



National Record Locator Service on Trusted, Secure Nationwide Network Can Improve Care Coordination and Enable Meaningful Interoperability

Executive Summary:

Despite a recent slowdown in the growth of healthcare spending, overall trends remain unsustainably high. Under reform efforts, more emphasis will be placed on care coordination and population health management, and physicians' pay will be tied to value and outcomes. In this evolving environment, the need to communicate efficiently and in real-time with other providers is becoming more and more critical for providers and hospitals.

Electronic Health Records (EHRs) hold tremendous promise of lowering costs, informing clinical decisions, enabling more efficient communication, and facilitating population health management. However, electronic health information exchange between providers and disparate EHR systems—a critical component to unleashing the promise—remains in early stages due to technical, business model, and governance complexities.

A key to successful health information exchange is the ability to locate patient records stored in different technology systems, regardless of geographic location. This ability will empower providers to identify where their patients have received care, and request documentation of those episodes. After over a decade of experience building a national e-prescribing network, Surescripts now offers a powerful patient record query and response service built on its trusted and leading clinical network.

Health Care Context: Unsustainable Spending

01 After decades of increased spending on health care, the past several years have seen a slowdown in the growth rate of healthcare spending. Academics and researchers are debating whether the slowdown is largely driven by macroeconomic trends (read: the Great Recession) or whether there are foundational shifts in the healthcare financing and delivery system that are occurring.^{1,2,3} One thing is certain: regardless of the answer, healthcare spending that grows faster than our gross domestic product is not sustainable.

It is therefore imperative that stakeholders across the healthcare continuum (providers, payers, patients, pharmacies, and others) work to bend the cost curve downward. Doing so will require rethinking our approach to many aspects of healthcare delivery, patient engagement, population health management, and the tools required to support these changes. Electronic health records (EHRs) are a powerful enabling technology that can allow for improved clinical decision support, care coordination, aggregation and analysis of population health, and reduced costs associated with these activities.

Fortunately, more and more physicians and hospitals are now adopting EHRs. In 2009, the federal government passed the Health Information Technology for Economic and Clinical Health Act (HITECH), which provided financial incentives for provider adoption and meaningful use of EHRs. As of February 2015, 91,033 eligible professionals have attested for Stage 1; and 36,782 eligible professionals have attested for Stage 2. Additionally, 90% of the 5,000 eligible hospitals have attested for some stage of MU as of December 2014 and 4,200 are expected to attest to Stage 2 during the fiscal year 2015.⁴

90%

Of eligible hospitals had attested to some stage of Meaningful Use as of December 2014.

4,200

Eligible hospitals are expected to attest to Stage 2 during fiscal year 2015.

Need for Improved Care Communication

02 As physicians become more accountable for the care they provide to their patients, coordinating care with other providers in an efficient manner will become increasingly critical. Indeed, we've already seen a rapid increase in referrals in the country (+94% from 1999 to 2009)¹² as patients with complex, chronic diseases often seek care from multiple providers in different locations. As a result, records of care often sit in disparate EHR applications at different sites.

Unlocking the value of EHRs will therefore require that providers with different EHR applications are able to "talk" to one another: to request, send, receive and reconcile health information in a secure,

trusted, and seamless manner. EHRs will provide tremendous value to physicians if they can ensure that physicians have comprehensive information about the patient at the right time, in the right setting, and with the right context.⁵

Studies have demonstrated that when physicians have access to electronic health information, it can lead to reduced hospitalizations, improved outcomes, and lower costs.^{6,7,8,9,10} One study suggested that when EHR adoption reaches maturity and health information exchange becomes a standard of care, we could realize healthcare savings of \$81 billion annually due to improved efficiency and patient safety.¹¹

The Interoperability Challenge

03 There have been a number of initiatives to promote health information exchange between EHRs and other health IT systems over the past decade. As part of HITECH, the Office of the National Coordinator for Health Information Technology (ONC) has provided funding for the Nationwide Health Information Network (NwHIN), which is a set of standards, services, and policies that enable the secure exchange of health information over the Internet.¹³

Recognizing that a one-size-fits-all approach may not address the magnitude of the challenge, ONC has provided funding to state and regional Health Information Exchanges (HIEs) to promote data exchange at a regional level. In addition, ONC has promoted the Direct Project to “specify a simple, secure, scalable, standards-based way for participants to send authenticated, encrypted health information directly to known, trusted recipients over the Internet.”¹⁴

In addition to publicly-driven efforts to advance electronic health information exchange, some private entities have promoted their own interoperability efforts, while others have joined together in an attempt to create an industry-led effort.

Despite these efforts, electronic health information exchange is in its early stages, as stakeholders across the care continuum struggle with the complexity of implementing and certifying with a particular HIE. Some researchers suggest that as little as 30% of hospitals and only 10% of ambulatory practices now participate in health information exchange.^{15,16}

The challenges of health information exchange are not just technical in nature. There are questions of governance, stakeholder involvement, security and privacy, business models, competing standards, integration and testing policies, as well as marketplace confusion among physicians, hospitals, HIEs, and technology vendors.

Achieving interoperability—and meeting meaningful use requirements to exchange data among disparate technology systems—is more than an abstract dream. A survey of hospital CIOs revealed that more than one-third of respondents identified achieving meaningful use as their top IT priority.¹⁷

Locating Patient Records is a Core Component of Interoperability

04 The ability to locate patient records helps care providers determine what, if any, clinical documentation or record exists for a patient, irrespective of where that record is located. A record locator service therefore provides information as to whether a patient record exists and where it exists, but is not an original or copy of the patient information itself.¹⁸

Specifically, HIMSS notes that a record locator service contains the following core functions:

- Manage participating provider identities
- Maintain and publish a patient index
- Match patients using an algorithm
- Look up patient record locations (but not the records themselves)
- Communicate securely and maintain an audit log
- Manage patient consent to record sharing (under state laws)

Thus, any entity (EHR or HIE) offering a record locator service with other entities must address and reconcile technical standards, data governance, trust and security protocols for identifying authenticated users and requests, and manage relationships between trading partners, irrespective of what EHR software is used.

The Markle Common Framework provides the following comments about record locator service functionality and purpose:

*...serves as a coordinating service that obviates the need for a national health identifier, by linking diverse patient records across distributed clinical data sources through probabilistic demographic matching techniques. Such a service can facilitate a federation of diverse clinical data sources to enable a consolidated view of a patient's electronic health care records.*¹⁹

Due to the complexity of managing each of these issues between participants, locating patient records is difficult to scale on an iterative, bilateral basis between EHR systems. Regional HIEs and national network operators are better suited to support locating patient records in a decentralized healthcare and HIT environment, as they can provide a common set of standards, certification and business process protocols that ensures neutral platform for all participating EHRs and their users. In addition, regional HIEs and national network operators are well suited to manage call centers and address technical issues that arise between participants.

Surescripts National Record Locator Service

05 Surescripts National Record Locator Service provides physicians with timely electronic access to critical patient health information performed outside of their healthcare systems. Surescripts National Record Locator Service locates patient records within other EHRs, electronic document repositories or other HIEs and facilitates the exchange of relevant patient information with the requesting care provider's EHR system.

Surescripts service supports industry-standard query transactions including XCPD, PLQ and XCA and also assists technology vendors who do not use those transactions by translating them into human-readable Direct messages.

With the nation's largest clinical directory of physicians, pharmacies, lab vendors, public health agencies, hospitals, integrated delivery networks and health information exchanges, network participants can leverage Surescripts' technology platform, Direct message protocols, and Master Patient Index (MPI) for access to real-time patient visit information.

Surescripts hosts a MPI of more than 230 million unique patients, and has been matching patient records in real-time for more than 10 years. In 2014, Surescripts delivered on over 7 Billion transactions.

Surescripts enables more connected care and enhanced collaboration among care providers. The Surescripts network improves communication by enhancing directory capabilities, strengthening trust and identity services, and leveraging a Master Patient Index (MPI). Surescripts is enabling health information exchange by establishing pull (query-based) services for clinical interoperability and extending messaging capabilities.

As both an ISO 27001²⁰ and Direct Trust-certified organization, Surescripts offers the security, trust, range, and experience that are important to consider when identifying a network partner for National Record Locator Service.



About Surescripts

Surescripts is committed to unleashing the potential of American healthcare by creating a more connected and collaborative healthcare system. Our nationwide health information network connects doctors' offices, hospitals, pharmacists, and health plans through an integrated and technology neutral platform.

For more information on National Record Locator Service, visit surescripts.com

References

- ¹ Blumenthal, David, Kristof Stremikis, and David Cutler. "Health Care Spending—A Giant Slain or Sleeping?." *New England Journal of Medicine* 369.26 (2013): 2551-2557.
- ² Assessing the Effects of the Economy on the Recent Slowdown in Health Spending. Kaiser Family Foundation. April 22, 2013
- ³ Ryu, Alexander J., et al. "The Slowdown In Health Care Spending In 2009-11 Reflected Factors Other Than The Weak Economy And Thus May Persist." *Health Affairs* 32.5 (2013): 835-840.
- ⁴ Surescripts analysis of public use files from CMS.Gov and Data.Gov
- ⁵ Obtaining patient consent, and communicating that consent has been obtained appropriately, is both a technical and regulatory prerequisite to these actions.
- ⁶ Frisse, Mark E., et al. "The financial impact of health information exchange on emergency department care." *Journal of the American Medical Informatics Association* 19.3 (2012): 328-333.
- ⁷ Buntin, Melinda Beeuwkes, et al. "The benefits of health information technology: a review of the recent literature shows predominantly positive results." *Health Affairs* 30.3 (2011): 464-471.
- ⁸ Byrne, Colene M., et al. "The value from investments in health information technology at the US Department of Veterans Affairs." *Health Affairs* 29.4 (2010): 629-638.
- ⁹ Cimino, J. J. "Infobuttons: anticipatory passive decision support." *AMIA... Annual Symposium proceedings/AMIA Symposium. AMIA Symposium. 2007.*
- ¹⁰ Walker, Jan, et al. "The value of health care information exchange and interoperability." *HEALTH AFFAIRS-MILLWOOD VA THEN BETHESDA MA- 24* (2005): W5.
- ¹¹ Hillestad, Richard, et al. "Can electronic medical record systems transform health care? Potential health benefits, savings, and costs." *Health Affairs* 24.5 (2005): 1103-1117.
- ¹² Barnett, Michael L., Zirui Song, and Bruce E. Landon. "Trends in physician referrals in the United States, 1999-2009." *Archives of internal medicine* 172.2 (2012): 163.
- ¹³ HealthIT.gov Interoperability Portfolio <http://www.healthit.gov/policy-researchers-implementers/nationwide-health-information-network-nwhin>. Accessed December 27, 2013.
- ¹⁴ HealthIT.gov *ibid*.
- ¹⁵ Furukawa, Michael F., et al. "Hospital Electronic Health Information Exchange Grew Substantially In 2008-12." *Health Affairs* 32.8 (2013): 1346-1354.
- ¹⁶ Adler-Milstein, Julia, David W. Bates, and Ashish K. Jha. "Operational health information exchanges show substantial growth, but long-term funding remains a concern." *Health Affairs* 32.8 (2013): 1486-1492.
- ¹⁷ NASCIO/HIMSS. *The Health IT Landscape in the States: Through the Lens of the State CIO. 2013.* Available [here](#). Downloaded December 27, 2013.
- ¹⁸ Analysis of CMS Medicare and Medicaid EHR Incentive Program, electronic health record products used for attestation. Available at Data.Gov. Downloaded October 15, 2013.
- ¹⁹ Markle Common Framework for Private and Secure Health Information Exchange: Connecting Professionals.
Record Locator Service: Technical Background from the Massachusetts Prototype Community, Accessed December 31, 2013.
- ²⁰ Surescripts is ISO 27001 certified for e-prescribing for e-prescribing services. National Record Locator Services is not a service offered under e-prescribing, and as such has not been ISO certified.