

# National Hospital Care Survey: Redesigning the Annual Hospital Interview



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Session G-1: If We Modernize the Survey, Will They Respond?

# Presentation Overview

1. Overview of National Hospital Care Survey (NHCS)
2. Overview of Annual Hospital Interview (AHI)
3. Redesign of AHI Questionnaire and Online Portal
4. Overview of AHI Response Rate

# Overview of 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, including the National Death Index; Centers for Medicare & Medicaid Services data such as the Master Beneficiary Summary File; and U.S. Department of Housing and Urban Development data.

# NHCS – Sample Design and Data Collection

- **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 2020-2022 NHCS sample consisted 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 collection:**
  - All inpatient discharges and emergency department (ED) visits for up to a 12-month period, including patient personally identifiable information.
  - Hospitals can submit electronic health records, Uniform Bill-04 administrative claims, state files, or data from third party sources (e.g. Vizient and American College of Emergency Physicians).

# Overview of Annual Hospital Interview (AHI)

# AHI Purpose & History

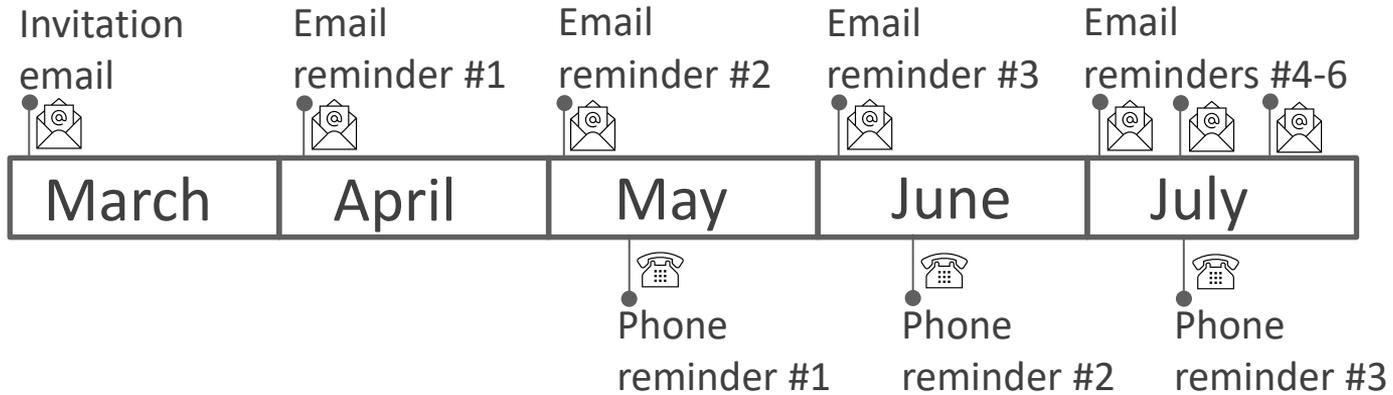
- The AHI is an annual supplemental component of NHCS that collects hospital summary information to be used as adjustment factors in the creation of weights to produce reliable national estimates.
  - The AHI is a retrospective survey that collects information on the previous calendar year.
- Prior to 2017, the AHI was administered by an interviewer.
  - Due to budget restraints, the AHI was pulled out of the field in 2017.
- When the AHI was reinstated in 2020, it was implemented as a self-response web survey. However, the question wording and interview structure were not updated for the new mode of collection.

# AHI Eligibility and Respondents

- All eligible sampled NHCS hospitals are requested to complete the AHI.
  - Sampled hospitals with a recruitment status of “ineligible,” “soft refusal,” or “firm refusal” are not eligible to complete the AHI.
- A respondent may be responsible for completing the AHI for more than one hospital.
- The AHI for a hospital may only be completed by one respondent.

	Hospital Count			Respondent Count
Year	Eligible	Not Eligible	Total	
2020	533	75	608	378
2021	496	112	608	371
2022	482	126	608	368

# AHI Fielding



# Redesign of AHI Questionnaire and Online Portal

# Issues with 2020 AHI

- Questions and answer categories were not designed for web collection.
- Collected information retrospectively and prospectively.
- Reporting time frame varied by question.
  - e.g., monthly inpatient discharge counts vs quarterly ED visit counts
- Confusing options for providing data.
  - e.g., separate inpatient discharge counts from live birth counts
  - e.g., separate counts by insurance status
- Multiple versions of the questionnaire caused confusion for developers.
- Blue question text.
- Skipped questions were greyed out but remained visible.
- Low number of hospitals completed.

# AHI Redesign Goals

- Increase the number of hospitals completing the survey
- Reduce respondent burden and improve respondent experience
- Collect information pertinent to weighting of NHCS and selected special topics
- Restructure questions to only collect retrospective information
- Paginate questions based on topic
- Change question visibility based on skip pattern
- Add hard and soft edit checks
- Add links to support documents to assist respondents

# AHI Questionnaire Redesign 2020 to 2021-2022

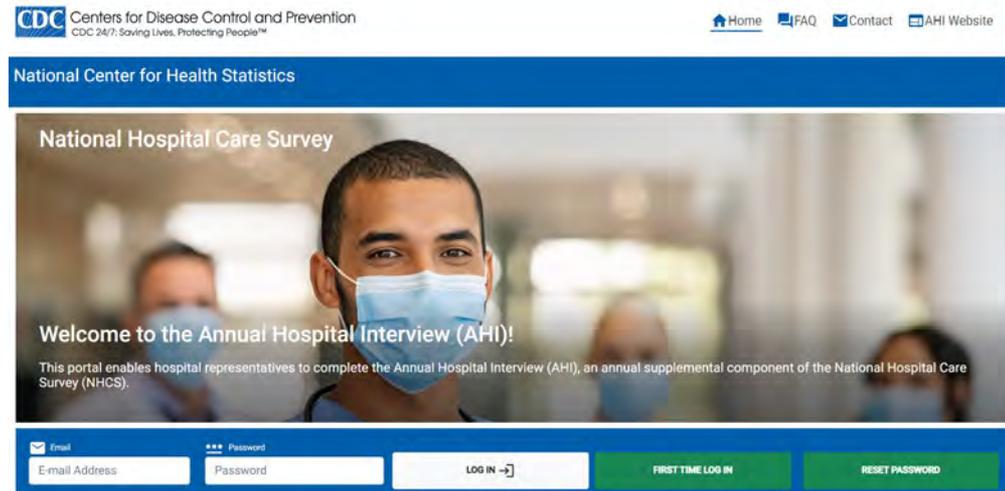
- Removed questions that collected information already available to NHCS in other data sources (e.g. hospital sample frame)
- Removed questions that collected information not pertinent to weighting NHCS
- Simplified questions that collected information on inpatient discharge and ED visit counts
- Reduced six COVID-19 questions into one COVID-19 question
- Added questions about use of telemedicine

# AHI Portal Redesign 2020 to 2021-2022: Login Page

2020



2021-2022



# AHI Portal Redesign 2020 to 2021-2022: Start Page

## 2020

Form Approved  
OMB No. 0920-0212  
Exp. date 3/31/2022

**Notice** — CDC estimates the average public reporting burden for this collection of information as 120 minutes per response, including the time for reviewing instructions, searching existing data/information sources, gathering and maintaining the data/information needed, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to CDC/ATSDR Information Collection Review Office, 1600 Clifton Road, MS D-74, Atlanta, GA 30333; ATTN: PRA (0920-0212).

**Assurance of Confidentiality** — We take your privacy very seriously. All information that relates to or describes identifiable characteristics of individuals, a practice, or an establishment will be used only for statistical purposes. NCHS staff, contractors, and agents will not disclose or release responses in identifiable form without the consent of the individual or establishment in accordance with section 308(d) of the Public Health Service Act (42 U.S.C. 242m) and the Confidential Information Protection and Statistical Efficiency Act (Title III of the Foundations for Evidence-Based Policymaking Act of 2018 (Pub. L. No. 115-435, 132 Stat. 5529 § 302)). In accordance with CIPSEA, every NCHS employee, contractor, and agent has taken an oath and is subject to a jail term of up to five years, a fine of up to \$250,000, or both if he or she willfully discloses ANY identifiable information about you.

National Center for Health Statistics

OMB Number: 0920-0212  
Expiration date: 12/31/2024

Annual Hospital Interview

Status: New

Hospital ID: 9994



## 2021-2022

**Notice** — CDC estimates the average public reporting burden for this collection of information as 120 minutes per response, including the time for reviewing instructions, searching existing data/information sources, gathering and maintaining the data/information needed, and completing and reviewing the collection of information. An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to CDC/ATSDR Information Collection Review Office, 1600 Clifton Road, MS D-74, Atlanta, GA 30333; ATTN: PRA (0920-0212).

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Next >

# AHI Portal Redesign 2020 to 2021-2022: Questions Page

2020

Annual Hospital Interview      Status: In Progress      Hospital ID: 3456

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Part 1. Hospital Utilization Statistics

1. What is the number of currently staffed inpatient beds in this hospital, not including "newborn" bassinets?

a. Total staffed inpatient beds:

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Part 2. General Questions

2. Was this hospital open for the full calendar year 2020? ?

Yes

No

Never open in 2020

2b - Please provide the dates the hospital was open for inpatient service in 2020:

OMB Number: 0920-0212  
Expiration date : 12/31/2024

2021-2022

Annual Hospital Interview      Status: New      Hospital ID: 9994

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1 Notice      2 Hospital Information      3 Emergency Department and Outpatient Department Visits      4 Inpatient Discharges      5 Telemedicine

The National Center for Health Statistics is inviting you to complete the Annual Hospital Interview (AHI) for the National Hospital Care Survey. The AHI is a supplemental component of the National Hospital Care Survey. Data collected on the AHI will be used for statistical purposes to produce national estimates and obtain further insight on hospitals sampled in the National Hospital Care Survey.

We want to know how many patient visits this hospital had in the emergency department, outpatient department, and inpatient department between January 1 – December 31, 2022 (calendar year 2022).

Was this hospital open for the full calendar year 2022? ?

Yes

No

# AHI Portal Redesign 2020 to 2021-2022: Functionality

- Help Text pop-up

The screenshot shows the 'Annual Hospital Interview' form for Hospital ID: 9994, with a status of 'New'. The progress bar indicates five steps: 1. Notice, 2. Hospital Information, 3. Emergency Department and Outpatient Department Visits, 4. Inpatient Discharges, and 5. Telemedicine. The current step is 'Hospital Information'. A help text pop-up is displayed over the question: 'Was this hospital open for the full calendar year 2022?'. The pop-up text reads: '"Full calendar year" refers to January 1, 2022 through December 31, 2022.' and includes a 'Close' button. Below the question are radio buttons for 'Yes' and 'No', and 'Previous' and 'Next' navigation buttons.

- Saving progress pop-up

The screenshot shows the 'Annual Hospital Interview' form for Hospital ID: 9994, with a status of 'In Progress'. The progress bar indicates five steps: 1. Notice, 2. Hospital Information, 3. Emergency Department and Outpatient Department Visits, 4. Inpatient Discharges, and 5. Telemedicine. The current step is 'Hospital Information'. The question is: 'Was this hospital open for the full calendar year 2022?'. The 'Yes' radio button is selected. Below the question are 'Previous' and 'Next' navigation buttons, and a 'Save' button. A green saving progress pop-up is displayed at the bottom of the screen with the text: 'Survey response saved successfully!' and a 'Close' button. A warning banner is visible at the bottom of the page, providing privacy and security notices.

# AHI Portal Redesign 2020 to 2021-2022: Functionality (cont'd)

## ■ Skip pattern

Annual Hospital Interview OMB Number: 0920-0212  
Expiration date: 12/31/2024

Status: In Progress Hospital ID: 9994

Progress: Notice (1) Hospital Information (2) Emergency Department and Outpatient Department Visits (3) Inpatient Discharges (4) Telemedicine (5)

For 2022, did this hospital use [telemedicine technology](#) (e.g., audio, audio with video, web videoconference) for patient visits?  
*Please select "Don't know" if you do not know whether telemedicine technology was used for patient visits for this hospital.*

Yes  
 No  
 Don't know

For 2022, in what setting(s) did this hospital use [telemedicine technology](#) for patient visits? <sup>1</sup>  
*Please select "Don't know" if you do not know whether telemedicine was used for patient visits in the emergency department, outpatient department or inpatient department.*

Select all that apply.

Emergency department  
 Outpatient department  
 Inpatient department  
 Don't know

[< Previous](#) [Save](#) [Submit](#)

## ■ Submission pop-up

Annual Hospital Interview OMB Number: 0920-0212  
Expiration date: 12/31/2024

Status: Complete Hospital ID: 9994

Progress: Notice (1) Hospital Information (2) Emergency Department and Outpatient Department Visits (3) Inpatient Discharges (4) Telemedicine (5)

For 2022, did this hospital use [telemedicine technology](#) (e.g., audio, audio with video, web videoconference) for patient visits?  
*Please select "Don't know" if you do not know whether telemedicine technology was used for patient visits for this hospital.*

Yes  
 No  
 Don't know

[< Previous](#) [Save](#) [Submit](#)

**Warning:** This warning banner provides privacy and security notices consistent with applicable federal laws, directives, and other federal guidance for accessing this Government system, which includes (1) the computer network, (2) all computers connected to this network, and (3) all devices and storage media attached to this network or to a computer on this network. This system is provided for Government-authorized use only. Unauthorized or improper use of this system is prohibited and may result in disciplinary action and/or civil and criminal penalties. Personal use of social media and networking sites on this system is limited as to not interfere with official work duties and is subject to monitoring. By using this system, you understand and consent to the following: The Government may monitor, record, and audit your system usage, including usage of personal devices and email systems for official duties or to conduct IHS business. Therefore, you have no reasonable expectation of privacy regarding any communication or data transiting or stored on this system. At any time, and for any lawful Government purpose, the government may monitor, intercept, and search and seize any communication or data transiting or stored on this system. Any communication or data transiting or stored on this system may be disclosed or used for any lawful Government purpose.

[About CDC](#) [Privacy](#) [FOIA](#) [Survey response submitted successfully!](#) [Close](#) [CDC Website Exit Disclaimer](#)

# AHI Website

🏠 National Hospital Care Survey

National Health Care Surveys Registry

About NHCS

Why Participate in NHCS

How to Participate in NHCS

**Annual Hospital Interview**

What's New

Community Benefit

Confidentiality

Data Uses

Datasets

Frequently Asked Questions

Annual Hospital Report Portal

Continuing Education

NHCS Survey Participants



## National Hospital Care Survey

### Annual Hospital Interview

The Annual Hospital Interview (AHI) is a yearly supplemental component of the National Hospital Care Survey (NHCS). All sampled hospitals are asked to complete the AHI to create national estimates on hospital care and utilization.

The AHI asks hospitals to provide summary information on emergency department, outpatient department, and inpatient department visits for the calendar year. This information will be used for statistical purposes and for further insight on sampled hospitals.

#### AHI Portal

The AHI is accessible on the AHI Portal. Hospitals invited to complete the AHI will receive an invitation email with their four-digit NHCS-sampled hospital identifier and instructions to access the AHI Portal. The invitation email will be sent by [ahi-support@cdc.gov](mailto:ahi-support@cdc.gov). For Frequently Asked Questions (FAQs), please view the [FAQs](#) [PDF - 275 KB].

#### Preview Questionnaire

The AHI has been streamlined into short sections of questions: emergency department, outpatient department, and inpatient department visit counts, and timely hospital topics of interest. You can access the list of questions in its entirety [here](#) [PDF - 416 KB]. Please note that this list of questions is for planning purposes only and cannot be used to complete the AHI. Responses to the AHI questions must be entered into the AHI Portal in order to complete the AHI. Do not send any data through email.

#### Frequently Asked Questions (FAQs)

#### On This Page

[AHI Portal](#)

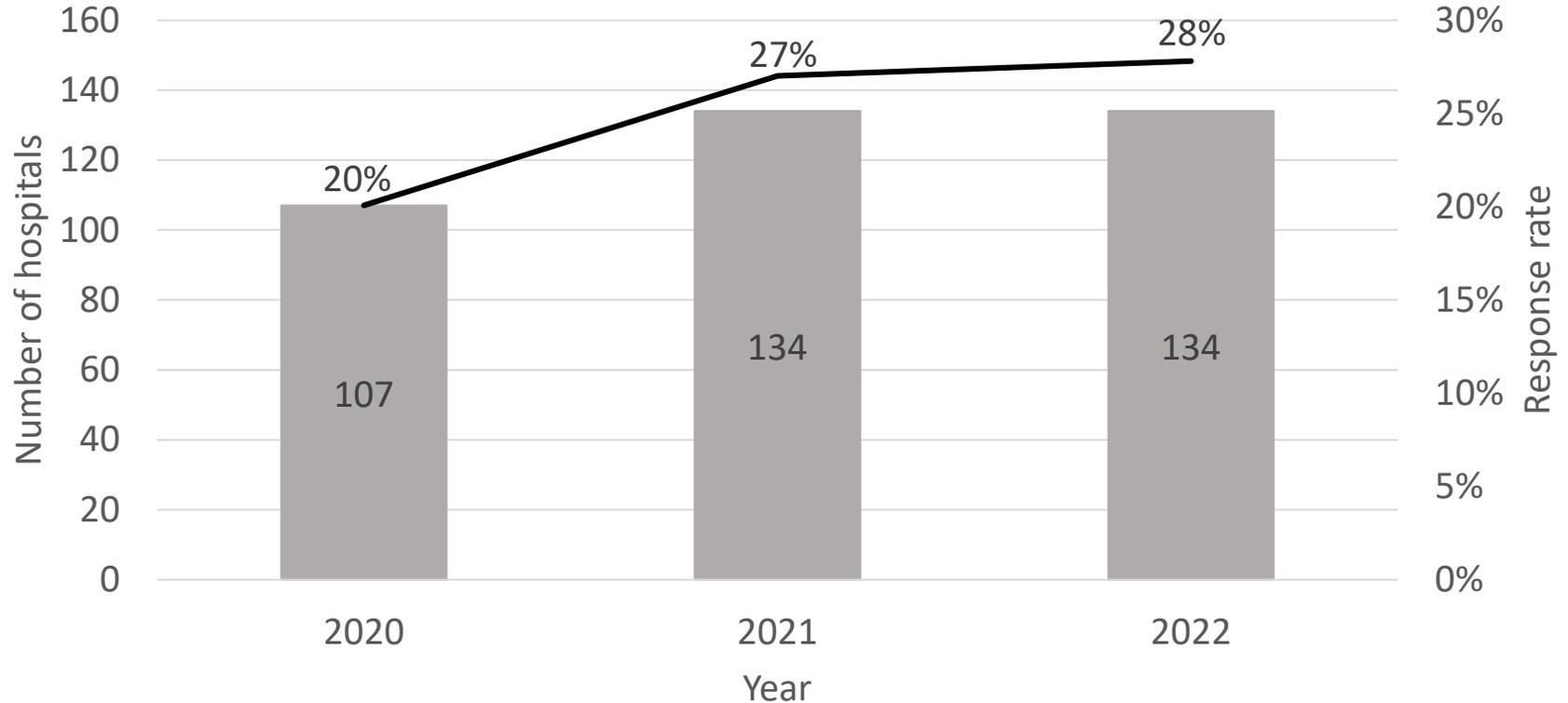
[Preview Questionnaire](#)

[Frequently Asked Questions](#)

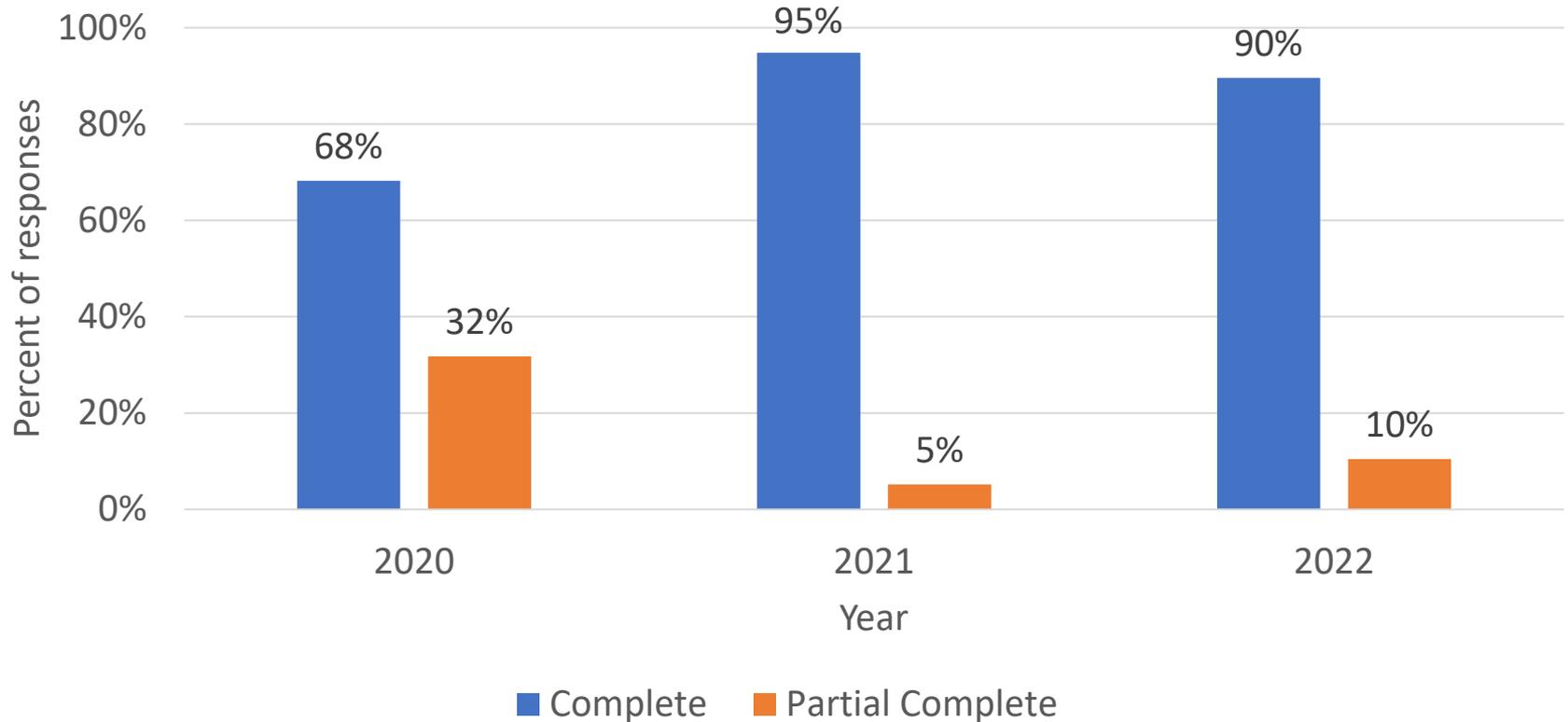
[AHI Support](#)

# Overview of AHI Response Rate

# Number and percentage of eligible hospitals that responded to the AHI, by year



# Completeness of AHI responses, by year



# AHI Next Steps

- 2020 AHI inpatient discharge and ED visit counts used in creation of weights for the 2020 NHCS public use file
- 2021 and 2022 AHI inpatient discharge and ED visit counts will be used for the creation of weights for their respective NHCS public use files
- Currently building the 2023 AHI Portal
- Expect to field 2023 AHI from March through July 2024

# Thank you!

## Contact information

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**NHCS**<sup>TM</sup>  
National Hospital Care Survey