






Connecting Health and Care for the Nation: A Shared Nationwide Interoperability Roadmap version 1.0

Calls to Action and Commitments for People and Organizations That Deliver Care and Services

Stakeholders include: Professional care providers who deliver care across the continuum, not limited to but including hospitals, ambulatory providers, pharmacies, laboratories, behavioral health including mental health and substance use disorder treatment services, home and community based services, nursing homes and professional organizations that represent these stakeholders' best interests.

People who receive care or support the care of others		People and organizations that deliver care and services	
Organizations that pay for care		People and organizations that support the public good	
People and organizations that generate new knowledge, whether research or quality improvement		People and organizations that provide health IT capabilities	
People and organizations that govern, certify, and/or have oversight		People and organizations that develop and maintain standards	

Goal for 2015-2017 *Send, receive, find and use priority data domains to improve health care quality and outcomes*

Calls to Action are opportunities where this group of stakeholders can take the lead and commit to as participants. Calls to action are prioritized actions that support achievement of the milestones.

B. Shared-decision making, rules of engagement and accountability

- B2.1 Public and private sector health IT stakeholders should establish shared-decision making process to address operational issues related to standards, services, policies and practices that enable interoperability, including agreement on a nationwide learning health system technical architecture, and establishing clear, consistent feedback between SDOs and implementers about implementation successes and limitations, as well as supporting non-certification related testing of technical standards.
- B2.2 Participants in the shared decision making process should agree on a nationwide technical architecture for an interoperable learning health system.
- B2.5 ONC, in collaboration with stakeholders, should define a policy framework for exchange of patient-generated health data and pilot it.
- B2.6 Participants in the shared decision making process should prioritize use cases based on a balance of



B. Shared-decision making, rules of engagement and accountability

national priorities and local needs.

B2.7 Participants in the shared decision-making process should work with ONC to establish metrics for monitoring and assessing nationwide interoperability and methods for data collection.

B2.8 The shared decision-making process should select standards for specific use cases/functions from ONC's most recent finalized Interoperability Standards Advisory (ISA) when the ISA contains relevant standards.

C. Ubiquitous, secure network infrastructure

C2.1 Organizations deploying health IT should ensure that it is deployed and maintained in a secure manner, including regular penetration testing and security risk assessments.

C2.2 Health care organizations should implement the NIST Cybersecurity Framework as part of their Risk Management and Incident Management programs.

C2.3 Health care organizations should participate in an information sharing environment such as an Information Sharing and Analysis Organizations (ISAO) or Information Sharing and Analysis Center (ISAC) to share and retrieve threat information in an ongoing basis.

C2.5. Health care providers, business associates, technology developers, and other industry stakeholders should begin adopting existing encryption standards to ensure that all electronic IHI is encrypted "at rest" and "in transit," taking advantage of the most robust commercially available algorithms such as AES-256 as identified by NIST. Encryption solutions should be able to be upgraded to address emerging standards without requiring a complete replacement of existing hardware.

D. Verifiable identity and authentication of all participants

D2. 3. Health care industry stakeholders should begin leveraging the Federal Identity, Credential, and Access Management (FICAM) Roadmap and Implementation Guide for identity management standards and best practices.

E. Consistent representation of authorization to access electronic health information

E2.1 Health care organizations and other organizations with access to electronic IHI should ensure that their access control rules and organizational policies are aligned to leverage permitted uses and disclosure under HIPAA to advance interoperable exchange of information and the learning health system.

E2.2 Health care organizations and other organizations with access to IHI should ensure that their access controls enable individuals or third parties designated by individuals to electronically access and transport electronic health information about that individual where the individual directs, consistent with HIPAA's patient access rules.

F. Consistent understanding and technical representation of permission to collect, share and use identifiable electronic health information

F2.2 Professional Associations of health lawyers should educate their members about how the current HIPAA rules support interoperable exchange and patient access as important supports for national policy to improve health and build a learning health system.



G. Industry-wide testing and certification infrastructure

G2.4 Care providers and professional and trade associations involved in alternative payment models should collect and share ongoing feedback with ONC regarding health IT certification needs for EHRs and other health IT in support of new models of care delivery.

H. Consistent data semantics

H2.2 Public and private stakeholders should work with SDOs to define a standard approach to federated distribution of centrally maintained code sets, including ongoing support for publicly available, API-enabled repositories like the Value Set Authority Center (VSAC).

H2.6 Health IT users should provide feedback to SDOs and other stakeholders, including government, regarding additional data elements and/or data domains that should be prioritized for semantic alignment.

K. Consistent, secure transport technique(s)

K2.1 Providers (including hospitals, ambulatory providers, long-term care centers and behavioral health providers) should adopt and use Direct to enable broad scale ability to send and receive data elements associated with priority data domains commensurate with the organization's required LoA.

K2.4 Technology developers, providers and research communities should use standards for query functionality identified in ONC's most recent finalized Interoperability Standards Advisory.

L. Accurate individual data matching

L2.1 Public and private stakeholders should work with SDOs to ensure that data elements for individual data matching are standardized, and can be consistently captured and shared in all health information queries and record linking transactions.

L2.2 The industry should work together to document evidence-based best practices for individual data matching processes, data quality and matching technology.

L2.3 Technology developers and health care organizations in collaboration with ONC should advance the use of industry-recognized data definition and data normalization standards.

M. Health care directories and resource location

M2.3 Through public, transparent processes, stakeholders should prioritize the participants and services that are to be discoverable using resource location and identify a near-term goal for the first small set of resources to be included in initial implementations, such as Direct addresses, electronic service information, web addresses, and multiple practice locations.

N. Individuals have access to longitudinal electronic health information, can contribute to that information, and can direct it to any electronic location

N2.1 Health IT purchasers and developers should include individuals and caregivers in the co-creation of digital, accessible health information tools that can securely exchange health information.

N2.2 Health care organizations and consumer groups alike should engage with patients to promote trust that individuals' health information (such as that generated/collected via home monitoring devices or other emerging technologies) is protected and secure when it is electronically shared.



N. Individuals have access to longitudinal electronic health information, can contribute to that information, and can direct it to any electronic location

N2.3 Individuals and providers should work together to define a reconciliation process for electronic health information from multiple data sources to ensure accuracy, completeness and a more comprehensive picture of a person.

O. Provider workflows and practices include consistent sharing and use of patient information from all available and relevant sources

O2.1 Technology developers should develop technology platforms that allow providers and other users to perform certain key interoperability functions, such as standardized exchange, within their system with minimal effort and ease, using clear instructions provided by the technology developers and made publicly available.

O2.2 Providers and their staff should proactively offer individuals timely electronic access to their own health information and encourage them to access it.

O2.3 Providers should use the “Blue Button” and the Blue Button® and Download My Data® marks to indicate where consumers can go online to access their health information.

O2.4 Public and private stakeholders should incorporate interoperability into the training of new providers and continuing professional education.

P. Tracking progress and measuring success

P2.2 The behavioral health community should work with ONC and federal partners such as SAMHSA to determine the community’s health IT needs and ways to measure interoperable exchange among their providers.

P2.3 The LTPAC community should work with ONC and federal partners such as CMS to determine the community’s health IT needs and ways to measure interoperable exchange among their providers.

P2.4 Stakeholders, federal partners, and ONC should work together to identify measures related to individuals and determine ways to address measurement gaps (i.e., consumer engagement in measurement, use of patient-generated health data).

P2.5 Stakeholders across the broader ecosystem (i.e., non-health settings) should work with ONC and federal partners to identify measures and potential data sources across their respective communities.

Commitments are prioritized actions that stakeholders have publicly committed to fulfilling. Commitments support achievement of the milestones. The following is a list of commitments where federal agencies have committed to working with your stakeholder group. We look forward to working with you to achieve them.

E. Consistent representation of authorization to access electronic health information

E3. 1 ONC, in collaboration with stakeholders, will work to identify the technical standards and means by which a user’s authority can be clearly represented among exchange partners.



F. Consistent understanding and technical representation of permission to collect, share and use identifiable electronic health information

F3. 8 ONC will convene a group of industry stakeholders to determine if it is possible to create an open source mapping of the codes that capture clinical care to sensitive health conditions such as mental health. These mappings can serve as the foundation for common rules to be used by rules engines for determining what data may be shared based on individual permission.

L. Accurate individual data matching

L3. 1 ONC will work with public and private stakeholders to identify and test a core set of metrics that can be used across the health IT ecosystem to consistently assess matching algorithm performance across different data sets and settings.

N. Individuals have access to longitudinal electronic health information, can contribute to that information, and can direct it to any electronic location

N3.1 ONC will work with the health IT community to support the Blue Button Initiative to spur consumer demand for their health information and encourage testing and implementation of a portfolio of existing and emerging standards that support consistent methods for sharing health information with individuals.

N3.2 ONC will continue to work with the health IT community to remove barriers and support consumers' ability to access and electronically share their health information with whomever they trust.

N3.3 ONC will promote consistent, easy, and efficient methods for sharing health information with individuals by supporting existing and emerging standards for exchange, including APIs, and continuous iteration and development of those standards in partnership with the health IT community.

O. Provider workflows and practices include consistent sharing and use of patient information from all available and relevant sources

O3.1 ONC, federal agencies and the industry will identify additional best practices for the incorporation of patient-generated health data in health care delivery and research.

O3.2 ONC will develop a Health IT Playbook consisting of tools and resources designed to assist providers working towards the adoption and optimization of health IT, including key interoperability workflow considerations, and engaging consumers to access and use their electronic health information.

P. Tracking progress and measuring success

P3. 2 ONC will work with federal partners and stakeholders to address measurement gaps, and identify future measures resulting in the development of a long-term measurement framework. This includes consulting with external stakeholders to develop proposed measures as mandated under MACRA.