ONC Objectives, Benchmarks, and Public Health Data Updates

HITAC Meeting, November 10, 2022

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21st Century Cures Act Requirement

For the purpose of the HITAC Annual Report, Section 4003 of the 21st Century Cures Act states that:

" …the National Coordinator, in collaboration with the Secretary, shall establish, and update as appropriate, objectives and benchmarks for advancing and measuring the advancement of the priority target areas… "

- ONC sets the objectives and benchmarks that inform the development of the HITAC Annual Report.

- ONC objectives and benchmarks support implementation of the ***2020-2025 Federal Health IT Strategic Plan.***

- ONC welcomes feedback from HITAC members about the objectives and benchmarks. In particular, please share how they advance the priority target areas.

2020-2025 Federal Health IT Strategic Plan

Objectives

Goal

Advance the development and use of health IT capabilities

Establish expectations for data sharing

Connect Healthcare with Health Data

ONC Activities for Benchmarking Progress

Standards

Certification

Exchange

Coordination

FY22 ONC Health IT Coordination Activities

Health Equity by Design (HEBD)

- Embraced HEBD as a key principle in ONC's work to address equity considerations in the design, build, and implementation of health IT systems

- Released USCDI v3, which includes data elements for:
  - Sexual orientation and gender identity
  - Functional, disability, and mental/cognitive status
  - Social determinants of health such as food, housing, and transportation insecurity

- Released Project US@ Technical Specification Final Version 1.0

- Launched the ONC Public Health Informatics & Technology Workforce Development Program
  - 10 awardees that represent a mix of Historically Black Colleges and Universities, Hispanic-Serving Institutions, and Asian American and Native American Pacific Islander-Serving Institutions

FY22 ONC Health IT Standards Activities

United States Core Data for Interoperability Version 3 (USCDI v3)

- Released USCDI v3 on July 19, 2022

- Included new data elements consistent with the Administration's Executive Orders on:

  - Advancing Racial Equity and Support for Underserved Communities Through the Federal Government

  - Ensuring a Data-Driven Response to COVID-19 and Future High-Consequence Public Health Threats

New Data Classes and Data Elements in USCDI v3

New Data Class

Health Insurance Information
- Coverage Status
- Coverage Type
- Relationship to Subscriber
- Member Identifier
- Subscriber Identifier
- Group Number
- Payer Identifier

New Data Class

Health Status/Assessments
- Functional Status
- Disability Status
- Mental/Cognitive Status
- Pregnancy Status

Laboratory
- Specimen Type
- Result Status

Medications
- Dose
- Dose Unit of Measure
- Indication
- Fill Status

Patient Demographics/Information
- Date of Death
- Tribal Affiliation
- Related Person's Name
- Related Person's Relationship
- Occupation
- Occupation Industry

Procedures
- Reason for Referral

FY22 ONC Health IT Standards Activities

USCDI+ Initiative

- Launched USCDI+ to identify and establish domain or program-specific datasets to operate as extensions to USCDI

- Supports federal partners to establish, harmonize, and advance the use of interoperable datasets
  - Build from USCDI
  - Meet agency-specific programmatic requirements

- USCDI+ collaborations underway
  - Public Health (with CDC)
  - Quality (with CMS)
  - Uniform Data System Reporting (with HRSA)

FY22 ONC Health IT Standards Activities

Standards Version Advancement Process (SVAP)

- 10 SVAP approved standards for 2022
- Advanced social determinants of health (SDOH) and sexual orientation and gender identity (SOGI) data standards
- Supports industry on consistent implementation of:
    - USCDI v1 and v2
    - Authentication and authorization services
    - Bulk export capabilities
    - Antimicrobial use and resistance reporting information for electronic transmission to public health registries

HHS-wide Approach on Health IT Standards Investments

- New HHS policy directing ONC to establish and oversee a consistent department-wide approach to:
    - Incorporate standard health IT requirements language in all applicable HHS funding programs, contracts, and policies
    - Provide ONC assistance to HHS agencies to maximize the use of HHS-approved standards and authorities in their agency programs

FY22 ONC Health IT Standards Activities

FHIR®

- TEFCA RCE, The Sequoia Project, released the FHIR® Roadmap for TEFCA Exchange
- The HL7® FHIR® at Scale Taskforce (FAST) became an official HL7 FHIR® Accelerator
- FHIRed App demonstrated a mobile- and web-based platform that uses FHIR® APIs and allows patients to access (and grant access) to their data "without special effort"
- HL7 US Realm contract supports annual updates to FHIR® US Core IG following updates to USCDI
- Two cooperative agreements with HL7 support:
  - FHIR® IG development (e.g., SDOH/Gravity, at-home testing, international patient summary, bulk data)
  - FHIR® infrastructure (e.g., FHIR® IG publisher)
  - FHIR® R5 publication

Public Health

- Launched Helios initiative, jointly supported by CDC and ONC, as HL7® FHIR® Accelerator
  - Identified initial priority areas within Helios to advance uses of FHIR® based approaches, such as Bulk FHIR®, within public health
- Launched the USCDI+ Public Health initiative to identify data needs for public health beyond USCDI

FY22 ONC Health IT Certification Activities

Certification Program Requirements

- Developers made steady progress on making certified health IT available reflecting 2015 Edition Cures Update Criteria, including certified API Technology

- All certified health IT developers subject to Real World Testing submitted their first testing plans

Certification Testing

- Released Inferno 2.0 and launched the Inferno Framework and the (g)(10) Standardized API Test Kit, designed to be more useful for health IT developers and easier for the health IT community to leverage for different types of standards conformance testing

- Approved the Drummond Group's Drummond G10+ FHIR® API powered by Touchstone tool, a new alternative for testing conformance to ONC's §170.315(g)(10) Standardized API for patient and population services certification criterion

FY22 ONC Exchange Activities

Trusted Exchange Framework and Common Agreement (TEFCA)

- ONC and the TEFCA Recognized Coordinating Entity (RCE), The Sequoia Project, released:
  - Trusted Exchange Framework
  - Common Agreement
  - Qualified Health Information Network (QHIN) Technical Framework

- RCE released 10+ TEFCA Standard Operating Procedures (SOPs)
  - Prospective QHINs have access to all the resources and requirements needed to prepare for applying and potential onboarding process

- The RCE engaged over 4,700 individuals through 21 engagement events

- The RCE moved into the operational phase of TEFCA by opening the application portal to potential QHINs on October 3, 2022

FY22 ONC Exchange Activities

Strengthening the Technical Advancement & Readiness of Public Health via Health Information Exchange Program (The STAR HIE Program)
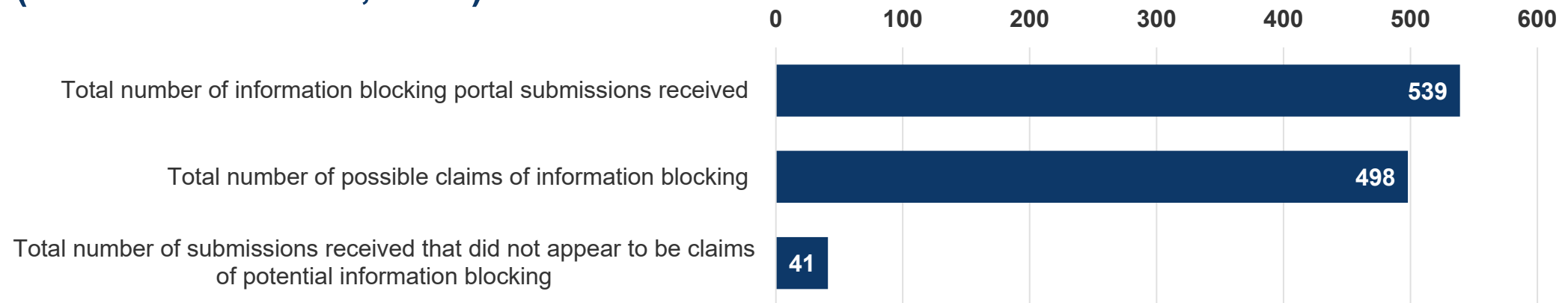
- Recipients explored innovative HIE services that could benefit public health agencies and improve support to communities disproportionately impacted by the COVID-19 pandemic, including:

  - 9 recipients support increased vaccination uptake by providing bulk reports of patients' vaccine status and additional demographic information to organizations

  - 15 recipients increased data sharing between HIEs and jurisdictional immunization information systems

  - 14 recipients signed new or modified agreements with public health agencies facilitating COVID-19 use cases, including easier access to lab reporting, case reporting, and/or immunization data

  - Established new electronic reporting tools to reduce physician and public health burden

  - Demonstrated the ability to use a standards-based approach for real-time reporting of hospital capacity data, using the Situational Awareness for Novel Epidemic Response Implementation Guide

FY22 ONC Exchange Activities

Information Blocking

- Regulations went into effect for all applicable actors as of April 5, 2021
- As of October 6, 2022, the definition of Electronic Health Information (EHI) no longer limited to USCDI v1

Submissions Received through the Report Information Blocking Portal (as of November 4, 2022)

Category	Value
Total number of information blocking portal submissions received	539
Total number of possible claims of information blocking	498
Total number of submissions received that did not appear to be claims of potential information blocking	41

70% of claims were made by a patient or third party on behalf of a patient

76% of claims identified health care providers as the potential actor, and **14%** identified CHPL-listed health IT developer as the potential actor

FY23 ONC Health IT Coordination Plans

Health Equity by Design

- Advance adoption and use of USCDI data classes and elements that support health equity

- Consistent with advancing the adoption and use of USCDI data classes and elements that support health equity, inform and support strategic federal activities focused on alignment of interoperable, granular data on race and ethnicity

- Release Project US@ Technical Specification Version 2.0

- Train 4,000 students over a 4-year period in public health informatics and technology through the Public Health Informatics & Technology Workforce Development Program

FY23

FY23 ONC Standards Plans

SVAP

- Publish National Coordinator-approved updated versions of health IT standards and implementation specifications via SVAP process

USCDI

- Release USCDI v4 with additional data classes and data elements

USCDI+

- With CDC, STLTs and PH association groups, input on the priority subdomains have been identified and are being reviewed; discussion about next steps to align with HL7 and DMI are ongoing

- With CMS, an initial quality data set has been established and is undergoing stakeholder feedback (CMSS, NQF, NCQA, AHIP) and is being prepared for wider review

- With HRSA, work to align Uniform Data System (UDS) reporting with interoperability standards and transition to patient-level reporting requirements with USCDI and other quality reporting efforts

FY23

FY23 ONC Standards Plans

FHIR®

- Support the release of HL7® FHIR®
- Continue annual updates to FHIR® US Core IG to align with USCDI

HHS Health IT Standards Investments

- Incorporate standard health IT requirements language in applicable HHS funding programs, contracts, and policies
- Assist HHS agencies to maximize the use of HHS-approved standards

FY23

FY23 ONC Standards Plans

Public Health

- Helios Initiative

  - Ensure authorized users of immunization information systems can access vaccination data in bulk

  - Identify commonalities and optimal ways for public health to access data in certified health IT

  - Provide public health critical data needed on health care resource capacity during emergencies and other events of public health importance

- Incorporate USCDI+ into SDO activities and FHIR® profile development.

- Identify new opportunities to advance FHIR® through use of public health grant language.

FY23

FY23 ONC Certification Plans

- By December 31, 2022, certified health IT developers must update and provide technology that meets the ONC Cures Act Final Rule criteria

  - Includes USCDI v1, certified API technology, EHI export, encrypt authentication credentials, multi-factor authentication, FHIR® Release 4, FHIR® Bulk Data Access, and other criteria

- By March 15, 2023, Real World Testing results from certified health IT developers will be published on the CHPL

FY23 ONC Exchange Plans

Trusted Exchange Framework and Common Agreement (TEFCA)

- QHINs selection, onboarding, and sharing begins

  - Application portal now open to potential QHINs

  - Release of additional Standard Operating Procedures for Exchange Purposes

FY23

FY23 ONC Exchange Plans

Information Blocking

- Beginning on October 6, 2022, the definition of EHI is no longer limited to the elements represented in the USCDI v1. EHI means **electronic protected health information (ePHI)** to the extent that the ePHI would be included in a **designated record set** as these terms are defined for HIPAA.

  - *Except for* psychotherapy notes (45 CFR 164.501) and information compiled in reasonable anticipation of, or for use in, a civil, criminal, or administrative action or proceeding.

- Ongoing education and outreach, including blog posts, new FAQs, and "Ask Us About Information Sharing" office hours that invite the public to interact live with ONC policy experts in a question-and-answer format

Health Information Technology Advisory Committee
Target Areas in the Cures Act

Use of Technologies that Support Public Health: The facilitation of bidirectional information sharing between the clinical and public health communities

Privacy and Security: The promotion and protection of privacy and security of health information in health IT

Interoperability: Achieving a health information technology infrastructure that allows for the electronic access, exchange, and use of health information

Patient Access: The facilitation of secure access by an individual and their caregiver(s) to such individual's protected health information

In addition to the priority target areas, the HITAC may consider certain additional target areas defined in the 21st Century Cures Act. For example, the HITAC is considering **"Design and Use of Technologies that Advance Health Equity"** as an additional target area.

Electronic Public Health Reporting Data Update

Overview

- Describe data sources available to ONC that provide insights on electronic public health reporting

- Share findings related to hospitals' experiences with public health reporting prior to and during the pandemic

Data Sources Available to ONC

- Public Health reporting among health care providers
  - American Hospital Association IT Supplement Survey (Annual)
    - Electronic Public Health Reporting among Non-Federal Acute Care Hospitals During the COVID-19 Pandemic, 2021
    - Challenges to Public Health Reporting Experienced by Non-Federal Acute Care Hospitals, 2019
  - National Electronic Health Record Survey (Bi-Annual)
    - Electronic Public Health Reporting & Recording of Social & Behavioral Determinants of Health Among Office-Based Physicians, 2019
  - CMS Promoting Interoperability Program Participants Program Data (Future)

Data Sources Available to ONC

- Laboratory Survey focused on use of LOINC (In Progress)

- Entities that enable exchange
  - National Survey of Health Information Exchange Organizations (2022-2023)
  - Health IT Developers: EHR Reporting Program (Future)
    - [Electronic Health Record (EHR) Reporting Program: Developer-Reported Measures](#)

Electronic Public Health Reporting Among Non-Federal Acute Care Hospitals During the COVID-19 Pandemic, 2021

Findings from the 2021 American Hospital Association IT Supplement Survey

Chelsea Richwine, PhD, Jordan Everson, PhD & Vaishali Patel PhD MPH

Office of the National Coordinator for Health Information Technology (ONC)

Goals

- What are hospitals' level of **<u>electronic</u>** public health reporting to public health agencies (PHAs) **<u>during the pandemic</u>**? To what extent is this automated?

- How do rates of hospital electronic public health reporting vary?

- What are the methods used by hospitals to support electronic public health exchange?
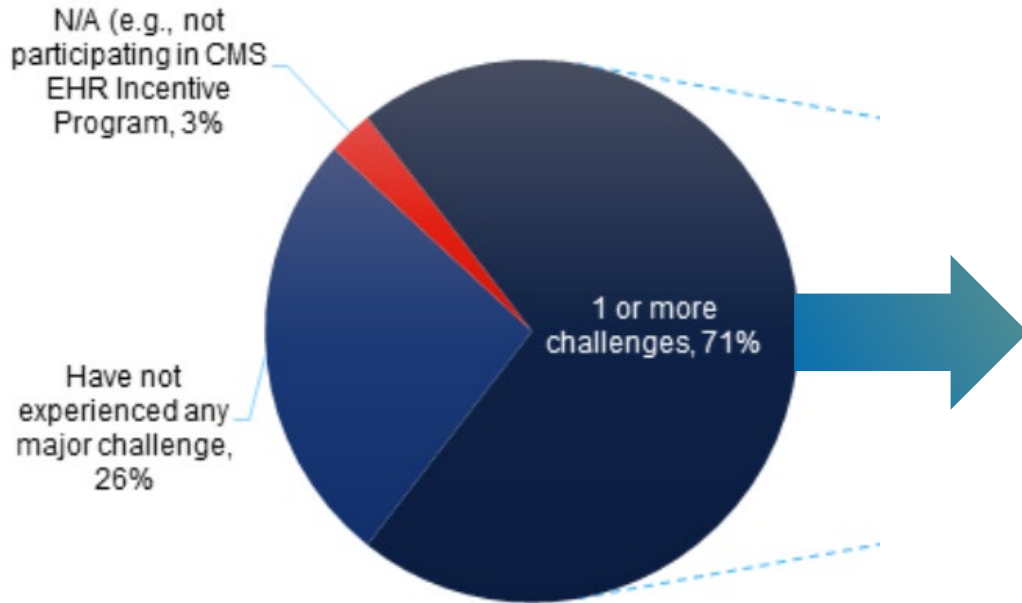
Data Source

- Most recent American Hospital Association (AHA) Information Technology (IT) Supplement to the AHA Annual Survey. The survey was fielded April to September 2021. The response rate for non-federal acute care hospitals (N = 2,364) was 52 percent.

- National estimates are weighted. Results focus on non-federal acute care hospitals.
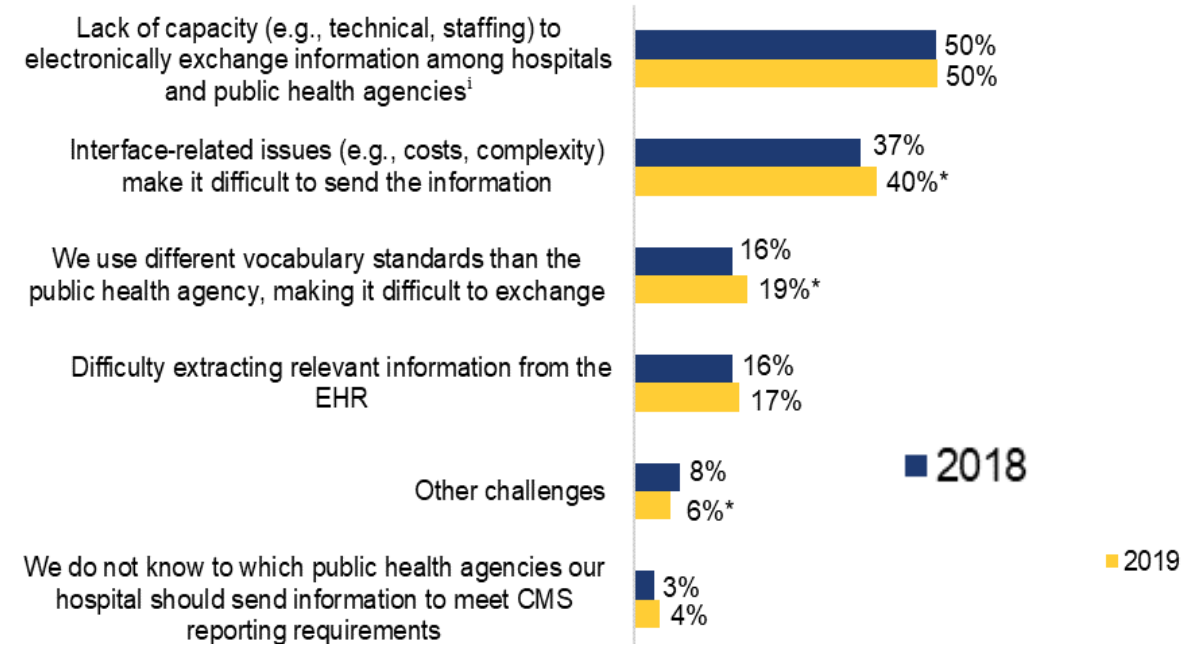
Background

Prior to the COVID-19 pandemic about 7 in 10 hospitals reported barriers to public health reporting

Number of challenges to public health reporting **2019.**

N/A (e.g., not participating in CMS EHR Incentive Program, 3%

1 or more challenges, 71%

Have not experienced any major challenge, 26%

Types of challenges experienced by non-federal

Lack of capacity (e.g., technical, staffing) to electronically exchange information among hospitals and public health agencies[i] — 50% / 50%

Interface-related issues (e.g., costs, complexity) make it difficult to send the information — 37% / 40%*

We use different vocabulary standards than the public health agency, making it difficult to exchange — 16% / 19%*

Difficulty extracting relevant information from the EHR — 16% / 17%

Other challenges — 8% / 6%*

We do not know to which public health agencies our hospital should send information to meet CMS reporting requirements — 3% / 4%

■ 2018   ■ 2019

Source: 2019 AHA Annual Survey Information Technology Supplement.
Note: Sample used for analyses includes non-federal acute care hospitals only and excludes 72 hospitals (1.6%) that didn't respond to any of the public health challenge questions. Estimates may not sum to 100 due to rounding.

Source: 2018-2019 AHA Annual Survey Information Technology Supplement.
Note: Sample used for analyses includes non-federal acute care hospitals only and excludes 72 hospitals (1.6%) that didn't respond to any of the public health challenge questions. *Significantly different from previous year (p<0.05). [i] Refers to hospitals' or public health agencies' lack of capacity to electronically exchange

In 2021, almost 9 in 10 hospitals electronically submitted data to PHAs for at least one type of public health reporting

Hospitals' current stage of active engagement towards electronically submitting data for public health reporting
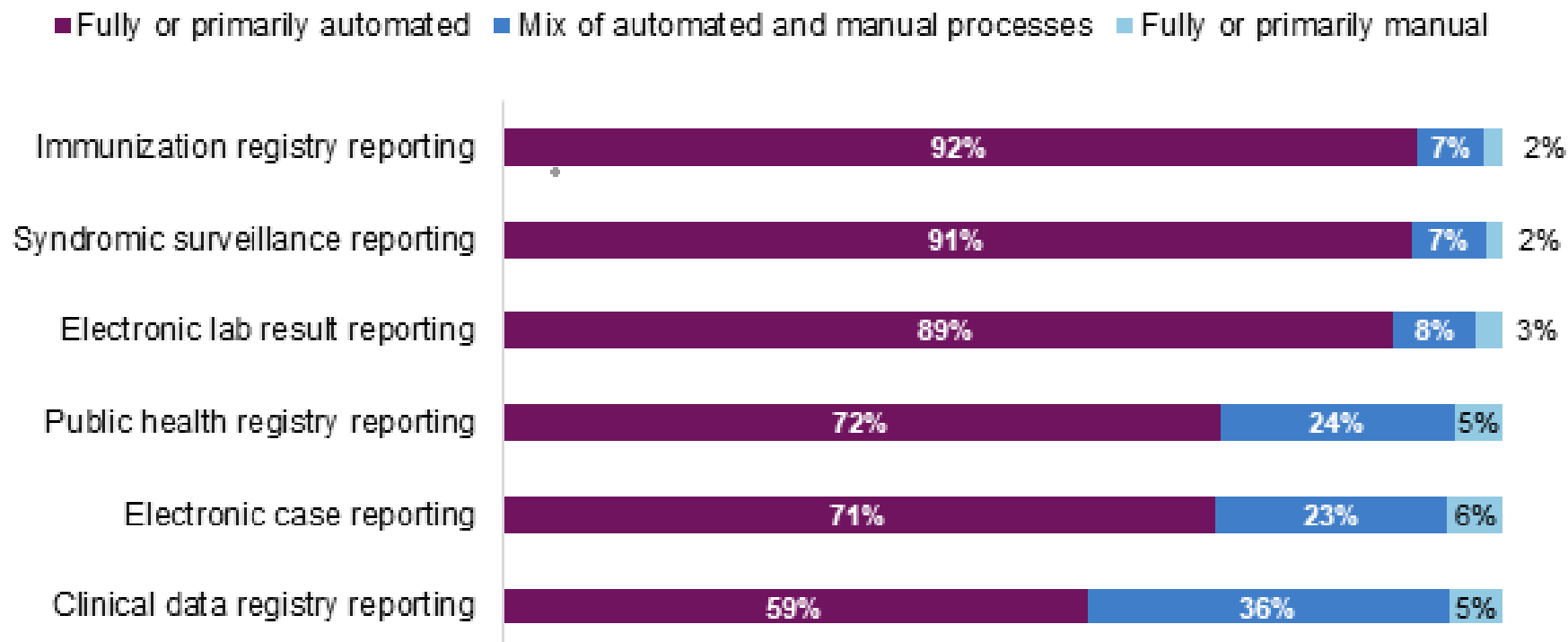
	Actively electronically submitting production data	In the process of testing and validating electronic submission of data	Completed registration to submit data	Have not completed registration	Don't know
Immunization registry reporting	88%	3%	3%	2%	4%
Syndromic surveillance reporting	81%	3%	3%	4%	9%
Electronic lab reporting	79%	5%	5%	3%	8%
Public health registry reporting	59%	2%	4%	17%	18%
Electronic case reporting	47%	4%	4%	24%	22%
Clinical data registry reporting	46%	2%	3%	27%	23%

At least one reporting type	89%
All 6 reporting types	24%

Source: 2021 AHA IT Supplement
Note: Missing values were excluded from the denominator (syndromic surveillance reporting, *N*=106; immunization registry reporting, *N* =106; electronic case reporting, *N* =149; public health registry reporting, *N* =149; clinical data registry reporting, *N* =146; electronic lab result reporting, *N* =126)

Processes used by non-federal acute care hospitals that electronically transmitted data for public health reporting, 2021

Legend: ■ Fully or primarily automated ■ Mix of automated and manual processes ■ Fully or primarily manual

Reporting type	Fully or primarily automated	Mix of automated and manual processes	Fully or primarily manual
Immunization registry reporting	92%	7%	2%
Syndromic surveillance reporting	91%	7%	2%
Electronic lab result reporting	89%	8%	3%
Public health registry reporting	72%	24%	5%
Electronic case reporting	71%	23%	6%
Clinical data registry reporting	59%	36%	5%

A majority of hospitals used fully or primarily automated processes for transmitting data for electronic public health reporting
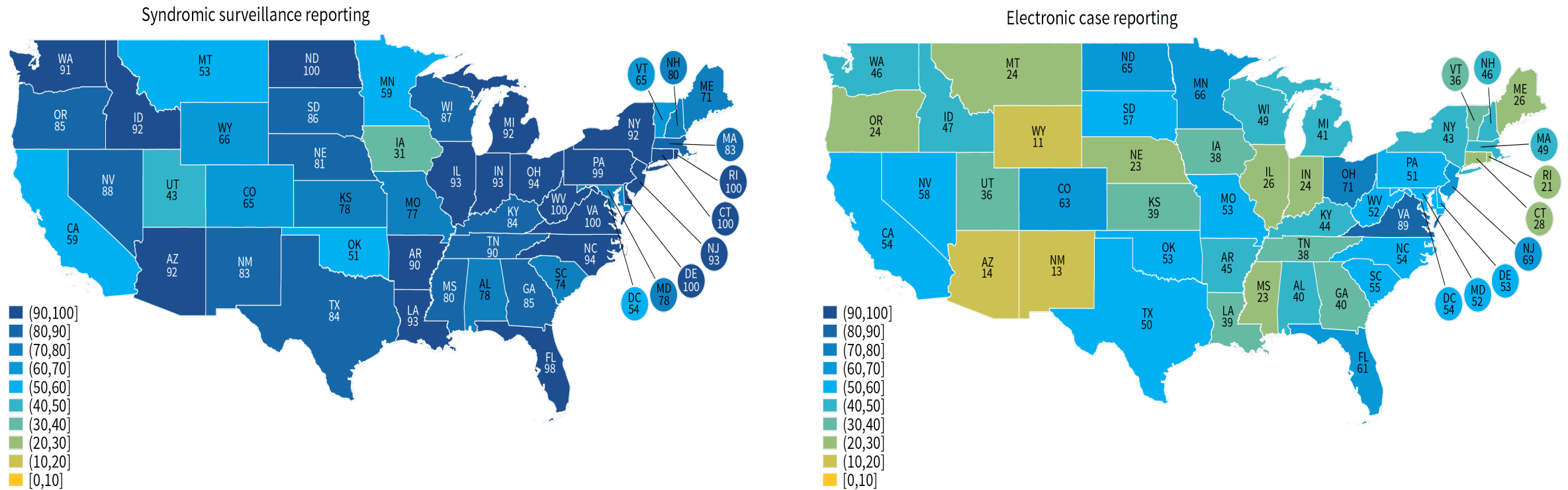
Source: 2021 AHA IT Supplement
Notes: Hospitals were asked whether they used automated (e.g. EHR generated data sent electronically/automatically to the public health agency), manual (e.g. chart abstraction with data faxed or re-input into a portal), or a mix of both types of processes (e.g. files electronically generated from the EHR but manual steps required to transmit to public health agency) to transmit data for public health reporting. Estimates presented in rows 1-6 only include respondents that reported "actively electronically submitting production data" for the respective reporting type. Estimates for hospital capacity reporting include all respondents. Missing values and "don't know/NA" responses were excluded from the denominator. * During the COVID-19 pandemic, U.S. hospitals were required to report data associated with hospital capacity and utilization of medical supplies to assist the government with allocating resources.

Variation in Electronic Public Health Reporting

Rates of electronic public health reporting varied by state and by reporting type.

Percent of non-federal acute care hospitals actively engaged in electronic syndromic surveillance and electronic case reporting, by state, 2021

Syndromic surveillance reporting

WA 91, MT 53, ND 100, MN 59, VT 65, NH 80, ME 71, OR 85, ID 92, WY 66, SD 86, WI 87, MI 92, NY 92, MA 83, NV 88, UT 43, CO 65, NE 81, IA 31, IL 93, IN 93, OH 94, PA 99, RI 100, CA 59, AZ 92, NM 83, KS 78, MO 77, KY 84, WV 100, VA 100, CT 100, NJ 93, TN 90, NC 94, DE 100, OK 51, AR 90, SC 74, MD 78, TX 84, MS 80, AL 78, GA 85, DC 54, LA 93, FL 98

Legend:
- (90,100]
- (80,90]
- (70,80]
- (60,70]
- (50,60]
- (40,50]
- (30,40]
- (20,30]
- (10,20]
- [0,10]

Electronic case reporting

WA 46, MT 24, ND 65, MN 66, VT 36, NH 46, ME 26, OR 24, ID 47, WY 11, SD 57, WI 49, MI 41, NY 43, MA 49, NV 58, UT 36, CO 63, NE 23, IA 38, IL 26, IN 24, OH 71, PA 51, RI 21, CA 54, AZ 14, NM 13, KS 39, MO 53, KY 44, WV 52, VA 89, CT 28, NJ 69, OK 53, AR 45, TN 38, NC 54, DE 53, TX 50, LA 39, MS 23, AL 40, GA 40, SC 55, DC 54, MD 52, FL 61

Legend:
- (90,100]
- (80,90]
- (70,80]
- (60,70]
- (50,60]
- (40,50]
- (30,40]
- (20,30]
- (10,20]
- [0,10]

Hospitals' use of automated processes for electronic public health reporting varied by state and reporting type

Appendix Table A5: Percent of non-federal acute care hospitals in each state that use automated processes to transmit data for the following types of public health reporting, 2021

State	Syndromic surveillance	Immunization registry	Electronic case	Public health registry	Clinical data registry	Electronic reportable laboratory result	# Hospitals in IT Survey	# Hospitals in State	% Hospitals Surveyed
AK	100%	73%	100%	100%	100%	100%	5	26	19%
AL	86%	84%	41%	51%	63%	82%	30	117	26%
AR	97%	97%	86%	79%	75%	97%	43	104	41%
AZ	100%	100%	83%	70%	77%	95%	31	112	28%
CA	86%	97%	67%	64%	72%	91%	135	415	33%
CO	95%	96%	69%	87%	57%	92%	52	106	49%
CT	100%	100%	77%	100%	100%	100%	19	42	45%
DC	35%	49%	35%	35%	35%	59%	6	14	43%
DE	100%	73%	100%	100%	100%	100%	4	13	31%
FL	92%	93%	80%	92%	69%	92%	134	252	53%
GA	93%	97%	89%	90%	74%	98%	69	173	40%

Source: 2021 AHA Annual Survey Information Technology Supplement.
Note: Among those who "actively electronically submitting production data" for the respective reporting type

Mean number of <u>electronic</u> public health reporting types among hospitals

	Mean Number of Reporting Types (out of 6)
Hospital Characteristics	
Small (*N* = 1,047)	3.6*
Medium or Large (*N* = 1,317)	4.3
CAH (*N* = 611)	3.5*
non-CAH (*N* = 1,753)	4.1
Rural (*N* = 827)	3.6*
Suburban-Urban (*N* = 1,537)	4.2
Independent (*N* = 645)	3.5*
System Affiliation (*N* = 1,719)	4.1
National Average	**3.9**

Small, rural, independent, and critical access hospitals were engaged in fewer types of electronic public health reporting compared to their counterparts.

Source: 2021 AHA IT Supplement

Notes: Mean number of reporting types is determined by active engagement In each public health reporting type, ranging from 0 (if not actively engaged in any electronic public health reporting) to 6 (if actively engaged in electronic public health reporting for all 6 types). Hospitals were excluded from the denominator if responses to <u>all</u> public health reporting questions were blank (4%). * Indicates statistical significance at the 5% level (p < 0.05)
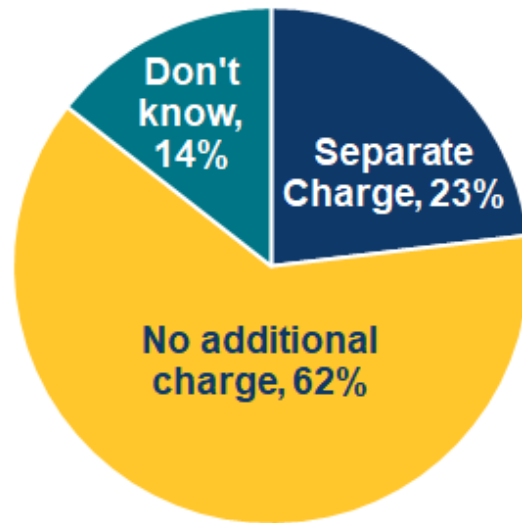
Hospitals that experienced major public health reporting challenges in 2019 were less likely to be engaged in electronic public health reporting in 2021

Percent of non-federal acute care hospitals engaged in electronic public health reporting in 2021 by whether they experienced a public health reporting challenge in 2019

■ Experienced 2019 PH reporting challenge   ■ Did not experience 2019 PH reporting challenge

Category	Experienced 2019 PH reporting challenge	Did not experience 2019 PH reporting challenge
Immunization registry	86%	95%***
Syndromic surveillance	78%	91%***
Electronic lab result	77%	87%***
Public health registry	58%	63%
Electronic case	47%	49%
Clinical data registry	41%	53%***
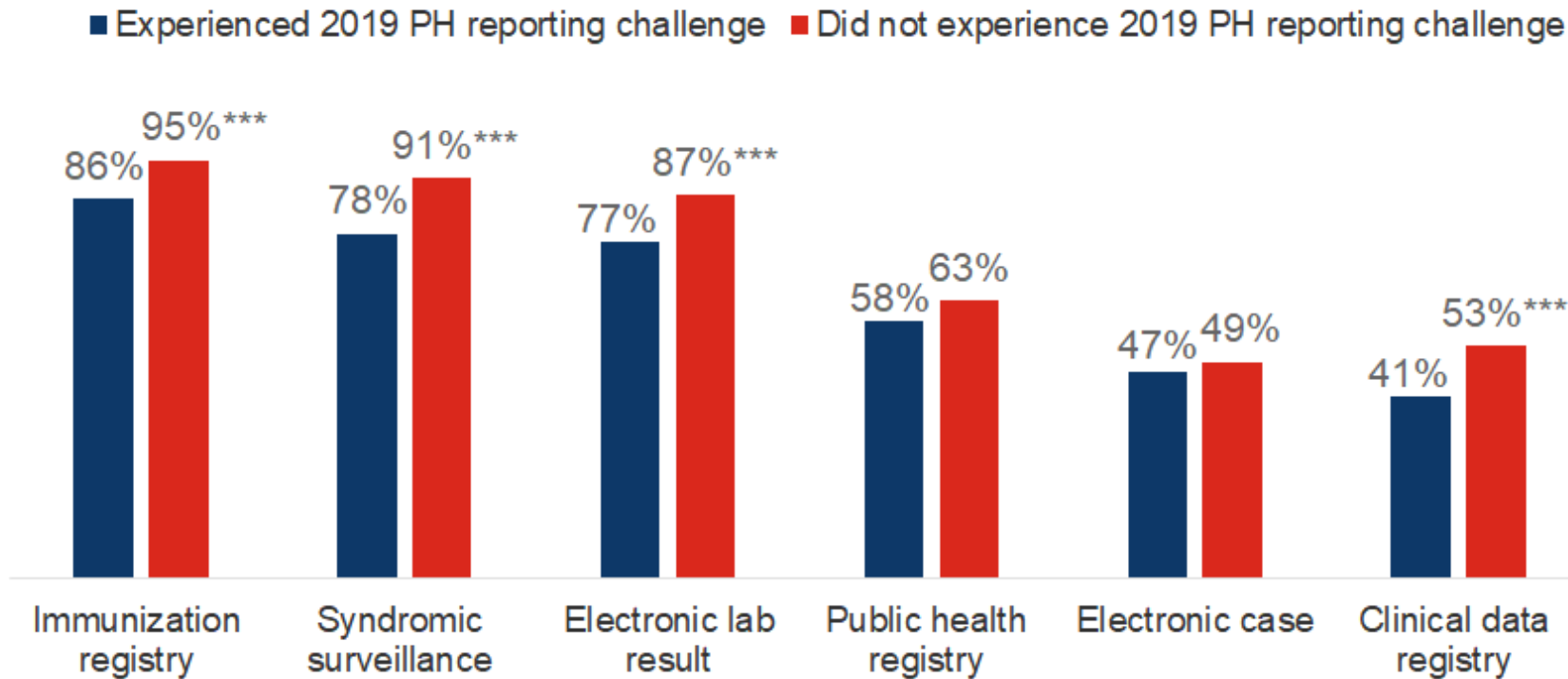
Source: 2021 AHA IT Supplement
Notes: Only includes hospitals that responded to both the 2019 and 2021 AHA surveys (*N*= 1,937). Missing values were excluded from the denominator. * Indicates statistical significance at the 5% level (p < 0.05). More information on the challenges hospitals faced with public health reporting in the year prior to the pandemic can be found in the data brief, "Challenges to Public Health Reporting Experienced by Non-federal Acute Care Hospitals, 2019".

Almost a quarter of hospitals indicated their EHR developer charges separately to submit data for public health reporting
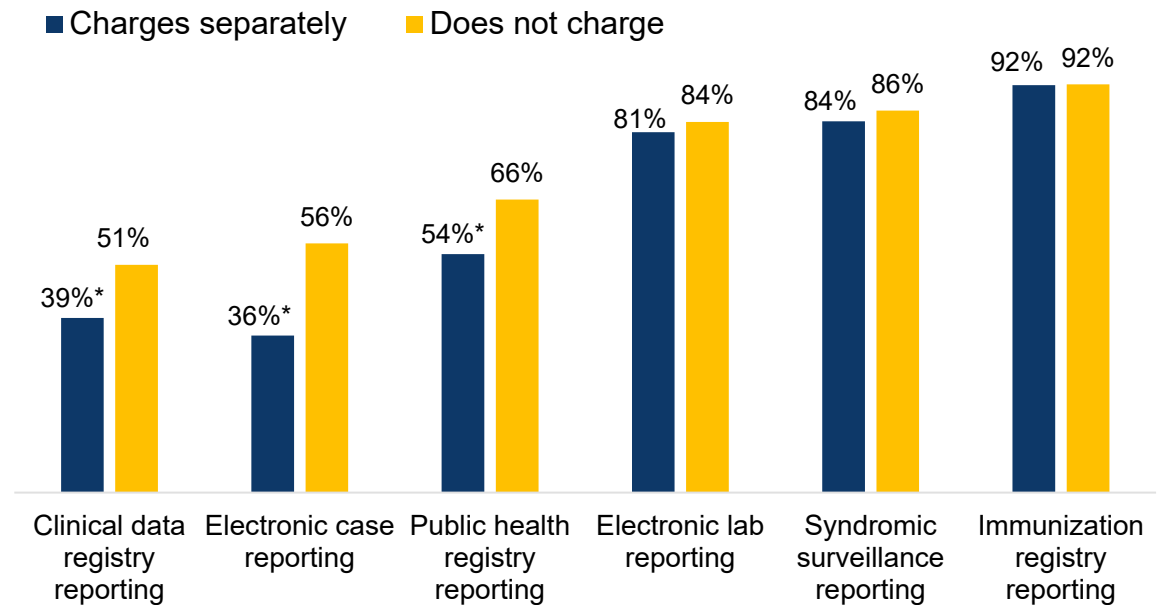
Hospitals charged separately had significantly lower rates of electronic public health reporting for certain types

Don't know, 14%

Separate Charge, 23%

No additional charge, 62%

Percent of hospitals that indicated their EHR developer charges separately to submit data for public health reporting activities, 2021

■ Charges separately ■ Does not charge

Category	Charges separately	Does not charge
Clinical data registry reporting	39%*	51%
Electronic case reporting	36%*	56%
Public health registry reporting	54%*	66%
Electronic lab reporting	81%	84%
Syndromic surveillance reporting	84%	86%
Immunization registry reporting	92%	92%

Percent of non-federal acute care hospitals actively engaged in electronic public health reporting by whether their EHR developer charges separately to submit data for public health reporting activities, 2021

Source: 2021 AHA IT Supplement
Notes: The share of EHR developers charging separately for public health reporting activities was derived from the survey question: "Does your EHR developer charge your hospital additionally to submit data for public health reporting activities?" Missing values excluded from denominator. * Indicates statistical significance at the 5% level (p < 0.05).

Small, rural, independent, and critical access hospitals were more likely to indicate their EHR developer charges additionally for public health reporting

Hospital Characteristics	Yes, charges additionally	No, does not charge additionally	Don't know
Small (*N* = 1,047)	26%*	55%*	19%*
Medium or Large (*N* = 1,317)	20%	70%	10%
CAH (*N* = 611)	28%*	52%*	20%*
non-CAH (*N* = 1,753)	21%	67%	12%
Rural (*N* = 827)	27%*	53%*	20%*
Suburban-Urban (*N* = 1,537)	20%	69%	11%
Independent (*N* = 645)	33%*	50%*	17%*
System Affiliation (*N* = 1,719)	19%	68%	13%
All hospitals	23%	62%	14%

Percent of non-federal acute care hospitals whose EHR developer charges additionally to submit data for public health reporting activities, by hospital characteristics, 2021

Methods Used to Support Electronic Public Health Reporting

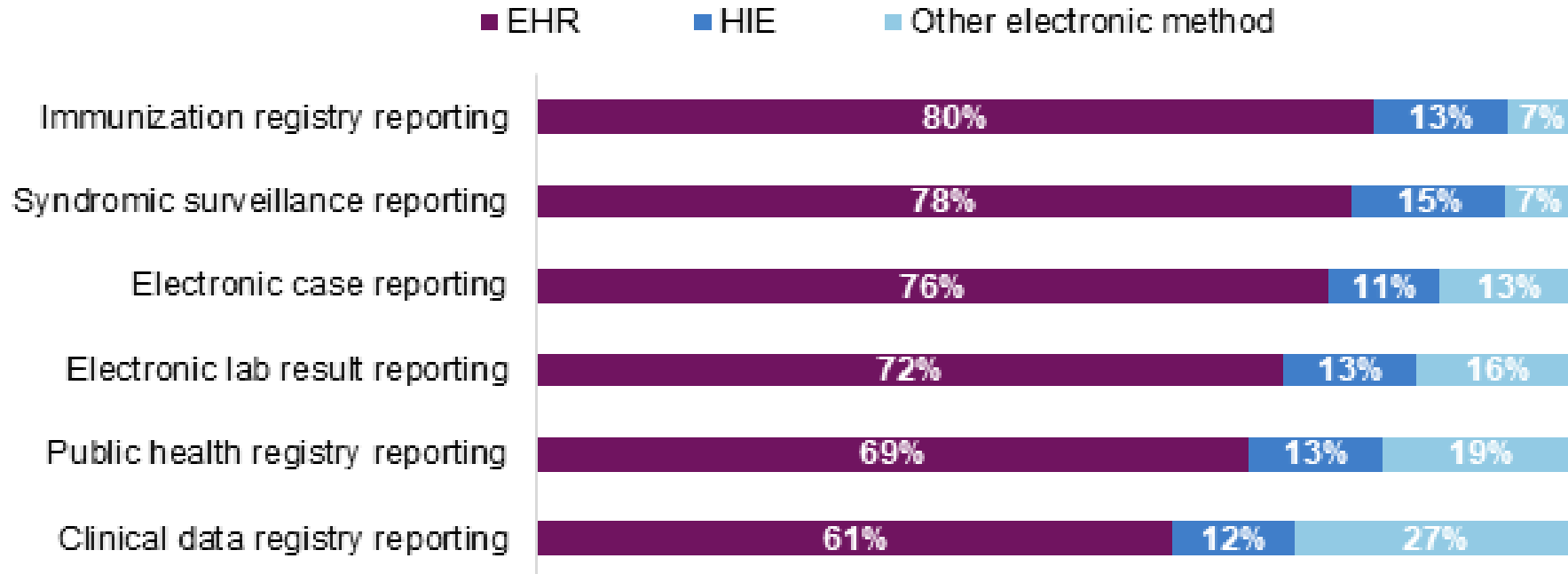# About 41% of hospitals used an HIE for at least one type of public health reporting
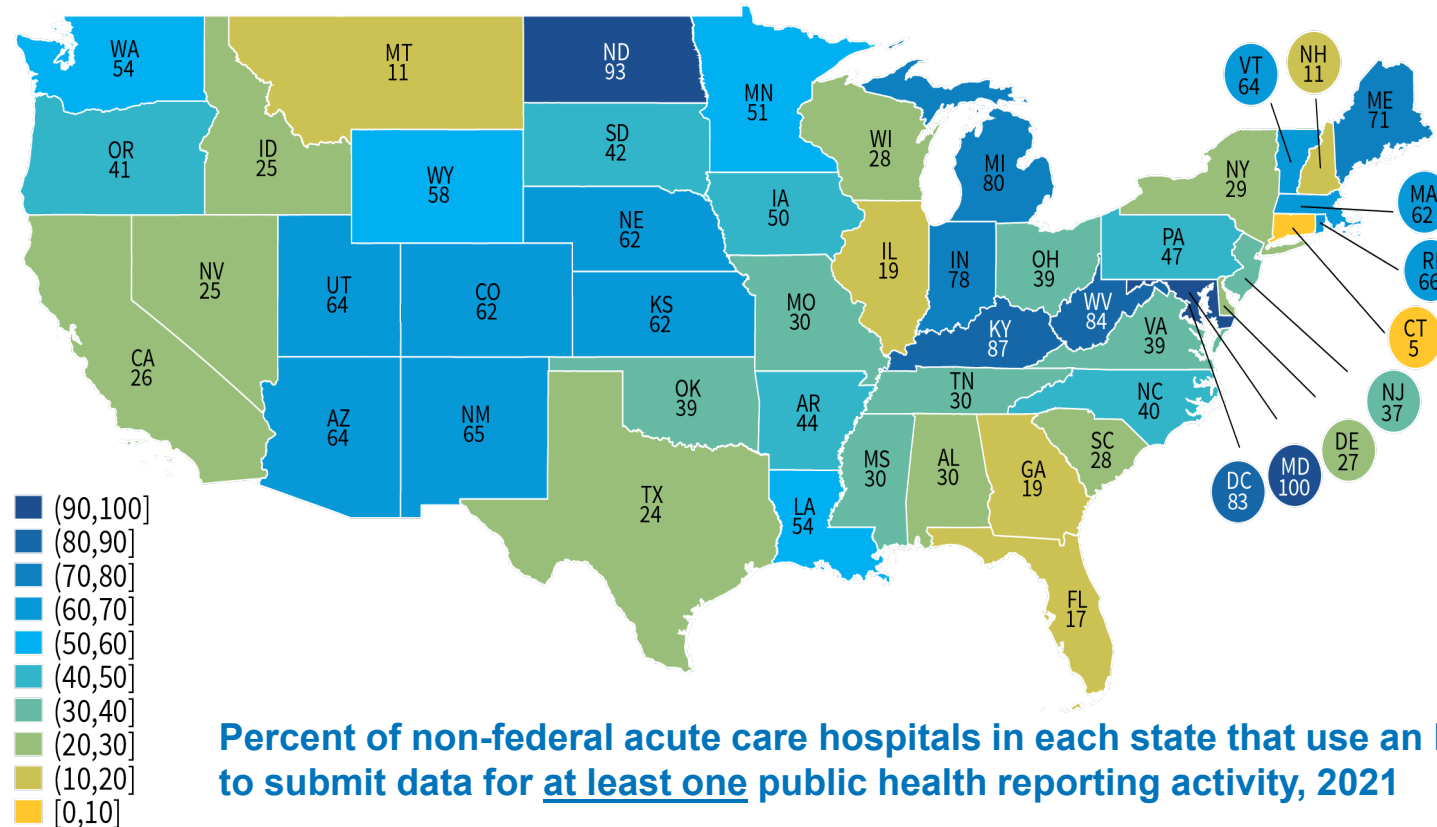
Percent of non-federal acute care hospitals in each state that use an HIE to submit data for <u>at least one</u> public health reporting activity, 2021

Legend:
- (90,100]
- (80,90]
- (70,80]
- (60,70]
- (50,60]
- (40,50]
- (30,40]
- (20,30]
- (10,20]
- [0,10]

State values:
WA 54, MT 11, ND 93, MN 51, VT 64, NH 11, ME 71, OR 41, ID 25, SD 42, WI 28, NY 29, MA 62, WY 58, IA 50, MI 80, RI 66, NV 25, UT 64, CO 62, NE 62, IL 19, IN 78, OH 39, PA 47, CT 5, CA 26, KS 62, MO 30, WV 84, VA 39, NJ 37, AZ 64, NM 65, OK 39, AR 44, KY 87, TN 30, NC 40, DE 27, TX 24, LA 54, MS 30, AL 30, GA 19, SC 28, DC 83, MD 100, FL 17

Source: 2021 AHA IT Supplement
Notes: In contrast to hospitals' use of HIEs as their *primary* method of submitting data for public health reporting (Figure 3), any use of an HIE for at least one type of public health reporting was determined based on responses to the question:*"If you use an HIE to submit data for public health reporting activities, does the HIE perform value added services during submission?"* Any responses to this question, including "don't know", were counted as using an HIE for public health reporting. Missing values and "not applicable" responses were counted as *not* using an HIE for any public health reporting.

Most hospitals *primarily* used an EHR for electronic public health reporting in 2021

Legend: ■ EHR ■ HIE ■ Other electronic method

Reporting type	EHR	HIE	Other electronic method
Immunization registry reporting	80%	13%	7%
Syndromic surveillance reporting	78%	15%	7%
Electronic case reporting	76%	11%	13%
Electronic lab result reporting	72%	13%	16%
Public health registry reporting	69%	13%	19%
Clinical data registry reporting	61%	12%	27%

Primary method used by non-federal acute care hospitals to electronically submit data, 2021

Small, rural, independent, and critical access hospitals were significantly more likely to primarily rely on HIEs for at least one type of public health reporting activity compared to their counterparts

	Electronic Health Record (EHR)	Health Information Exchange (HIE)	Other electronic method
Hospital Characteristics			
Small (*N* = 1,047)	68%*	19%*	23%
Medium or Large (*N* = 1,317)	81%	15%	24%
CAH (*N* = 611)	70%*	21%*	23%
non-CAH (*N* = 1,753)	76%	15%	24%
Rural (*N* = 827)	67%*	20%*	23%
Suburban-Urban (*N* = 1,537)	79%	15%	24%
Independent (*N* = 645)	64%*	20%*	22%
System Affiliation (*N* = 1,719)	80%	15%	25%
All hospitals	74%	17%	24%

Source: 2021 AHA IT Supplement
Notes: The numerator only includes respondents that reported "actively electronically submitting production data" for the respective reporting type. The denominator includes all hospital respondents. * Indicates statistical significance at the 5% level ($p < 0.05$

Key Takeaways

- In 2021, during the pandemic, a majority of hospitals indicated that certain types of public health reporting—syndromic surveillance, immunization registry reporting and lab results reporting—were done electronically, in an automated manner and largely via EHRs

- Electronic, automated reporting was lower for electronic case reporting, public health reporting, and clinical registry reporting
  - State-level differences may reflect differences in state policy and reporting requirements
  - Specialized public health IT infrastructure by reporting type may also lead to variation
  - Reporting types that are not required are more sensitive to separate or additional charges from EHR developers
  - Methods for transmitting data vary by reporting type

Key Takeaways Continued

- Lower resourced hospitals had lower rates of engagement in electronic public health reporting compared to higher resourced hospitals
  - More likely to be charged separately for public health reporting by their EHR developer which may explain greater reliance on HIEs

- Hospitals that previously reported experiences challenges to public health reporting had lower rates of electronic reporting to PHAs during the pandemic, indicating they may be still experiencing challenges

Limitations

- Self-reported data from hospitals subject to their understanding of each reporting activity
    - Working with CDC to verify data and improve the survey questions

Additional Information

- See https://www.healthit.gov/data/databriefs for publications

    - Electronic Public Health Reporting among Non-Federal Acute Care Hospitals During the COVID-19 Pandemic, 2021

    - Electronic Public Health Reporting among Hospitals & Physicians in the Year Prior to the Pandemic: Implications for Health Equity & Pandemic Response

    - Challenges to Public Health Reporting Experienced by Non-Federal Acute Care Hospitals, 2019

    - Electronic Public Health Reporting & Recording of Social & Behavioral Determinants of Health Among Office-Based Physicians, 2019

Discussion