The Office of the National Coordinator for Health Information Technology

Meeting Notes

HEALTH INFORMATION TECHNOLOGY ADVISORY COMMITTEE (HITAC)

COVID-19 PANDEMIC RESPONSE HEARING

April 15, 2020, 9:00 a.m. – 4:00 p.m. ET

VIRTUAL

EXECUTIVE SUMMARY

The Health Information Technology Advisory Committee (HITAC) convened a virtual hearing on April 15, 2020 to gather perspectives from health IT industry experts involved in responding to the COVID-19 pandemic, and discuss challenges, solutions and opportunities for the HITAC and Office of the National Coordinator for Health Information Technology (ONC) to inform pandemic response efforts in relation to the electronic access, exchange, and use of health information.

The hearing began with a presentation from the Centers for Disease Control and Prevention (CDC) followed by three panel discussions, comprising:

1) Representatives from the public health sector,
2) Perspectives from state health information exchanges, and
3) Representatives from health IT provider executives.

The day concluded with final comments from HITAC members summarizing their thoughts on how HITAC and ONC could best move forward.

There were no public comments by phone. There was robust discussion with more than 100 comments posted in the public meeting chat via Adobe Connect.

AGENDA

09:00 a.m.	Call to Order/Roll Call
09:05 a.m.	Welcome Remarks
09:10 a.m.	Remarks, Review of Agenda and Approval of March Meeting Minutes
09:20 a.m.	Centers for Disease Control and Prevention Presentation
09:35 a.m.	Discussion
09:50 a.m.	Public Health Perspectives
10:35 a.m.	Discussion
11:35 a.m.	Health Information Exchange Perspectives
12:05 p.m.	Discussion
01:05 p.m.	Public Comment
01:20 p.m.	Break
01:35 p.m.	Health IT Provider Executive Perspectives
02:20 p.m.	Discussion
03:20 p.m.	Public Comment
03:45 p.m.	Wrap up and Next Steps
04:00 p.m.	Adjourn

CALL TO ORDER/ ROLL CALL

Lauren Richie, Designated Federal Officer, Office of the National Coordinator for Health IT (ONC), called the April 15, 2020, meeting to order at 9:00 a.m.

ROLL CALL

Carolyn Petersen, Co-Chair, Individual
Robert Wah, Co-Chair, Individual
Michael Adcock, Magnolia Health
Christina Caraballo, Audacious Inquiry
Tina Esposito, Advocate Aurora Health
Cynthia A. Fisher, PatientRightsAdvocate.org
Valerie Grey, New York eHealth Collaborative
Anil K. Jain, IBM Watson Health
Jim Jirjis, Clinical Services Group of Hospital Corporation of America (HCA)

John Kansky, Indiana Health Information Exchange
Kensaku Kawamoto, University of Utah Health
Steven Lane, Sutter Health
Leslie Lenert, Medical University of South Carolina
Arien Malec, Change Healthcare
Clem McDonald, National Library of Medicine
Aaron Miri, The University of Texas at Austin, Dell Medical School and UT Health Austin
Brett Oliver, Baptist Health
Terrence O'Malley, Massachusetts General Hospital
James Pantelas, Individual
Raj Ratwani, MedStar Health
Steve L. Ready, Norton Healthcare
Abby Sears, OCHIN
Alexis Snyder, Individual
Sasha TerMaat, Epic
Andrew Truscott, Accenture
Sheryl Turney, Anthem, Inc.
Denise Webb, Individual

FEDERAL REPRESENTATIVES

James Ellzy, Defense Health Agency, Department of Defense
Adi V. Gundlapalli, Centers for Disease Control and Prevention
Jonathan Nebeker, Department of Veterans Health Affairs
Michelle Schreiber, Centers for Medicare and Medicaid Services
Ram Sriram, National Institute of Standards and Technology

MEMBERS NOT IN ATTENDANCE

Amy Abernethy, Food and Drug Administration

ONC STAFF

Donald Rucker, National Coordinator for Health Information Technology
Steve Posnack, Deputy National Coordinator
Elise Sweeney Anthony, Executive Director, Office of Policy
Andrew Gettinger, Chief Clinical Officer
Tom Mason, Chief Medical Officer
Seth Pazinski, Director, Strategic Planning & Coordination Division
Avinash Shanbhag, Acting Executive Director, Office of Technology
Lauren Richie, Branch Chief, Coordination, Designated Federal Officer

WELCOME REMARKS

Donald Rucker welcomed everyone and thanked them for participating in today's virtual hearing. He acknowledged that there were many others who were unable to participate, and expressed gratitude for their willingness to contribute their knowledge and experience during this unprecedented time. He reported that ONC had already received many suggestions from the field and, in an effort to collate all of the feedback, the ONC Interoperability Proving Ground (IPG) was expanded to include COVID-19-related activities. The IPG has established its reputation as an open community platform where individuals can look, learn, and be inspired. Eighty submissions had been received thus far, and ONC is monitoring the

IPG to see if there are specific items that can be moved forward. He noted that many of the projects are similar but include suggestions from multiple federal agencies.

He encouraged participants to consider that if this pandemic were to have happened three or four years in the future, with interoperability in place, things would be in a much better state. Fortunately, he added, work is currently underway to achieve that goal. He cited as an example the Trusted Exchange Framework and Common Agreement (TEFCA) Recognized Coordinating Entity (RCE) that has been drafting the Common Agreement; they are now holding monthly public information calls.

If members have not received the link to register for these calls, they should contact **Lauren Richie,** who can provide further details.

Steve Posnack welcomed everyone and expressed his appreciation for their efforts. He prepared participants for a long meeting that would provide HITAC members with the opportunity to learn a lot and to ask good questions of the experts assembled.

REMARKS, REVIEW OF AGENDA AND APPROVAL OF MARCH MEETING MINUTES

Carolyn Petersen, co-chair, welcomed everyone and thanked them for attending in the midst of a busy time full of unexpected challenges. She acknowledged the HITAC co-chairs and their ONC colleagues who worked to schedule useful and interesting presentations and panels to provide guidance for the health IT community as they work to address the COVID-19 pandemic.

She reviewed the agenda and provided an overview of the order of presentations for the day. She reminded guest presenters to limit comments to five minutes with minimal slides in an effort to stay on schedule and maximize opportunity for discussion with HITAC members.

Approval of March Meeting Minutes

The HITAC approved the minutes from the March 18, 2020, and March 26, 2020, meetings by voice vote. No members opposed.

Robert Wah, co-chair, welcomed the attendees and reviewed the progression of the last two meetings leading to today's hearing**.** At the last meeting, a summary of written and verbal suggestions for how the HITAC and ONC could address the COVID-19 pandemic, specifically with regard to health IT, were presented. The feedback fell into four main areas:

1) Privacy,
2) Data standards,
3) Data interoperability, and
4) Infrastructure.

Today's hearing was planned as a deeper dive into these specific areas in order to understand current efforts, remaining challenges, and opportunities for the HITAC and ONC to take action within their authority.

He voiced his appreciation for the members' flexibility in allowing the hearing to take place in lieu of the normal HITAC meeting, which would have continued the discussion of the ONC 21st Century Cure's Act Final Rule (ONC Final Rule). He announced that additional public webinars regarding the ONC Final Rule would be held. Also, because several HITAC members had inquired about the COVID-19 Commons Project on which he is working, he shared that their website, covidcheck.org, is now live and establishes a link between people and public health organizations. The Commons Project is a nonprofit that operates between the public and private sectors and aims to put people and privacy first.

CENTERS FOR DISEASE CONTROL AND PREVENTION PRESENTATION

Laura A. Conn, MPH, Electronic Case Reporting (eCR) Lead, Health Scientist, Public Health Informatics Office, CSELS, CDC

Adi Gundlapalli, Chief Public Health Informatics Officer at the Center for Surveillance, Epidemiology, and Laboratory Services (CSELS), CDC

Adi Gundlapalli and **Laura Conn** thanked the HITAC for the opportunity to participate and emphasized that engagement from health IT industry partners is necessary for success. **Laura Conn** presented on the topic of accelerating electronic case reporting (eCR) implementation for COVID-19.

Introduction

- COVID-19 is now a reportable condition in all jurisdictions.
  - Healthcare providers are mandated by state laws to submit reports to public health for conditions deemed reportable by that public health agency.
  - With widespread community transmission of the virus, SARSCoV-2, reporting individual cases to public health is challenging.
  - On average, each state has over 100 conditions that are reportable, but criterion varies by condition and state (e.g., sometime reportable immediately, 24 hours, three days).
  - Need for Health IT tools to:
    - Decrease provider and healthcare facility burden in reporting.
    - Improve case-based surveillance for state, regional, and federal situational awareness.

Value of Electronic Case Reporting (eCR)

Laura Conn defined electronic case reporting (eCR), which is the automated generation and transmission of case reports from the electronic health record (EHR) to public health agencies for review and action.

- Value of Case reporting
  - Electronically helps public health by receiving automatic, complete, accurate data in real-time.
  - Diminishes healthcare provider burden and meets public health needs.
  - Provides a better sense of what is happening in the community.
  - Supports reporting and situational awareness, case management, contact tracing, connecting lab results, and coordinating isolation and other response actions.

Laura Conn discussed four clinical organizations that are currently implementing eCR for COVID-19.

eCR for COVID-19

- Over 56,000 case reports have been identified and sent from four eCR implementations since January 28, 2020.
- Confirmed cases have been identified from case reports.

- Receipt of electronic case reports was confirmed faster and more complete than manual reporting and Electronic Laboratory Reports.
- A total of 16 jurisdictions have received case reports from the four active healthcare providers.

eCR Now Elements

- Cohort-based COVID-19 rapid eCR implementations for provider sites that use an EHR with eCR capabilities
- An eCR Now FHIR app that can be immediately implemented to automate COVID-19 eCR in otherwise not enabled EHRs
- Extension of the existing eHealth Exchange policy framework through a developing Carequality eCR implementation guide
- eCR Now Element 1:
    - Cohort based onboarding for facilities
        - Epic has streamlined implementation to just three days
        - Initial California cohort in process, cohort #2 signing up
    - Using FHIR trigger code distribution service (eRSD) – to keep current with evolving codes (ICD, LOINC, SNOMED)
    - Confirmed cases delivered for Public Health Agency surveillance – with no manual entry or further burden on healthcare providers or public health
- eCR Now Element 2:
    - FHIR app that can be rapidly implemented to automate COVID-19 eCR in otherwise non-enabled EHRs
        - Does not require new EHR software release
    - Connects COVID-19 eCR to existing infrastructure to confirm cases and route to appropriate public health surveillance systems
    - Initial version of eCR Now app for COVID-19 and source code will be available May 1, 2020

Laura Conn discussed the existing infrastructure and described how health information flows from the point of entry at provider EHRs through the infrastructure into the existing eCR. She explained that they are using the standards that they had put in place for eCR before, and they are HL7 balloted and published.

Next Steps

- Elevate awareness of eCR Now and app.
- Encourage EHR Vendor implementation.
- Participate in May 2020 HL7 FHIR Connectathon.
    - In contact with major EHR vendors, reaching out to EHR Association
    - Looking for plenary-like opportunities and other industry communications
- Focus on supporting eCR activities and infrastructure that are in progress – building capacity for routine and response times.

She concluded by sharing that they are organizing a cohort approach to implementation and provided contact information in the presentation slides for those who might be interested.

Robert Wah thanked the presenters and opened the discussion of the CDC presentation.

Discussion

- **Arien Malec** commented that eCR typically has a four-month time delay between new trigger conditions and rollout. He identified two key areas of interest:
  - How much of the electronic health record (EHR) population is able to do eCR, and what is being done to update triggers within the current infrastructure?
    - With regard to the FHIR app, he noted that there is a strong implementation community, and he offered to help coordinate with them to accelerate the development of the eCR.
  - Is there additional work in the community for the eCR Now FHIR-based app?
    - Is that app a clinical decision support (CDS) Hooks application?
    - Does it have the same trigger-based conditions that CDS has?
  - He commented that the last Morbidity and Mortality Weekly Report (MMWR) had no data on smoking status, indicating people had not been filling out that section of the form.
    - This data could be important to risk identification.
- **Laura Conn** commented that there is a process for distributing routine and emergent triggers. Routine triggers are released, and then there is an anticipated period of time when vendors should update and start using new triggers. Emergent triggers are released, and they have seen that those triggers can be pushed into the existing implementations within a number of days. The COVID-19 response has resulted in four updates to trigger codes from the first release, and updates ,are released weekly, depending on when new lab tests are available. She stated that urgent distribution has been exercised and works well for implementation.
  - Related to the FHIR-based app, the CDC is looking at approaches and talking with vendors on how to initiate the identification and implementation of trigger codes. Some vendors have mentioned CDS Hooks, and some have mentioned other approaches. She would be appreciative of working with a more technical group to explore further ideas.
  - **Arien Malec** followed up that he would share his contact information.
- **Steven Lane** thanked Laura and Adi for their work. He noted that hundreds of provider organizations around the country can turn this on in a couple of days. EHR users with the technical capability can do this either through the trust framework provided by eHealth Exchange or soon through Carequality, which would have a tremendous impact. He noted that case reporting supplements the flow of information from providers and clinical organizations into public health. Electronic lab reporting is in plae, but eCR adds so much more data (e.g., hospitalizations, race, ethnicity, pregnancy status, medication use). He asked what can be done to implement these tools as quickly as possible and how to push provider organizations to participate. He noted that anything that will help to incentivize this implementation would be helpful.
  - **John Kansky** commented that he is in favor of the impact of eCR. However, he wondered what role health information exchange (HIE) infrastructure could have and if it could be complementary. He stated that partly due to **Clem McDonald's** work, Indiana is doing electronic notification of notifiable conditions through the state public health authority.
  - **Laura Conn** commented that HIEs are included in part of the flow, and the triggering has to occur in the EHR to route and share data through an HIE. She

noted that they are working to implement in Michigan, and they are open to working with others.

Carolyn Petersen thanked the CDC presenters and introduced the contributors on the first panel to hear Public Health Perspectives.

PUBLIC HEALTH PERSPECTIVES

Krystal Collier, BA, Syndromic Surveillance Program Coordinator, Arizona Department of Health Services

Krystal Collier shared a workaround for syndromic surveillance related to the COVID-19 response that the Arizona Department of Health Services (ADHS) has created. She noted that the ADHS has been using email syndromic surveillance, which serves as an early alert for public health to identify control measures needed in the response. ADHS has been providing training and education to the community on what syndromic surveillance practitioners across the country have developed for syndrome definitions (e.g., specific age groups, vulnerable populations, healthcare outreach). She noted that they have been participating in the syndromic surveillance community of practice. ADHS has supplemented other public health data sources with syndromic surveillance data, which provides data about possible COVID-19 cases and is also able to fill in gaps in information.

Challenges/Needs

- Timely and automated syndromic surveillance data for a complete picture
- Complete Picture
    - Procedure codes for the use of ventilators
    - Hospital units to be able to identify beds available in intensive care units
    - Travel history

Coordination for the Future: What is Needed?

- Continued support for syndromic surveillance now (and in the future) to protect the health and wellness of the community
- Investment over the years to promote interoperability
    - The syndromic surveillance measure in the ONC certification program has helped enable this timely data source.
- Maintenance
    - It is important to maintaining the public health infrastructure.
- Collaboration between public health, healthcare, and EHR vendor community.
    - There are many use cases which with syndromic surveillance data can assist.
- Connecting between groups
    - ONC has helped problem-solve a variety of issues and worked with key groups to develop an implementation standard to produce higher quality data.

Debbie Condrey, CIO, The Sequoia Project, Inc.

Debbie Condrey provided background on the Sequoia Project, including its mission to advance health information technology interoperability for the public good.

Background: PULSE and PULSE COVID

- Sequoia worked with ONC and Audacious Inquiry to establish the Patient Unified Lookup System for Emergencies (PULSE) in response to the need for a tool for volunteer clinicians and others to have relevant and timely access to health information to support those displaced from their homes or seeking care in alternative sites during declared emergencies.
- PULSE COVID was created after identifying public health data needs during the pandemic: patient demographics, admitting information, comorbidities, ventilator usage, and other key pieces of clinical information in order to facilitate patient monitoring, case management, and care coordination.
- PULSE and PULSE COVID are currently connected to the eHealth Exchange as a national network and more broadly to other health information networks via the Carequality Interoperability Framework.

Maximizing and Leveraging Information Technology Infrastructure

- Enable public health access to information via existing health information networks.

Address Impediments to Information Sharing with Public Health

- Public health needs access to real-time patient-level clinical data from the Health Insurance Portability and Accountability (HIPAA) covered entities for treatment, care coordination, case management, and surveillance in order to address the COVID-19 emergency.
- Public health should be able to leverage existing health information networks which use IT standards adopted by ONC, such as the consolidated-clinical document architecture (C-CDA).
- Provider organizations must abide by the HIPAA minimum necessary requirements for public health disclosures and need assurance that clinical data contained in C-CDAs and other electronic documents can be released for public health purposes.
- Healthcare providers need assurance that sending a C-CDA, equivalent electronic document or related electronic data to public health is consistent with the minimum necessary requirements under HIPAA.
    - Facilitates the timely sharing of information with public health.
    - Reduces burden on health care organizations allowing them to use existing infrastructure.

The Recommendation: Encourage Office for Civil Rights (OCR) to Amend Existing Guidance Regarding Public Health Disclosures:

- General Considerations: Except when required by law, or for treatment disclosures, a covered entity must make reasonable efforts to limit the information used or disclosed under any provision listed above to that which is the “minimum necessary” to accomplish the purpose for the disclosure 45 CFR 164.502(b).
    - Suggested adding, “During the duration of the COVID-19 Public Health Emergency, the submission of a C-CDA, equivalent electronic document or related electronic data will meet the minimum necessary threshold for a public health disclosure.”
- Address immediate and long-term needs to support the public health mission during an

emergency:

- Immediate: deploy PULSE COVID to public health authorities – requires little/no lift
- Long term: ONC convenes technology providers, health information networks (HINs), public health, related associations, and others to focus efforts on evaluating public health systems and address gaps in infrastructure and systems
- Continue to evaluate information sharing policy impediments

In closing, she emphasized that a national emergency warrants a national response.

Janet Hamilton, MPH, Executive Director, The Council of State and Territorial Epidemiologists

Janet Hamilton presented on the topic of how public health surveillance needs for the COVID-19 response data are elemental to health.

Council of State and Territorial Epidemiologists (CSTE)

- They represent public health epidemiologists doing case investigation across different data sets in order to make actionable, timely, policy-based decisions.
- The goal to move data securely and seamlessly across three main actors: patients, healthcare, and public health. Other, non-traditional sources and vital records play a role, too. Data are sent to public health with the same timeliness that they are available to the healthcare community.
- The intensity with which the virus spreads requires timely, actionable data for public health.
- The destination is health protection: Secure, enterprise, interoperable public health data systems rapidly and seamlessly share data, protecting Americans from public health threats of all types – acute, chronic, and emerging.

Approach: Address Core Areas to Support All Phases of the STE Areas that Support All Phases of the Response

- Electronic Case Reporting (eCR)
- Laboratory Information Systems
  - Electronic Laboratory Reporting to public health
- Syndromic Surveillance
- Electronic Vital Records System

How Can ONC Help: Immediate Needs

- Challenges:
  - Data not reported or reported with missing critical information results in delays in contacting patients, identifying contacts, identifying those at highest risk, creating policy and evaluating control measures.
    - Case reports never made or only made by manual reporting phone calls or faxes
    - Laboratory reports missing patient address, phone number and

demographic information (race and ethnicity). Some have reported this is missing 85% of the time
        - Many data requests from many levels
- Immediate needs:
    - Align requests for data: Ensure reporting goes first to state/local public health where the data are acted upon.
    - Automated reporting of point of care tests with identifiers
    - Laboratory
        - Logical Observation Identifiers Names Codes (LOINC) codes – (specimen types matter and should not be blank)
        - Orders contain complete patient information
            - Complete patient information needs to "travel with" the specimen even if forwarded to other laboratories for testing
        - Ask on Order Entry (AOE) questions to be answered at the time of order
            - Employed in healthcare? Y/N/U, Symptomatic? Y/N/U, Hospitalized? Y/N/U, ICU? Y/N/U, Pregnant? Y/N/U
    - Standard public health access to EHRs for individual and batch patient lookup
- How ONC Can Help: Planning for the Fall
- Where should public health surveillance to be?
        - Rapid, seamless data sharing from health care to and across the public health enterprise
    - eCR is the transformation we need
        - Patient locating information
        - Demographic information
        - Co-morbidities
        - Point of care tests
        - Treatments
        - Vaccination

Liz Thomas, Director of Government Affairs, American Clinical Laboratory Association

Liz Thomas presented on the topic of commercial laboratory responses to COVID-19.

- The American Clinical Laboratory Association (ACLA) has been fully engaged around-the-clock to increase testing capacity for COVID-19.
- ACLA members have processed nearly 2 million tests to date to meet unprecedented demand.
- The diverse subset of the commercial laboratory industry currently offering COVID-19 tests include: ARUP, BioReference, LabCorp, Mayo Clinic, Quest Diagnostics, Sonic Healthcare, and Exact Sciences.
- ACLA member labs are committed to reporting COVID-19 test results to state health departments as required by law to inform public health response.
- Unfortunately, overlapping and duplicative data reporting mandates from all levels of government have created challenges for labs already under strain as they work around the clock performing COVID-19 testing.

Health IT Challenges for Labs

- ACLA member labs are complying with state and federal laws regarding results reporting to health departments and HHS.
    - Commercial labs are receiving additional reporting mandates from various entities, including state health information exchanges, governors' offices, Medicaid plans, and government contractors.
    - Each additional data request takes away critical resources from laboratory response and can lead to overlapping and duplicative data on the federal and state levels.
- Incomplete patient demographic information collected by ordering providers
    - Labs do not typically interface with patients and can only report patient information they have collected by ordering providers.
        - Missing or incomplete demographic information collected by ordering providers can hinder public health response.
- Lack of funding to support lab reporting mandates
        - Data reporting mandates come at a cost both to labs and patient care by taking resources away from expanding testing capacity.
        - Administrative and congressional action to date has included no designated funding for labs to support expanded COVID-19 testing or the growing administrative burden of data reporting.

Streamlined Public Health Reporting is Critical to the COVID-19 Response

- HHS can take critical steps to address Health IT challenges in the COVID-19 response by:
    - Streamlining laboratory reporting requirements on the local, state, and federal levels so that commercial labs can report COVID-19 test results in one standardized format.
    - Educating ordering providers on the importance of collecting accurate and complete patient information, including demographics, when a test is ordered.
- Investing resources in the modernization of Health IT systems to promote interoperability without placing an additional burden on laboratories that are already stretched for resources in the COVID-19 response.

Thomas Walsh, Vice President of HTAS Strategy and Digital Transformation, Quest Diagnostics

Tom Wagner, Vice President of HTAS Enterprise Architecture and Design, Quest Diagnostics

Thomas Walsh and **Tom Wagner** presented on Quest's COVID-19 testing, which has a digital front- and back-end patient experience. He summarized how Quest responded to the COVID-19 by quickly mobilizing. They have designed a new lab reporting test and corresponding data standards, which was done while moving 15,000 employees to work from home. The test launched March 9, 2020, and 120,000 tests have been performed since that time. Tests are performed in 12 labs nationwide. He noted that challenges include lack of a shared standard, that they often require manual code build, and validation issues.

How Quest Responded

- It takes one day to build a test and validate that code with us; we've lost about 40,000 opportunities at the rate that we can produce these tests. To make testing widely available, they have created a service.
    - The first iteration of these centers had no connectivity; they were using paper orders and handwritten paper information. There was confusion, and it was difficult to ensure that all patients seen were also properly cared for.
    - The next phase adapted the electronic check-in process for work in the field, secured mobile network stations to bring WiFi stations to the parking lot, and captured identification cards through a car's window. All this technology was used to know who the patient is without putting the team at risk.

Challenges

- In this crisis, patients are asked to stay away from health care settings, get samples collected at a parking lot, and go home.
- Telemedicine, personal health records, and employee health connections need to be strengthened.
- They are dependent on quality to ensure proper delivery of each result.
- They only see about 40% of patients directly; therefore, knowing the patient's identity, is based on the data given by the ordering provider.

Conclusions

- One lesson learned is that technology helps eliminate errors; digital technology eases operations.
- There is a need for interoperability, complicating the flow of reliable data in the many EHR and state exchange standards. Public health officers are struggling to understand this quickly changing situation.
- They are responding to multiple requests from different states for different cuts of data output. The leaders are at their best when they can act on a complete picture, and providing that picture should be much simpler.
- Quest and other labs deploy testing. ONC should consider ways for employers, individuals, and communities to return known, safe individuals to the workforce.
- Real-time data collection is not yet achievable, but ways to validate patients and close loops do exist. They recently built a process for patients to self-identify as healthcare workers and to provide symptom history, which includes hooks to employer records, if needed.
- Since patients register electronically, errors are reduced, and patients can get test results directly.
- Every hour not waiting for a follow-up phone call is an hour sooner that a patient either self-isolates or returns to work. They stated that with registration also comes operational control. The benefits of end-to-end care are significant and should be a focus of ONC's agenda.

Thomas Walsh concluded that Quest Diagnostic is proud to be on the forefront, and he expressed his appreciation for the opportunity to share their experience.

Patina Zarcone, Director, Informatics Program, Association of Public Health Laboratories (APHL)

Building Laboratory Capacity

- Laboratories across the country needed to mobilize quickly once COVID-19 entered the U.S.
    - In late January, emergency operation centers were activated to allow APHL to coordinate with CDC and its partners.
- APHL's priorities during the response have been to:
    - Ensure public health laboratories have diagnostics to perform timely testing in their jurisdictions.
    - Support public health laboratories with reporting test results to sample submitters in CDC.
    - Provide technical assistance and credible communications to public health laboratories, partners, and the public.
- It was immediately apparent that the best path forward was to use existing informatics tools and infrastructure so that results could begin flowing.
    - Laboratories that reported their influenza testing results to CDC were able to integrate their COVID-19 result reporting into the public health laboratory interoperability project feed, which is the influenza test results from all public health laboratories being sent to the CDC in a standardized fashion.
        - To date, there are 58 public health laboratories sending data through this feed to CDC.
        - 180,000 messages were sent in March

Exploring New Solutions

- APHL's technical assistance team has been working across its partners to make sure laboratory and informatics infrastructure are in place. They have been providing coding guidance, as well as ensuring that messages continue to flow through the feed.
- As of early April, APHL has updated coding for all commercially available tests.
- APHL will continue to monitor the testing landscape and update its partners as quickly as possible to ensure that standards match.
- It is important that CDC, HHS, and APHL be made aware of new assays so that labs can receive the proper support to validate messages and make sure data is parsed correctly to CDC.
- Their ability to onboard 58 public health laboratories in a little over one month's time was enabled by having an existing implementation guide, resources, and architecture that just needed some vocabulary extension. This is how interoperability makes a difference.
- Recording COVID-19, results only work as the infrastructure allows, so making sure laboratories have the appropriate technology in place is important. They need to respond to growing demands, and data can be encumbered by systems, staffing shortages, and funding limitations.
- A consistent approach to keeping IT infrastructure current is a necessity. Many times, public health labs only have the opportunity to update their systems when they receive grant funding, or there is a national or international infectious disease threat.

- Public health laboratories must receive a consistent stream of funding to keep these systems current. Building the foundation for a solid health IT infrastructure across the country matters now more than ever.
- Flexibility, creativity, and expertise has allowed APHL to stay on top of the response effort, using the technical assistance model for implementation assistance, the team has provided solutions in HL7, 2.3.1 and 2.5.1 and alternate approaches for laboratories undergoing changes.
- Communications through FAQs and lab alerts have helped to share important updates on the ever-evolving COVID-19 landscape.
- The APHL informatics program continues to work with the CDC and partners on technical assistance projects and is pursuing opportunities to expand laboratory capacity to respond to COVID-19.
- Recently, APHL, in partnership with CDC and iConnect Consulting conducted outreach to gauge laboratories' level of interest in the use of a lab web portal for SARS-CoV-2 during the response, at no cost to public health laboratories.
    - The lab web portal is a public health-focused electronic test order and results web portal solution hosted on the APHL informatics messaging service (AIMS) platform.
    - The lab web portal provides laboratories, epidemiologists, and providers critical communication workflow support tools during the response effort, and it provides a secure yet centralized solution to place test orders and share lab results.
- Other efforts to date include building a data repository on the AIMS platform for lab reporting (other than public health labs), and the opening the large six commercial labs for CDC's access.
- An application was developed with MITRE that supports and hosts an application for stay at home COVID-19 suspected patients. It created vocabulary files that have summarized all Food and Drug Administration (FDA) approved tests to date in collaboration with FDA and Regenstrief Institute. To the extent APHL could take advantage of existing tools and resources, it has made a concerted effort to share products.
    - For example, APHL is collaborating with partners around the use of the AIMS platform to assist in convalescent therapies.

Looking Ahead

- While the number of laboratories capable of testing is expanding, the country is still faced with testing challenges, including shortages of material required for testing.
- Given the amount of data that has been requested, APHL must also be mindful of privacy, security, and other underlying legal considerations.
- Communications around who needs to report what and to whom seem disjointed. This is one area where ONC might be able to help coordinate efforts, in conjunction with CDC and other agencies. There are a lot of data acquisition initiatives starting, with multiple places to get that information, which is not ideal.
- Good coordination of all efforts around COVID-19 and a limited, centralized site to access all the information, rather than distributed as it is now, would be instrumental in keeping a national source of truth and for avoiding the need for extensive data de-duplication and reconciliation efforts.

- Public health agencies are receiving a variety of different file formats that must be processed separately, which is a huge strain on them and the system.

Discussion

- **Arien Malec** submitted several comments:
    - He noted that, based on the discussion in the Adobe Connect public chat, ONC might have a role in discovering why demographic information is not getting into the lab appropriately. Higher quality reporting might be needed from the electronic lab reporting initiative.
    - With regard to additional guidance and flexibility from OCR, Carequality declared that the C-CDA or equivalent qualified as minimum necessary, which would be helpful in opening access to data. He stated that the CDC might be able to make a declaration to unlock the data to fight this virus, which was recently done in Chicago.
    - He noted that many are struggling with interpreting the existing guidance, which assumes that there is a direct connection between the business associate and the covered entity. Administrative guidance that allows for public or best-effort notification of business associates who would notify the covered entity would make sure the guidance has the maximum effect.
    - The ISP task force looked at the lab infrastructure. He stated that the standards exist, but there are no policy levers. He emphasized the need to focus on standardizing Ask at Order Entry questions (AOE), making sure there is good implementation guidance. They should work with Clinical Laboratory Improvement Amendments (CLIA) and others to streamline the building of new interfaces, ensuring a streamlined set of places for flowing information through.
    - Following up from **Sasha TerMaat's** public chat comments, he emphasized the need to make sure tracing goes to the full end-to-end cycle of demographics through electronic lab ordering (ELR). This would result in ELR reporting and would make sure there are no predictable failure modes.
    - He thanked the lab community for all their efforts.
    - He stated that there are basic actions that can be taken to improve response and data collection to provide better visibility and dashboarding and surveillance for addressing this crisis.
- **Steven Lane** highlighted **Arien Malec**'s point about the need for guidance regarding the minimum necessary. He noted the importance of gaining standard access to clinical data. He disagreed with **Arien Malec's** opinion that guidance might not need to come from OCR, as it could come from states or municipalities. He noted that if OCR could provide guidance**,** this would show networks that they are able to respond to queries. He asked ONC to continue to support HHS in developing guidance in this area.
- **Clem McDonald** commented that the process is complicated. He questioned if private organizations are better than the CDC at collecting information about infections and if the CDC is not allowed to get identifying information. He emphasized that this needs to be fixed rapidly. He worried that people are afraid to send patient identified information, which hinders public health. He emphasized that contact tracing needs to be working.

- **John Kansky** noted that he is empathetic with the challenges on all sides to make the appropriate data move. He noted that ONC could work with the national labs to clarify policy positions that they seem to be making an interpretation of HIPAA that stands as an obstacle to sharing data with state HIEs and others. He identified other problems, such as sending data in many directions at once. He stated that ONC needs to work with the national labs to clarify that data can be shared with HIEs and others.
- **Les Lenert** thanked everyone for a great discussion. He highlighted a few key points:
    - A need for collaboration with HIEs and clinical providers to fill in missing data is important. A lot of this data could be filled that is missing from the labs.
    - ELR is a huge win, but it only sends information once. Much of the information will be incomplete. To understand the full case, there needs to be an ongoing series of communications that are best handled by a pull mechanism, in which the public health authority has the ability to query EHRs for the minimum necessary information, as the case evolves, to complete their access to data.
    - He also shared work he did with **John Duke** on the use of FHIR-based technologies to query EHRs using SQL and filtering for the minimum necessary data. This provides more data to public health agencies to complete the missing information and allows data to be pulled from EHRs through FHIR transactions, completing the record as it evolves in time.
- **Tina Esposito** strongly affirmed her experience receiving multiple requests for information, many duplicative. She noted that automating is a huge opportunity for ONC. There is a role that local and state agencies can play to better highlight the situation. She noted that the ability to understand what is happening in different geographies is limited. She stated that there is an opportunity to highlight hotspots or a surge based on lab results to better coordinate with other healthcare systems to meet the demand.
- **Jim Jirjis** shared his experience with his hospital system, which has 185 hospitals in 30 states. He noted that the cost of not having interoperability in place as envisioned has become apparent. He shared that several states and regions have asked for information through a variety of transport mechanisms and data definitions, but their problem has been not having standards in place to comply when everyone wants to comply.
- **Cynthia Fisher** commented that there is a sense of urgency for each American who is under a stay-at-home order and is now their own healthcare manger. She stated that the patient and their employer seem to be missing from the conversation. She emphasized that the more rapidly testing is deployed, the more they gain the ability to readily have the information from the patient. She stated that people want to know whether they have COVID-19 or not, but there is misreporting to the public; every day the public is deceived. She emphasized that this is a national emergency, and there is a need to look at the critical factors of positive and negative reporting. Technology companies need to be working together with the government to identify the critical criteria that is needed in a standard mobile app. She stated that the patient needs to come first, and they should focus on access to testing to protect workers and the food supply chain.
- **Clem McDonald** suggested using the strategy employed by the city of Chicago, which has required hospitals to send the CDC reports for all COVID-19 cases; he suggested that this is something needs to be done nationally. He stated that the CDC is not allowed to access the information it needs to know.

- **Les Lenert** commented on the need to prepare American workers to go back to their jobs, which will move the burden of contact tracing from public health to the individuals and employers. He emphasized that strategies are needed for anonymous contact tracing, and he noted that Apple and Google are working on apps for this process. He stated that every employer will need help developing a public health infrastructure, including tracking employees who are positive, who have antibodies, and who need special protections. He shared work done at MUSC, including a home health monitoring project for COVID-19 patients and the deployment of mobile sensors to detect deterioration earlier. He emphasized the importance of telehealth services to aid patients who are fighting COVID-19 at home.
- **Robert Wah** raised the topic of information privacy and the question of whether private companies and the government should have this data. He pointed to the considerable discussion of this topic in the media in other countries. The goal of the Commons Project is to have a place where people feel comfortable having their private data be processed and stored. He explained that they are building the structure to accommodate private and public tools; they will be setting up data storage based in Switzerland, but it will not happen quickly. Significant identity management tools, including those using Bluetooth, are needed for contact tracing, but he noted that creating them will be complicated.
- **Aaron Miri** described how his organization has scaled up contact tracing to 200 individuals and has created a platform deployed to do contact tracing and home monitoring. These activities have been underway for several weeks. He directed HITAC members to a link he posted in the Adobe chat to his recent blog post, and he shared some challenges they have identified, which included:
    - No two EMRs are the same, so there is a need to use the same terminology and LOINC codes.
    - Trying to match records is difficult. A lot of data reconciliation and normalization is required behind the scenes. They must make sure everyone has a common standard framework and are using the same codes.
    - Bluetooth tracking would be useful, but there is resistance to it in the U.S., because, he noted, people are reluctant to share data. The U.S. has a different form of government that other places where it worked, like Europe and other countries.
- **Clem McDonald** commented that many issues revolve around people being afraid to share patient information, but he emphasized that there is not time to worry. He expressed interest in a survey of people who have COVID-19 that measures if they are worried about anyone else knowing about their diagnosis.
- **Cynthia Fisher** spoke to the need to bring the best and brightest together to create a CDC mobile app with universally agreed upon standards, no matter what type of test is deployed. They have the ability to ask patients to participate at the individual level, and she stated that patients, employers, and employees would relinquish their privacy to participate because they want to be able to save the lives of their relatives, to move more freely, and to get back to work. She noted that at the county level, there are disparate parameters, so, she emphasized that under a national emergency, a national standard is necessary.
- **Aaron Miri** expressed that HITAC needs to identify ways to cross state lines and work together to show the country how to move forward. He offered an opportunity to collaborate with others on HITAC in the name of public health and lead by example.

- **Krystal Collier** asked if there is a way to work together to use the information that is already collected and leveraged to be more interoperable.
    - **Clem McDonald** responded that this type of a database does not exist yet.
- **Arien Malec** commented that it would be useful for the government to play a role. There is a need to review national priorities and focus effort in fewer places. He emphasized that better implementation guidance is needed with a sense of priority and organization, but they do not need to be working on all of the same things at all of the same time. He suggested that there is a need to fix how demographics flow into orders and then into ELR, and progress can be made by consolidating and fixing the basics.
- **Clem McDonald** commented that there are obstacles that are slowing everyone down. The CDC cannot get negative test results, which he does not understand.
- **Janet Hamilton** highlighted that a number of these issues have been known for a long time, and there have been proposals, but not the will to correct some of them. She encouraged a thoughtful dialogue with state and local public health and other federal partners to prioritize key pain points. She suggested that some of those can be resolved relatively quickly.
    - The missing demographic information on lab results means lost time, which means lost lives; this is not a new problem. She strongly recommended tackling this issue.
    - Fixing ELR issues is a critical step. There is a need to work with vendors to ensure there is an electronic feed.
    - There are no treatments or a vaccine available, but, when they do become available, there will be a need to get that information, which the ELR can provide. She emphasized the importance of prioritizing ELR.
    - There has been a tremendous amount of success with the Meaningful Use Program with the inclusion of public health items; however, there is a need to respond to public health in a timely fashion. The response back to public health is not happening; there is a need for standards.
- **Aaron Miri** shared a few real-world examples.
    - As an app is deployed for home monitoring and contact tracing, the underserved population may not know how to download an app. Pivot to open a case record on their behalf.
    - Make sure a multi-lingual app is available from the start.
    - Contact tracers that are volunteering need to know how to talk to people. The individuals they are working with are scared.
- **Debbie Condrey** remarked that the public health declaration in Chicago and Washington State could be a tedious approach. She suggested advocating for a national declaration to receive C-CDA information. She recommended that an organization that represents states could come up with template language that could be shared. She also suggested advocating for clear language on data sharing for public health.
- **Tom Walsh** commented that state regulations are a problem, and variations between states were a problem before the crisis. He noted that cybersecurity should not be overlooked.
- **Clem McDonald** seconded the approach to sending a C-CDA, which can be done right away if they are able to get through legal barriers.

- **Aaron Miri** asked if, due to COVID-19, the Federal Strategic Plan should be evaluated to address the concerns coming out of this HITAC discussion.
- **Denise Webb** shared that she was recently in a conversation with several chief information officers (CIOs) to discuss tools to identify if employees are well enough to come to work. She suggested that other industries could learn from healthcare systems to ensure that they have a workforce that is ready and able to work. She suggested that the HITAC could think about tools that employers can use to help people return to work.
- **Cynthia Fisher** questioned if there should be a national standard for reporting positive and negative results. She stated that employers are ready to keep workers safe, but tests are needed to test workers. She emphasized the need to know if people have COVID-19 or not, and she suggested that smartphones could be used. She stated that the health system should not tell employer how to manage their employees; they need the testing system to function. She stated that the nation is at war with a virus, and she questioned why a national standard could not be put together in a state of emergency. She emphasized the need to trump localities and their duplicative requirements.
- **Steve Posnack** expressed his appreciation for the dialogue and excellent questions. There are opportunities to work with the CDC and other divisions inside of HHS. There are opportunities to gather the right stakeholders, and there are other areas where insights are being gathered. The latter part of the agenda will help round out the discussion. ONC is actively working with OCR, which is issuing discretionary guidance. ONC will continue to provide subject matter expertise to federal colleagues who are working directly with organizations that have connections across states.
- **Elise Sweeney Anthony** commented that this hearing has been useful for ONC to understand the issues. The specificity that participants have provided has been helpful. She thanked everyone for identifying the challenges and solutions, as both are needed in order to understand from a health IT perspective how to guide ONC to best contribute to the COVID-19 response.
- **Aaron Miri** thanked ONC and all of HHS. He understands that there are challenges to overcome, but the work that has been done is appreciated.

HEALTH INFORMATION EXCHANGE PERSPECTIVES

Jaime Bland, DNP, RN, CEO, Nebraska Health Information Initiative

Jaime Bland is part of a collaborative group of stakeholders in Nebraska that includes public and private partners. They have started a task force to respond to COVID-19, and their effort has focused on the following:

- Ability to forecast and identify “hotspots” to understand community spread
- Real-time data on laboratory testing with accurate insights into numerator/denominator
- Real-time insights into hospitalization due to COVID-19
- Understand the recovery disposition
    - What happens once discharged? For the purpose of understanding how the disease is progressing in the community
- Ability to do this rapidly and use the HIE infrastructure, which has been used for nearly a decade. Factors included:
    - The ability to understand labs, master patient index, and connect rapidly to labs. They focused on non-data sharing, and they reached out the CAHs to get this information, for rapid onboarding.

- Use of ADTs and labs for those not connected

Use of the hub and spoke model for long-term post-acute care (LTPAC)

Near-Term Goals

- Data sharing is a priority
  - Focus on public-private partnerships
  - Statewide convening
  - "All-in" collaboration
  - The ambulatory space-testing happens here
  - Patient Identity measures
- Layering dashboard on top of HIE information
  - Chronic conditions are brought into the model
  - Able to drill down to a county because they have comprehensive information

Long-Term Goals

- Statewide efforts:
  - Improve public health infrastructure, including county health department,
    - Focus on HIE and PDMP efforts
  - Contextualize the need and abilities to communities
  - Emergency management use case

John Kansky, MSE, MBA, President and CEO, Indiana Health Information Exchange

John Kansky began by expressing that he is hopeful that common themes may emerge. There have been a lot of requests of the HIE in Indiana, and they have altered plans to support the response. He explained the prerequisites that had to be in place to do this work:

- Normalized repository was needed
- Greater than 90% of data sources had to be connected
- Trusted relationships within state government and with other stakeholders were in place before the pandemic

Highlighted Four Things to Support the Response in Indiana

- Indiana Health Information Exchange worked with the Indiana Department of Health, Medicaid, Regenstrief Institute, and the Indiana School of Medicine and School of Public Health.
- By using ELR at the HIE level, they were able to incorporate 52 different codes detectable in lab streams, related to COVID-19 or similar conditions.
- They used dashboarding support, not presenting the dashboard. HIE is the single source of clean data by the state and public health researchers.
- Surveillance reporting was used.
  - HIE infrastructure is the best single source, but not everyone participated. They worked with state authorities to establish data connections with state's own exchange and hospital systems that were not participating.

Messages to ONC/HITAC

- Thanks for helping to remove regulatory obstacles to data sharing.
- Markets and states with a ready and capable HIE were better prepared to respond to the pandemic.
- HIEs are key assets to be supported, managed, and put to work.

David Kendrick, MD, Consultant from the University of Oklahoma and Chief Executive Officer, My Health Access Network

David Kendrick noted that his colleagues highlighted the critical nature of having infrastructure pre-existing. In Oklahoma, over a decade of governance, policy, and trust relationships were leveraged to build the infrastructure.

Data In

- Validate all feeds, identify new/novel COVID-19 tests
    - Five new codes come in a day from different hospitals and clinics
    - Antibody testing is also coming in
- Expanding to new data sources
    - Health Department mobile testing
    - Reference labs
    - Wal-Mart, entrepreneurs, and others stepping in across the state

Data Out

- Need to get portal user accounts in the hands of first responders, long term care
- Test results are only returned to the ordering provider
- COVID-19 result alerting reports
- Public health COVID-19 reporting
- Disease course monitoring, which tracks the timing from ICU, vent, off vent, discharge/death

Mobile Device-Based Screening for Social Needs

- Daily symptom screener to triage for patients into three categories:
    - Reassurance, shelter-in-place (current rule)
    - May have it, low risk, quarantine
    - May have it, severe symptoms or high risk – connect to care
- Social needs screening
    - Screen all patients with in-person, telemedicine, or other interactions
    - Provide connection to tailored list of community resources
    - Connect Medicare & Medicaid to human navigators
- Lost access to food or transportation
- Domestic violence

MyHealth is Not Affiliated with the State, No Formal Relationship

- State health laboratory is critical
- Reference lab should send all results, not just those ordered through MyHealth
- Antibody testing needs to be available

Long-term

- HIE is critical national infrastructure, source of funding is needed
- Roles in public health, disaster response, clinical care, value-based payment models

Jan Lee, MD, CEO, Delaware Health Information Network (DHIN)

Current Efforts and Progress to Date

- DHIN is delivering test results to ordering providers (business as usual) on behalf of labs. Details discussed included:
    - They have data going back to 2007.
    - Since 2013, they have been sending data to DHIN.
    - They saturated the state with clinical results delivery.
- DHIN is aggregating test results in the longitudinal Community Health Record (business as usual).
- DHIN is collaborating with the University of Delaware Center for Applied Demography and Delaware Emergency Management Association (DEMA) regarding data collection for modeling.
    - Data on hospital census and ventilator availability is currently manually reported each day to UD demographer on a spreadsheet.
    - DHIN has been exploring whether there is a role for them in collecting and reporting this in a more automated way.
- DHIN is assisting Public Health with retroactively enriching test results, positive and negative, with race and ethnicity.
    - DHIN has a huge repository of clinical data and can enrich the feeds of data.
    - Two recent projects included:
        - Modifying normal ELR feeds to state with race and ethnicity not sent by the performing lab.
        - Retrospectively enriching the data they received when that information was not already provided.
- DHIN is amplifying the public health message through social media.
    - They have seen more than a tenfold increase through social media efforts
    - They have been directing those who come for information to authoritative sources such as state public health and CDC sources.

Challenges and Needs

- Technology Factors:
    - No hospitals nor labs are using CDC approved codes.

    - Hospitals and labs are all using different codes.
    - Hospitals changed their codes midstream.
- Human Factors:
    - Turf guarding
    - Agencies /organizations who have never worked together before and don't know each other's capabilities
        - DHIN has been overlooked
    - Standing up new and unfamiliar workflows in place of existing, fully functional workflows
        - Public health is faxing results to ordering hospitals which is frustrating.

How ONC Can Help

- Coherent nation-wide strategy for management of health data in emergencies
- Leverage existing organizations and workflows; don't recreate the wheel
    - Have the largest repository of clinical and claims data in the state. Aggregated data is critical.
- CDC, Public Health Agencies, and HIEs/HIOs/HINs in partnership, not competition

Discussion

- **Jaime Bland** recognized that HIE as community health infrastructure is a place where ONC may provide assistance. Labs are faxing data, so if the HIE is connected, this process could be eliminated to connect in a digital way.
- **John Kansky** commented that HIEs should be viewed as an asset and noted that there is a misunderstanding or disconnect around what the government would like them to do with regard to sharing. He stated that the government could help with interpreting HIPAA to facilitated sharing with large labs.
- **David Kendrick** echoed **John Kansky's** and **Jaime Bland's** remarks. He stated that providers, including those who are not handling EHR like first responders, need to be included in the conversation. They need the VA, the Department of Defense, and Indian Health Services to participate to push and route data actively, instead of waiting on results.
- **Jan Lee** commented that critical infrastructure is needed to support public health initiatives, and recognition would be helpful. She argued that national labs that have presence across states create barriers. She shared that her organization is working on getting amendments with data sources to address data sharing with public health agencies. She commented that this is an opportunity for a forceful imperative when there is a public health need. The focus should be on addressing the virus, not each other.
- **Donald Rucker** suggested sharing specifics around what might work related to HIPAA and what would need to change due to the implications of the COVID-19 pandemic. He suggested sharing ideas by sending him an email at Donald.Rucker@hhs.gov. Alternatively, an email can be sent to Elise Sweeney Anthony and/or Kathryn Marchesini. He noted that ONC is researching some of these terms of IT implications with OCR, but that ONC is also interested in hearing more suggestions.

- **Clem McDonald** emphasized the importance of HIEs and stated that he is hopeful that ONC could elevate their importance. He noted that some of them have tools that could possibly be shared across HIEs. He stated that the politics and fear related to HIPAA are barriers to overcome.
- **Steven Lane** commented that **Debbie Condrey's** presentation included the precise and carefully crafted language that has been recommended to OCR to modify the language in their HIPAA guidance.
- **John Kansky** noted that **Clem McDonald** underestimates the work that he did in Indiana, which laid the groundwork for what they have today.
- **Terry O'Malley** commented that the presentations are spectacular and should be kept on file for use in the next pandemic.
- **Clem McDonald** commented that the committee should be working to identify what can be done to help solve problems.
- **Les Lenert** expressed his appreciation for the work in Delaware. He questioned what scale of de-identification should be allowable for this effort and noted that the current HIPAA standards are too large. He stated that there is a need to push it down to smaller locales but noted that they still need to protect data. He suggested using census tracks as a better unit to push information down to the HIPAA level and that this might be useful in responding to outbreaks. He highlighted the importance of regional HIEs, and he noted that critical patient preference data is still missing; this includes preferences for end of life care that can be recorded and distributed. He suggested that HIEs are a great place to hold this information.
    - **Jan Lee** echoed the issue of de-identification. DHIN has the ability to track things down following CMS rules. DHIN is not able to take it down to the level they would like because it violates the cell suppression. She noted that privacy issues are different in a public health emergency and suggested that there are latitudes that address when public health is at stake.
    - **David Kendrick** noted that the indication of advance directives is stored in the HIE, supporting the Medical Orders for Life-Sustaining Treatment (MOLST)/ Physician Orders for Life-Sustaining Treatment (POLST) process. He noted that social needs data is a unique area of data with which HIEs have engaged, and it is important to fighting the pandemic due to stay-at-home orders and job loss. He suggested that partnering with social service agencies would be critical.
- **Robert Wah** shared that, in his communication with the World Health Organization (WHO), he learned that there is a need to think bigger than asking about health status; there also is a need to think about life status (e.g., water, food, public safety). He asked how they could view this two-way communication between the public and public health organizations and how this process works at particular HIEs.
- **Jan Lee** commented that, in Delaware, they amplified the same message from public health. DHIN's role has been to transfer, aggregate, and curate data to support public health's work with good data.
- **Jaime Bland** commented that the messaging is the same in Nebraska. The HIE is the data backbone, which is moving data on behalf of public health.
- **David Kendrick** echoed **Jan Lee** and **Jaime Bland**. He commented that many HIEs are not named by the state government, which is a challenge. His HIE has been offering assistance for weeks but has just heard back from the state, identifying that the HIE had data that could be helpful. He emphasized that states need to recognize the assets that HIEs have, even if the particular HIE does not belong to the state.

- **Robert Wah** asked how HIEs are connecting with individuals. Responses included:
    - **David Kendrick** commented that his HIE has been building out the social needs screening. The HIE knows when someone registers for care with the correct permissions and is able to deliver a text message that goes to the patient. He noted that text messages to patients have been used to direct them to social needs screening, including one regarding COVID-19 symptoms. He stated that this direct to patient information has been positive, and this is a one-stop-shop for the social service agency to get their referrals through.
    - **Jaime Bland** commented that they just started with a social needs platform and are in the process of moving forward with it.
    - **Jan Lee** commented that it is on their roadmap, but they do not have it in place yet. She noted that they have a personal health record (PHR) in place that has been offered directly to patients. This enables patients to see the same data offered to providers in a user interface geared to patients, not healthcare professionals.
    - **David Kendrick** added that they proposed using the emergency response system to deliver a once a day assessment to the population, especially in the absence of universal lab testing.
- **Clem McDonald** noted that he wanted to come back to the discussion about the individual (versus society) deciding how to manage their data. He stated that if a poll was conducted regarding what was more important, privacy or life, the answer would be life in the context of this emergency. He emphasized the need to find ways to simplify the data flows, because, in his opinion, when trying to balance the two, there is no competition, life wins.
- **John Kansky** and **David Kendrick** thanked the HITAC for the opportunity.

PUBLIC COMMENT

Lauren Richie opened the phone lines for public comment.

There were no public comments via phone.

BREAK

Carolyn Petersen introduced the final panel.

HEALTH IT PROVIDER EXECUTIVE PERSPECTIVES

Robert Buckingham, CISSP, HCISPP, CISM, PMP, Senior Director of Information Systems, Presbyterian SeniorCare Network

Robert Buckingham shared that his organization is on the front lines with 6,500 seniors in 53 communities across the continuum.

COVID Response Activities

- Physicians are doing more online ordering and approving.

- Doing more telemedicine and have been working for a few years to do this, but due to reimbursement issues, this was difficult.
- Alerts have been set-up for changes in body temperature.
- CMS, CDC guidelines keep changing, daily auditing, and managing these guidelines.
- Employees are still working because they are essential. A few people have been allowed to work remotely, but very few.
- The intranet is being used to communicate about COVID. Daily conference calls are held with 40-50 people and increased communication with families who are not able to visit.
    - They purchased additional iPads to assist.
- Daily screening of employees is tracked.
- Have PPE issues, but everyone is wearing masks in common areas. There are different levels of PPE, depending on where in care.

Ongoing Challenges

- Telephony and internet
- More telemedicine, it would be great if the relaxed rules could stay in place.
- PPE availability and employee stress has been difficult.
- All resident costs have increased. There haven't been changes in reimbursement.
- The annual supply budget was spent in the first quarter.
- Long-term non-profit care seems to get excluded or forgotten about.

How Can HITAC/ONC Help?

- Data availability
- Telemedicine interoperability
- Remote work standards

Greg Carey, Director of Government Affairs, athenahealth

COVID-19 Response

- Cloud-based infrastructure allowed the capability to mobilize quickly on a number of different initiatives.
- Integrated CDC guidelines and screening questionnaires across products and the Epocrates mobile medical reference app
- Created COVID-19 high-risk dashboard
    - Publicly available display of information related to the percentage of patients at a high-risk of severe illness if they contract COVID-19
- Physician practices are seeking opportunities to keep their patient population healthy
    - 27 different telehealth platforms are available in the athenahealth marketplace for fast onboarding

    - Enabled providers to start a FaceTime call with patients directly from the mobile app
- Assembled a COVID-19 task force of athenahealth employees that harnesses the collective knowledge and expertise of employee base

Organizational Challenges

- Initially scheduled Spring software release has been postponed so providers can focus on treating patients
- Near term goals are focused on supporting physicians and patients
- Appreciative of the rapid changes that HHS is instituting

How Can ONC/HITAC Help Address Remaining Challenges?

- Above all else, put physicians and patients first
- Funding for the provider relief fund needs to go beyond the hospital setting to ambulatory providers
- Work with CMS to consider extending the accelerated payment through the end of the year
- Understand that these go beyond the typical role of HITAC and ONC, but ONC needs to continue in its role as a convener and partner of all of HHS
- Patients still need healthcare
    - Expand telehealth services
    - Incentivize adoption and payment of telehealth services
    - Not all patients have smartphones with video capability
        - Expand to audio-only telehealth to cover these encounters
- Ensure that COVID-19 does not jeopardize implementation of 21st Century Cures
    - A delay is appropriate; the healthcare industry needs to focus on fighting COVID-19.

Dick Flanigan, FACHE, CFCHE, Senior Vice President, Cerner

Dick Flanigan explained that Cerner has:

- Created task forces to protect the health and safety of associates and also created another task force to focus on the response in support of clients
- Minimized changes to ensure networks and telemedicine can be easily accessed
- Collaborated with employed physicians
- Focused on supporting the national data collection needs**,** and a bit of coordinating across data collection analytical programs

He reported that clients want a) to be able to quickly implement into their systems, and b) safe harbor collaboration to share with the community.

Challenges

- Ensure that COVID-19 does not jeopardize implementation of 21st Century Cures

- Early on, our associate travel and health guidelines were not always supported by clients
- Inconsistency of guidelines
- Public Health Reporting and Surveillance
- Realization that there are gaps in public health reporting systems. There is a **n**eed to consolidate to allow reporting to be collected once and used many times.
- Supply chain and capacity

Opportunities

- Clarity on durability in relaxation of regulations (e.g., privacy, providers) for telehealth
- Investments supporting non-acute care and behavioral health
- Strengthen public health reporting/analysis infrastructure
- Drive full adoption of ELR, syndromic surveillance, electronic case reporting, standard vocabulary, and access to images
  - Focus on interoperability standards identification and adoption supporting Emergency Preparedness
  - Engage industry on the recovery phase (Reimagine Health Care)
  - Working to accelerate vaccine development, testing, and deployment

Jackie Gerhart, MD, Physician, Epic

Jackie Gerhart shared that as a primary care physician, figuring out how health IT can improve medical care is important to her. Health systems and public health departments are wearing many hats during this pandemic. Providers are focused on capacity management and telehealth, in addition to taking care of patients.

Current Efforts

- Created a self-triage workflow through MyChart app that provides data analytics and dashboards
  - Fast, free, and easy
- Working with FDA, CDC, and COVID-19 task force on data collection
  - Developed tools
  - Identified the need to work with ONC and HITAC to ensure there are standards-based data

Challenges

- Telehealth is huge and the adoption will continue to grow.
- There is a need for consistent standards.
- Need electronic case reporting (EPIC sites have this available without the need to upgrade)
- Requests need to be consistent with clarity around the format.

What ONC Can Do

- Continue to support reimbursement and adoption of telehealth during and beyond the pandemic.
- Encourage the use of health IT to ease documentation burden.
- Encourage ONC to endorse the HL7 Situational Awareness for Novel Epidemic Response (SANER) initiative to standardize data request.
- Coordinate and convene experts in health IT to create a standards-based solution.
- Adopt electronic case reporting.
- Promote development of standards where there are gaps.
- Continue to use the website to communicate different resources.
- Continue to coordinate with EHR and health IT vendors.

Charlie Harp, CEO, Clinical Architecture

Charlie Harp presented on healthcare software and services that focus on data quality and analytics.

COVID-19 Shifted Focus

- Ability to deliver standard codes to support the exchange of information
- Ensure new codes and guidance were pushed as quickly as possible, COVID-19 codes were available by March 19, 2020
- Support semantic interoperability and enhanced solution to facilitate term mapping
- Enhanced awareness to facilitate better data governance of data equipment and supplies
- Promote development of standards where there are gaps
- Partnered to establish an interoperability alliance with MITRE, Logic Health, Regenstrief, and Apple
    - Creating data resources that provide value and available for public download
    - COVID-19 subsets and value set for lab results, diagnoses, exposure, symptoms, medications, and risk factors

How ONC Can Help

Short-term

- Consider establishing a mechanism that provides semantic guidance during a situation like COVID-19.
    - Without semantic guidance, local codes are created which can have an impact on data aggregation for normalization.
- The guidance could be as simple as having a designated place where advice is given on how to name emergent concepts and any relevant guidance on general use. Identifying how qualitative lab tests should be resulted (e.g., positive, negative). This type of guidance can reduce the effort related to mapping locally created codes.

Long-term

- Provide best practices for data quality improvement and stewardship
- Promote high-fidelity semantic interoperability
    - Need quality data
    - As information transitions to an invaluable asset, need to consider new perspectives

Cherie Holmes-Henry, Chair, Electronic Health Record Association

- Formed a COVID task force to respond to the pandemic**. Activities included:**
    - Identifying provider and public health data needs
    - Engagement with federal agencies: FDA, CDC (within multiple divisions), Federal Emergency Management Agency (FEMA), HHS (CMS, ONC, White House Task Force)
    - State and local organizations
        - Council of State and Territorial Epidemiologists (CSTE)
        - Association of State and Territorial Health Officials (ASTHO)
    - National Association of County and City Health Officials (NACCHO)
        - Private sector initiatives
        - COVID-19 Healthcare Coalition
        - HL7 SANER Project
- Data needs and challenges
    - Admissions, hospital capacity, ventilator availability
    - Challenges encountered include
        - Aligning measures across requesters
        - Need for standard definition
        - Duplicate reporting
- Recommendations for ONC:
    - Create a database and share key public health contacts
    - Promote network participation for response and interoperability

Peter Johnson, MBA, CPA, CIO, Beth Israel-Lahey Health

- Response Activities:
    - Everything that happens has implications for IT
    - Working remotely due to shelter in place
        - Broadband is not a rural issue, stress on infrastructure
    - Surge capacity
        - Closed one of their hospitals to free up capacity
    - COVID Testing
        - Third largest testing site in Massachusetts
        - PPE is better than others because of re-sterilization
    - Continue what ONC has done in the past which is focus on standards, coordination, and convening
- Challenges and Barriers:
    - Telehealth fundamentally changes things going forward

- Significant work to move forward, more work for ONC around timeliness of guidance
- Rules and interpretations have changed over the last 30-45 days, ONC can help in understanding this
- Need appropriate broadband
- Some vendors have taken advantage of this pandemic in an opportunistic way, and ONC could assist with this issue.

Andrew Rosenberg, MD, CIO, Michigan Medicine, University of Michigan

- Three areas to focus observations
  - Remote work
    - Enormous expansion of workers using remote capabilities
    - There will be long-term sustained benefits of having a more hybrid workforce
    - Identifying how remote workers are the same and different
      - What are the tools and capabilities to do remote work?
      - Remote work includes remote support
  - Telehealth
    - Increased from 400 to over 9000 visits per month
    - What areas are growing in telehealth?
    - Not all specialties are amenable to telehealth
  - Unified communications and mobility
    - There was a request for pagers (that they are trying to get away from)
    - Integration of EHR with other means of communications are extremely important
    - Move away from legacy systems
    - Using smart devices that are being rapidly deployed

Discussion

- **Arien Malec** underscored the need for better flexibility for telemedicine providers. He stated that secure messaging-based telemedicine would be useful. He asked what additional support could ONC and HITAC provide to manage the duplicative inbounds, and how could they reduce the burden of duplicative requests. He referenced the SANER project established by Keith Boone; he noted that it might be helpful for there to be more details shared about this.
  - **Cherie Holmes-Henry** commented that they are posting all the requests that have been received and are communicating back to members through the EHRA site. The HL7 SANER project is engaged with Audacious Inquiry; the project aims to have a single FHIR-based definition of COVID-19 related measures (starting with CDC measures and welcoming local, state, national, and global jurisdictions of COVID-19 reporting). EHRA will be sending a letter out encouraging support and participation to help create a common approach that can be rapidly expanded. She noted that it is not only meant to focus on FHIR-based APIs but also on FHIR-formatted files, such as XML and JSON. They are working to have one common library to understand the measure regardless of the technology that is deployed.

- **Michelle Schreiber** thanked the presenters and the HITAC for gathering the group together for the hearing. She agreed that telehealth is here to stay, but she noted that one of the challenges in documentation is that it is not easy to do a physical exam. She asked how others see capabilities for doing that in telehealth, going forward.
    - **Dick Flanigan** commented that it would be difficult to "put the genie back in the bottle," as an environment has been created where there are a lot of different technical platforms. He stated that Cerner and CMS worry about privacy and abuse of the platform and that some things they did not think would work seem to be working okay. He stated that not everything needs to be done with a mobile phone. There are a set of assistive technologies that should persist, but he would like to see them wrapped into the framework; they should have some level support with maintaining privacy, should be standards-based, and should be supported with broadband.
    - **Jackie Gerhart** noted that, as a primary care physician, it is difficult to do a physical exam via telemedicine. However, she has learned that some of the visits that were assumed would not be successful via telemedicine have been completed successfully. She noted that there is an opportunity to see additional pieces of information via telemedicine, such as a patient's environment, which can help in decision making. She applauded efforts by CMS to reduce barriers. She noted that there is a need to encourage that telemedicine is approachable. Telemedicine helps those in rural settings get healthcare that they may not have been able to get. She concluded that, hopefully, there would be alternative ways to document, opening up the discussion to provide better care for patients.
- **Arien Malec** commented that there is a lot of research that has identified that managing chronic disease has better outcomes. He asserted that there is no substitute for physical exams in certain circumstances, and it would be a shame if the institution of primary care was destroyed because of an inability to figure out reimbursement flexibility. He is hopeful that as the country exits the crisis, there will be additional flexibility in documentation requirements to allow for longitudinal patient care management in ways that are more efficient for the U.S. healthcare system.
- **Robert Buckingham** addressed the interoperability of telemedicine. He noted that reimbursement has always been a problem and that the current relaxed rules have been helpful to be able to implement in different ways. He noted that vendors have to make changes, and, if they do not have incentives to change, the provider organization has to pay for things separately, which adds burden.
- **Jackie Gerhart** noted that there is a cost savings on a per patient, per year basis by doing telemedicine; therefore, there is an incentive for healthcare systems to want to do this. She stated that EHR vendors want to make this a seamless experience and are trying to reduce barriers and working to do whatever possible to implement.
- **Greg Carey** commented that he is encouraged by how quickly the usage has jumped to innovate around telehealth. He cautioned against regulation in an area where there are market incentives and drivers working in real-time toward adoption.
- **Jim Pantelas** noted that Dr. Rosenberg is in an area with power and communication limitations. He questioned if he has seen a negative impact or strain on the system, due to environmental factors with workers calling in and communicating remotely.

  - **Andrew Rosenberg** replied that the two biggest power companies in Ann Arbor have been added but that power may be an issue that was not one before. He stated that the pandemic is an example of how to now support a more remote workforce, adding that all of the other items related to remote workers also need to be considered.

- **Clem McDonald** disagreed that physical exams cannot be done via telemedicine, noting that there are inexpensive devices that can be used. He asserted that a lot of physical exam items can be seen on video.
  - **Jim Jirjis** agreed that the challenge in the past was payment. He stated that televisits work when the visit does not require a physical exam, and there is value to having in-person encounters. However, he noted that telemedicine has a role in observing medication adherence, for example. He noted there are rigid views that encounters cannot be paid for unless there is a physical exam. He stated that, in a world with value-based care, the insurance company no longer decides what method is used. He noted that this has become an artificial construct because of payment.
  - **Andrew Rosenberg** commented that, in his opinion, the efficacy comes down to the specialty: some items are amenable to telehealth and some are not. When it comes to what parts of the physical exam, it is heterogeneous. He suggested that ONC may consider how to find frameworks to promote those discussions in a more granular manner.
- **Carolyn Petersen** asked for **Dr. Rosenberg** to share thoughts about the Michigan Health Information Network (MiHIN).
  - **Andrew Rosenberg** commented that MiHIN is finally consolidated into one sub-state HIE. MiHIN has been a good unifying platform for a variety of data, and it has been a consolidating source for disparate health systems. MiHIN has helped get data to smaller practices and nonacute care settings, and MiHIN has helped practices by quickly serving as a means for telemedicine.
- **Clem McDonald** questioned if there is a problem with authenticating and getting to a trust relationship with small practices. He noted that, if it is a problem, it can be solved today.
- **Dick Flanigan** commented that there are many new use cases that have emerged in the last 30 days. He stated that there will not be a return to work where everyone just shows back up to the clinics. He noted that there is no universal testing, and there is uncertainty around testing. He asserted that telemedicine would be a requirement to reopen healthcare and that it is imperative to work together to come up with a provider friendly private technology. He stated that a health system could reduce the number of required visits by incorporating technology. He noted that this is a new era, and payment is no longer the barrier.
- **Donald Rucker** commented that the new normal is different than the old normal. He stated that CMS's program is thoughtful and has a lot of data on what is appropriate and what has components of fraud, which is always an issue to consider. He noted that a lot of this will be self-documenting, based on the nature of the visit and the use of resources in the visit, which is something to consider when building tools and environments.

- **Robert Buckingham** commented that reimbursements had been the blocker in the past, but, since that has been freed up and the equipment has become easier to find, they jumped in with both feet at all locations. He noted that certain providers require that their equipment be used. He emphasized that a standard is needed to cross providers and to improve interoperability for multiple providers, as things move forward.
- **Aaron Miri** shared his organization's observation that not everyone has high-speed connectivity, and he highlighted the need for an investment in broadband. He emphasized provider and patient education as a necessity, as related to telemedicine technologies. He noted that the industry has come a long way in a short period of time.

WRAP UP AND NEXT STEPS

Robert Wah asked the HITAC members and panelists to share additional thoughts regarding what ONC and HITAC can do to help facilitate and overcome the pandemic.

- **Arien Malec** commented that his biggest take-away is that there is a need to sort responses by what needs to happen in the short-term and in the long-term. He identified three themes:
    - He noted that there is a need to stay focused on what is needed to support the system in the crisis and what is needed to support the system to a return to semi-normalcy until there is a vaccine. He noted there are a lot of arrows. He stated that there are a lot of programs in place, and it would be useful for ONC to help connect people across government and public/private initiatives to streamline focus and convene.
    - He noted that there was a lot of discussion around the infrastructure that is in place but is not necessarily getting wired or connected correctly.
        - The HITAC heard a lot about the critical role of patient demographics and other contact information and ELR. He stated that the ELR feed does not have the information to do surveillance or contact tracings, and terminology has been selected and curated, but there are gaps in documentation terminology requirements. He emphasized the need to support the systems that in place so they could be more effective in providing better signals for bio-surveillance and better mechanisms for contact tracing.
    - He noted that there was a lot of discussion around telemedicine, some of which is not ONC's role. There were a lot of comments about smart reimbursement to support longitudinal care and care management to reduce the number of people in clinics. Flexibility allows for lower costs to the healthcare system but also increases flexibility to return to work.
        - He inquired as to how to support the ecosystem as it is.
        - He stated that there would be another set of lessons learned to better prepare for the next pandemic situation.
    - He highlighted the need to support the systems that are in place by identifying what is ready and what has not been adopted across the system.
- **Aaron Miri** commented that he has been trying to bring forward stories from the real-world.
    - He would like to hear more from patients, and he would like to know more about what they think of telemedicine.

  - They should share learnings and listen to public health agencies, such as Chicago. They should consider if there are strategies to make things more common so others may take advantage of shared learning.
  - They need to look at how to accelerate research, and how to extend resources so the entire country can benefit. Data standards and promulgation are needed so everyone can benefit.

- **Clem McDonald** noted the need to tackle the legal and regulatory hurdles that make people hesitant to share information, and OCR can help with this. He stated that what Chicago has done can be extended across the country, and every public health organization can set-up a protected environment to get data.
- **Jackie Gerhart** commented that telemedicine is being used in underserved areas from an Epic customer perspective. She noted that there is an opportunity to get resources to those patients, so they do not have to be transported to a clinic. She suggested identifying guidelines from local, state, and national authorities and observed that trying to figure out how to get data from testing has been fascinating. At Epic, they talk about using a chief innovation officer to make sure that they are not reinventing the wheel and focus on leveraging resources that are already available. She noted that learning from each other and what has already been done is the best innovation.
- **Cynthia Fisher** submitted several comments:
  - She noted that there is a tremendous amount of stimulus money that is going to go to the hospital systems and laboratories. She recommended that the testing problem and the data access be deployed. She noted her disappointment with the fact that the telemedicine only works based on revenue generation. She stated that this is the problem with EHRs; they are built on billing and coding systems.
  - She emphasized the need to innovate and empower patients and physicians, because patients have become their own doctors and they do not have access to their complete health information. She stated that patients need access, nationally, to their devices.
  - She stated that testing is needed, and there are not enough supplies to do nasal swabs.
  - She stated that it is critical is to have a task force together that includes innovators from the best of the best to come together with mobile apps that are developed and convert them, just as factories are now converting to produce ventilators.
  - She noted that testing and care have gone to the oligopolies, and that providers are ready, but they cannot get access to tests and medicine. She emphasized not worrying about payment and giving patients access to testing, so they know whether they have the virus and what the protocol is. She stated that testing information should be automatically sent to the state and the CDC. She emphasized the need for leadership that removes all the blockades and barriers and deploys information for testing and that the most important thing is getting the results of tests and being able to get the economy on track to by getting people back to work. She noted the need for a task force that has a tight deadline that has the best programmers and also identified the need to put pressure on the FDA to open up the pipeline to allow these tests to go out.

- **Andrew Rosenberg** commented from a patient's point of view and emphasized that they need better tools to engage with their providers when it is difficult to otherwise call them. Communication tools help other providers to better help families of patients, and he stated that one tragedy of COVID-19 is the inability of families to talk to each other. Stories may be able to help inspire more rapid barrier elimination.
- **Clem McDonald** reinforced **Cynthia Fisher's** comment.
- **Dick Flanigan** also reinforced **Cynthia Fisher's** comment. He questioned how to accelerate vaccine development and deployment. He noted that things will be back to normal when it is deployed, and he discussed the type of immunity that is expected from the vaccine. He noted the need to identify what can be done as a community, using the testing infrastructure and HIE. He noted that they must identify all the places where there is information infrastructure. He stated that there is a need to identify what can be done to partner in testing and deployment of the vaccine, and he suggested adding this activity to ONC's agenda.

Robert Wah turned the meeting over to Lauren Richie to open the lines for public comment.

PUBLIC COMMENT

Lauren Richie opened the phone lines for public comment.

There were no public comments via phone.

ADDITIONAL DISCUSSION

- **Robert Wah** thanked the presenters and acknowledged comments made to ONC to act as a convener and bring together industry and surface issues and ideas. Based on the feedback received from members during the last call, today's discussion was an attempt by ONC to bringing together all parts of the industry to identify successes and barriers that could be shared and worked on by HITAC members and ONC. He also noted that there were several hundred people participating during today's meeting.
- **Cynthia Fisher** commented that the pitfalls of not establishing interoperability years ago are now being seen, which she noted is going to cost lives, businesses, and loss of personal finances. She continued that it is important that all players come together to do the right thing. She stated that there is an inability to get access to critical information that needs to be shared to hold each other accountable without baking in price and competitive edge. She emphasized that this is a time for everyone to come together as patriots to hold each other accountable and an opportunity for ONC to lead.
- **Robert Wah** welcomed ONC staff to share comments.
    - **Donald Rucker** noted that **Cynthia Fisher's** comments were heard and were spot on for what the American public needs. He noted that there was a lot of good and thoughtful discussion related to making key parts of information more available, and there is a complexity that is implicit since the entire day was spent talking about it. He noted that several take-aways were identified, especially the need for telemedicine to be paid for in a fundamental way. Also, he stated that there are complexities related to the different data feeds that need to be sorted out. He thanked **Robert Wah** and **Carolyn Petersen** for running a wonderful meeting and coordinating the presentations. He emphasized that this was a valuable opportunity.

  - **Elise Sweeney Anthony** commented that during a hard and busy time, she appreciated everyone's engagement. She thanked ONC staff, **Lauren Richie**, and **Cassandra Hadley**, for executing the hearing. She also thanked the HITAC chairs for leading such an informative meeting.
  - **Clem McDonald** complimented the ONC team for the progress made over the last three years. He commented that by putting patient-specific identifiers on test results and getting them where they need to go, while also fixing the regulatory and legal problem would solve most of the problem.

- **Robert Wah** noted that this had been a useful conversation to share with the Commons Project. Identifiers would be great for public health, but they often make people nervous from a privacy perspective.
- **Clem McDonald** commented that the public had been trained to be terrified of sharing personally identifiable information (PII), whereas people put lots of information on the internet. He noted that it would be interesting to see what the public thinks today about what the tradeoffs are and which way they'd be happy to go. He commented that the balance is likely skewed to saving lives.
- **Robert Wah** echoed that when people are very sick, privacy is not the highest priority.

Carolyn Petersen thanked the ONC team and today's presenters for investing the time for these conversations, expressing her appreciation for the thoughtful discussion which has provided insight to ONC in thinking about how to move forward.

Sheryl Turney thanked everyone for their contributions. She noted that the points made are important and emphasized that standards are not easy, especially with so many stakeholder groups. Not everyone is looking for the same data or using the same standards, so there is a need to find a way to align on standards quickly so that it information is available to those in need. She opined that when your life is in danger, your need for privacy goes out the window.

ADJOURN

Robert Wah thanked those who made the day possible, and he noted his appreciation for everyone's time and talent. He is happy to take input and suggestions on how to make future meetings better.

Lauren Richie noted that the next HITAC meeting is on May 13, 2020. She thanked participants.

The meeting was adjourned at 3:35 p.m. ET.

COMMENTS RECEIVED VIA ADOBE CONNECT

Clem McDonald: My question regarded the comprehensive capture of national COVID test result. I have understood that CDC numbers are smaller than the COVID tracking project (a private effort. and that CDC only gets positive results. So, we don't know rates. And also, that CDC is not allowed to know who the patient is. So, they may double count. What regulatory or legal changes does CDC need to get a complete picture of testing results. Also though I love FHIR, labs all use V2 . and so does CDD for report. There is no time to change that reality so how do we take advantage of the existing process.

Clem McDonald: Finally City of Chicago is going to get Continuity of Care reports for all COIVID patients in their jurisdiction. That seems like a ready way to get all of the information that is needed

Tammy Banks: Is there a resource that list each state's public health agency requirements (i.e., format, data elements readiness) to receive COVID-19 related information?

Heather Readhead, MD MPH: Clem, can you please detail what you mean by a "Continuity of Care" report? And does this help for case identification/confirmation, appropriate disposition for isolation, and/or contact investigation?

Clem McDonald: Continuity of Care is an HL7 CDA document (could get you the whole spec) is a discharge summary plus and is already produced aby all ERMs Would not be hard to redirect o some public health authority. RUSH medical school in Chicago has provided an EPIC instance of their system to the Chicago public health department. It will gather all of the continuity of care document -- I think on just COVID patients- but it may go further.

Steven Lane: HL7/ASTM Implementation Guide for CDA® R2 -Continuity of Care Document (CCD®) Release 1: https://www.hl7.org/implement/standards/product_brief.cfm?product_id=6

Jim Jirjis: IF APHL is reporting results from so many commercial labs about COVID-19, why are hospitals having to separately report on all but the 6 who are part of the AHLA?

Christina Caraballo: New USCDI data elements, specifically patient demographics addition of address and phone underworld be really valuable. How quickly can vendors realistically update EHRs to support this?

Sasha TerMaat: Regarding missing laboratory demographics – EHRA members have been digging into this with their customers to support their customers in providing high quality data to public health. In our investigations so far, we have seen that demographics seem to reliably travel from the EHR to the lab with the lab order but are sometimes omitted from further reports from lab information systems to public health. We are happy to dig into further examples for troubleshooting.

Heather Readhead, MD MPH: Sharing discharge summaries with public health for COVID patients (clinical dx or lab-confirmed case) would help with identifying comorbidities and identifying a "provider of record" for outpatient follow-up. These documents would be much more helpful if certain discrete data elements were added to support public health's case confirmation and triage process for contact investigations.

Heather Readhead, MD MPH: thanks for sharing the specs, Steven

Clem McDonald: I think I am connected to voice now

Steven Lane: While some EHRs are prepared to respond to queries with a CDA standard Discharge Summary, ALL are CEHRT is able to respond with a CCD.

John Loonsk: Clem, you should look at the eICR - it does what you are thinking about and more for PH and is very easy to implement.

Laura Conn (CDC): Clem, and if Rush is EPIC then implementation is now 3 days and would usable for all conditions in the long run - and consistent with other implementations.

Arien Malec: My recommendation was for CDC to make the determination

Kate Ricker-Kiefert: ONC HITAC presentations are missing the State perspective. Associations, vendors, Federal agencies, academic institutions, and HIEs are represented, but you failed to include State HIT and/or public health representatives.

Steven Lane: Great summarization Les. Thank you!

Janet Hamilton: Filling in missing information is useful HOWEVER I encourage the Committee to address issues related to missing information associated with lab results be addressed AT THE TIME of ORDER. Getting info at the time of order greatly REDUCES the time PH needs to initiate a response. If the data arrived at order PH could immediately begin action to call cases and contacts, identify hotspots, etc. rather than spending hours and days finding the info before initiating a response

Heather Readhead, MD MPH: eCR and data "pulls" better can support isolation processes and contact investigation and

Heather Readhead, MD MPH: ELR also only reports a positive lab result. It does not include a clinical dx that has been most of our outbreak thus far, given that only a small percentage of COVID patients get tested

Brett Oliver: No one is denied testing. We simply don't have the testing available.

Carolyn Petersen: Thanks, that's an important distinction.

Heather Readhead, MD MPH: patient entered data via mobile app or PHR is needed to support safe isolation, monitoring in isolation and contact investigations

Patina Zarcone, APHL: The SARA application developed by MITRE and hosted by APHL was built to support self-reporting - data goes directly to local public health agencies and helps with contact tracing and monitoring symptoms.

Patina Zarcone, APHL: Patients can enter their symptom information via cell phone or computer.

Clem McDonald: This is the order from the Chicago public health department. It could be implemented national

Clem McDonald: ECTION 1. (a) All acute care and long-term hospitals located within the City of Chicago shall provide to the Commissioner of Health or her designee ("Commissioner") access to such electronic health records and other data as the Commissioner may require, in such forms and formats and pursuant to schedules that the Commissioner shall reasonably specify through written guidelines, with the goal of enabling CDPH, either directly or indirectly with or through a designated third party, to accurately monitor and interpret COVID-19-related medical information and efficiently and effectively direct the City-wide response.(b) The data required by this section shall include patient impact and hospital capacity elements as set forth in https://www.cdc.gov/nhsn/pdfs/covid19/import-covid19-data-508.pdf, provided in such forms and formats and pursuant to schedules that the Commissioner shall reasonably specify through written guidelines.(c) In this Order, the Commissioner declares that Continuity of Care Documents, as

Heather Readhead, MD MPH: As a part of MUSC's questionnaires for monitoring health status for patients in isolation, does the questionnaire also ask about contacts to help public health with identifying others exposed? Patient-reported contacts are the cornerstone of contact investigations

Patina Zarcone, APHL: For further information about the symptom monitoring and contact tracing application, SARA alert, please visit https://saraalert.org

Aaron Miri: What we are seeing here with Contact Tracing and similar: https://www.healthaffairs.org/do/10.1377/hblog20200413.644614/full/

Leslie Lenert MD: Aaron: are you using your medical students for contact tracing?

Aaron Miri: Yes, we are

Aaron Miri: Leslie: https://news.utexas.edu/2020/04/02/dell-med-students-enter-the-virtual-field-in-the-fight-against-covid-19/

Aaron Miri: *les

Jorge: https://sbmi.uth.edu/covid-19/data-dashboard

Robert Wah: here are the links for Commons Project and CovidCheck. https://www.thecommonsproject.org/covidcheck and https://covidcheck.org/

Heather Readhead, MD MPH: Many people do not know that point of care tests do not go get to ELR and thus do not get to public health

Heather Readhead, MD MPH: Thus, ELR does not represent either patients diagnosed clinically (no test) or via a point of care. Thus, eCR is both more complete in terms of accurate number of infections and data on those patients to support isolation and contact tracing.

Patina Zarcone, APHL: We have good examples in public health already that have had successful approaches to the legal issue such as NAPHSIS with the STEVE application (vital records). They have in place a legal document that was signed off on by all jurisdictions. We should be looking at these examples.

Steven Lane: So many of the comments today have been suggestions to and questions for the ONC. Can we give time to ONC staff to provide some initial responses?

Jim Pantelas: As I listen to all of this I wonder if it is generally believed that we have adequate testing capabilities? I find myself associated with health systems that are not testing widely because the tools are not available. We are also seeing some pushback on attribution of death for patients they did not receive testing for C-19 before their death, despite the symptoms that indicate the virus.

Steven Lane: Robert Wah - Will COVIDcheck also be available for Apple, or only Android?

Carolyn Petersen: Yes, the availability of testing is certainly an issue, at least in some communities. As an advisory committee HITAC is best placed to focus on health IT issues, given that that is where ONC can move the needle.

Heather Readhead, MD MPH: Most primary care and urgent care providers understand the limited access to testing and understand that it generally does not change clinical management for stable patients. More important for critically ill and for occupational health.

Robert Wah: It is a web service now, we are finalizing api to the risk assessment and so others can access the risk algorithms/logic. Soon will be on SMS, WhatsApp and IVR

Brett Oliver: Dr. Readhead is spot on.

Thomas Walsh: Thank you all, illuminating discussion

Robert Wah: 05PM EASTERN. PLEASE BE PREPARED TO COMMENT. THANKS

Robert Wah: PUBLIC COMMENT PERIOD MAY BE EARLIER THANK 105PM EASTERN PLEASE BE PREPARED TO COMMENT. THANKS

Robert Wah: ....EARLIER THAN 105PM.....

Heather Readhead, MD MPH: Years ago, all of the Indiana HIE/Regenstrief code was open source. Is this still true? Can any of this HIE work (with master patient index capability) be leveraged for apps and public health systems in other states?

Dave McGurgan: For those interested in how DHIN (Delaware Health Information Network) is using its social media platforms to get fact-based information about coronavirus out, you can visit https://dhin.org/ and you'll see links to our social networks.

Steven Lane: Don - Debbie Condrey's presentation included precise and carefully crafted language that has been recommended to OCR to modify the language in their HIPAA guidance.

Clem McDonald: Think I am on and NOT on mute. Unless the it has happened centrally.

John Kansky: Responding to Dr Readhead, above, Indiana and Regenstrief are open to collaborative conversations

David Kendrick: Agreed-- most HIE's have data on Advanced Directives, and many support MOLST/POLST processes.

Heather Readhead, MD MPH: Which HIE is speaking?

Heather Readhead, MD MPH: thanks!

Jettie Eddleman: sincere thanks

Heather Readhead, MD MPH: Could ONC publish a synopsis of the information presented here today, perhaps with help from CSTE to organize by public health function, to share with all state and local health depts?

Heather Readhead, MD MPH: I cannot call in. It would be helpful to synthesize this info with the Hopkins/ASTHO document on contact invesyigations

Lauren Richie: Hi All, we will resume at 1:20pm ET

Steven Lane: For those interested in additional detail regarding Electronic Case Reporting and the work ongoing to support FHIR-based reporting see https://ecr.aimsplatform.org/cms/resources/blocks/ecr-now-v6.pdf

Krystal S Collier: I wanted to circle back to one of the comments made by the Delaware HIE and not using the same codes for COVID-19, as well as previous comments for more standardization in the earlier discussion. A request for HITAC and ONC, would be to help healthcare and EHR vendor partners understand the downstream impacts of data entered into their system and the effects it has on the public health registries and our surveillance activities. The use of local codes and/or not following the guidance on utilizing the standard codes, creates challenges when trying to develop syndromes that can be used and applied in the BioSense Platform/ESSENCE across local, state, and federal jurisdictions. It makes it more difficult to compare and understand data trends within our own communities which extends all the way to the national trends, when hospitals for example, are not using the same codes for COVID-19 patient encounters, for public health to identify these COVID-19 visits of interest. (Examples would be diagnosis codes for

Krystal S Collier: COVID-19 and procedure codes for ventilator use.) This in turn leads to lengthy time spent trying to develop syndromes, which leads to less time available for analysis, that can be used and relayed to leadership for making timely public health decisions. More awareness and consideration of the

impact of the data being provided to public health based on what is transmitted electronically and automated from healthcare partners, is something we could use assistance with.

Steven Lane: There would appear to be an opportunity for ONC to identify and advance the use of standards for remote sensing consumer medical devices that can integrate with telehealth apps, both EHR-based and stand alone, to support and accelerate the use of telehealth for a broader range of conditions.

Abby Sears: I agree completely Steven and was thinking the same thing. Our part of the delivery system does not want to go to back to only face to face visits. We need to be able to adequately take care of patients in the home.

Heather Readhead, MD MPH: This is also a great opportunity to have centralized telehealth for chronic disease management done by RNs or PharmD's.

Christina Caraballo: @Steven: HL7's mobile health WG is working on a FHIR IG for mobile health devices and apps. Work is being coordinated with ONC, IEEE, IHE., the Personal Connected Health Alliance and HIMSS.

Heather Readhead, MD MPH: Yes, if reimbursement for primary care goes away, we will not continue to do telehealth.

Steven Lane: If we can implement interoperability standards and expectations for telemedicine components, including images, devices, and data, there will be an explosion of specialized disease remote disease management services. While this has started in Diabetes and some other chronic conditions, it could be expanded tremendously, including the ability for individuals/patients to choose their telehealth provides based on standard metrics regarding quality, convenience, accessibility, etc.

GMN: this would be very helpful, plus the explosion in market volumes - large volumes of devices- could offer opportunities for substantial reduction in per device costs.

Aaron Miri: Steven: Agreed. In addition to potential expansion of CPT codes that allow for health systems to really get behind RPM and other modalities, that will keep a lot of patients out of the hospital that shouldn't be in the hospital and really treat disease states the way they should be treated.

GMN: taking a cue from the recent ventilator efforts by gm and ford to bring large scale mfg to devices that are currently hand assembled will also help bend the. cost curve on these patient side tele health tools

Ram D. Sriram: I think telemedicine will continue to play a significant role after the pandemic is over. I see a paradigm shift here.

Michael Adcock: It is a paradigm shift that is way overdue.

Elaine Hunolt, VHA: The potential for fraud is very high.

Michael Adcock: This pandemic was the burning platform to push us down a road that some health systems have been fighting their way down for quite a while.

Michael Adcock: The codes for RPM and telehealth in general have moved farther in the last two years prior to the pandemic than ever before. The AMA Digital Medicine Payment advisory group has been working on the payment side of these issues for a while. It truly believes it was necessity that pushed the needle way forward, not the reimbursement changes

Heather Readhead, MD MPH: I think some of the fraud concern can be addressed with co-pays, patient satisfaction surveys for providers/clinics and pay-for-performance payments tied to out ome metrics.

Steven Lane: Really good point Don! If we can address the privacy/surveillance concerns we could use AI to "watch" the virtual visits to assure that they meet appropriately crafted reimbursement guidelines. Ideally providers would not need to code the visits at all. Let's have the telemedicine vendors build standardized analytics into their systems to generate a billing code based on the service provided. Then the data stays with the provider/app.

GMN: following up on Dr Readhead, the ability of tele health platforms to document the care intervention should also be explored

Steven Lane: While providers will inevitably resist, and plaintiffs' lawyers rejoice, it could be argued that patients should have the right to receive/store recordings of their telehealth encounters as they now have the right, under HIPAA, and InfoBlocking, to a copy of their clinicians' notes. I imagine that many tech-savvy patients are making these recordings today.

Aaron Miri: x2 what Steven just said.

GMN: we need to think carefully about then infrastructure needed to store all of these recordings.... it definitely can be done, and may be best in the cloud given file size for both the patient and the provider

Ram D. Sriram: Should get examples of telemedicine usage in underserved communities.

GMN: univ of Mexico and the tele Ed use across the state may be a useful example for underserved areas

Abby Sears: I would be happy to help facilitate some of that. We are capturing these stories right now.

Heather Readhead, MD MPH: VA in Spokane has good examples of telemed for rural access b/c serve large geographic region

Steven Lane: I have had the pleasure of providing telemedicine this past month to a number of patients where a telephonic interpreter was required to support our communication. In each case, the flow of the interaction was EASIER than when this type of service is used in the exam room.

Alexis Snyder: I was somehow dropped from the call and so far, unable to get an operator to reconnect

Alexis Snyder: I'm back

Abby Sears: We have hundreds of clinics across the Country and they are doing it in different regions and under different circumstances. They have transitioned to over 50% telehealth. Yesterday we heard about a clinic in rural Oregon that was having trouble having their patients understand how to use zoom and that their phones were not compatible. Also, 60% of their patients only spoke Spanish. The products were not supportive enough of the population and their ability to understand how to use the products.

Arien Malec: Can't believe I forgot about the OCR issues:

Arien Malec: Three things:

Arien Malec: 1) Declaration of USCDI as minimum necessary for COVID-19 reporting

Arien Malec: 2) Better flexibility in OCR enforcement guidance to allow notification to sub-BAs and blanket notification via website, others for organization that support VARs and sub-networks

Ram D. Sriram: @GMN: Arkansas (Curtis Lowery's group) has an excellent implementation, but this is hospital based. What about independent physicians who are not affiliated with hospitals?

Arien Malec: 3) Use of existing authority under Public Health Authority HIPAA recognition to allow data to flow from HIEs, etc.

Clemmcdonald: I forgot to mention the good idea about an APP, but I would suggest a very focused app to pick up test results that will likely be springing up in office and all kind so other places which don't have husky infrastructures. Covid testing will get easier with the newly announced Saliva testing. What is needed is photo of the driver's license and the test result print out and send it to local public health > Drivers licenses are routinely OCR interpreted - wouldn't be hard to get barcode o the result print out or develop readers that could interpret the test strip Agree with Cynthia on this focus 100%

Justin Taylor 2: Good afternoon! I have to commend Epic as they may be fielding the first solution along these lines at Javits (and I know one of the vendors is working on a plan for McCormick), but we moved heaven and earth to get amazing physical infrastructure up with these alternative care sites and they're still working relatively data blind and on paper. This isn't necessarily a humanitarian mission and we've been very fortunate that these sites/ships have been limited in their volume and use to date, but they're working to provide a reasonably normal standard of care. I know there's plenty of contractual, political, financial, interagency, etc. considerations, but any thought to ensuring that part of an emergent public health response, particularly pertaining to alternative care sites, moving forward should be an in-place solution for point of care clinical data access, via HIEs etc., and effective/meaningful electronic documentation?

Lauren Richie: HITAC Members, as previously mentioned, I am resending two links for your awareness:1. ONC Final Rule Public Webinars registration - https://www.healthit.gov/curesrule/
2. TEFCA RCE Monthly Informational Call registration (previously sent) - https://register.gotowebinar.com/register/6651063890160530956

GMN: as we think about how ONC and others can help with the vaccine development, there is clearly a need for standard data, flowing in real time to rapidly assess how the vaccine is working, identify all post market events, including side effects from the vaccine.... this will make interoperability and standards critical

Steven Lane: I suggest that we again invite the ONC team to reflect on what have been their major take away from this rich discussion.

Jackie Gerhart: This has been a great conversation. Thanks to ONC/HITAC and specifically to Lauren, Carolyn, Cassandra and others!

Jackie Gerhart: @ Justin: Thank you! Yes, Epic is in McCormick center in Chicago, and many others in New Jersey, Detroit, etc.

Cherie Holmes-Henry: Appreciate the invitation to join this excellent conversation. Thanks to the team for helping with all the logistics.

Jackie Gerhart: Epic's surge centers including Javits Center in Manhattan, Meadowlands in New Jersey, the McCormick Place in Chicago, and sites in Boston and Detroit. Implementations are underway in Atlanta, Dallas, St. Louis, and California as well. We are not charging for the software or services to support these facilities. Please contact us if you have other areas in mind.

Dick Flanigan Cerner: Thanks for including us in the discussion today. Well run meeting.