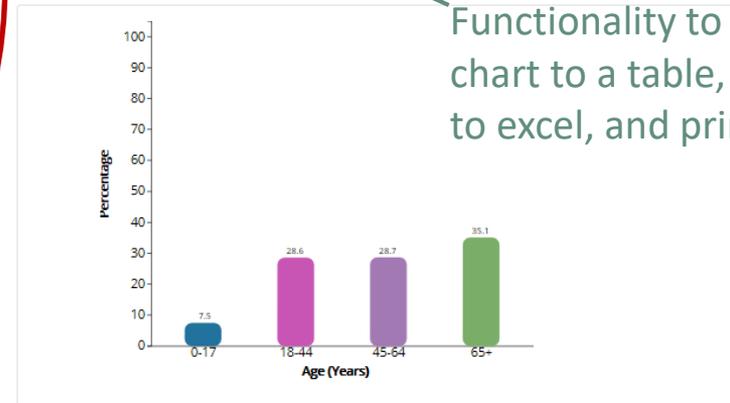
Inpatient Dashboard for Hospital #2999

Export Print Feedback

Table

Displayed below is the percent distribution of inpatient encounters by age group in 2016.

Demo data only. The data below are synthetically generated and are not representative of any actual NHCS or NCHS data.



Functionality to convert
chart to a table, export
to excel, and print

NOTES: all inpatient encounters=2,308,835.

Data presented in this report are based on Synthetic Data data electronically transmitted by the hospitals as part of participation in the National Hospital Care Survey, sponsored by the National Center for Health Statistics. In 2016 Synthetic Data data yielded 2,308,835 unique inpatient encounters.
SOURCE: NCHS, Synthetic Data, 2016

Diagnosis: Sepsis

- 1.9% of inpatient discharges for hospital 2999 were for sepsis.

Select Topic:

Demographic Characteristic

Age

Sex

Visit Information

Diagnosis

Services

Discharge Disposition

Average Length of Stay

Average Length of Stay

Average Length of ICU Stay

Select Main/Sub Category:

Select a Category ▾

Certain infectious and parasitic diseases

Select Sub Category ▾

Septicemia (sepsis)

Group By Demographic Characteristics:

No Grouping

Age

Sex

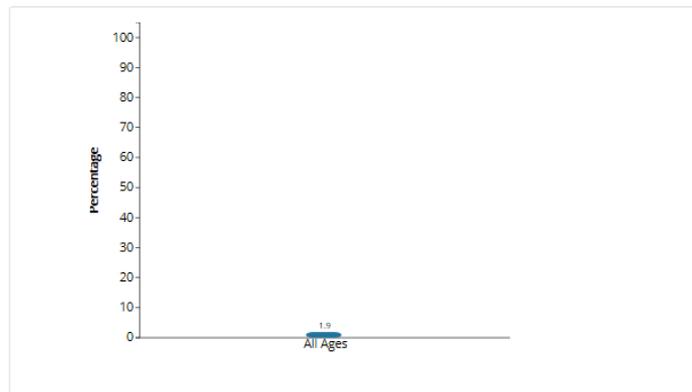
Inpatient Dashboard for Hospital #2999

Export Print Feedback

Table

Displayed below is the percent distribution of inpatient encounters in 2016 with the diagnosis of septicemia (sepsis).

Demo data only. The data below are synthetically generated and are not representative of any actual NHCS or NCHS data.



NOTES: all inpatient encounters=2,308,835.

Data presented in this report are based on synthetic data data electronically transmitted by the hospitals as part of participation in the National Hospital Care Survey, sponsored by the National Center for Health Statistics. In 2016 synthetic data data yielded 2,308,835 unique inpatient encounters.
 SOURCE: NCHS, synthetic data, 2016

Diagnosis: Sepsis by age and sex

- 22.8% of sepsis inpatient discharges were by males 65 years or older.
- 19.5% of sepsis inpatient discharges were by females 65 years or older.

Demographic Characteristic

Age

Sex

Visit Information

Diagnosis

Services

Discharge Disposition

Average Length of Stay

Average Length of Stay

Average Length of ICU Stay

Select Main/Sub Category:

Select a Category ▾

Certain infectious and parasitic diseases

Select Sub Category ▾

Septicemia (sepsis)

Group By Demographic Characteristics:

No Grouping

Age

Sex

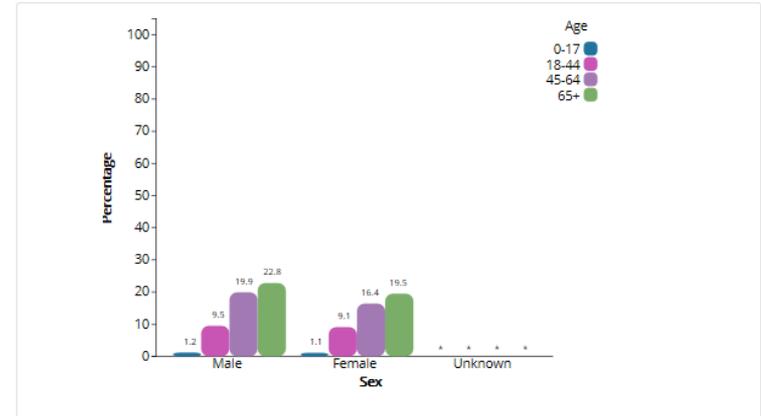
Sex and Age

Submit

Table

Displayed below is the percent distribution by sex and age groups for the inpatient encounters in 2016 with the diagnosis of septicemia (sepsis).

Demo data only. The data below are synthetically generated and are not representative of any actual NHCS or NCHS data.



NOTES: all inpatient encounters=2,308,835.

* Data not available due to sample size being five or fewer records, percentage distribution may not add up to 100.0. Data presented in this report are based on synthetic data data electronically transmitted by the hospitals as part of participation in the National Hospital Care Survey, sponsored by the National Center for Health Statistics. In 2016 synthetic data data yielded 2,308,835 unique inpatient encounters. SOURCE: NCHS, synthetic data, 2016

Diagnosis: Sepsis by age and sex

- 22.8% of sepsis inpatient discharges were by males 65 years or older.
- 19.5% of sepsis inpatient discharges were by females 65 years or older.

Demographic Characteristic

Age

Sex

Visit Information

Diagnosis

Services

Discharge Disposition

Average Length of Stay

Average Length of Stay

Average Length of ICU Stay

Select Main/Sub Category:

Select a Category ▾

Certain infectious and parasitic diseases

Select Sub Category ▾

Septicemia (sepsis)

Group By Demographic Characteristics:

No Grouping

Age

Sex

Sex and Age

Submit



Displayed below is the percent distribution by sex and age groups for the inpatient encounters in 2016 with the diagnosis of septicemia (sepsis).

Demo data only. The data below are synthetically generated and are not representative of any actual NHCS or NCHS data.

Sex	Age	Percentage
	Male	
	0-17	1.2
	18-44	9.5
	45-64	19.9
	65+	22.8
	Female	
	0-17	1.1
	18-44	9.1
	45-64	16.4
	65+	19.5
	Unknown	
	0-17	*
	18-44	*
	45-64	*
	65+	*

NOTES: all inpatient encounters=2,308,835.

* Data not available due to sample size being five or fewer records, percentage distribution may not add up to 100.0. Data presented in this report are based on synthetic data data electronically transmitted by the hospitals as part of participation in the National Hospital Care Survey, sponsored by the National Center for Health Statistics. In 2016 synthetic data data yielded 2,308,835 unique inpatient encounters.

SOURCE: NCHS, synthetic data, 2016

AHR: Mortality report

- Sampled hospitals that submit patient PII will gain access to mortality results for their hospital from linked NDI data.
- Aggregate results for 30-, 60-, 90-day post-acute mortality and selected cause of death categories will be displayed.
- Due to the risk of patient disclosure, age and sex breakdowns are not available in the mortality report.

National Center for Health Statistics

Select Topic:

Patient Mortality

Cause of Death

Submit

Mortality Dashboard for Hospital #2999

Export Print Feedback

Table

Emergency post-acute mortality

Demo data only. The data below are synthetically generated and are not representative of any actual NHCS or NCHS data.

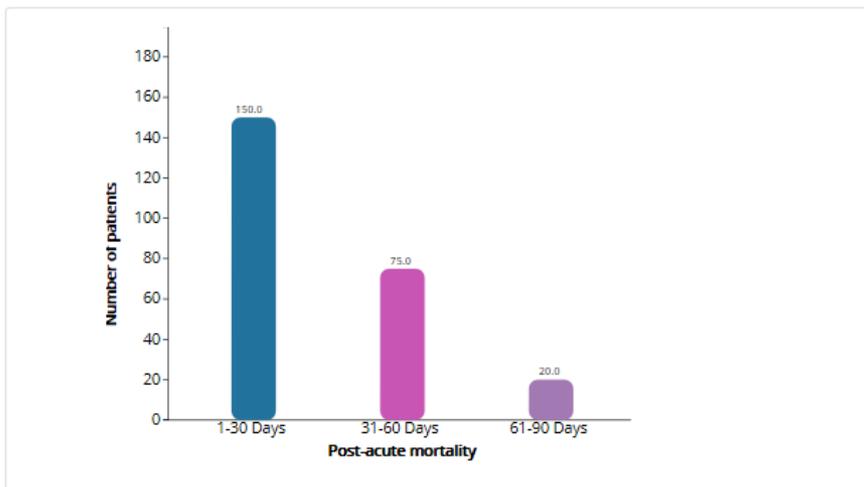


Figure 01: Post-acute mortality for patients with an emergency department encounter, 2016.

AHR Portal (beta) Feedback

- You can provide feedback on the current version by clicking on the Feedback button on the upper right-hand corner of the dashboards

CDC Centers for Disease Control and Prevention
CDC 24/7: Saving Lives. Protecting People™

Home Mortality Emergency Inpatient

National Center for Health Statistics

Select Topic:

Demographic Characteristic

Age

Sex

Visit Information

Diagnosis

Services

Discharge Disposition

Average Length of Stay

Average Length of Stay

Average Length of ICU Stay

Group By Demographic Characteristics:

No Grouping

Sex

Submit

Inpatient Dashboard for Hospital #2999 [Export](#) [Print](#) [Feedback](#)

Table

Displayed below is the percent distribution of inpatient encounters by age group in 2016.

Demo data only. The data below are synthetically generated and are not representative of any actual NHCS or NCHS data.

Age (Years)	Percentage
0-17	7.5
18-44	28.6
45-64	28.7
65+	35.1

NOTES: all inpatient encounters=2,308,835.

Data presented in this report are based on Synthetic Data data electronically transmitted by the hospitals as part of participation in the National Hospital Care Survey, sponsored by the National Center for Health Statistics. In 2016 Synthetic Data data yielded 2,308,835 unique inpatient encounters.
SOURCE: NCHS, Synthetic Data, 2016

Future of the AHR

- We are presenting the initial version of the AHR portal.
- Our goal is to make the AHR as useful as possible to hospitals participating in NHCS. We plan to make changes over time.
- Future enhancements include:
 - Inclusion of specialty hospitals;
 - Information on opioid-involved encounters and co-occurring disorders;
 - National estimates for benchmarking; and
 - Other suggestions from hospitals providing feedback.
- The production version of the AHR will become available in late 2020 or early 2021 to acute care hospitals that submitted 12 months of 2019 data.

NHCS Participation

Why Participate in NHCS?

- Inform health policy and practice
 - Without your participation, there can be no nationally representative datasets.
 - The Nation's ability to address public health crises will be diminished unless we build the best data collection system now.
- Once fully operational, your hospital will be able to benchmark itself against the national data produced and shared through the AHR portal.

NHCS – Steps to Participate

- 1) Brief interview to determine eligibility
- 2) Electronic submission of data (EHR, claims, etc.)
 - When you agree to participate, login credentials will be provided to you to facilitate submitting your data to the secure network.
- 3) Annual hospital questionnaire

Question & Answer

Contact Information

- For more information about NHCS, please visit our website:
<https://www.cdc.gov/nchs/nhcs/index.htm>.
- For questions, please contact:
Geoff Jackson, Hospital Care Team Leader, NCHS
mlq2@cdc.gov
(301) 458-4703

THANK YOU!!!