2027 Health Information Organization (HIO) Survey

The nationwide survey of HIOs is being led by Civitas in collaboration with Dr. Julia Adler-Milstein at the University of California, San Francisco and is sponsored by the Office of the National Coordinator for Health IT (ONC). **We request your time to complete our survey. Participation is completely voluntary and will contribute to a research study.** Thank you in advance for your time.

The survey includes questions in five broad areas:

(1) Organizational Demographics
(2) Network-to-Network Connectivity and TEFCA
(3) Information Blocking
(4) Implementation/Use of Standards
(5) Public Health

We will not make ANY responses to questions publicly available or attribute responses to any specific organization. These data will only be presented in aggregate and will be published in a peer-reviewed journal (which we will be happy to send to you) and other publicly available publications and presentations. Please see below for more details on data access and data reporting.

Data Access: Who Will Have Access to Individual, Identified Survey Responses

The UCSF research team collecting the data will have access to fully identified survey responses. In addition, the Office of the National Coordinator for Health IT (ONC) that is funding the survey will be given a dataset containing identifiable survey responses in the first five sections only. ONC may choose to share all or part of the dataset with ASTP/ONC contractors only for the purpose of conducting contracted work and abiding by the same reporting/disclosure terms as described below.

Data Reporting: What Data & Derivative Results Will be Reported in Journals, Data Briefs, or Public Documents

No individual respondents or responses will ever be identified or reported. All data will be reported at an aggregate level (e.g., across all survey responses). For example, we may report that 10% of HIOs in the US have payers as participants. A subset of data may be reported at the regional level (i.e., aggregated by state or healthcare market/HRR). UCSF, ONC, and any ONC contractors receiving the data will abide by these terms.

If you serve as overarching infrastructure for sub-exchanges or otherwise manage multiple distinct health information exchanges, please let us know so that we can send you another link to the survey. This will ensure that you fill out only one response per exchange. We also ask that you respond to survey questions only from the perspective of your organization. Please do not attempt to summarize multiple efforts that may be affiliated with your organization (For example, if you are a state-level HIO, please do not respond on behalf of local HIOs with whom you work.)

To thank you for your time, upon completion of the survey you will be offered a $50 amazon.com gift certificate. If you are not eligible for our survey, you will be offered a $10 amazon.com gift certificate.

If you have any questions, please contact the project investigator, Dr. Julia Adler-Milstein (Julia.Adler-Milstein@ucsf.edu or 415-476-9562).

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0955-0019. The time required to complete this information collection is estimated to average 45 minutes per response, including the time to review instructions, search existing data resources, gather the data needed, and complete and review the information collection. If you have comments concerning the accuracy of the time estimate(s) or suggestions for improving this form, please write to: U.S. Department of Health & Human Services, OS/OCIO/PRA, 200 Independence Ave., S.W., Suite 336-E, Washington D.C. 20201, Attention: PRA Reports Clearance Officer

Screening Questions

We would first like to ask you about the type of organization for which you are responding:

1. As of today is your organization: (select one)

- ☐ Supporting* "live" electronic health information exchange across your network
- ☐ Building (or planning for) the infrastructure or services to support*, or pilot testing, electronic health information exchange across your network (End of survey)
- ☐ No longer pursuing or supporting* electronic health information exchange (End of survey)
- ☐ Never pursued or supported* electronic health information exchange (End of survey)

2. Does electronic health information exchange take place between independent entities**?

- ☐ Yes
- ☐ No (End of survey)

* Supporting is defined as offering a technical infrastructure that enables electronic health information exchange to take place.

Independent entities are defined as institutions with different tax identification numbers; HIE between independent entities requires that ***at least one* entity is independent of the other(s).

Organizational Demographics

1. Since March 1, 2025, have you merged or are you planning to merge with another HIO?
   - ☐ No, not planning to do so
   - ☐ Currently considering
   - ☐ Yes, plan to merge. If public, with whom:
   - ☐ Yes, recently merged. If public, with whom:

2. Which of the following general categories apply to your organization: (Select all that apply)

   - ☐ Multi-state HIO
   - ☐ Single, statewide HIO
   - ☐ Community or local HIO
   - ☐ Governmental, state-designated HIO
   - ☐ Non-governmental, state-designated HIO
   - ☐ Enterprise HIO (i.e. primarily facilitate exchange between strategically aligned organizations)
   - ☐ Health Information Service Provider (HISP)
   - ☐ Other (please list):

3. What is your legal organizational structure?

   - ☐ State Government/Agency
   - ☐ Private Non-Profit 501c3
   - ☐ Private For-Profit
   - ☐ Other (please specify):

4. *Which state(s) or province(s) do you consider the primary ones in which you currently have, or are recruiting new, participants in your HIO? This should ***not*** include state(s) that you connect to via regional/national networks, such as Patient Centered Data Home or eHealth Exchange, or state(s) in which you provide technology for other HIOs that are branded under a different name.

☐ Alabama	☐ Alaska	☐ American Samoa	☐ Arizona
☐ Arkansas	☐ California	☐ Colorado	☐ Connecticut
☐ Delaware	☐ Distr. of Columbia	☐ Florida	☐ Georgia
☐ Guam	☐ Hawaii	☐ Idaho	☐ Illinois
☐ Indiana	☐ Iowa	☐ Kansas	☐ Kentucky
☐ Louisiana	☐ Maine	☐ Maryland	☐ Massachusetts
☐ Michigan	☐ Minnesota	☐ Mississippi	☐ Missouri
☐ Montana	☐ Nebraska	☐ Nevada	☐ New Hampshire
☐ New Jersey	☐ New Mexico	☐ New York	☐ North Carolina
☐ North Dakota	☐ N. Mariana Islands	☐ Ohio	☐ Oklahoma
☐ Oregon	☐ Pennsylvania	☐ Puerto Rico	☐ Rhode Island
☐ South Carolina	☐ South Dakota	☐ Tennessee	☐ Texas
☐ Utah	☐ US Virgin Islands	☐ Vermont	☐ Virginia
☐ Washington	☐ West Virginia	☐ Wisconsin	☐ Wyoming

5. (Display for the state(s) selected in Organizational Demographics, Question 4). Please select the specific hospital service area(s) † in which you currently have, or are recruiting new, participants in your HIO.

   † Hospital Service Areas are geographic areas defined by the Dartmouth Atlas.
   [Populate list of HSAs for each State reported in prior question and have check all option for HSAs in a given state]

   A hospital service area look-up by zip code can be found at: www.dartmouthatlas.org/data/search_zip.php

   If you describe your service area differently or have additional comments on geographic area covered, please comment:

   5a. If you have participants in other states or connections to HIOs in other states, please list those states here:

6. Please indicate which of the following options applies to your HIO data architecture model:
   - ☐ Federated
   - ☐ Centralized
   - ☐ Both (Hybrid)
   - ☐ Other (please specify)

7. Which of the following do you currently have as core infrastructure or offer as services to your participants (either directly or via a third party)? (Select all that apply)

GENERAL SERVICES	
Provider Directory	☐
Patient Consent Management	☐
Community Medical/Health Record: Aggregation of Information from Across the Community Served by the HIO	☐
Patient Electronic Access to their Health Information (e.g., Immunization History, Lab Results)/Support for Individual Access Requests	☐
Record Locator Service	☐
Query-based Exchange	☐
Results delivery (i.e., uni-directional push)	☐
Alerting/Event Notification (e.g., Admit-Discharge-Transfer)	☐
Messaging Using the Direct Protocol	☐
Transform Other Document Types or Repositories into CCDAs (e.g., MDS, OASIS, Community Health Record)	☐
Data Normalization	☐
Intake, Assessment, and Screening Tools	☐
Exchange of Data on Individual Patients' Health Related Social Needs (Often Referred to as Social Determinants of Health) Such as Transportation, Housing, Food Insecurity or Other	☐
Connection to Prescription Drug Monitoring Program (PDMP) (Send or Receive)	☐
Connection to Immunization Information System(s) (IIS) (Send or Receive)	☐
Prescription Fill Status and/or Medication Fill History	☐
Provide Data to Third Party Disease Registries (e.g., Wellcentive, Crimson, ACOs)	☐
Advanced Care Planning (e.g., POLST/MOLST, Power of Attorney, Patient Personal Advance Care Plan)	☐
Sell De-identified Data to Third Parties	☐
Integrating Claims Data	☐
Secure Authentication (e.g. IAL2, OAuth, some other mechanism)	
Other (please list):	☐

Services related to VALUE-BASED PAYMENT MODELS	
Activities Related to Quality Measurement (e.g., Generating, Validating, Reporting, Quality Measures.)	☐
Closed-loop Referrals Tracking	☐
Connection to Social Service Referral Platform(s) (e.g., FindHelp Unite Us, Homegrown)	☐
Identification of Gaps in Care	☐
Care Coordination Platform	☐
Registry Services, Including Operating as a Clinical Data Registry	☐

or Qualified Clinical Data Registry (QCDR)[1]	
Providing Data to Allow Analysis by Networks/Providers	☐
Analytics (e.g., Risk Stratification, Patient to Provider Attribution)	☐
Other (please list):	☐

7a. (Display selected services if in Organizational Demographics - Question 7 any service is selected). Of the following services you currently have as core infrastructure or offer to your participant, please indicate the frequency of use by participants:

GENERAL SERVICES	None/Minimal use	Moderate use	Routine use
Provider Directory	☐	☐	☐
Patient Consent Management	☐	☐	☐
Community Medical/Health Record: Aggregation of information from across the community served by the HIO	☐	☐	☐
Patient Electronic Access to their Health Information (e.g., immunization history, lab results); Individual Access Services (IAS)	☐	☐	☐
Record Locator Service	☐	☐	☐
Query-based Exchange	☐	☐	☐
Results Delivery (i.e., Uni-directional Push)	☐	☐	☐
Alerting/Event Notification (e.g., Admit-Discharge-Transfer)	☐	☐	☐
Messaging Using the Direct Protocol	☐	☐	☐
Transform Other Document Types or Repositories into CCDAs (e.g., MDS, OASIS, Community Health Record)	☐	☐	☐
Data Normalization	☐	☐	☐
Intake, Assessment, and Screening Tools	☐	☐	☐
Exchange of Data on Individual Patients' Health Related Social Needs (Often Referred to as Social Determinants of Health) such as Transportation, Housing, Food Insecurity or Other	☐	☐	☐
Connection to Prescription Drug Monitoring Program (PDMP) (Send or Receive)	☐	☐	☐
Connection to Immunization Information System(s) (IIS) (Send or Receive)	☐	☐	☐
Prescription Fill Status and/or Medication Fill History	☐	☐	☐
Provide Data to Third Party Disease Registries (e.g., Wellcentive, Crimson, ACOs)	☐	☐	☐
Advanced Care Planning (e.g., POLST/MOLST, Power of Attorney, Patient Personal Advance Care Plan)	☐	☐	☐
Sell De-identified Data to Third Parties	☐	☐	☐
Integrating Claims Data	☐	☐	☐
Secure Authentication (e.g. IAL2, OAuth, some other mechanism)	☐	☐	☐
Other (please list):	☐	☐	☐

[1] A Qualified Clinical Data Registry (QCDR) is a Centers for Medicare & Medicaid Services (CMS) approved vendor that is in the business of improving health care quality. These organizations may include specialty societies, regional health collaboratives, large health systems or software vendors working in collaboration with one of these medical entities. (CMS)

Services related to VALUE-BASED PAYMENT MODELS	None/Minimal use	Moderate Use	Routine use
Activities Related to Quality Measurement (e.g., Generating, Validating, Reporting, Quality Measures)	☐	☐	☐
Closed-loop Referrals Tracking	☐	☐	☐
Connection to Social Service Referral Platform(s) (e.g., FindHelp Unite Us, Homegrown)	☐	☐	☐
Identification of Gaps in Care	☐	☐	☐
Care Coordination Platform	☐	☐	☐
Registry Services, Including Operating as a Clinical Data Registry or Qualified Clinical Data Registry (QCDR)[2]	☐	☐	☐
Providing Data to Allow Analysis by Networks/Providers	☐	☐	☐
Analytics (e.g., Risk Stratification, Patient to Provider Attribution)	☐	☐	☐
Other, please specify:	☐	☐	☐

7b. (Display if in Organizational Demographics - Question 7 "Community Medical/Health Record" is selected). Does your Community Medical/Health Record contain:

- ☐ Only health information (e.g., diagnoses, procedures, medications)
- ☐ Health AND non-health information (e.g., transportation, education, and/or housing data)

7c. (Display if in Organizational Demographics - Question 7 "Alerting/event notification" is selected). Who is notified by the alerting/event notification?

- ☐ Health care provider
- ☐ Health plans
- ☐ ACOs
- ☐ Other, please specify:

Individual Access Requests

The following questions ask about how your HIO supports individual requests for access to health information, including requests submitted directly by individuals or their personal representatives.

7d-7j: Display if in Organizational Demographics - Question 7a: "Patient Electronic Access to their Health Information" minimal use, moderate use or routine use options are selected)

7d. For individual access requests fulfilled in the past 12 months, what was your organization's typical fulfillment timeframe?

- ☐ Same day
- ☐ Within a week
- ☐ Two-four weeks
- ☐ More than four weeks
- ☐ Requests were not fulfilled in the past 12 months
- ☐ Don't know

7e. Which modalities does your organization support for individual access requests? Select all that apply.

- ☐ Patient portal or other web-based access tool
- ☐ API-based access

[2] A Qualified Clinical Data Registry (QCDR) is a Centers for Medicare & Medicaid Services (CMS) approved vendor that is in the business of improving health care quality. These organizations may include specialty societies, regional health collaboratives, large health systems or software vendors working in collaboration with one of these medical entities. (CMS)

☐TEFCA Individual Access Services
☐Manual release of information
☐Other, please specify:
☐None of the above (exclusive answer option)
☐Don't know

7f. (Display if in Organizational Demographics - Question 7e "Patient portal or other web-based access tool", "API-based access", or "TEFCA Individual Access Services" is selected).
For each of the following modalities, does your organization enable patient access without login credentials?

	Yes	No	Don't know	Not Applicable: /Do not provide this modality
Patient portal or other web-based access tool				
API-based access				
TEFCA Individual Access Services				

7g. Does your organization charge fees to patients for fulfilling individual access requests?
☐Yes
☐ No
☐Not applicable
☐Don't know

7h. In the past 12 months, approximately what percentage of individual access requests were denied in whole or in part?
☐ 0%
☐ 1–10%
☐ 10–20%
☐ More than 20%
☐ No individual access requests received
☐ Don't know

7i. For individual access requests denied in whole or in part in the past 12 months, what were the reasons for denial? Select all that apply.
☐ Unable to verify the identity or authority of the requester
☐ Requested information was not available/maintained by our HIO
☐ Privacy or security concern
☐ Request was incomplete or unclear
☐ Request sought information outside the scope of individual access
☐ Technical limitations
☐ Legal or policy restriction
☐ Other, please specify:
☐ No requests were denied (exclusive answer option)
☐ Don't know

7j. For purposes of responding to individual access requests, how does your HIO characterize its HIPAA status?
☐ Covered entity
☐ Business associate
☐ Neither a covered entity nor a business associate
☐ Other, please specify:
☐ Don't know

8. How do you receive and track changes to individual patient consent status? (Select all that apply)

☐ Faxed signed document
☐ Indicator in clinical data feeds
☐ Patients interact directly with an online tool
☐ Not applicable

☐ Don't know
☐ Other, please specify:

9. Does your HIO have the capability to receive and track patient preferences related to exchanging their health data, including segmenting or keeping separate certain health data they may not wish to exchange (e.g., consider sensitive)?
   ☐ Yes
   ☐ No
   ☐ Don't know

10. Does your HIO have the technical capability to electronically segment or keep separate certain types of potentially sensitive health data so that it is not electronically exchanged?
   ☐ Yes
   ☐ No
   ☐ Don't know

11. Do **entities participating in your HIO <u>cover</u>** 100% of your operating expenses?

   ☐ Yes
   ☐ No

12. What is your level of confidence that your HIO will be financially viable **over the next 3 years**?

   ☐ Very confident
   ☐ Somewhat confident
   ☐ Neither confident nor unconfident
   ☐ Somewhat unconfident
   ☐ Very unconfident
   ☐ Don't know

13. Did your HIO receive or will your HIO receive funding from the CMS Rural Health Transformation grant?

☐ Yes, we have received funding
☐ Yes, we will be receiving funding in the future
☐ No, we have not received funding and don't anticipate receiving funding
☐ Don't know if we will be receiving funding in the future

14. If any of the yes options above: For what purpose will you be using the funds?

☐ Onboarding new members, briefly describe:
☐ Providing new services, briefly describe:
☐ Other, please describe:_

15. If you have a **Master Patient Index (MPI)**, please ESTIMATE:

Total number of unique (resolved) individuals in your MPI: ☐ Do not know

Total number of unique individuals in your MPI **with more than only demographic data**: ☐ Do not know

16. Within the past year, please estimate **the number of acute care hospitals** (individual facilities both within health systems and independent, including VA, public, and private) that are directly connected (not via another network) to your HIO:

	HOSPITALS
Provide data	☐ Do not know
Receive or view data	☐ Do not know

17. Please report whether each type of stakeholder is involved in your HIO in the following ways:

Answer Options	Provides Data	Views or Receives Data	Pays to Participate in HIE	Stakeholder Not Involved in Your HIO (exclusive answer option)
INPATIENT SETTINGS				
Veterans Affairs (VA) Hospital	☐	☐	☐	☐
Publicly-Owned Hospital (e.g., state, county)	☐	☐	☐	☐
Private Medical/Surgical Acute Care Hospital	☐	☐	☐	☐
Private Psychiatric, Rehabilitation, or Long-Term Acute Care Hospital	☐	☐	☐	☐
Long-Term Care Provider (e.g., Nursing Home, Skilled Nursing Facility)	☐	☐	☐	☐
Other (please specify):	☐	☐	☐	☐
AMBULATORY SETTINGS				
Community Health Center or Federally Qualified Health Center	☐	☐	☐	☐
Independent Physician Practice or Practice Groups (e.g., specialty clinics, IPAs)	☐	☐	☐	☐
Hospital-Owned or Health System-Owned Physician Practice	☐	☐	☐	☐
Behavioral Health Provider (e.g., community mental health, SUD/OUD)	☐	☐	☐	☐
Other (please specify):	☐	☐	☐	☐
OTHER STAKEHOLDERS				
Community Based Organizations (CBOs)	☐	☐	☐	☐
Emergency Medical Service	☐	☐	☐	☐
Employer/Purchaser	☐	☐	☐	☐
Home Health Agencies	☐	☐	☐	☐
Independent Radiology/Imaging Center	☐	☐	☐	☐
Life Insurance Company	☐	☐	☐	☐
Native American/Alaska Native Tribal Entities	☐	☐	☐	☐
Patients/Consumers	☐	☐	☐	☐
Pharmacy	☐	☐	☐	☐
Private Payer (e.g., Blue Cross, Medicaid plan)	☐	☐	☐	☐
State Medicaid Agency	☐	☐	☐	☐
State, Tribal, Local, or Territorial Public Health Agency (PHA)	☐	☐	☐	☐
Social Service Agency (e.g., Housing, Transportation, Food, Financial Services)	☐	☐	☐	☐
FEMA or Other Disaster Relief Organization	☐	☐	☐	☐
Other Federal Agency (e.g., DOD)	☐	☐	☐	☐
Other State or Local Government Agency				
Other (please specify):				

18. Does one or more of the following type of laboratory provide test results to your HIO? *Connected means at least one connection.*

Answer Options	Connected to our HIO and provide test result	Connected to our HIO but do not provide test results	Not connected to our HIO	Don't know
Hospital-based Labs	☐	☐	☐	☐
Physician Office-based Labs	☐	☐	☐	☐

Commercial Labs	☐	☐	☐	☐
Other Independent Labs (NOT Including Commercial)	☐	☐	☐	☐
Mobile labs (e.g., Point of Care Labs for COVID-19)	☐	☐	☐	☐
Public Health Labs	☐	☐	☐	☐
Other, please specify:				

Artificial Intelligence

19. Does your HIO: (Select all that apply)
- ☐ Provide health data to third parties (e.g., companies, researchers) to be used for developing/training AI models
- ☐ Use health data to develop your own AI models to commercialize
- ☐ Use health data to develop your own AI models and deploy for participants (individually or collectively)
- ☐ Deploy AI tools developed by third parties on behalf of participants (individually or collectively
- ☐ Deploy AI tools to achieve internal operational efficiencies (e.g. reduce the cost of operation)
- ☐ Other, please specify:
- ☐ None of the above (exclusive answer option)

20. (Display if in Organizational Demographics - Question 19: "Use health data to develop your own AI models to commercialize" or "Use health data to develop your own AI models and deploy for participants" or "Deploy AI models developed by third parties on behalf of participants" or "Deploy AI to achieve internal operational efficiencies" is selected).

What types of models have you deployed:

	Yes	No	Don't know
1. Non-Machine Learning Predictive Models (e.g., LACE+ Readmission model based on logistic regression)	☐	☐	☐
2. Machine Learning Models (e.g. Readmission model leveraging random forest or neural network)	☐	☐	☐
3. Generative AI Models/Large Language Models (e.g., to create text summaries)	☐	☐	☐
☐ Other, please specify:			
☐ None of the above (exclusive answer option)			

20a. (Display if in Organization Demographics – Question 20 any "Yes" is selected). For which specific use cases have you deployed AI tools? (Select all that apply)

- ☐ Predict health trajectories or risks for inpatients (e.g., early detection of onset of a disease or condition like sepsis; predicting in-hospital fall risk)
- ☐ Identify high risk outpatients to inform follow-up care (e.g., readmission risk)
- ☐ Monitor health (e.g., through integration with wearables)
- ☐ Assist diagnosis or recommend treatments (e.g., identify similar patients and their outcomes)
- ☐ Generation of chart summaries
- ☐ Patient-facing health recommendations and self-care engagement
- ☐ Prediction of quality gaps
- ☐ Operational process optimization (e.g., supply management). Please specify:
- ☐ Other, please specify:
- ☐ None of the above (exclusive answer option)
- ☐ Don't know (exclusive answer option)

20b. (Display if in Organization Demographics – Question 20 any "Yes" is selected). Were any state policies (e.g., legislation, regulations) or organizational policies (e.g., participant agreements) created and/or adjusted to allow development or use of AI models?

Yes
No
Don't Know

20c. (Display if in Organization Demographics – Question 20 any "Yes" is selected). What types of participants are asking for/interested in AI models? (e.g., health systems; independent practices)

20d. (Display if in Organization Demographics – Question 20 any "Yes" is selected). What is your approach to governance of AI models – assessing models for bias, assessing model drift over time, etc.?

Network-to-Network Connectivity and TEFCA

1. Does your HIO: (Select all that apply)

Sell/provide your infrastructure to other HIOs	☐
Buy/use infrastructure from another HIO	☐
Connect to other HIOs in the SAME state	☐

Connect to other HIOs in a DIFFERENT state(s)	☐
None of the above (exclusive answer option)	☐

2. Is your HIO participating in the Trusted Exchange Framework and Common Agreement (TEFCA)? Participation refers to having a signed common agreement or terms of participation in place.
   - ☐ Yes
   - ☐ No, but we plan to participate as a QHIN
   - ☐ No, but we plan to participate as a participant or sub-participant
   - ☐ No, and we do not plan to participate
   - ☐ No, and we don't know if we will participate

2a. (Display if in Network-to-Network Connectivity and TEFCA, Question 2: "No, but we plan to participate as a QHIN" OR "No, but we plan to participate as a participant or sub-participant" OR "No, and we do not plan to participate" OR "No, and we don't know if we will participate" is selected).
Please select the top 3 reasons for why you are not currently participating, unsure about participating, or not planning to participate in TEFCA? (Select all that apply)
- ☐ Not enough information (please briefly describe why/what information is missing):
- ☐ Lack time/resources to prepare
- ☐ Concerns about privacy and/or security of the network
- ☐ Concerns about risk of inappropriate use of the data
- ☐ Concerns about potential conflicts regarding privacy policy with state law regulations or other agreements
- ☐ Concerns about participant/sub-participant lack of compliance with terms of participation
- ☐ Concerns about lack of QHIN compliance with Common Agreement (e.g., vetting participants)
- ☐ Lack of input into TEFCA-related processes
- ☐ Burden related to legal agreements and/or policies
- ☐ Reporting burden
- ☐ Changes required to meet technical requirements, such as standards required to participate in TEFCA
- ☐ Concerns about the volume of queries we would receive through TEFCA
- ☐ Concerns about resolving potential receipt of duplicate data
- ☐ Do not perceive sufficient value in participating (please briefly describe why):
- ☐ Lessens competitive advantage (please briefly describe why):
- ☐ Waiting to see if and how requirements for exchange and participation change (e.g., requirements related to FHIR based transactions) (please briefly describe):
- ☐ Not yet developed a strategic plan to participate
- ☐ Other issue not listed above (please list):

2b. (Display if in Network-to-Network Connectivity and TEFCA, Question 2: "Yes" OR "No, but we plan to participate as a participant or sub-participant" OR "No, but we plan to participate as a QHIN" is selected). Which TEFCA QHIN(s) or Candidate QHIN(s) are you participating in or planning to participate in? (Select all that apply)

CommonWell Health Alliance	☐
Epic Nexus	☐
eClinicalWorks	☐
eHealth Exchange	☐
Health Gorilla	☐
Kno2	☐
KONZA Health	☐
MedAllies	☐

Netsmart	☐
Oracle Health	☐
Surescripts	☐
Other (please list):	☐
Don't Know (exclusive answer option)	☐

2c. (Display if in Network-to-Network Connectivity and TEFCA, Question 2: "Yes" OR "No, but we plan to participate as a participant or sub-participant" OR "No, but we plan to participate as a QHIN" is selected). Is your HIO currently using the following national networks / frameworks to exchange data?

	Live Data Exchange (send, query, or receive)
Carequality	☐
CommonWell Health Alliance	☐
DirectTrust	☐
e-Health Exchange	☐
Health Gorilla	☐
Kno2	☐
MedAllies	☐
Patient Centered Data Home (Governance Council supported by Civitas)	☐
Other (please list):	☐
None of the above	☐
Don't know (exclusive answer option)	☐

2d. (Display if in Network-to-Network Connectivity and TEFCA, Question 3: "Yes" OR "No, but we plan to participate as a QHIN" OR "No, but we plan to participate as a participant or sub-participant" is selected). What changes has your HIO made, or is your HIO planning to make, to its operations in order to participate in TEFCA:

	Yes	**No**	**Don't know**	**Not Applicable**
Changing types of services offered	☐	☐	☐	☐
Selling/providing your services to other HIOs	☐	☐	☐	☐
Buying/using services from another HIO	☐	☐	☐	☐
Changing technical infrastructure	☐	☐	☐	☐
Changing legal agreements and/or policies	☐	☐	☐	☐
Changing other infrastructure (e.g., creating new training, supporting or making process redesigns (e.g., new workflows))	☐	☐	☐	☐
New partnerships with other HIOs	☐	☐	☐	☐
New partnerships with an entity that is not an HIO (e.g., health IT developer)	☐	☐	☐	☐
Other (please list):				

2e. (Display if in Network-to-Network Connectivity and TEFCA, Question 2c: "Live Data Exchange" is NOT selected for CommonWell Health Alliance AND DirectTrust AND Patient Centered Data Home AND e-Health Exchange AND Carequality) OR "None of the above" is selected. Please select reason(s) for not using any of the national networks / frameworks networks: (Select all that apply)

- ☐ Do not see the value in what they provide (i.e., services not useful or data limited)
- ☐ Perceive them as competitors
- ☐ Participation costs too high
- ☐ Not a priority
- ☐ Other. Please list:

2f. (Display if in Network-to-Network Connectivity and TEFCA, Question 2: "Yes" is selected). How often has your HIO queried data through TEFCA within the past six months?

- ☐ Often/Routinely
- ☐ Sometimes
- ☐ Rarely
- ☐ Never
- ☐ Don't know

2g (Display if in Network-to-Network Connectivity and TEFCA, Question 2: "Yes" is selected AND if 2i is "Often/Routinely," "Sometimes", or "Rarely" response). For which use cases has your HIO made queries through TEFCA within the past six months? Select all that apply

- ☐ Treatment
- ☐ Individual access services
- ☐ Public health reporting
- ☐ Payment
- ☐ Government benefits determination
- ☐ Health care operations
- ☐ Other, please list:
- ☐ Don't know

2h. Display if in Network-to-Network Connectivity and TEFCA, Question 2: "Yes" is selected AND if 2f is "Often/Routinely," "Sometimes", or "Rarely" response).

How would you rate the benefit of participating in TEFCA to your HIO and participants:

- ☐ Substantial (please explain):
- ☐ Moderate (please explain):
- ☐ Minimal/Not at all (please explain):
- ☐ Don't know

2i. (Display if in 2f: "Substantial" or "Moderate" is selected). What types of benefits are you experiencing with TEFCA participation:

- ☐ Connection to other types of organizations
- ☐ Easier to obtain patient health data that are located within other networks
- ☐ Easier to share patient health data with other networks
- ☐ Higher quality and/or more consistently formatted data
- ☐ Volume of available data from other exchange partners
- ☐ Reduced friction and/or administrative burden
- ☐ Other (please list):

2j. (Display if in Network-to-Network Connectivity and TEFCA, Question 2: "Yes") How satisfied are you with your HIO's QHIN?

- ☐ Very satisfied
- ☐ Satisfied
- ☐ Neither satisfied nor dissatisfied
- ☐ Dissatisfied (please explain):
- ☐ Very dissatisfied (please explain):
- ☐ N/A (e.g., we are the QHIN)

2k. What proportion of your participants currently participate in TEFCA through your HIO?

- ☐ All/Most
- ☐ Some
- ☐ Few (Please explain):
- ☐ None (please explain):
- ☐ Don't know

2l. (Display if in Network-to-Network Connectivity and TEFCA, Question 2: "Yes" is selected) Which of the following concerns, if any, has your HIO experienced related to your participation in TEFCA within the past six months?

- ☐ Concerns about the privacy and/or security of the network
- ☐ Concerns about the risk of inappropriate use of the data
- ☐ Concerns about the potential conflicts regarding privacy policy with state law regulations or other agreements
- ☐ Concerns about the participant/sub-participant lack of compliance with terms of participation
- ☐ Concerns about the QHIN compliance with Common Agreement (e.g., vetting participants)
- ☐ Lack of input into TEFCA-related processes
- ☐ Burden associated with ongoing updates to legal agreements
- ☐ Ongoing reporting burden
- ☐ Ongoing burden associated with supporting new technical requirements, such as standards required to participate in TEFCA.
- ☐ Addressing volume of queries we receive through TEFCA
- ☐ Resolving potential receipt of duplicate data
- ☐ No longer perceive sufficient value in (please briefly describe why):
- ☐ Other concerns:_____
- ☐ No concerns

Information Blocking

Information blocking practices have been defined in rules that went into effect on April 5, 2021. The following set of questions ask about practices that may constitute information blocking based on your understanding of the rules. Please respond based on your experience since the rules went into effect (April 5, 2021).

1. To what extent are you familiar with the information blocking rules, applicable actors, exceptions, and enforcement timeline?
   - ☐ Very Familiar
   - ☐ Moderately Familiar
   - ☐ Somewhat Familiar
   - ☐ Not Familiar

2. To what extent are you familiar with ONC's process for reporting violations of the information blocking rules?
   - ☐ Very Familiar
   - ☐ Moderately Familiar
   - ☐ Somewhat Familiar
   - ☐ Not Familiar

3. Do you consider yourself a Health Information Network (HIN), as defined in 45 CFR 171.102?
   - ☐ Yes
   - ☐ No
   - ☐ Don't know

4. Which of the following actions has your HIO taken related to information blocking? Select all that apply.
   - ☐ Developed or implemented information blocking compliance policies
   - Developed or implemented processes for documenting information blocking exceptions
   - ☐ Other (please specify)
   - None of the above
   - ☐ Don't know

5. How often have you encountered **each of the following form(s)** of information blocking by **EHR vendors** (and other Developer(s) of Certified Health IT)?

	Rarely/ Never	Sometimes	Often/ Routinely	Don't Know
PRICE Examples: using high fees to avoid granting third-parties access to data stored in the developer's EHR system charging unreasonable fees to export data at a provider's request (such as when switching developers)	☐	☐	☐	☐
CONTRACT LANGUAGE Examples: using contract terms, warranty terms, or intellectual property rights to discourage exchange or connectivity with third-party changing material contract terms related to health information exchange after customer has licensed and installed the vendor's technology	☐	☐	☐	☐
ARTIFICIAL TECHNICAL, PROCESS, OR RESOURCE BARRIERS Examples: using artificial technical barriers to avoid granting third-parties access to data stored in the vendor's EHR system using artificial reasons to limit the types of information that can be sent/shared or received	☐	☐	☐	☐

REFUSAL Examples: refusing to exchange information or establish connectivity with certain vendors or HIOs refusing to export data at a provider's request (such as when switching vendors)	☐	☐	☐	☐
OTHER (please list):	☐	☐	☐	☐

6. What proportion of **EHR vendors** have you encountered engaging in information blocking?
   - ☐ All/Most
   - ☐ Some
   - ☐ Few
   - ☐ None (skip to 9)
   - ☐ Don't know or N/A (Don't interact with developers) (skip to 9)

   6a. Among **EHR Vendors** that engage in information blocking, how often do they do it?
   - ☐ Routinely
   - ☐ Sometimes
   - ☐ Rarely
   - ☐ Don't know

7. When you have experienced practices that you believed constituted information blocking by **EHR vendors** in the past year, how often did you report the information blocking to ONC/HHS?
   - ☐ Always
   - ☐ Most of the time
   - ☐ Sometimes
   - ☐ Rarely
   - ☐ Never

   7a. (Display if in Information Blocking Question 7": "Rarely" or "Never" is selected). Why have you not reported information blocking by **EHR vendors** when you have experienced it?

8. To what extent does information blocking by **EHR vendors** make it more difficult for you to provide HIE services to your participants?
   - ☐ Greatly
   - ☐ Moderately
   - ☐ Minimally/Not at all
   - ☐ Don't know

9. In what form(s) have you experienced information blocking by **hospitals and health systems**? (Skip destination for those who answered "None" or "Don't Know or N/A" in Information Blocking Question 6).

	Rarely/ Never	Sometimes	Often/ Routinely	Don't Know
ARTIFICIAL TECHNICAL, PROCESS, OR RESOURCE BARRIERS Examples: requiring a written authorization when neither state nor federal law requires it requiring a patient to repeatedly opt in to exchange for TPO	☐	☐	☐	☐
REFUSAL Examples: refusing to exchange information with competing providers, hospitals, or health systems	☐	☐	☐	☐

refusing to share data with other entities, such as payers or independent labs				
CLOSED NETWORK EXCHANGE Examples: promoting alternative, proprietary approaches to HIE exchanging only within referral network or with preferred referral partners	☐	☐	☐	☐
OTHER (please list):	☐	☐	☐	☐

10. What proportion of **hospitals and health systems** have you encountered engaging in information blocking?
    - ☐ All/Most
    - ☐ Some
    - ☐ Few
    - ☐ None (skip to 13)
    - ☐ Don't know or N/A (skip to 13)

    10a. Among **hospitals and health systems** that engage in information blocking, how often do they do it?
    - ☐ Routinely
    - ☐ Sometimes
    - ☐ Rarely
    - ☐ Don't know

11. When you have experienced practices that you believed constituted information blocking by **hospitals and health systems** in the past year, how often did you report the information blocking to ONC/HHS?
    - ☐ Always
    - ☐ Most of the time
    - ☐ Sometimes
    - ☐ Rarely
    - ☐ Never

    11a. (Display if in Information Blocking, Question 11: "Rarely" or "Never" is selected). Why have you not reported information blocking by **hospitals and health systems** when you have experienced it?

12. To what extent does information blocking by **hospitals and health systems** lead to missing patient health information?
    - ☐ Greatly
    - ☐ Moderately
    - ☐ Minimally/Not at all
    - ☐ Don't know

13. Among other types of entities, to what extent have you observed information blocking behaviors? (Skip destination for those who selected "None" or "Don't Know or N/A" in Information Blocking, Question 10).

	Rarely/ Never	Sometimes	Often/ Routinely	Don't Know
Commercial Payers	☐	☐	☐	☐
Commercial Laboratories	☐	☐	☐	☐
Independent labs (not including commercial)				
Commercial Pharmacies	☐	☐	☐	☐
Public Health Agencies **Healthcare Providers other than Hospitals and Health Systems (e.g., independent practices)**	☐	☐	☐	☐
National Networks (e.g. CommonWell, eHealth Exchange)	☐	☐	☐	☐
State, Regional, and/or Local Health Information Exchanges	☐	☐	☐	☐
Other, please list:	☐	☐	☐	☐

14. (Display if in Information Blocking, Question 13, “Sometimes” or “Often/Routinely” is selected for each entity) How often have you been able to overcome these difficulties to access data from these entities?

	Never	Rarely	Sometimes	Often	Always
Commercial Payers	☐	☐	☐	☐	☐
Commercial Laboratories	☐	☐	☐	☐	☐
Independent labs (not including commercial)	☐	☐	☐	☐	☐
Commercial Pharmacies	☐	☐	☐	☐	☐
Public Health Agencies Healthcare Providers other than Hospitals and Health Systems (e.g., independent practices)	☐	☐	☐	☐	☐
National Networks (e.g. CommonWell, eHealth Exchange)	☐	☐	☐	☐	☐
State, Regional, and/or Local Health Information Exchanges	☐	☐	☐	☐	☐
Other (please list):	☐	☐	☐	☐	☐

Implementation and Use of Standards

1. To what extent does your HIO electronically **receive** data from your participants using the following methods listed below? (Select one option across each row)

Please consider the methods used by participants to provide the data to your HIO. Do not include conversions you may do after receipt. With regards to conformance to standards, if the receipt of the data is in partial conformance, please consider that as conformant.

	Routinely/ From most participants	Sometimes/ From some participants	Rarely/ From few participants	Never	Don't know
Care summaries in a structured format (e.g., CDA, CCR, C32)	☐	☐	☐	☐	☐
Care summaries in an unstructured format (e.g., PDF)					
HL7 v2 messages for event notification (ADT messages)	☐	☐	☐	☐	☐
Other HL7 v2 messages (e.g., ORU/ORM, SIU, Scheduling, Orders, Labs)	☐	☐	☐	☐	☐
FHIR (any version)	☐	☐	☐	☐	☐

1a. (Display if in Implementation and Use of Standards, Question 1: "Routinely" OR "Sometimes" is selected for "Care Summaries in a structured format"). Do you parse C-CDAs (i.e., extract and make available discrete data elements):

☐ Yes
☐ No
☐ Don't know

2. To what extent does your HIO electronically **send or make available for query** data to your participants using the following methods?

	Routinely/ To most participants	Sometimes/ To some participants	Rarely/ To few participants	Never	Don't know
Care summaries in a structured format (e.g., CDA, CCR, C32)	☐	☐	☐	☐	☐
HL7 v2 messages (any type)	☐	☐	☐	☐	☐
FHIR (any version)	☐	☐	☐	☐	☐

3. For document-based exchange, what type(s) of responses do you return when you receive queries from your participants? **(**Select all that apply)

☐ **Original documents**: raw document as provided by clinical source (one per event). This includes documents created by other systems such as EHRs and stored or accessible by the HIE
☐ **Dynamic documents**: multi-source documents produced upon demand from a community health record or other repository of clinical data
☐ Other (please list):
☐ Don't know

4. Which of the following standards do you use to query health information from external entities? (Select all that apply)

	Yes
IHE XDS (Cross-Enterprise Document Sharing)	☐
IHE MHD (Mobile Access to Health Documents)	☐
IHE XCA (Cross-Community Access)	☐
IHE XCDR/XDR	☐
NwHIN Specifications for Query for Documents and Retrieve Documents	☐
HL7 Fast Healthcare Interoperability Specifications (FHIR) DSTU2 for data element query	☐
HL7 Fast Healthcare Interoperability Specifications (FHIR) DSTU2 for document query	☐
FHIR v.4.0 for data element query	☐
FHIR v.4.0 for document query	☐
HL-7 2.x ADT message exchange	☐
C-CDA document exchange	☐
Other (please list):	☐
Don't know (exclusive answer option)	☐
None of the above (exclusive answer option)	☐
Not applicable (e.g., do not query-) (exclusive answer option)	☐

5. Which types of **clinical and other health-related information** are made available by your HIO to your participants (as part of a clinical document or as a structured data element)? See U.S. Core Data for Interoperability (USCDI) for further information. (Select all that apply)

	Included in your HIO
Data Provenance	☐
Health Insurance Information (e.g., coverage status, coverage type, member/subscriber/group/payer identifiers)	☐
Clinical Information	
Problems	☐
Prescribed Medications	☐
Filled Medications	☐
Medication Allergies	☐
Non-Medication Allergies & Intolerances	☐
Functional Status	☐
Cognitive Status	☐
Vital Signs	☐
Pregnancy Status	☐
Immunizations	☐
Family Health History	☐
Health Concerns	☐
Clinical Notes	☐
Imaging/Pathology	
Diagnostic Imaging Order	☐
Radiology Report (narrative)	☐

Pathology Report (narrative)	☐
Laboratory-Related Information	
Laboratory Test(s) Ordered	☐
Laboratory Value(s)/Result(s)	☐
Laboratory Reports (narrative)	☐
Team-Based Care	
Care Plan Field(s), including Goals and Preferences	☐
Care Team Member(s) (Provider ID, Provider Name)	☐
Assessment and Plan of Treatment	☐
Encounter-Related Information	
Procedures	☐
Admission and Discharge Dates and Locations	☐
Encounters (Encounter type, diagnosis, time)	☐
Discharge Disposition	☐
Referrals	☐
Discharge Instructions	☐
Reason for Hospitalization	☐
Demographic Information	
Home Address	☐
Race/Ethnicity	☐
Preferred Language	☐
Health-related Social Needs (e.g., housing, food insecurity)	☐
Substance Use Disorder (as defined in 42 CFR Part 2)	☐
Other (please list):	☐

5a. (Display if in Implementation and Use of Standards, Question 5, "Health-related Social Needs" is selected). Which of the following health-related social needs domains does your organization make available to participants? (Select all that apply)

- ☐ Housing / Homelessness
- ☐ Food Security
- ☐ Transportation
- ☐ Financial
- ☐ Utility Assistance
- ☐ Interpersonal Violence
- ☐ Employment
- ☐ Long Term Services and Supports
- ☐ Health Education
- ☐ Other. Please specify:

5b. (Display if in Implementation and Use of Standards, Question 5, "Health-related Social Needs" is selected). How are health-related social needs data encoded? (Select all that apply)

- ☐ ICD-10 Z codes
- ☐ LOINC
- ☐ SNOMED
- ☐ Health-related social needs data are not encoded
- ☐ Encoded using other standard. Please specify:

6. Does your HIO map from non-standard laboratory test/result codes to LOINC® codes?

- ☐ Yes
- ☐ No
- ☐ Don't know

6a. (Display if in Implementation and Use of Standards, Question 6: "Yes" is selected). Within the past year, based upon the volume of test results received (qualitative and quantitative), to what extent did your HIO have to map those results from non-standard codes to LOINC codes?

- ☐ All or most
- ☐ Some
- ☐ Few
- ☐ None
- ☐ Don't know

7. Does your HIO currently assess the quality of data you electronically obtain (receive and/or query) from external sources (e.g., participants, stakeholders) using a standardized tools, (e.g., such as one based upon the PIQI framework)?

- ☐ Yes
- ☐ No, but we plan to do so within the next year
- ☐ No, and we do not have plans to do so
- ☐ Don't know

7a. (Display if in Implementation and Use of Standards Question 7: "Yes" is selected) Please select the purposes for which your organization is using these tools:

Monitor the extent to which data obtained from participants conforms to standards aligned with U.S. Core Data for Interoperability (USCDI)
Monitor completeness/missingness of data obtained from participants
Other: Please describe_____
Don't know

Public Health

Is your HIO connected to any state, tribal, local, or territorial public health agencies (PHAs)? (Connected means that the public health entity sends data to your HIO, receives/queries for data, and/or has view only access to data from your HIO.) (Select all that apply.)

- ☐ Yes, state
- ☐ Yes, local
- ☐ Yes, tribal
- ☐ Yes, territory and/or freely associated states
- ☐ None of the above (exclusive answer option; if selected skip to Section D question 6 (6, 6a-6d only) within Public Health Block).

SECTION A: Summary of Current Connectivity to PHAs (see list here)

1. Please report how many PHAs are connected to your HIO:
   (*Connected means that the public health entity sends data to your HIO, receives/queries data, and/or has view only access to data from your HIO)*
   Note: Any connections to registries or federal and national public health networks are addressed later in this survey. Please do not include them here.

	Total number of unique PHAs connected with your HIO in any way	Don't know
1_1. State-level (Display if "Yes, state" is selected in Public Health Screening Question)		☐
1_2. Local-level (Display if "Yes, local" is selected in Public Health Screening Question)		☐
1_3. Tribal-level (Display if "Yes, tribal" is selected in Public Health Screening Question)		☐
1_4. Territorial-level (Display if "Yes, territory" is selected in Public Health Screening Question)		☐

1a. (Display if in Public Health, Section A, Question 1, "Total number of unique PHAs" is greater than 0). Among the total number of unique PHAs, how many engage in bidirectional exchange (both send and receive/query for data from your HIO)?

	Number of PHAs with bidirectional exchange (send and receive data with your HIO)	Don't know

1a_1. State-level (Display if in Public Health, Section A, Question 1, state-level "Total number of unique PHAs" is greater than 0 Question)		☐
1a_2. Local-level (Display if in Public Health, Section A, Question 1, Local-level "Total number of unique PHAs" is greater than 0)		☐
1a_3. Tribal-level (Display if in Public Health, Section A, Question 1, Tribal-level "Total number of unique PHAs" is greater than 0)		☐
1a_4. Territorial-level (Display if in Public Health, Section A, Question 1, Territorial-level "Total number of unique PHAs" is greater than 0)		☐

1b. (Display if in Public Health, Section A, Question 1, any answer in the "State-level" row is greater than 0 OR if any answer in the "Local-level" row is greater than 0 OR if any answer in the "Territorial-level" is greater than 0).

Which of the following states/territories are the PHAs connected to your HIO located in? (Select all that apply.)

☐ Alabama	☐ Alaska	☐ American Samoa	☐ Arizona
☐ Arkansas	☐ California	☐ Colorado	☐ Connecticut
☐ Delaware	☐ Distr. of Columbia	☐ Florida	☐ Georgia
☐ Guam	☐ Hawaii	☐ Idaho	☐ Illinois
☐ Indiana	☐ Iowa	☐ Kansas	☐ Kentucky
☐ Louisiana	☐ Maine	☐ Maryland	☐ Massachusetts
☐ Michigan	☐ Minnesota	☐ Mississippi	☐ Missouri
☐ Montana	☐ Nebraska	☐ Nevada	☐ New Hampshire
☐ New Jersey	☐ New Mexico	☐ New York	☐ North Carolina
☐ North Dakota	☐ N. Mariana Islands	☐ Ohio	☐ Oklahoma
☐ Oregon	☐ Pennsylvania	☐ Puerto Rico	☐ Rhode Island
☐ South Carolina	☐ South Dakota	☐ Tennessee	☐ Texas
☐ Utah	☐ US Virgin Islands	☐ Vermont	☐ Virginia
☐ Washington	☐ West Virginia	☐ Wisconsin	☐ Wyoming

2. Is your HIO sending and/or receiving data through the following:

National Public Health Networks	Yes	No	Don't Know
Association of Public Health Laboratories Informatics Messaging Services (APHL AIMS)	☐	☐	☐
IZ Gateway	☐	☐	☐

SECTION B: Services Provided to Participating Healthcare Providers

3. Do you offer the following reporting services to **your participating healthcare providers**?
(Select all that apply)

	Yes	**No**	**Don't know** (exclusive answer option)
Syndromic surveillance reporting	☐	☐	☐

Immunization registry reporting	☐	☐	☐
Electronic case reporting	☐	☐	☐
Electronic reportable laboratory result reporting	☐	☐	☐
Public health registry reporting (e.g., cancer registry; administered by or for PHAs for public health purposes)	☐	☐	☐
Clinical data and/or specialized registry reporting (administered by or for non-public health agency entities for clinical care and monitoring health care quality and resource use)	☐	☐	☐
Other reporting (e.g., COVID specific, other registry)	☐	☐	☐
Chronic disease reporting	☐	☐	
Bed capacity and resource utilization data	☐	☐	
Antimicrobial Use and Resistance (AUR)	☐	☐	☐
National Healthcare Safety Network (NHSN)	☐	☐	☐

3a. (Display if in Public Health, Section B, Question 3: "Yes" is selected for "Public health registry reporting"). What type(s) of public health registry reporting are in production (e.g. cancer, birth defects, and traumatic injuries)?

SECTION C: Receiving Data from PHAs

Note: Please respond to the remaining questions for all PHAs, not only the primary

4. Which of the following types of data do you **receive** from PHAs connected to your HIO? (Select all that apply)
   - ☐ Immunization
   - ☐ Reportability responses (i.e., whether a condition is reportable in a jurisdiction)
   - ☐ Laboratory orders and/or results from public health lab
   - ☐ Data from public health registry (administered by or for public health agencies for public health purposes)
   - ☐ Data from clinical data and/or specialized registry (administered by or for non-public health agency entities for clinical care and monitoring health care quality and resource use)
   - ☐ Data related to COVID-19
   - ☐ Vital records
   - ☐ Other, please list:
   - ☐ Don't know (exclusive answer option)
   - ☐ None—do not receive data from public health entities (exclusive answer option)

SECTION D: Services Provided to PHAs

5. What services does your HIO provide to PHA(s)?: (Select all that apply)
   - ☐ Analytic and Data Quality Support
   - ☐ Dashboarding and Data Visualization Assistance
   - ☐ Process Automation
   - ☐ Use of HIO MPIs to Support Public Health Deduplication or Other Services
   - ☐ Outbreak Monitoring and Alerting
   - ☐ Public Health Policy Impact Monitoring
   - ☐ Situational Awareness
   - ☐ Make Public Health Data Available to Participants
   - ☐ Community Coordination and Navigation Services
   - ☐ Other, please list:
   - ☐ None of the above (exclusive answer option)

6. Does or could your HIO currently provide data to PHA(s) to fill data-related gaps (e.g., missing demographic information)?
   - ☐ Yes

☐ No, but could do so
☐ No, and could not do so
☐ Don't know

6a. (Display if in Public Health, Section D, Question 6: "Yes" or "No but could do so" is selected). Please indicate what types of data are or could be provided to PHAs to fill data-related gaps in information. (Select all that apply)

	Currently provided	Not currently provided but could be
Clinical Information		☐
Problems	☐	☐
Prescribed Medications	☐	☐
Immunizations	☐	☐
Laboratory-Related Information		
Laboratory Value(s)/Result(s)	☐	☐
Encounter-Related Information		
Procedures	☐	☐
Admission and Discharge Dates and Locations	☐	☐
Encounters (Encounter type, diagnosis, time)	☐	☐
Reason for Hospitalization	☐	☐
Newborn Screenings		
Demographic Information		
Home Address or other up-to-date contact information for contact tracing	☐	☐
Race/Ethnicity	☐	☐
Preferred Language	☐	☐
Health-related Social Needs (e.g., housing, food insecurity)	☐	☐
Substance Use Disorder Diagnosis (as defined in 42 CFR Part 2)	☐	☐
Other		
Other, please list:	☐	☐

6b. (Display if in Public Health, Section D, Question 6: "Yes" is selected). How often do PHA(s) electronically receive or query these types of data from your HIO?

☐ Often
☐ Sometimes
☐ Rarely
☐ Never
☐ Don't know

6c. (Display if in Public Health, Section D, Question 6: "Yes" is selected). How are PHA(s) accessing the types of data that you provide? (Select all that apply)

☐ Single patient lookup through a portal
☐ Batch query and response
☐ FHIR API query and response
☐ Aggregate data and/or statistics (e.g., dashboard)
☐ SFTP/Amazon S3 file transfer
☐ Other, please list:
☐ Not applicable (exclusive answer option)

6d. (Display if in Public Health, Section D, Question 6: "Yes" is selected). To what extent is access to the types of data you provide in real-time?

☐ Majority in real-time
☐ Mix of real-time and lagged
☐ Majority lagged

SECTION E: Support for and Barriers to Public Health Exchange

7. Do you receive any of the following funding source(s) to support PHA connectivity? (Select all that apply)

- ☐ Fees paid by participants
- ☐ Fees paid by state or local health department(s)
- ☐ State Medicaid funding
- ☐ CDC funding (including through state or local health departments)
- ☐ Other federal funding
- ☐ Other state funding, including from state health department
- ☐ Other, please list:
- ☐ Do not receive any funding to specifically support PHA connectivity (exclusive answer option)

8. (Display if in Public Health, Section E, Question 7: "Do not receive any funding to specifically support PHA connectivity" is NOT selected). Based upon your best estimate, to what extent do you think these sources of funding will be available to support PHA connectivity over the next 3 years?

- ☐ To a great extent
- ☐ To a moderate extent
- ☐ To some extent
- ☐ To a small extent
- ☐ Not at all
- ☐ Don't know

9. To what extent have you experienced the following barriers **within the last year** to PHA connectivity?

	Extensive	Moderate	None/Minimal	N/A
Patient consent model hinders data exchange with PHAs	☐	☐	☐	☐
State statutes/regulations limit PHAs participation with HIO	☐	☐	☐	☐
Need for data use agreements for public health data	☐	☐	☐	☐
Limited funding from PHAs	☐	☐	☐	☐
Limited funding from HIO participants	☐	☐	☐	☐
PHAs lacks staffing	☐	☐	☐	☐
PHAs lacks technical capability to receive messages from your HIO	☐	☐	☐	☐
PHAs lacks technical capability to process messages from your HIO	☐	☐	☐	☐
Other technical limitations on part of PHAs	☐	☐	☐	☐
PHAs have other priorities	☐	☐	☐	☐
Low return on investment to your HIO	☐	☐	☐	☐
Cost to maintain infrastructure that is only used in specific circumstances (e.g., natural disaster, public health emergency)	☐	☐	☐	☐
PHAs not willing or able to receive public health reporting data	☐	☐	☐	☐
Other, please list:	☐	☐	☐	☐

10. To what extent do you feel prepared to support PHA data needs for a future public health emergency?

- ☐ To a great extent
- ☐ To a moderate extent
- ☐ To some extent
- ☐ To a small extent
- ☐ Not at all

☐ Don’t Know

Additional Information

1. Initiative or Organization Name:

2. We appreciate your participation. Would you like to receive a copy of our results that will enable you to compare your effort to others in the nation?

☐ Yes
☐ No

3. If you would like to receive a $50 amazon.com gift certificate, please complete the following fields:

Name:

Email: