Strengthened Community Partnerships for More Holistic Approaches to Interoperability Project

Policy Listening Session: Insights from National Associations

January 5, 2022

Meeting Summary Prepared by J. Michael Consulting | January 2022

Contents

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Glossary

21st Century Cures Act Final Rule

On May 1, 2020, the Office of the National Coordinator for Health Information Technology published the 21st Century Cures Act Final Rule in the Federal Register. The Final Rule provides enforceable requirements in support of one focus of the 2016 21st Century Cures Act—the interoperability (i.e., ability to easily exchange data between different technology systems) of electronic health records. These requirements standardize the ways electronic health information (EHI) is exchanged, ensure certified technology supplies secure and affordable data access, and define information blocking (i.e., deliberate action to interfere with the exchange or access to EHI) and what reasonable practices are not considered interference.
https://www.healthit.gov/curesrule/

All-Payers Claims Databases (APCDs)

Large state databases that include medical claims, pharmacy claims, dental claims, and eligibility and provider files collected from private and public payers. APCD data are reported directly by insurers to states, usually as part of a state mandate.
https://www.ahrq.gov/data/apcd/index.html

Application Programming Interface (API)

A software interface or connection between two applications.
https://digital.gov/2013/04/30/apis-in-government/

Certified Health IT

The Office of the National Coordinator (ONC) Health IT Certification Program provides assurance to purchasers and other users that a system meets the technological capability, functionality and security requirements adopted by the U.S. Department of Health & Human Services.
https://www.healthit.gov/topic/certification-ehrs/certification-health-it

Data Modernization Initiative (DMI)

Launched in 2020, CDC's DMI is a multiyear, billion-plus dollar effort to modernize core data and surveillance infrastructure across the federal and state public health landscape.
https://www.cdc.gov/surveillance/data-modernization/index.html

Data Use Agreement (DUA)

An executed agreement between a data provider and a data recipient that specifies the terms under which the data can be used.
https://csrc.nist.gov/glossary/term/data_use_agreement

Electronic Health Record (EHR)

An electronic record of the administrative and clinical data associated with a patient's care.
https://www.cms.gov/Medicare/E-Health/EHealthRecords

Fast Healthcare Interoperability Resources® (FHIR®)

A Health Level Seven International® (HL7®) standard describing data formats and elements and an API for exchanging healthcare information.
https://www.hl7.org/fhir/

FHIR Bulk Data Access (Bulk FHIR)
A FHIR-based API designed to exchange large analytical datasets, making it easier to access data on groups, cohorts and populations.
https://www.cdc.gov/surveillance/pubs-resources/dmi-summary/overview-hl7.html

Health Information Exchange (HIE)
A system that allows healthcare professionals to appropriately access and securely share a patient's medical information electronically.
https://www.healthit.gov/topic/health-it-and-health-information-exchange-basics/health-information-exchange

Health Level Seven (HL7) International
A standards-developing organization dedicated to describing standards for exchange of electronic health information.
https://www.hl7.org/

Prescription Drug Monitoring Program (PDMP)
An electronic database that tracks controlled substance prescriptions in a state to provide health authorities timely information about prescribing and patient behaviors that contribute to the epidemic, helping to facilitate a nimble and targeted response.
https://www.cdc.gov/drugoverdose/pdmp/index.html

Prescription Monitoring Program Gateway (PMP Gateway)
A platform that makes accessing PDMP data easy for physicians and pharmacists by integrating the data directly in the clinical workflows of EHRs, pharmacy management systems and health information exchanges; the PMP Gateway increases utilization of the data, resulting in improved patient safety and greater compliance with state PDMP requirements.
https://apprisshealth.com/solutions/pmp-gateway/

Substitutable Medical Applications, Reusable Technologies on FHIR (SMART on FHIR)
A FHIR-based API used to integrate EHRs with applications.
https://smarthealthit.org/

The Office of the National Coordinator for Health Information Technology (ONC)
A division of the Office of the Secretary, within the U.S. Department of Health and Human Services, dedicated to health information technology and the promotion of standards-based health information exchange.
https://www.healthit.gov/

Trusted Exchange Framework and Common Agreement (TEFCA)
An agreement that will establish a floor of universal interoperability across the country; TEFCA will establish the infrastructure model and the governing approach for users in different networks to securely share basic clinical information with each other—all under commonly agreed-to expectations and rules and regardless of which network they happen to be in.

https://www.healthit.gov/topic/interoperability/trusted-exchange-framework-and-common-agreement

United States Core Data for Interoperability (USCDI)
A standardized set of data elements and classes used for health information exchange.
https://www.healthit.gov/isa/united-states-core-data-interoperability-uscdi

Executive Summary

The CDC Foundation is partnering with public health, healthcare and other stakeholders to define, prioritize and test ways that public health can leverage new data standards outlined in the 21st Century Cures Act to access well-processed, up-to-date information on cohorts and populations more efficiently. Access to these data can drive decision-making, inform the public more quickly and with greater precision, and build a transformational nationwide approach to public health informatics.

Through the Strengthened Community Partnerships for More Holistic Approaches to Interoperability Project (CDC Foundation Interoperability Project), the CDC Foundation is conducting a series of listening sessions to identify policy, operational and technical considerations to facilitate public health participation in a federated data system via the SMART/Health Level Seven International (HL7®) Fast Healthcare Interoperability Resources (FHIR®) Bulk Data Access (Bulk FHIR). On January 5, 2022, the CDC Foundation convened policy experts from national public health associations for a moderated listening session. The meeting objective was to gain insights from the associations into policy considerations that could facilitate or serve as challenges to the introduction of Bulk FHIR for public health use at the state, tribal, local and territorial (STLT) levels.

Three categories of opportunities and challenges emerged from the listening session: (1) data sharing and standardization, (2) availability of resources and (3) defining value propositions.

Data sharing and standardization was a key consideration among listening session participants, who noted that strong data use agreements are needed to support interoperability. In addition, public health seeks to standardize approaches to interoperability across jurisdictions by simplifying the interpretation and enforcement of data privacy policies and addressing variations in law. It will be important to identify facilitators of interoperability and policy to decrease public health and healthcare's reliance on one-off connections with partners, since maintaining multiple connections and agreements between partners is burdensome for public health.

Participants also discussed the availability of resources to create, implement and maintain systems, as well as the importance of creating and sustaining valuable connections between public health and healthcare.

Lastly, defining and articulating the value of data interoperability to public health, healthcare and legislators is necessary to help create support for this technology. Achieving this support will facilitate the creation of and legislative support for policies that promote interoperability.

Project Summary

Through the Strengthened Community Partnerships for More Holistic Approaches to Interoperability Project (CDC Foundation Interoperability Project), the CDC Foundation is conducting a series of listening sessions to identify policy, operational and technical considerations to facilitate public health participation in a federated data system via the SMART/Health Level Seven International (HL7) Fast Healthcare Interoperability Resources (FHIR) Bulk Data Access (Bulk FHIR). Understanding these considerations is an essential step in understanding Bulk FHIR's potential to improve access to richer, more standardized population health data that is of value to public health.

Purpose and Objectives

On January 5, 2022, the CDC Foundation convened policy experts from national public health and legislative associations for a moderated listening session as part of the CDC Foundation Interoperability Project. These national associations provide their members with guidance, advocacy and resources to advance policy, increase capacity and facilitate information exchange. The meeting objective was to gain insights into policy considerations that could facilitate or serve as challenges to the introduction of Bulk FHIR for public health use at the state, tribal, local and territorial (STLT) levels from the perspective of associations. Engaging national associations in this listening session provided an opportunity to learn about policy considerations that affect their membership as a whole.

Opening Remarks

Welcome

Lola Oguntomilade, MPH
Director for Non-Infectious Disease Federal Practice
CDC Foundation

With funding and in partnership with the Centers for Disease Control and Prevention (CDC), the CDC Foundation Interoperability Project is engaging public health partners, healthcare and others to define, prioritize and test ways to use Bulk FHIR to obtain and analyze population health data. As regulatory requirements to support Bulk FHIR application programming interfaces (APIs) are met, it may be possible for all levels of public health, as authorized and appropriate, to obtain access to timely and high-quality population-level data from electronic health records (EHRs). Listening to leaders of public health associations with insights and experience with existing data systems will help inform policy considerations related to interoperability.

Setting the Stage

Paula Keller, MPH
Federal Project Manager
CDC Foundation

A core goal for public health standards and interoperability is to provide timely, reliable and actionable information needed to guide, focus and evaluate the impact of public health prevention and response activities. The CDC Foundation Interoperability Project, which is focused on Bulk FHIR, is one piece of a constellation of work around data modernization and interoperability. Bulk FHIR has the potential to support interoperability by standardizing access to population data from health systems and EHR vendors, and providing more efficient querying of semi-structured data, including EHR data elements and clinical notes, without manual processes or customized routines for every vendor or site. Knowing that the deadline for implementation of Bulk FHIR is December 2022, it is important to understand policies that could facilitate or challenge the implementation of interoperability broadly, and Bulk FHIR specifically.

Listening Session

During the moderated listening session, participants discussed the following questions to understand the current state, challenges, opportunities and future direction:

Current state

1. What is one policy pain point your members have identified or are struggling with related to data interoperability?
2. What types of policy actions have you observed that facilitate or advance public health data interoperability?
3. What existing government policies can help public health take a modern approach to data interoperability?

Challenges

1. We recognize that sometimes prior experience, organizational practices, culture and other factors can be perceived as policy or function in lieu of policy. Please provide an example of where this has been or may be an issue among your membership.
2. In what instances has your membership experienced challenges/conflict between government public health policy and health system policy around data interoperability?
    a. When exactly do problems occur? At what point in the process of accessing/exchanging data? Have the source(s) of the problems been identified? If so, what are they?

Opportunities and Future Direction

1. What are your organizations' policy goals related to interoperability? Your memberships' policy goals in this area?
2. How has your membership handled policy challenges to minimize impact on data interoperability for public health purposes?
    a. What are the key policy insights from your members about introducing new technologies such as health information exchanges (HIEs)? What can we learn from past experience?
3. What are the gaps, if any, in government policies that can be leveraged to advance data interoperability for public health purposes?
4. How might the pain points or challenges be the same or different with implementing new data interoperability standards and technologies?

5. How can government policies or activities, at any level, support STLT implementation of these new data interoperability standards and technologies?
6. When thinking about this future state, what key players need to be engaged to influence policy decisions with respect to data interoperability?

Captured below is a summary of high-level themes, additional participant comments and key takeaways from the discussion. The themes have been grouped into three categories: (1) data sharing and standardization, (2) availability of resources and (3) defining value propositions.

Themes and Key Takeaways

Data Sharing and Standardization

Theme 1: For the advancement of interoperability, resources are needed to understand data use agreements and legal provisions for public health use cases.

Meeting participants emphasized that establishing data use agreements is perceived as one of the largest barriers to interoperability. Meeting participants noted that public health does not always have staff available with the legal experience or capacity to quickly implement the data use agreements needed to support interoperability.

Additional participant comments by topic:

Ability to Access Data Varies Among STLT Partners

- Due to a variety of constraints, local health departments are sometimes unable to obtain timely access to data held by state health departments regarding their residents.

Third-Party Guidance to Negotiate Data Use Agreements

- Third-party guidance to negotiate the terms of data use agreement participation may be able to support jurisdictions. This would expedite the process and help set standards for data use agreements nationwide.
- The Prescription Drug Monitoring Program (PDMP) has had success in implementing a Prescription Monitoring Program Gateway (PMP Gateway), which allows EHRs to access prescription drug data at the point of care. This project could serve as a model for establishing a data use agreement for multiple partners across the nation.

Key Takeaways

It is important to support the creation of data use agreements that include the breadth of public health needs from healthcare. These should be a generic set of agreements that can be modified to include the distinctions needed for each jurisdiction. Providing a standard approach and set of documents to support data sharing inter- and intra-jurisdictionally will align partners and offer a clear, reusable set of policies for data exchange implementation.

Theme 2: Understanding and negotiating the terms of data privacy and governance often fall to public health, which puts public health in the role of enforcer.

Meeting participants discussed how mistrust can develop when one party does not abide by data use and sharing agreements. Public health often must serve as an enforcer of these agreements, which is challenging, particularly when policies are continually changing.

Additional participant comments by topic:

Culture of Caution

- There is a concern that data use agreements will not be sufficient to allow the exchange of the types of data needed by public health, particularly during emergency situations, and policies may not be flexible enough to allow for rapid response. There is also concern about who can see identifiable data and what they may do with that data. A balance must be established and maintained to allow access to appropriate and actionable data while maintaining an appropriate level of patient privacy.

Pivoting Without Policy Change

- The pace of policy changes does not always align with the pace of the public health response. Reporting of race and ethnicity for COVID-19 is an example where health departments needed to collect certain information, but these fields may not have been required for reporting. In these instances, many health departments have been able to pivot without necessarily having to immediately change laws and policies. In these cases, policies will need to be updated to reflect the current state of the data being exchanged.

Key Takeaways

Understanding the impact of policy change will help to better define challenges (e.g., enforcement, compliance) faced by both public health and health care. Public health and its partners must define their role in changing policies. Part of this process includes understanding how policy change can be leveraged to support better health outcomes.

Simplifying interpretation and enforcement of data privacy policies will decrease the need for public health to serve as both negotiator and enforcer, allowing public health to focus on its mission. Providing public health agencies with guidance on accessing identifiable data or data not originally specified in the data use agreement will enable control and prevention activities. Supporting public health in enforcing agreements will remove the burden of ensuring the compliance of partners.

Theme 3: Creating and maintaining a culture of interoperability and data sharing within public health is important to the implementation of evolving technologies.

Meeting participants noted that integration and data sharing among internal data systems within public health are not well-defined and often result in data siloes, which creates a challenge in sharing meaningful, deidentified data for analysis. In addition, every state has a different organizational framework and practices, which can make communication of policy and new technologies difficult. These differences in data architecture, storage and access within state infrastructure are a barrier to standardized approaches to data sharing among jurisdictions.

Key Takeaways

It will be important to facilitate data sharing within public health by standardizing data collection and sharing criteria across disease conditions. Standardization can be applied within individual public health jurisdictions as well as between them. It may be necessary to look beyond policy and consider organizational practices that could be implemented to help create and maintain a culture of interoperability and data sharing.

Theme 4: Variation in law related to different types of healthcare data creates barriers to implementing interoperable solutions.

Meeting participants discussed how variations in law and policy can challenge the implementation of interoperable solutions, especially between jurisdictions. Granular data requirements of certain jurisdictions inhibit reporting when those data cannot be captured.

Additional participant comment:

- There are existing regulations at all levels that require reporting of very specific types of data. However, data are not always collected correctly or may be missing, (e.g. addresses) and therefore not reported to public health, regardless of existing laws and regulations. This pain point needs to be mitigated through efforts to standardize data capturing processes and provide alternative solutions, such as services that capture and check the completeness of address data (for example) before sending it to public health.

Key Takeaways

Identifying and addressing variations in law and policy will allow public health to standardize approaches to interoperability across jurisdictions. This task can be accomplished by aligning public health jurisdictions on common data standards, data elements and definitions to bridge the gap created by variations in law and policy. There should also be services to capture and check the completeness of data according to common standards.

Theme 5: The roles of Health Information Networks (HINs) and Health Information Exchanges (HIEs) in interoperability should be considered.

Meeting participants noted that maintaining multiple connections and agreements between partners is burdensome for public health. Leveraging the connectivity framework of HINs and HIEs may help reduce that burden.

Key Takeaways

Harnessing the power of HINs and HIEs as facilitators of interoperability and policy may decrease public health and healthcare's reliance on one-off connections with partners and reduce the data sharing agreements and infrastructure needed to maintain those relationships. Additional consideration is needed as the array of services offered by state or regional HIEs varies across the nation.

Theme 6: The importance of prioritizing "whole person" health should not be overlooked.

Meeting participants discussed how healthcare cannot access longitudinal health information from public health sources and noted that encouraging healthcare partnerships with public health can be difficult without providing a clear benefit to both healthcare and individual patients. This is important due to the increased emphasis in healthcare and public health on "whole person" health, which focuses on restoring health, promoting resilience and preventing diseases across a lifespan, versus treating a specific disease.

Additional participant comments by topic:

- If healthcare could pull more data from public health surveillance systems, it could greatly support point-of-care decisions. These types of bi-directional data exchanges are already in place for vaccination data.

- There should be consistent and clear messaging at the onset about how an individual patient's care can benefit from the rollout of new technology systems.

Key Takeaways

To prioritize "whole person" health, it is important to articulate how accessing public health data (e.g., vaccination status, HIV or hepatitis C diagnoses) benefits an individual's health. It will also help to understand the policy implications of accessing "whole person" data—whether at an individual or aggregate level. Bi-directional data query capability would allow healthcare to query public health data sets, which can help demonstrate value for healthcare to participate in data exchange.

Availability of Resources

Theme 7: Strategies are needed to ensure the sustainability of resources to create, implement and maintain systems.

Meeting participants noted concerns about the sustainability of public health resources—ranging from funding to staffing—to create, implement and maintain systems over the long term. They stated and agreed that one-time grant funding does not provide support for ongoing operations, which limits the long-term benefits from initial funding. In addition, it was noted that without ongoing support for sustainability, public health cannot maintain its workforce for the implementation of complex technical solutions. This is further complicated by the need to engage with third-party vendors, which can be prohibitively expensive due to the challenge of aligning the public health mission with for-profit models.

Additional participant comments by topic:

- It is important to ensure that there is an understanding at each level of government as to the value of Bulk FHIR and the implications for the systems that are necessary to make it work.
- STLTs should be provided access to technical experts to support the implementation of this technology within their jurisdictions.
- Developing open-source solutions that are public health-centric versus profit driven can help those implementing the technology learn and build the systems together.

Key Takeaways

To create sustainability of monetary resources, it may be necessary to shift funding opportunities away from one-time grants to mechanisms that offer more sustained support. To better maintain the workforce, it will be important to provide public health with access to technical experts who can implement solutions and provide workforce training to foster these skills among public health staff. Sustained funding will maintain the knowledge and skills for operations of these systems within public health, decreasing reliance on third parties for advanced technical support. It is also key to develop open-source solutions that are public health-centric to limit the cost.

Theme 8: Guidelines for querying and analyzing EHR data are needed to support the usability of these complex datasets.

Meeting participants stated that large sets of unfiltered data can be difficult for public health to manage and analyze, especially when the data do not adhere to existing data standards. The complexity of EHR data makes it challenging to design useful queries to meet public health use

cases. Participants were also concerned about setting up controls for appropriate data access and that mishandling of data may have legal implications. The absence of a national patient identifier further complicates data linkages and queries; without an identifier, matching data on a particular person across sources is a barrier.
Additional participant comments by topic:

Ability to Filter and Analyze Complex Data

- Health departments must receive the data needed to perform their analyses without accessing unauthorized data or retrieving a dataset that is too large to manage. Therefore, the ability to filter and analyze complex data from EHRs before it is received by public health can make it more useable.
- Data in EHRs can be unstructured, incomplete and too varied for easy use by public health. Requirements for EHR certification criteria that outline the data structure and standards required for EHRs (e.g., 2015 ONC certification criteria) should be updated, advanced and implemented. The enforceable interoperability requirements in the 21st Century Cures Act Final Rule will help standardize the way these data are exchanged, but public health must ensure these standards support public health use cases.
- Health equity is a priority. Meeting participants were concerned that without access and standards with which to exchange social determinants of health data, advancing health equity will be challenging.

Creating Valuable Connections

- Many efforts are already underway to promote interoperability nationwide. The Trusted Exchange Framework and Common Agreement (TEFCA), for example, seeks to "establish the infrastructure model and the governing approach for users in different networks to securely share basic clinical information with each other—all under commonly agreed-to expectations and rules and regardless of which network they happen to be in." As the TEFCA infrastructure model is implemented, these guidelines should be applied to Bulk FHIR polices.
- It will be important to bring together people knowledgeable about FHIR, TEFCA and other rules to help public health better understand how these standards can address policy and operational issues.

Preventing Increased Limitations on Data Collection

- Without clear guidance, inappropriate access to data may further limit public health's ability to collect and synthesize data. Data received from EHRs should be appropriate for the public health needs, which will vary depending on the use case. Strong policy that supports this public health mission is critical and strict policies that limit data access without recognition of public health needs may be a detriment to public health.

Key Takeaways

By providing guidelines for query and analysis of electronic medical data, public health will be able to more quickly and easily utilize these data to improve public health outcomes. To ensure effective public health response, public health needs guidance and education on designing Bulk FHIR queries and filtering and analyzing the data received from these queries. This can begin to be accomplished by prototyping small, defined and successful connections between public health and healthcare to serve as a proof-of-concept for Bulk FHIR.

The United States Core Data for Interoperability (USCDI) establishes a standard set of data elements to support health data interoperability. Participation in expansion of USCDI to ensure utility to public health use cases will continue to be important as the standards are revised. In addition, providing standardized data, policies and agreements for social determinants of health will simplify analyzing data for improving health outcomes related to these factors. Standardizing data retrieved from EHRs will improve the capacity of public health to retrieve, analyze and use these data to fulfill its mission.

Defining Value Propositions

Theme 9: Defining and articulating Bulk FHIR's value for public health will be important for establishing an understanding of its role in interoperability.

Meeting participants discussed needing additional education on the opportunities and value of Bulk FHIR.

Additional participant comments by topic:

Push vs. Pull Data Models

- The "push" data model (i.e., an event [such as a diagnosis] triggers healthcare to send data to public health) meets the needs of and is important to some types of data providers because it allows them to review the data before it is sent. Most transactions are currently using the push model to meet public health reporting needs.
- Bulk FHIR (i.e., "pull") and traditional "push" models of public health reporting will likely be used in conjunction to meet public health's varied needs.

Preventing Increased Limitations on Data Collection

- Without clear guidance, inappropriate access to data may result in further limiting public health's ability to collect and synthesize data. Data received from EHRs should be appropriate for the public health needs, which will vary depending on the use case. Strong policy that supports this public health mission is critical, and strict policies that limit data access without recognition of public health needs could be a detriment to public health.

Key Takeaways

To articulate Bulk FHIR's value to public health, it is key to recognize the challenges currently faced by public health and to devise long-term solutions. It will be important to educate public health partners on the opportunities and value propositions associated with Bulk FHIR to create buy-in for investments in this technology to help address these challenges. Understanding these value propositions will also allow public health organizations to communicate the value of interoperability more easily to leadership, policymakers, funders and partners. It will also be helpful to define opportunities to use Bulk FHIR and determine where it complements existing push data exchange models.

Theme 10: Articulating the value of interoperability to legislators will be important to gain legislative support.

Meeting participants felt that to better articulate interoperability's value to legislators, it is important to remember that legislative decisions are not always made with a focus on public health. By educating legislators on the importance of public health data interoperability, public health can foster a culture of support and trust with lawmakers.

Additional participant comments by topic:

- Government and public health policy do not always align, and it is important to recognize the drivers for each set of policies.
- There is concern that a lack of understanding about what data interoperability and sharing entail could create resistance from state legislatures.
- All Payer Claims Databases (APCDs) have been a successful example of aligning legislative policy with healthcare's mission. This model may be helpful to follow to demonstrate cost savings associated with interoperability.
- The efficiency gained by implementing new technologies can result in cost savings. This should be a focus of communications.
- Rapid turnover of legislators may prevent continuity of public health policy efforts.

Key Takeaways

As the partners responsible for setting law and policy, legislators need to be able to understand and communicate the value of interoperability. It will be important to identify potential policy strategies for legislators to use to ensure interoperability. It will also be important to produce educational materials for legislators on the value of public health surveillance and the tools used to access and analyze these data. These strategies and materials can be used to foster continuity of support between legislative terms.

Conclusion

Having listened to policy experts from national public health and legislative associations about the policy considerations necessary for successful implementation of Bulk FHIR for public health use, three major categories of opportunities and challenges became apparent: data sharing and standardization, availability of resources and defining value propositions.

Regarding data sharing and standardization, meeting participants noted that standard data use agreements are vitally important to support interoperability. In addition, simplifying interpretation and enforcement of data privacy policies and addressing variations in law and policy will allow public health to standardize approaches to interoperability across jurisdictions. Also, because maintaining multiple connections and agreements between partners is burdensome for public health, it may be helpful to harness the power of HIEs as facilitators of interoperability and policy to decrease public health and healthcare's reliance on one-off connections with partners.

Participants also discussed the availability of resources to create, implement and maintain systems, as well as the importance of creating and sustaining valuable connections between public health and healthcare. Creating and maintaining this culture of interoperability and data sharing will decrease the burden on public health to implement and maintain one-off solutions for data exchange efforts.

Lastly, defining and articulating the value of implementing interoperability to public health, healthcare and legislators is necessary to help create support for this technology. Achieving this support will facilitate the creation of and legislative support for policies that promote interoperability.

Appendix A: Presenters, Participants and Observers

Presenters

Welcome

Lola Oguntomilade, MPH
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Setting the Stage

Paula Keller, MPH
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Closing Remarks

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