

HITAC Annual Report for FY20
Crosswalk of Topics by Target Area

Additional Target Area: Use of Technologies that Support Public Health
(Can be Cross-Cutting with Other Target Areas)

Landscape Analysis Topic	Gap	Challenge	Opportunity	Proposed Recommended HITAC Activities ⁽¹⁾	Proposed Tier ⁽²⁾
Exchange of clinical data for public health purposes	Public health authorities face interoperability challenges to be able to collect and exchange information from clinicians and laboratories needed for proper reporting.	Need standardized codes, data, and terminology to document patient diagnosis, treatment, and reporting in clinical care across settings during pandemics.	<ol style="list-style-type: none"> 1. Improve bidirectional interoperability between public health reporting systems and electronic health records (EHRs). 2. Accelerate use of data standards to improve situational awareness for federal, state, and local government emergency response. 3. Explore an expanded role for health information exchanges (HIEs) to support public health. 	<ol style="list-style-type: none"> 1. Suggest HHS guidance on minimum necessary datasets for exchange for public health, e.g., with laboratories, especially for test order entry and case reporting. 2. Hold a hearing to understand stopgap solutions implemented to improve reporting capabilities and assess whether additional long-term solutions are needed. 3. Facilitate acceleration of the practical use of data standards to improve situational awareness for local, state, and federal government emergency response. 4. Conduct a listening session to learn about the successes and remaining barriers to exchange by HIEs to support public health, including how to expand their role. 	Immediate
Privacy and security for public health purposes	Biosurveillance efforts, including contact tracing, as well as increased use of telehealth and remote monitoring face privacy and security issues	There are questions about what data are classified as HIPAA minimum necessary and public health allowable use, especially when collected via mobile devices outside a clinical setting.	<ol style="list-style-type: none"> 1. Discuss the tradeoffs between increasing interoperability, protecting privacy and security, and ensuring public safety during pandemics. 2. Increase the clarity about the privacy and security concerns associated with biosurveillance activities. 	<ol style="list-style-type: none"> 1. Help clarify what data can be collected and how it can be used. 2. Identify educational approaches that offer improved transparency of privacy protections applicable to contact tracing applications and biosurveillance technologies. 3. Encourage clinical workforce and patient education/re-education on use of technology for telehealth (including smartphones). 4. Encourage guidance about privacy and security protections of public health information across varying state laws. 	Immediate
Vaccine Tracking	Pre-COVID-19, questions arose about whether CDC or other groups might be tracking unimmunized populations, where patients are obtaining vaccines, and if others can access that data.	Large populations require advanced technology to create models that promote health equity using large datasets and to identify individuals or groups at higher risk of disease, but such	Investigate whether predictive analytics can be used to a) aggregate and analyze this data to anticipate needs for vaccines among vulnerable and/or high-risk populations, including for flu and COVID-19 prevention, and b) better target	Hold a listening session to identify opportunities and barriers for healthcare and public health organizations, and highlight successful vaccine program interventions using predictive analytics.	Immediate

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		resources and expertise are limited.	outreach, education, and response efforts and strategies.		
Patient matching for public health purposes	Patient matching challenges exist due to gaps in information (particularly demographic) shared from commercial laboratories and from contact tracing records, and lack of a unique patient identifier (UPI).	Missing demographic data can delay patient outreach and complicate contact tracing efforts.	<ol style="list-style-type: none"> 1. Improve patient matching through expanded use of artificial intelligence (AI) while considering privacy and security concerns about AI algorithms, in order to accurately identify patients and locate at-risk individuals. 2. Increase alignment across federal, state, and local public health reporting requirements and guidance to support improved collection and consistency of demographic data. 	Develop tactical recommendations based on ONC's forthcoming Patient Matching Report to Congress, including consideration of expanded use of AI and related privacy and security concerns as well as increased alignment of government public health reporting requirements and guidance.	Immediate
International exchange of clinical data for public health purposes	Currently, countries are imposing significant restrictions on the movement of people and goods to ensure public safety, in part due to a lack of information about the health status of travelers.	Countries use a variety of information systems (and languages) to gather public health data which can impede the flow of accurate, up-to-date health data.	Share and apply lessons learned across many countries about the use of health IT to support public health, e.g., for electronic case reporting.	Hold a listening session to identify opportunities and barriers for the use of health IT in international exchange as well as lessons learned that can be applied domestically. Panelists could include the Centers for Disease Control and Prevention (CDC), World Health Organization (WHO), Global Health Data Partnership (GDHP), Dept. of Commerce, clinician representatives, and privacy and security experts.	Longer-Term

Priority Target Area: Interoperability

Landscape Analysis Topic	Gap	Challenge	Opportunity	Proposed Recommended HITAC Activities	Proposed Tier
Exchange of health data more broadly across the care continuum	Interoperability needs to be increased across the broader care continuum.	Long-term post-acute care (LTPAC), behavioral health, and home and community based service (HCBS) settings are limited in their ability to exchange data with other clinicians, including social determinants of health (SDOH) data, in part due to EHR design.	Collection of more complete data about a patient will help clinicians identify risk factors for procedures, offer interventions, and provide targeted care. In particular, the Interoperability Standards Priorities Task Force identified a need for specialty-specific minimum standards to enable closed loop referrals and data exchange between clinicians.	<ol style="list-style-type: none"> Learn more about recent developments in standards and exchange in the areas of patient-reported outcomes (PROs), e.g., 2020 AHRQ report, and SDOH data, e.g., HL7's Gravity project. Identify and help improve data streams where interoperability is a challenge to sharing broader datasets, especially when a pandemic affects healthcare settings like long-term post-acute care and any transitions to and from those settings. 	Immediate
Association between EHRs and patient safety	The use of health IT can impact patient safety.	A well-designed, properly implemented, and responsibly used EHR can improve patient safety by better supporting clinical workflows and decision making. However, EHRs can also pose new patient safety risks, including sharing incorrect data.	Define factors that increase and decrease the safety of health IT that affect patient outcomes.	<ol style="list-style-type: none"> Review changes that could be made to the Health IT Certification Program to support improvements to EHRs to support patient safety. Suggest that ONC conduct an initiative to further define patient safety and any gaps where technology does not support that definition, then develop a roadmap for better health IT support for patient safety by 2023. Collaborate with the FDA to explore the use of health IT in automating collection and sharing of data about adverse events for drugs and devices. 	Longer-Term
Exchange of Social Determinants of Health (SDOH) data	Business models across healthcare sectors do not yet support the capture and use of SDOH data due to a lack of standards and data availability, patient matching challenges, and varying levels of technical maturity of community service providers' IT systems.	If SDOH data are collected, they are usually documented as free text in the EHR, limiting the ability for data exchange across clinicians and community service providers.	Develop and adopt standards for SDOH data collection, transfer, and integration for population health and individuals' needs.	<ol style="list-style-type: none"> Suggest updates on SDOH data for the ONC Patient Engagement Playbook. Convene a group of stakeholders from healthcare entities, payers, SDOH technology companies, community-based organizations, and standards development projects to understand the state of SDOH data exchange in practice and identify gaps and barriers. 	Immediate
Increased health equity across populations, locations, and situations	Data are not systematically collected nor used to identify disparities in outcomes, healthcare, and risk. Non-traditional sources of health data exist that have not yet been mined nor shared to support more	Lack of required adoption and use of standards for the collection and storage of relevant data can make it difficult to identify at-risk populations and to develop and implement appropriate interventions.	<ol style="list-style-type: none"> Advance requirements to collect and share data about groups experiencing health inequities. This data can be used to support the implementation of culturally and linguistically appropriate health IT solutions. 	<ol style="list-style-type: none"> Convene stakeholders, e.g., healthcare organizations, health IT developers, and patient advocacy groups, to discuss: <ol style="list-style-type: none"> How to improve collection and sharing of data that can support identifying and addressing disparities in healthcare 	Longer-Term

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	equitable distribution of health resources.	Lack of interoperability makes it difficult to exchange data among some types of providers, e.g., federally qualified health centers (FQHCs), public health agencies, social service organizations, and school clinics.	2. Identify non-traditional sources of health information that could be made interoperable, e.g., primary care doctors receive updates electronically from exercise classes for seniors and from school clinics.	<ul style="list-style-type: none"> b. The current state and potential improvements of the accessibility of consumer-facing health IT by diverse populations c. Non-traditional sources of health information that could be made interoperable to better serve at-risk populations 	
Sharing data with the research community – Overarching topic	Researchers are challenged by data quality and consistency concerns, limited governance structures and policies allowing access to the data, inconsistent implementations across technical architecture, and varying needs of individuals and organizations that create and use data.	Advance a health IT infrastructure that supports the use of electronic health data for research and sharing of data among clinicians and researchers.	Increase alignment between the clinical and research health information ecosystems to enable prospective and ongoing research to happen more quickly and effectively.	<ul style="list-style-type: none"> 1. Hold listening sessions to learn more about gaps in standards needed by the research community, which is accountable to institutional review boards (IRBs). 2. Identify educational approaches that increase awareness and promote the implementation of the <i>National Health IT Priorities for Research: A Policy and Development Agenda</i>. 	Longer-Term
Sharing data with the research community – Metadata subtopic	Many data management tasks are burdensome because they are manual and require human labor for reconciliation that could be automated.	Lack of a common metadata nomenclature and use	Determine the type(s) of metadata and related standards necessary to facilitate machine-based, clinical data management, including management of exchanged data to reconcile data from multiple sources.	Charge a HITAC subcommittee to review and provide recommendations regarding metadata standards and potential additions to the USCDI.	Longer-Term

Priority Target Area: Privacy and Security

Landscape Analysis Topic	Gap	Challenge	Opportunity	Proposed Recommended HITAC Activities	Proposed Tier
Beyond HIPAA: Protections for data generated outside of the HIPAA Framework – Rules for Sharing subtopic	Clear rules are lacking for data not subject to HIPAA protections.	For third-party access to health data, there are implications of private sector partnerships between apps and payers, e.g., Google and Ascension partnership.	Support increased transparency and patient education for business practices and other potential uses of patient health data when healthcare organizations share or license data to technology companies.	<ol style="list-style-type: none"> 1. Hold listening sessions to learn more about HHS and FTC activities, as well as approaches of third-party app developers. 2. Explore patient and clinician experiences with the sharing of health data with third-party technology companies to continue to identify best practices and gaps. 3. Review government and industry activities already underway protecting the privacy and security of health data shared with third-party technology companies. 	Longer-Term
Beyond HIPAA: Protections for data generated outside of the HIPAA Framework – Patient Consent subtopic	A lack of clarity exists about the parameters of data sharing and disclosure, and their implications for consent.	Rules for consent have not been established for receivers of pushed (received) data when they receive it.	Improve clarity around patient consent for research and exchange of their data, and further patient understanding of the accuracy and validity of clinical information offered by third-party apps.	<ol style="list-style-type: none"> 1. Identify educational approaches and potential regulatory solutions that offer improved transparency of privacy protections outside the purview of HIPAA. 2. Suggest steps toward a consistent technical and operational approach to capturing and managing consent. 3. Explore ways clinicians can educate patients about the benefits and potential risks of using third-party apps as contemplated by the ONC Cures Act Final Rule and about the need to review and comprehend the apps’ privacy policies. 	Longer-Term Immediate Longer-Term
Beyond HIPAA: Protections for data generated outside of the HIPAA Framework – Internet of Things (IoT) subtopic	There is limited interoperability across IoT vendors. As IoT objects become more integrated with health IT systems, security risks increase. Additional concerns have been raised regarding the challenges of informed consent for users of IoT technologies.	There is a lack of understanding of the privacy and security vulnerabilities of using devices connected to the IoT to collect health-related data.	Increase awareness of the privacy and security risks of using the IoT to collect health-related data.	<ol style="list-style-type: none"> 1. Identify best practices for increasing the privacy and security of health-related data collected from connected devices. 2. Identify educational approaches that increase awareness of the privacy and security issues for health-related data collected from devices connected to the IoT and ways to reduce them. 	Longer-Term
Privacy and security of synthetic data	HIPAA constraints limit the ability to conduct research and train machine learning models using large-scale datasets, in both research and healthcare settings.	Determine the unique privacy and security considerations driven by the emergence of synthetic data, such as using AI to re-identify de-identified data.	Explore whether the use of synthetic health data raises privacy and security issues and, if so, to what extent.	Hold listening sessions to determine whether the use of synthetic data raises any unintended privacy risks, such as the ability to use AI to re-identify the actual patients on which the synthetic health data are based.	Longer-Term

Priority Target Area: Patient Access to Information

Landscape Analysis Topic	Gap	Challenge	Opportunity	Proposed Recommended HITAC Activities	Proposed Tier
Safety and impact of mobile health applications	There is increasing concern about the clinical accuracy of consumer-facing mobile health applications and the potential for patient harm.	Safety and effectiveness concerns with consumer-facing mobile health applications	Provide reliable information about the quality of apps to enable clinicians to advise patients about app use and to empower patients when using apps to make decisions about their care.	<ol style="list-style-type: none"> 1. Support the existing efforts of consortia that are working to vet apps based on their safety and accessibility and educate patients about the findings of the consortia. In particular, investigate if frameworks or scorecards for assessing apps exist or are being developed; if so, raise awareness of these efforts. 2. Explore ways the safety of mobile health applications could be enhanced. 3. Hold a listening session on the impact of the use of apps (as opposed to the current portal systems) on patient challenges in collecting, accessing, using, and sharing their health data. Areas to consider include the efficacy, patient experience, and remaining challenges of the use of apps. 	Immediate
Correction of incorrect clinical data and the ramifications of exchange of this data	Today, there is a limited ability to correct data that has already been exchanged. As a result, this incorrect data might persist and be further disseminated. Transparency about the accuracy of patient data and consent to share it are lacking for patients, which in turn affects patient safety.	Errors need to be fixed upstream in the process of data collection and sharing, while addressing concerns about clinician liability and health equity for patients.	Increase clarity on the applicable statutes and liability that apply to the exchange of incorrect data, and on methods for correction.	Hold a listening session to: <ol style="list-style-type: none"> a. Identify approaches that clinicians and HIEs are taking to correct incorrect data, including incentives for widespread correction. b. Discuss liability considerations related to exchanging and correcting incorrect data. c. Learn about organizational policies and mechanisms for patients to document change requests, and how data provenance of patient corrections is being tracked. 	Immediate



Notes:

- (1) Implementation of Proposed Recommended HITAC Activities subject to ONC's available resources.
- (2) The proposed tiers in this table usually reflect the timing of the opportunities.

FY19 Legend for Tiers:

- Immediate (calendar years 2020-2021)
- Longer-Term (calendar years 2022-2025 and beyond)

Proposed FY20 Legend for Tiers:

- Immediate (calendar years 2021-2022)
- Longer-Term (calendar years 2023-2026 and beyond)