



Office of the National Coordinator
for Health Information Technology

ONC Objectives and Benchmarks

HITAC Meeting, November 9, 2023

Seth Pazinski, Director, Strategic Planning and Coordination Division, ONC



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

FY23 ONC Health IT Coordination Activities



Health Equity by Design (HEBD)

- Continued to prioritize the addition of USCDI data elements that advance health equity including:
 - Treatment intervention preference
 - Care experience preference
 - Alcohol use
 - Substance use
 - Physical activity
- Published HL7 Cross Paradigm Implementation Guide (IG): Gender Harmony - Sex and Gender Representation
- The Public Health Informatics & Technology (PHIT) Workforce Development Program aims to implement or expand training, certification, and degree programs in public health informatics and data science at minority serving institutions and other colleges and universities
 - The PHIT Workforce Development Program has trained over 1,300 students as of October 31, 2023

FY23 ONC Health IT Standards Activities

United States Core Data for Interoperability Version 4 (USCDI v4)

- Released USCDI v4 in July 2023
- Included 20 new data elements and one new data class covering:
 - Allergies and Intolerances
 - Encounter Information
 - Facility Information
 - Goals and Preferences
 - Health Status Assessments
 - Laboratory
 - Medications
 - Procedures
 - Vital Signs

New Data Class and Data Elements in USCDI v4

Allergies and Intolerances <ul style="list-style-type: none"> Substance (Non-Medication) + 	Encounter Information <ul style="list-style-type: none"> Encounter Identifier + 🔍 	New Data Class Facility Information <ul style="list-style-type: none"> Facility Identifier + 🔍 Facility Type + 🔍 Facility Name + 🔍
Goals and Preferences <ul style="list-style-type: none"> Treatment Intervention Preference = ↑ Care Experience Preference = = ↑ 	Health Status Assessments <ul style="list-style-type: none"> Alcohol Use \$ 🧠 Substance Use + 🧠 Physical Activity \$ ↑ 	Laboratory <ul style="list-style-type: none"> Result Unit of Measure + 🔍 Result Reference Range + 🔍 Result Interpretation + 🔍 Specimen Source Site + 🔍 Specimen Identifier + 🔍 Specimen Condition Acceptability + 🔍
Medications <ul style="list-style-type: none"> Medication Instructions + Medication Adherence + 	Procedures <ul style="list-style-type: none"> Performance Time 🔍 	Vital Signs <ul style="list-style-type: none"> Average Blood Pressure +

= Equity Based
 ↑ Underserved
 🔍 Public Health
 🧠 Behavioral Health
 + Add'l USCDI Needs
 \$ ONC Cert

FY23 ONC Health IT Standards Activities



USCDI+ Domains	Updates
Quality	<ul style="list-style-type: none">• ONC published a draft USCDI+ Quality data element list for public comment (May – June 2023) gathered from a variety of sources including :<ul style="list-style-type: none">• CMS electronic clinical quality measures (eCQMs)• CMS long-term and post-acute care• HRSA Uniform Data System (UDS) Modernization Initiative• The initial draft data element list reflects currently identified HHS transforming digital quality measurement priorities within CMS and HRSA. USCDI+ Quality will support collection and harmonization of quality measure data elements for the extended quality community, including specialty registries, payers, quality improvement organizations, and quality improvement models, and may also serve as a guide to assist other quality programs modernization efforts.
Public Health	<ul style="list-style-type: none">• ONC and CDC coordinated on a list of use cases and data elements that support public health transactions, including Case Reporting, Laboratory Data Exchange, Situational Awareness and Emergency Response.• Feedback collected from targeted public health and industry partners.• Coordinated with CDC to align efforts with CDC's Public Health Data Strategy.
Other Domains	<ul style="list-style-type: none">• ONC has initiated work with HHS partners in additional domains, including behavioral health, cancer, and maternal health

FY23 ONC Health IT Standards Activities

Standards Version Advancement Process (SVAP)

- 6 SVAP approved standards for 2023
- Advanced health equity work through key patient demographic data
- Supports industry on consistent implementation of:
 - USCDI v3
 - US Core FHIR® IG v6.1.0
 - CMS IG for Quality Reporting Document Architecture

FHIR®

- Published US Core FHIR® IG v6.1.0 including updates to support USCDI v3
- Published HL7 Cross Paradigm Implementation Guide (IG): Gender Harmony - Sex and Gender Representation
- Ongoing development and support for International Patient Summary (IPS) FHIR® IG

Helios Public Health FHIR® Accelerator

- Successfully tested use of Bulk FHIR® IG to support the Bulk Query of IIS through two Connectathons (including virtual testing event)
- Successfully tested components of Situation Awareness for Novel Epidemic Response (SANER) and Data Exchange for Quality Measures (DEQM) IG to support the “Aggregate Data” project within Helios
- Established project to test PH query of FHIR APIs for case follow-up information, with successful testing at Connectathon



FY23 ONC Health IT Standards Activities

HHS-wide Approach on Health IT Standards Investments

- ONC and the HHS Assistant Secretary for Financial Resources (ASFR) began operationalizing the HHS Health IT Alignment policy
- ONC and HHS divisions identified a broad range of applicable grants, cooperative agreements, contracts, and rulemaking/guidance – covering public health, emergency preparedness, research, and other areas – for incorporating standard health IT language



FY23 ONC Health IT Certification Activities

Certification Program and Testing Requirements

- Successfully managed implementation of Cures Update criteria, including the update of 98% of all eligible Health IT Modules to the standardized API criterion, with minimal conformance disruption
- Completed first cycle of Real-World Testing with results reporting in March 2023, maintaining 100% compliance rate
- Continued program support of SVAP with 45 developers taking advantage of the policy



FY23 ONC Exchange Activities

Trusted Exchange Framework and Common Agreement (TEFCA)

- New 5-year TEFCA RCE contract in place with The Sequoia Project
- Application portal now open to potential QHINs
- Candidate QHINs progressing through application and onboarding
- Payment and Health Care Operations Standard Operating Procedures (SOPs) in development
- Public Health SOP and associated implementation guides in development



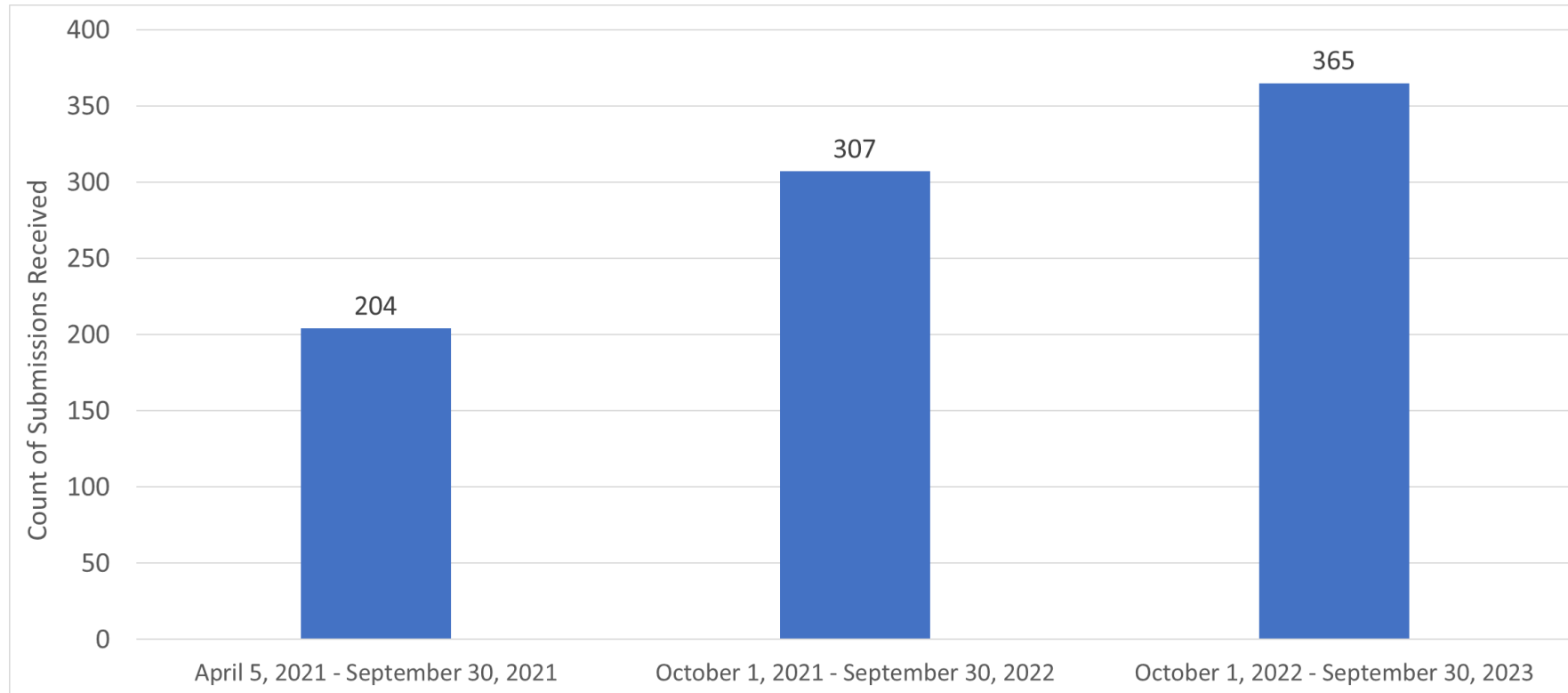
FY23 ONC Exchange Activities

Information Blocking Rules

- OIG Final Rule published, and enforcement of the information blocking penalties began on September 1, 2023. Entities subject to penalty are:
 - health IT developers of certified health IT
 - entities offering certified health IT
 - health information exchanges
 - health information networks
- HHS published "21st Century Cures Act: Establishment of Disincentives for Health Care Providers That Have Committed Information Blocking" proposed rule

FY23 ONC Exchange Activities

Information Blocking Claims Submission by Fiscal Year



73% of total cumulative claims were made by a patient or third party on behalf of a patient

78% of total cumulative claims refer to the health care provider as the alleged actor, and **13%** refer to the CHPL-listed health IT developer as the alleged actor

NOTE: The applicability date for the information blocking regulations (April 5, 2021) was established in the ONC Cures Act Final Rule.



FY 2024 Plans

FY24 ONC Rulemaking Plans

Spring 2023 Unified Agenda: ONC Rules

- Health Data, Technology, and Interoperability: Certification Program Updates, Algorithm Transparency, and Information Sharing (HTI-1 Final Rule)
- Health Data, Technology, and Interoperability: Patient Engagement, Information Sharing, and Public Health Interoperability (HTI-2 Proposed Rule)

FY24 ONC Health IT Coordination Plans

Health Equity by Design

- Advance adoption and use of USCDI data classes and elements that support health equity, including:
 - Sexual orientation and gender identity
 - Functional, disability, and mental/cognitive status
 - Social determinants of health such as food, housing, and transportation insecurity
- Continue to train students through the PHIT Workforce Development Program in public health informatics and data science at minority serving institutions and other colleges and universities



FY24 ONC Standards Plans

SVAP

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

USCDI

- Release USCDI v5 with additional data classes and data elements

USCDI+

- Expand use cases and projects under the current domains (Quality, Public Health, Cancer, Behavioral Health, and Maternal Health)
- Finalize datasets under Public Health Domain, including Case Reporting, Laboratory Exchange, and Situational Awareness and Emergency Response use cases.

FY24 ONC Standards Plans

FHIR®

- Development and publication of updates to FHIR® Bulk Data IG
- Development and publication of US Core FHIR® IG v7.0.0 including updates to support USCDI v4
- Support standards development related to emerging FHIR® capabilities such as FHIR® write, SMART Health Links, SMART App Launch IG granular scopes, consent
- Ongoing development and support for FHIR® infrastructure including the FHIR® IG publisher and FHIR® validator



FY24 ONC Standards Plans

HHS Health IT Standards Investments

- Spring 2023 Unified Agenda includes HHS Acquisition Regulation: Standards for Health Information Technology Proposed Rule
- Maximize opportunities to align standard health IT language in applicable grants, cooperative agreements, contracts, and rulemaking/guidance to ensure alignment of HHS health IT investments
- Engage with HHS agencies on health IT related activities

FY24 ONC Standards Plans

Public Health

- Incorporate USCDI+ into Standard Development Organization activities and FHIR® profile development
- Initiate production pilots for Query and Response, Bulk Query, and Aggregate Data projects
- Establish new project area for “Public Health Reporting”, test new Vital Records use case for “Bulk Query”

FY24 ONC Certification and Test Tool Development Plans

- All certified Health IT Modules that are part of a health IT product that stores electronic health information are required to certify to the Electronic Health Information export criterion (45 CFR 170.315 (b)(10)) and make the functionality available to end users by December 31, 2023
- Expand Test Tool Suite to include electronic prescriptions and additional Inferno test kits including CARIN Blue Button specification to support adoption.

FY24 ONC Exchange Plans



Trusted Exchange Framework and Common Agreement (TEFCA)

- Publish Final Common Agreement (CA) v2 and the Qualified Health Information Network (QHIN) Technical Framework (QTF) v2 to include a TEFCA Facilitated FHIR® Implementation Guide
- Continue to support QHIN applications, onboarding process, and transition to become fully operational / go-live
- Continue to support the expansion of exchange mechanisms to include FHIR® within TEFCA
- Continue TEFCA education activities, including through Standard Operating Procedures (SOPs), public webinars, and frequently asked questions (FAQs)

FY24 ONC Exchange Plans

Information Blocking

- HHS "21st Century Cures Act: Establishment of Disincentives for Health Care Providers That Have Committed Information Blocking" proposed rule
- Coordinate with OIG on Information Blocking claims
- Continued support for the Information Blocking Portal to receive information blocking claims

Health Information Technology Advisory Committee

Target Areas in the Cures Act



Interoperability:

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



Privacy and Security:

The promotion and protection of privacy and security of health information in health IT



Patient Access to Information:

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



Use of Technologies that Support Public Health:

The facilitation of bidirectional information sharing between the clinical and public health communities



Design and Use of Technologies that Advance Health Equity:

Applying health information technology to help all people attain their full health potential regardless of socially determined circumstances



Office of the National Coordinator
for Health Information Technology

ONC Social Needs Data Updates

HITAC Meeting, November 9, 2023

Wesley Barker, Branch Chief, Data Analysis Branch, ONC

Chelsea Richwine, Analyst, Data Analysis Branch, ONC

JaWanna Henry, Branch Chief, Interoperability Systems Branch, ONC



Agenda

- Overall Data Update
 - Wesley Barker, Branch Chief, Data Analysis Branch, ONC
- Social Needs Data Collection and Use: Perspectives from Patients and Providers
 - Chelsea Richwine, Analyst, Data Analysis Branch, ONC
- Patient and Clinician Perspectives on the Collection, Usage and Sharing of SDOH Data
 - JaWanna Henry, Branch Chief, Interoperability Systems Branch, ONC





Office of the National Coordinator
for Health Information Technology

Overall Data Update

**Wesley Barker, Branch Chief, Data Analysis Branch, Office of
Technology, ONC**





A Year in Review

- Products finalized between October 1, 2022 – September 30, 2023
 - 12 Academic Papers
 - 7 published and 5 submitted
 - 8 [Data Briefs](#)
 - 16 [ONC Buzz Blogs](#) (accounts for 1 of 3 blogs published)
 - 8 [Quick Stats](#)

- Topic areas

- | | |
|--|---|
| <ul style="list-style-type: none">• Hospital interoperability and methods of exchange• Social needs screening among non-federal acute care hospitals• Electronic public health reporting by hospitals• Use of telemedicine among office-based physicians• Electronic prescribing and PDMP use by office-based physicians | <ul style="list-style-type: none">• Patient access to data (hospital capabilities, timeliness, disparities)• Hospital leader perspectives on information blocking• Trusted Exchange Framework and Common Agreement (TEFCA) awareness among hospitals• Lantern project (API endpoints)• Artificial intelligence and machine learning in healthcare |
|--|---|
-

Upcoming Work

- American Health Association (AHA) Annual Health IT Supplement Data
 - Hospitals' recording and use of health-related social needs data
 - Hospital awareness and plans to participate in TEFCA
 - Interoperable exchange and barriers (including info blocking)
 - Machine Learning (ML) / Artificial Intelligence (AI) technology use
- Health Information Exchange Organization (HIO) Survey
 - Public health data exchange
 - Network-to-network connectivity and Trusted Exchange Framework and Common Agreement (TEFCA)
 - Information Blocking
- Data Collected through a Cooperative Agreement with the American Board of Family Medicine (ABFM)
 - Interoperability
 - Public health reporting
 - Social needs documentation and use
- Analysis and reporting of the Health Information National Trends Survey (HINTS), Cycle 6 (2022)
 - Patient access to medical records and disparities in access





Office of the National Coordinator
for Health Information Technology

Social Needs Data Collection and Use: Perspectives from Patients and Providers

Chelsea Richwine, Analyst, Data Analysis Branch, Office of
Technology, ONC



Data

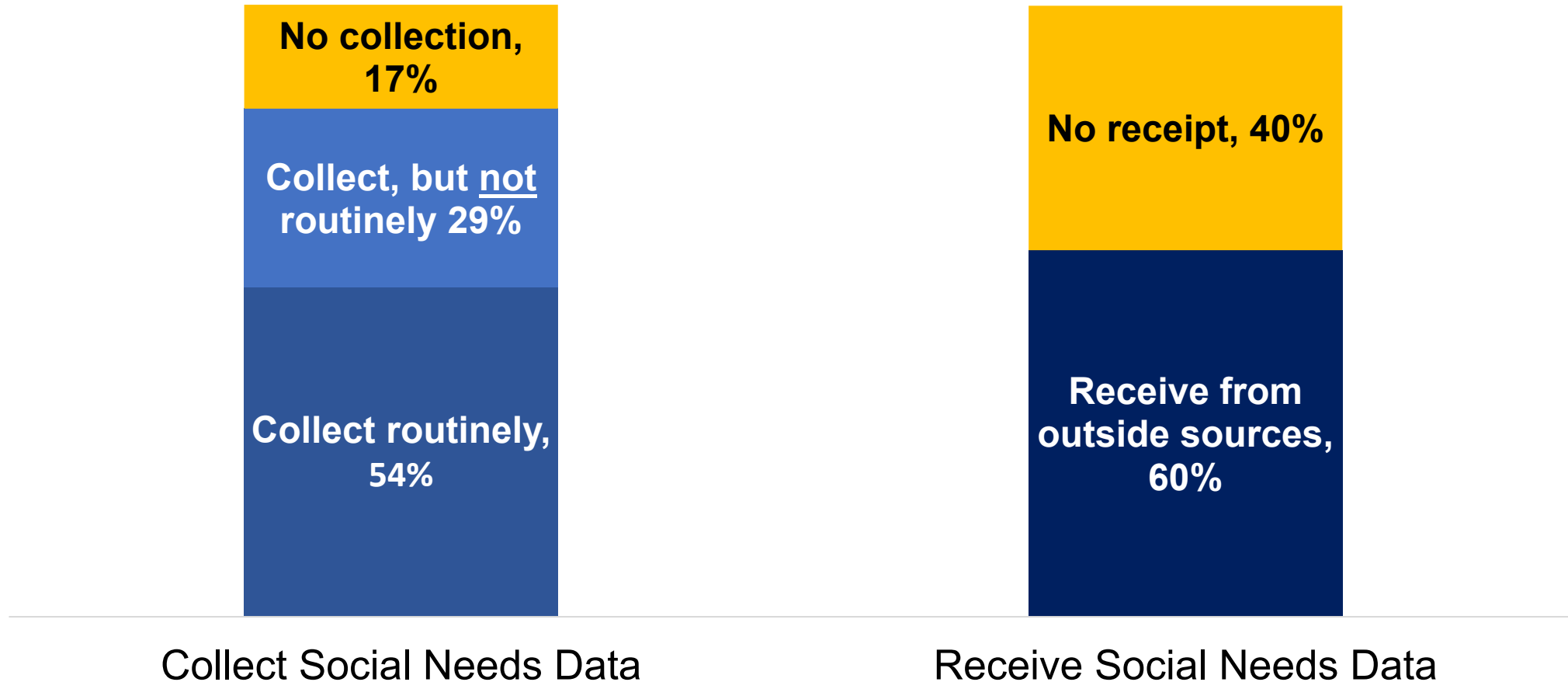
- **Hospital Survey: 2022 American Hospital Association (AHA) Information Technology (IT) Supplement**
 - Asks about hospitals' collection, receipt, and use of data on patients' health-related social needs
 - Fielded July to December 2022, yielding a sample of **2,541 non-federal acute care hospitals** (58% response rate)
- **Physician Survey: 2022 National Physician Health IT Survey**
 - Asks about physicians' methods of documenting social needs screening and perceived importance of accessing social needs data in the EHR
 - Fielded April to November 2022, yielding a sample of **3,006 physicians** who provided outpatient care and used an EHR (3.6% response rate)
- **Patient Survey: 2022 Health Information National Trends Survey (HINTS 6)**
 - Asks about individuals' comfort with their provider sharing their social needs information with other providers for their treatment purposes.
 - Fielded March to November 2022, yielding a sample of **6,252 U.S. adults** (28% response rate).



AHA IT Supplement Results

In 2022, most hospitals collected social needs data, and more than half electronically received data from outside sources

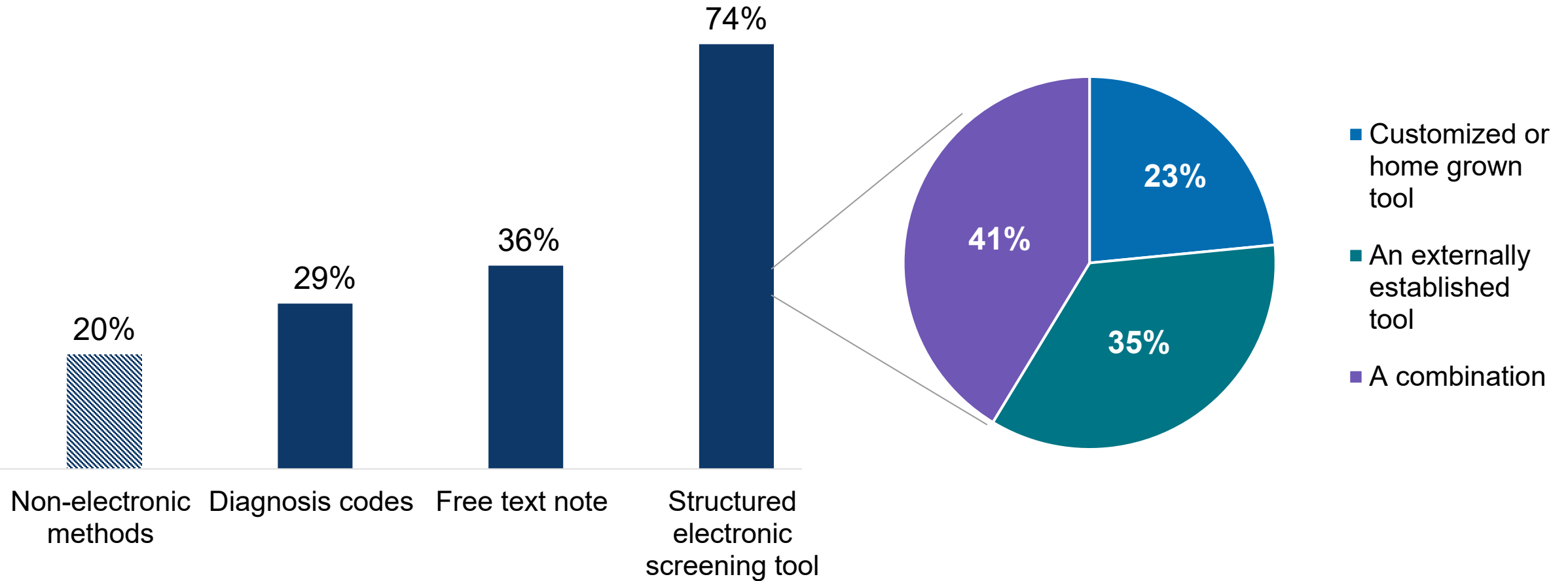
Hospitals' collection and receipt of social needs data from outside sources





Nearly three-quarters of hospitals used a structured electronic screening tool to collect social needs data

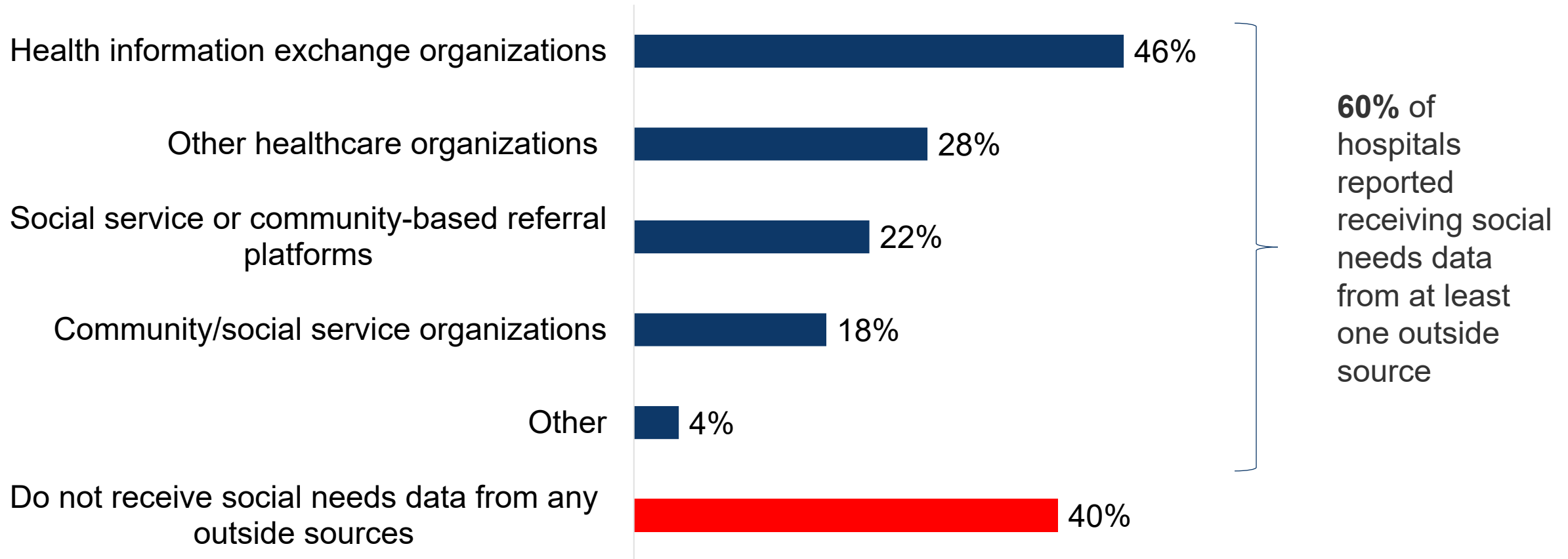
Methods and tools used for social needs screening among hospitals that reported collecting social needs data at their hospital





Almost half of hospitals reported electronically receiving social needs data via health information exchange organizations (HIEs)

Sources from which hospitals electronically received social needs data, 2022



The top 3 uses of social needs data were to inform clinical decision making or discharge planning and to make referrals

Uses of social needs data collected internally or received from outside sources

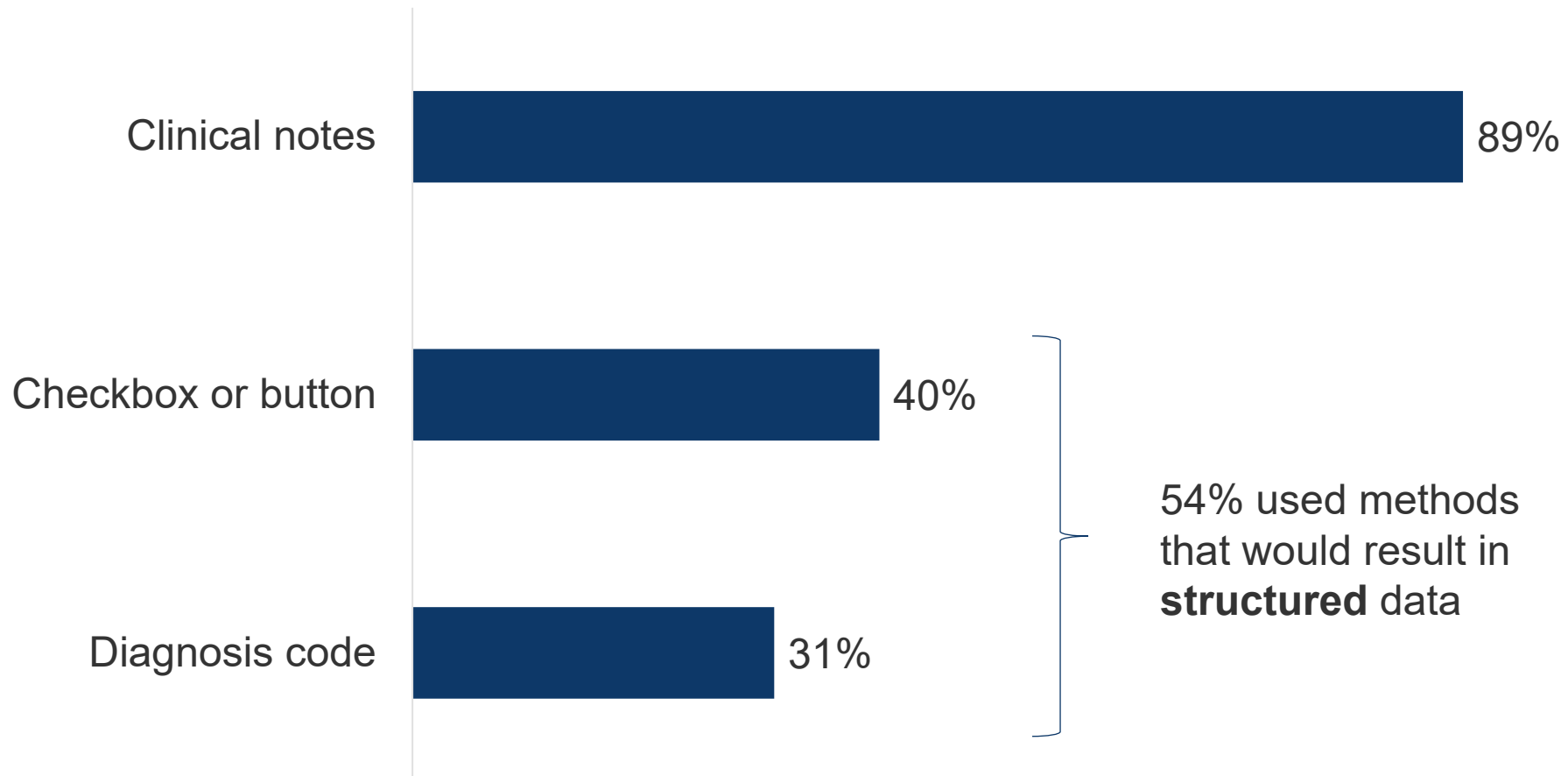
Purpose	Collect social needs data	Receive social needs data
To inform discharge planning	72%	39%
To inform clinical decision making	67%	43%
For referrals to social service organizations	65%	40%
For population health analytics	48%	32%
To inform community needs assessment or other equity initiatives	46%	28%
For quality management	42%	—
For screening at our hospital	—	25%
Other	2%	1%
Data not collected or received	17%^a	40%^b



UCSF Physician Survey Results

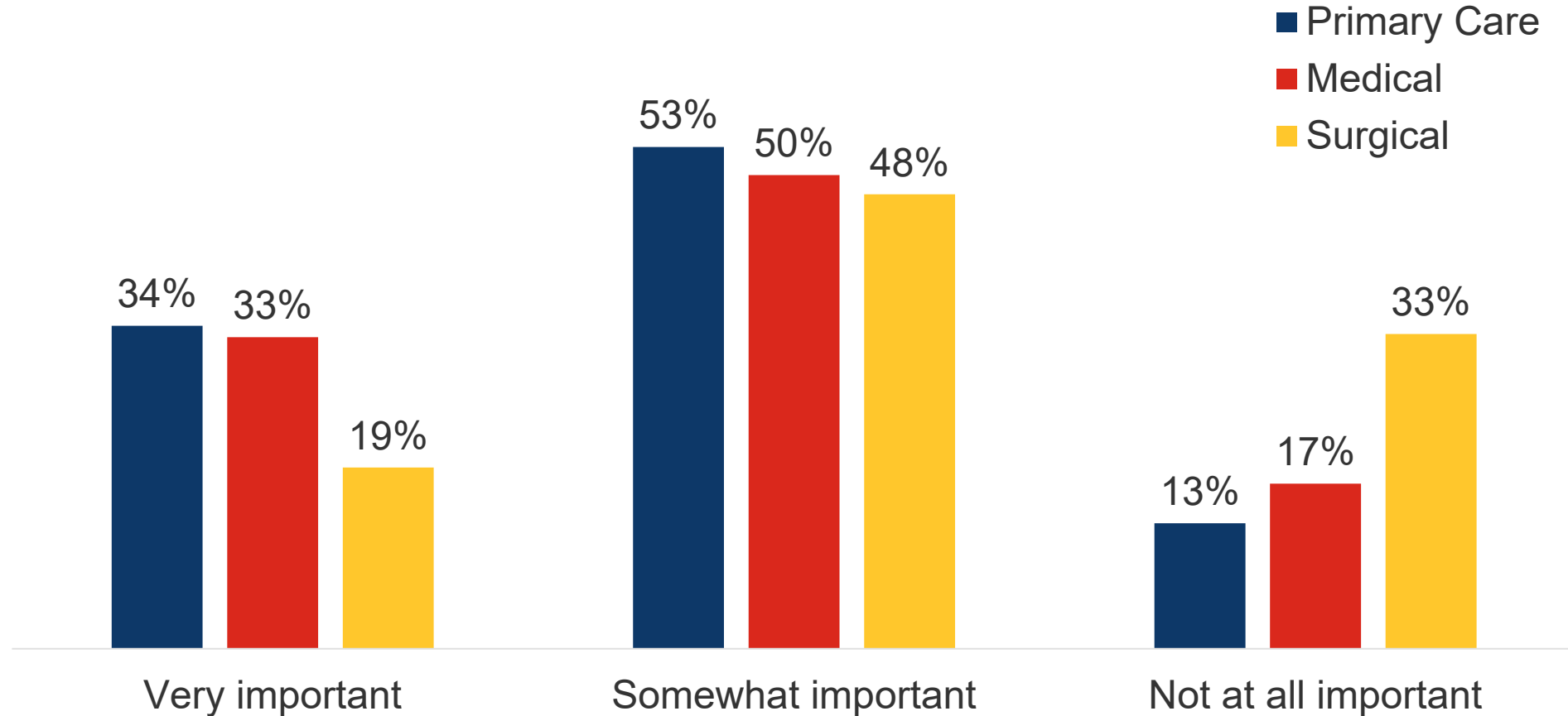
In 2022, 63% physicians used one of three methods to document screening for social needs in their EHR

Methods used to document screening for social needs in the EHR among physicians who used at least 1 of 3 methods



Most physicians reported it is very or somewhat important to have access to social determinants of health (SDOH) information from other health systems/organizations

Importance of accessing SDOH information electronically in the EHR and/or portal

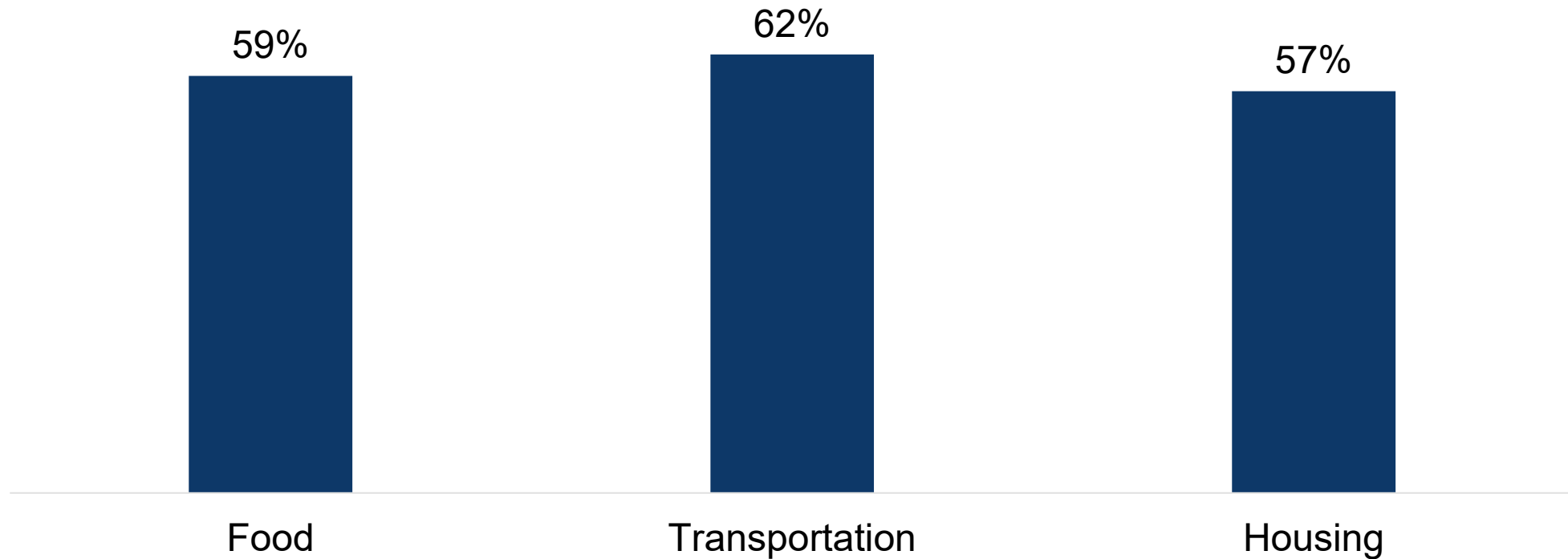




HINTS 6 Survey Results

About 6 in 10 individuals nationwide reported they would be comfortable with social needs information sharing for treatment-related purposes

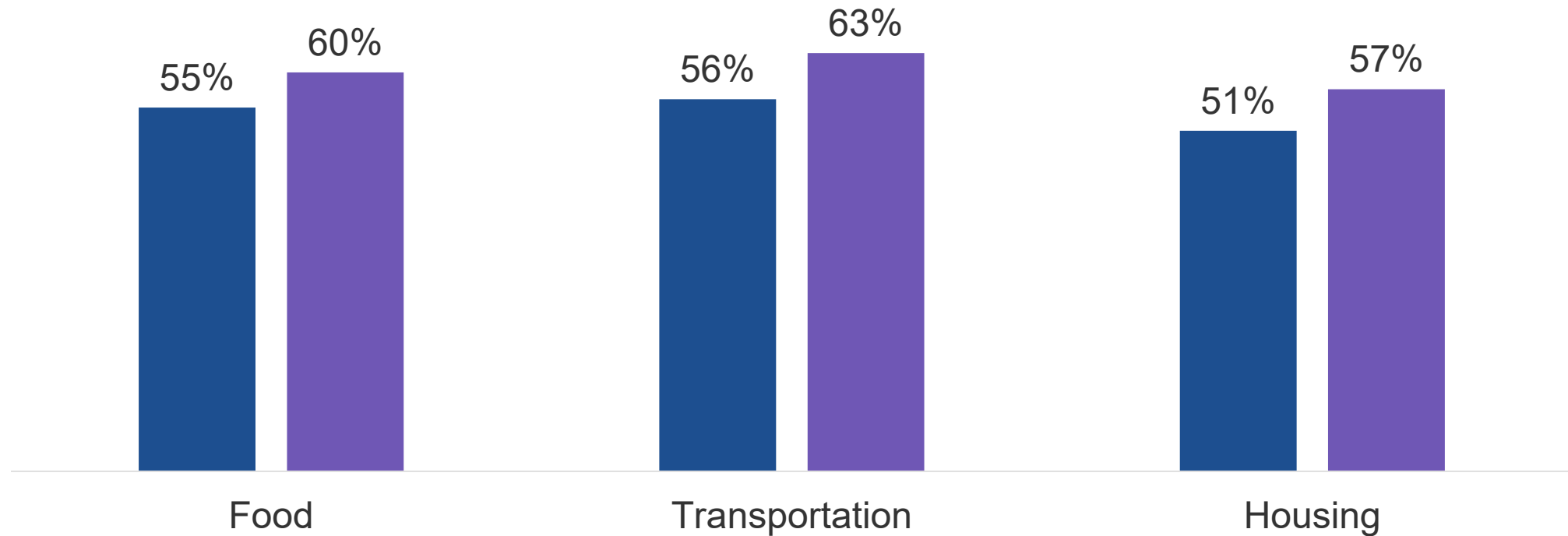
Individuals' comfort with providers sharing information with each other for their treatment purposes related to the following social needs:



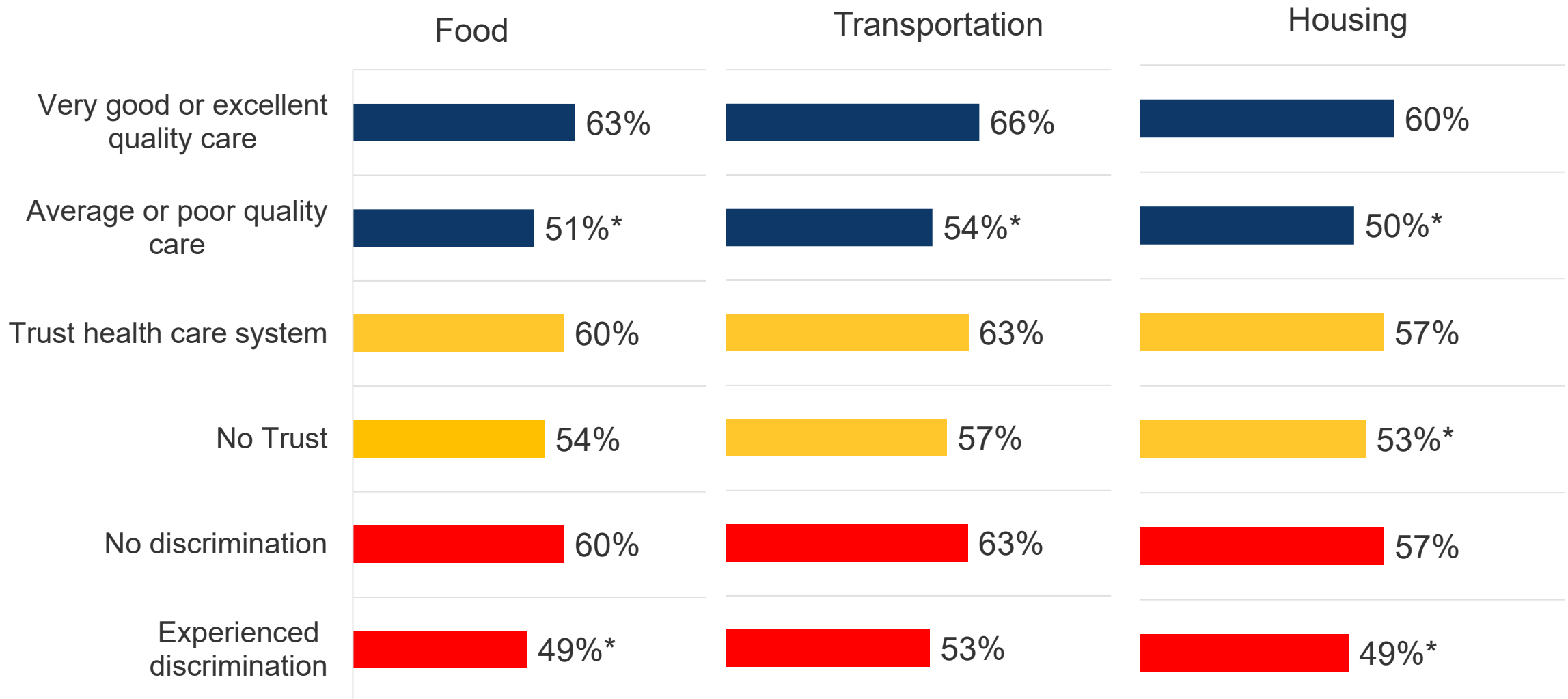
Comfort with social needs information sharing was slightly lower among individuals who recently experienced that social need

Individuals' comfort with their providers sharing social needs information with each other for treatment purposes, by experience with social need

■ Recently experienced social need ■ No recent history of social need



Comfort with social needs information sharing was lower among individuals who experienced discrimination, had little or no trust in the health care system, and received average or poor quality of care



Discussion

- Together, these data sources provide 3 different perspectives on the collection and use of social needs data in inpatient and outpatient settings
 - Findings from the hospital survey show that **hospitals frequently screen for social needs** and **use the data to inform clinical decision-making & connect patients to resources.**
 - Findings from the hospital and physician surveys indicate that **structured data collection**—which facilitates exchange and subsequent use of data—is **more prevalent in hospital settings** (physicians had higher rates of using free-text notes)
 - Findings from the patient survey suggest **a majority of patients are comfortable with social needs information sharing for treatment purposes**, but comfort varies based on personal experiences.
- Ongoing measurement will be important for:
 - **Tracking progress in social needs screening and documentation** practices using methods that will support the exchange and use of data for informing treatment and making referrals to social services.
 - **Informing efforts to increase patients' comfort with social needs information sharing** and confidence that data collected are being used to help patients get the resources they need.



Office of the National Coordinator
for Health Information Technology

Patient and Clinician Perspectives on the Collection, Usage and Sharing of SDOH data

JaWanna Henry, Branch Chief, Interoperability Systems Branch,
Office of Policy, ONC





Access, Exchange, and Use of Social Determinants of Health Data in Clinical Notes Project Team



Catherine M. DesRoches
OpenNotes



Deborah Wachenheim
OpenNotes



Kendall Harcourt
OpenNotes



Anna Garcia
OpenNotes



JaWanna Henry
ONC



Vaishali Patel
ONC



Overview of Project

Purpose

To understand how SDOH data can be more effectively captured and utilized to improve care.

Goals

- Assess the current research landscape
- Conduct and analyze provider and patient focus groups
- Develop considerations to advance the capture and use of SDOH data

Focus Groups

- Ten live patient groups conducted virtually
 - Black/African American (2 groups), Spanish speakers, rural, underserved areas, e-patients, persons with disabilities, care partners of children, age 65+, LGBTQ+
- Ten asynchronous health care professional groups conducted virtually
 - Primary care providers, safety net providers, pediatrics, emergency medicine, case management, mental health, specialty care (includes OT/PT/Nutrition)

The perspectives shared from any individual participant are not meant to be representative of any group in its entirety but provides insight into the experiences of patients and providers



Patients



Patients: Ask/Don't Ask?

General agreement that clinicians should know about factors that affect their health.

But disagreement about what those factors are.

What do patients want to be asked about?	What do patients NOT want to be asked about?
<ul style="list-style-type: none">• Transportation problems• Safety• Sexual orientation	<ul style="list-style-type: none">• INCOME• Sexual orientation



Parents/Guardian: Fear and Trust

- "And they see it as, **oh well she's not able to provide financially for her kids**. So next thing you know, **CPS is showing up at my door.**" - Participant in the Black Patient Group
- "**It makes me happy that they are asking** because many people wouldn't just be forward with their provider...I do sometimes wonder, they're asking these questions but also do they have the, **hopefully they also have the training to handle** not, that **not biasing their opinions about the patient because** that is, **that information can change sometimes how you think about people**. So it makes you just kind of - like I'm OK with sharing it but also it makes me wonder like **how will they receive it?**" - Participant in the care partners for children group



Patients: Ambivalence about Sharing Information

- "You know that actually the doctors are not the only one looking in your files. You've got all the nurses that's in there. **You put your trust in them.** You don't know who knows who. **You don't know who knows you and they're getting your information. So that's another concern.**" - Participant in the Black Patient Group
- "**If it's not relevant to the care I need, I don't think it should be shared.**" - Participant in the Rural Patient Group
- "I believe that is a thing belonging to each individual, **everyone should decide what information to share, or what not.** But I do think that the doctor, or **whomever it is asking for that information, should explain what... Why they want that information.** If they are going to base their treatment, their diagnosis, based on that information, or, what is the objective?" - Participant in the Spanish Speaking Patient Group (translated into English)



Patients: Ambivalence about Sharing Information Continued

- **“So, it's always up to the person if they share the information or not. But to me, it is having more options rather than none, because I may be going through something, and I'm not even realiz(ing) that's impacting my health. But when I see that question on the questionnaire or within my chart, then I'm like, wow, maybe this is something that's affecting me”** - Participant in the Black/African American Patient Group
- **“I would say not having to reintroduce my gender identity and sexual identity to every doctor that needs to know it would be nice. Not having to re-come out every couple of months would be great”** - Participant in the Patients with Disabilities Group



Patients want control over what is shared with others

- Misunderstanding about the HIPAA forms they are signing
- Would like to designate what can be shared and with whom (specific to individual data elements)
- Want only relevant info shared (with permission or their control)
- Don't want information shared with clinicians who rarely see them
- Concern could bias future providers who see this information

“I think I'd like to know if this information is being shared and to whom. There ought to be a “hide” button on each social determinant answer to keep some answers confidential to other providers.” - Participant in the e-Patient Group



Patient barriers to providing and sharing SDOH information

Barrier	Providing	Sharing with other providers
Poor relationship with clinician	X	
Concerns about how information will be used	X	X
Worries about discrimination	X	X
Digital literacy/digital divide*	X	
Primary language other than English	X	

*Barrier to electronic data collection through portal or app



Health Care Professionals



HC Professionals: Barriers related to EHRs

Barrier	Collecting/Documenting	Utilizing
Not intuitive	X	
Data is difficult to find		X
Standardized tool does not match clinical need	X	
Low digital literacy/low portal registration	X	



HC Professionals: Barriers not related to EHRs

Barrier	Collecting/Documenting	Utilizing
Time	X	X
Overworked/understaffed	X	X
Lack trained staff/SW	X	X
Staff discomfort	X	
Patient discomfort/resistance	X	X
Lack of staff awareness	X	X
Lack of resources to address SDOH needs	X	X
Language barriers	X	X
EMRs	X	X
Lack standards	X	X



Recap of Patient and Provider Perspectives

- Patients consider certain types of SDOH data as sensitive, and express concern about how these data could be (mis)used
- The digital divide and language are barriers (along with other factors) for patients being able to provide SDOH data
- Limited time/staffing, lack of awareness and resources are key provider-reported barriers to collecting and using SDOH data that are not related to EHRs
- Standardization, workflow, and digital literacy are barriers providers are experiencing in collecting SDOH information using the EHR



Discussion