EXECUTIVE INSIGHTS:

PATIENT MATCHING, IDENTITY ACCESS MANAGEMENT, AND INTEROPERABILITY

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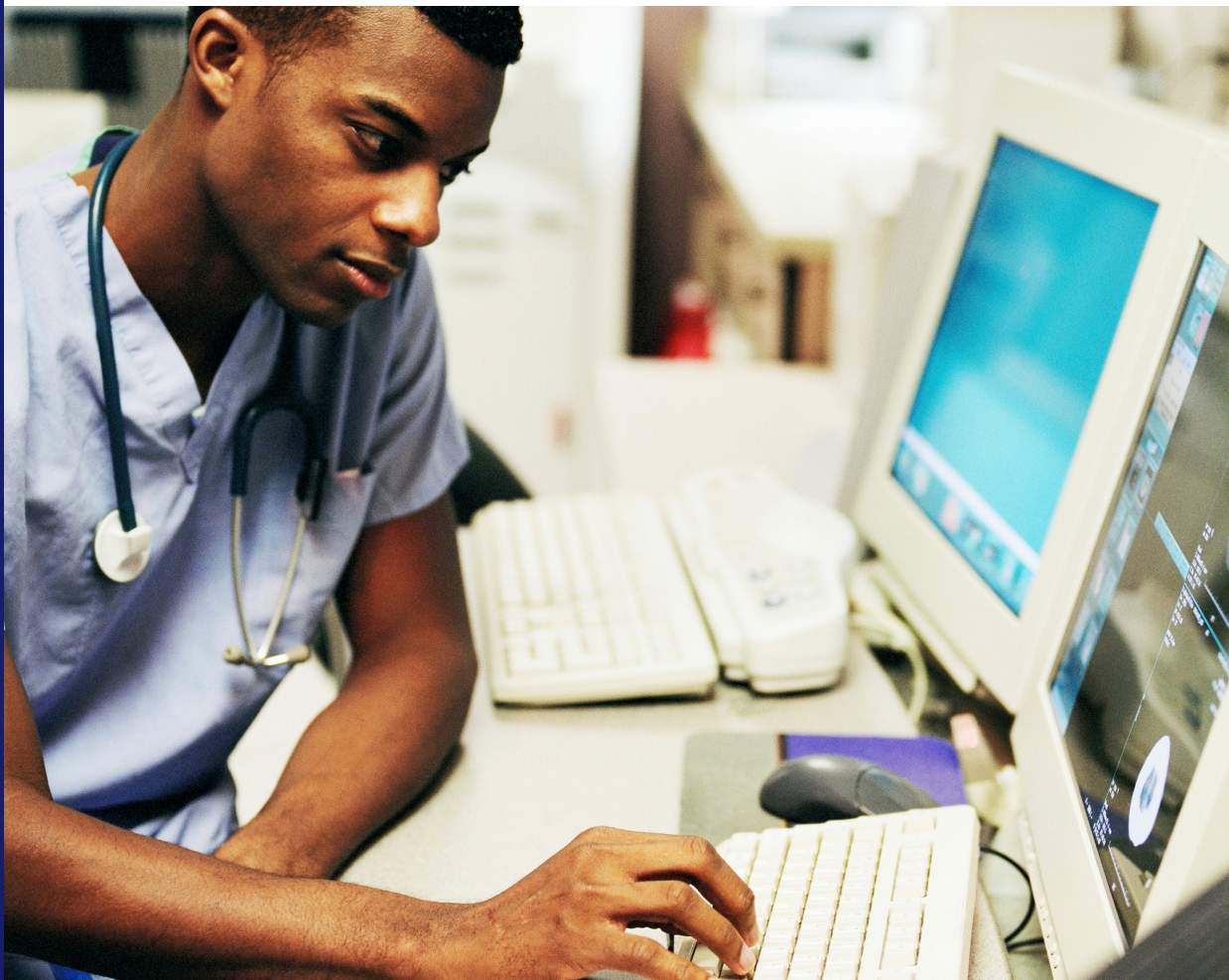
INTRODUCTION

Interoperability in healthcare is the ability of two or more systems to exchange healthcare information using healthcare information technology. Healthcare IT companies are instrumental in facilitating the exchange, but the exchange is initiated by healthcare organizations.[1] Implementing the functionality requires the use of application programming interfaces (APIs) to facilitate data movement and access. Accurate data matching has been a long-time problem in the healthcare industry. The promotion of interoperability exacerbates that problem by creating duplicate and mismatched records if healthcare organizations do not have the ability to see through sparse data.

In 2021, The Centers for Medicare & Medicaid Services (CMS) issued two key rules related to interoperability and burden reduction - the Interoperability and Patient Access final rule (CMS-9115-F) and the Reducing Provider and Patient Burden by Improving Prior Authorization Processes proposed rule (CMS-9123-P). The Interoperability and Patient Access final rule focused on driving interoperability and patient access to health information. The Reducing Provider and Patient Burden proposed rule builds on the policies finalized in the CMS Interoperability and Patient Access final rule.

Organizations have adapted their technology and workflows to become compliant with the regulations which benefit both customers and the healthcare industry. Executives for Health Innovation (EHI) and the health care business of LexisNexis® Risk Solutions convened experts to discuss and share insights on how their organizations plan on complying with evolving interoperability regulations, while addressing the impacts that it will have on their ability to balance customer experience and data security. The speakers, listed below, represented various stakeholders from healthcare such as the federal government, payers, and providers:

- **Lorraine Doo**, Sr. Policy Advisor, Health Informatics Interoperability Group, Centers for Medicare & Medicaid Services (CMS)
- **Devi Mehta**, Associate General Counsel for Privacy, Blue Cross Blue Shield Association (BCBSA)
- **Desla Mancilla**, Manager, Health Data Interoperability, Blue Cross Blue Shield Association (BCBSA)
- **Eric Rogers**, MD, Chief Medical Informatics Officer, Marshfield Clinic Health Systems
- **Mark Van Kooy**, MD, Principal, The Chartis Group
- **Josh Schoeller**, CEO, Healthcare Business of LexisNexis Risk Solutions
- **Jay Sultan**, VP Healthcare Strategy, LexisNexis Risk Solutions

In attendance at the roundtable were executives interested in learning about the emerging trends and challenges associated with the impact of interoperability on their internal workflows. Key areas of discussion were:

- The benefits of interoperability and information exchange for patient engagement;
- Technical and legal implications of patient matching & interoperability across healthcare payers; and
- Clinical perspectives on data sharing and patient matching in emergency departments.

The move toward the digitization of health will lead to more data. The accessibility and protection of this data will become increasingly important. Even with standards in place, there is variability in the collection, maintenance, safety, and distribution of patient data. Although organizations will have access to better data on their patients, it is imperative they keep the data within their patients records complete, accurate, and up to date to protect their patients while also ensuring that their records are properly linked. Prioritizing patient safety from a data perspective protects patients from misdiagnosis or adverse effects due to incomplete or inaccurate patient records.

Data hydration, or filling the patient record with proper data, is important for several reasons, including the tracking of social determinants of health. For example, providers may have an old patient's address on file. By investing in modern ways to append this information, healthcare organizations can improve the efficiency of their patient engagement and optimize their investments in SDOH (Social Determinants of Health), tracking things such as isolation, lack of access to nutritious food, and transportation.

The move to consumer-driven health care, the digitalization of health - all [of] this is going to create a lot more exchange of data, so the data security piece and the access to that data is going to become of heightened importance, and that's what we're focused on." Josh Schoeller, CEO, Healthcare Business of LexisNexis Risk Solutions

As healthcare interoperability advances, so must our methods of patient matching. Patients and providers can utilize patient matching to create and access accurate health records regardless of location or health system. Patient matching identifies and links one patient's data within and across health systems to obtain a comprehensive view of that patient's health care record.[2] The key to accurate patient matching is having access to both current and historic demographic data including fields such as name, date of birth, address, and phone number. Having an accurate and efficient patient matching process in place is a critical component to interoperability and the nation's health information technology infrastructure.

CMS PATIENT ACCESS INITIATIVES AND PATIENT MATCHING PERSPECTIVES

"There needs to be more collaboration in how we implement technology and the new standards with other organizations. That's the only way interoperability is really going to work." Lorraine Doo, Sr. Policy Advisor, CMS

The focus of the Health Informatics and Interoperability Group at the Centers for Medicare and Medicaid Services (CMS) is to ensure that technology is interoperable, usable, and secure to meet the needs of its patients. It's important to recognize and understand that the Medicare population wants to use technology, despite a common misconception that older Americans are not digitally literate. As stated by Lorraine Doo, CMS, "many individuals with Medicare are interested in accessing and using their own information to manage their health care."

One solution developed and implemented by CMS is Blue Button, a standards-based application programming interface (API) that delivers Medicare Parts A, B, and D data for more than 60 million people with Medicare.[3] Blue Button developers work closely with Health Level Seven, Inc. (HL7) on member attribution and member matching to align with HL7 standards.[4] Developers understand there needs to be more integration of how both CMS and other organizations implement their technology. From the CMS perspective, the purpose of the Interoperability Rule is three-fold. First, it enables individuals to control their information and decide who they want to share it with. Second, it helps the healthcare industry become accustomed to the fact that they can and should share this information. Third, implementation of FHIR-based APIs enables entities to seamlessly exchange electronic health information.

CMS recognizes the importance of partnerships for successful interoperability and patient matching. In her presentation, Doo reminded the roundtable participants, "there needs to be more collaboration in how we implement technology and the new standards with other organizations. That's the only way interoperability is really going to work."

One area of the Blue Button initiative that requires improvement is patient engagement. There is uncertainty if the privacy and security implications are fully understood and if CMS is best communicating these impacts to beneficiaries. To combat this, CMS is working to increase available information on their website and inside the app's privacy note; though Doo expects that most, if not all of them, click 'I accept' without reading the privacy note—as most general app users do.

Blue Button currently has 86 apps available. Not only is the selection overwhelming to the end-user, but many of these are wellness apps, or apps that only track a single critical health issue. For example, Doo mentioned that you may find one app which only tracks cardiovascular health and another which only tracks insulin levels. Additionally, Doo reminded attendees that while CMS can see that an app is downloaded, there is no way for them to track what happens afterwards. They currently do not have data on usability of the app, likes and dislikes of the app and if the users even find the apps helpful. Generating a survey to get this information securely is something CMS is working on.

"Do not forget the underserved population; it must be ensured that they, too, get the technology that works for them, and the education to help them understand the technology and the health data they are being given." Steve Waite, Univ. of Mississippi Medical Center

Collaboration and partnership within the industry is key for a patient matching solution. Doo mentioned ONC's Project US@, which is a workgroup of over 150 organizations, including LexisNexis Risk Solutions. They meet to address one single data element in the solution to patient matching troubles. This collaboration is looking to standardize the utilization of individuals' addresses. She finds that this is one of the more effective tools for connecting patient records. And while this is only the start, she reminded the group that it is possible to come to agreeable standards if there is deliberate and coordinated partnership.

"The goal is to get the right data to the right people at the right time and the right way." Lorraine Doo, Sr. Policy Advisor, CMS

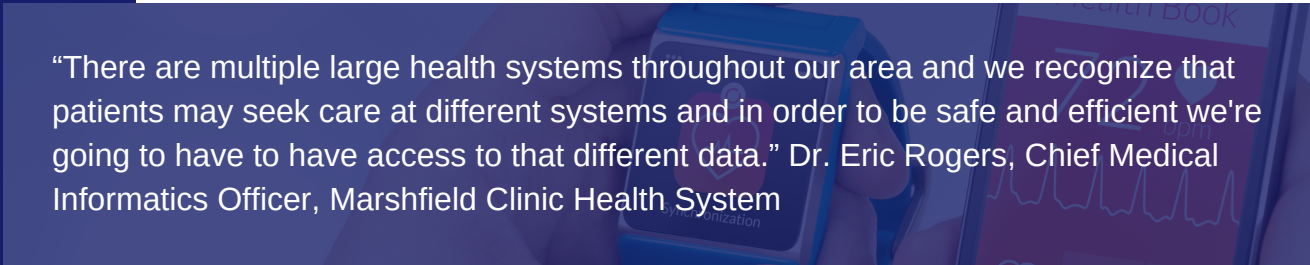## PAYER PERSPECTIVE: BLUE CROSS BLUE SHIELD ASSOCIATION'S MEMBER MATCHING INITIATIVE

"We're really starting to think about matching as a person matching because the people that we are managing are not always patients, especially as we are moving into that world where more and more data is being collected remotely." Desla Mancilla, Manager, Health Data Interoperability, Blue Cross Blue Shield Association (BCBSA)

Blue Cross Blue Shield's goal for patient matching is to leverage member engagement, care, and disease management data to create a seamless, nationwide experience.[5] Blue Cross Blue Shield Association (BCBSA) is a system with 111 million enrolled members. The Association is comprised of 35 independent community-based and locally operated Blue Cross and Blue Shield companies. It is available in all 50 states. One out of three Americans is insured with Blue Cross Blue Shield (BCBS) and they partner with 96% of hospitals and 95% of providers. Their data warehouse contains an unparalleled amount of national healthcare data reflecting "the healthcare experience of more than 175 million active and inactive members."[6]

As a member association, BCBSA is committed to sharing meaningful healthcare data without special effort. Siloed, disconnected information is not reflective of their future desired state to provide patients and doctors access to a complete health history at any given time across multiple access points. They follow three principles of interoperability: patient access to their data wherever and whenever; building a strong foundation based on standardization; and removing barriers to data flow so that the process is secure, cost-effective, and efficient. It is these principles that led to the implementation of an internal process that harmonizes BCBS membership data across system because it is foundational to develop person-centric health insights that can be used to support members' journeys to wellbeing.[7]

Some of the key features of their patient matching or person matching tool are: [8]

1. Individuals have assigned numbers that don't change even if they move, change products, establish new accounts, or enroll in new plans.
2. The identification number, invisible to patients, is used for back-end work in sharing information with the Association and across the plans.
3. Utilization of a secure method that uses field level tokenization and multi-level security controls.

Since the implementation of their person matching tool, BCBSA reports that more than 130M unique members have been identified through the matching algorithm and patient matching efforts across all the Blueplans will continue.

Patient matching is a lengthy process with trial and error to identify the most effective process. According to Desla Mancilla, BCBSA, "the greatest improvement in our matching ability is that when we started to standardize those addresses." BCBSA has implemented security and privacy rules that protect the patient's data as it is transmitted across the various plans. They have also set a goal to maintain the 99.5% accuracy achieved during initial plan on-boarding by implementing identification protocols, checking for existing accounts, and combining duplicate patient entries to create one record. Interoperability is not just a compliance checkbox for BCBSA, it is an opportunity to improve patient matching to ensure that their members have a longitudinal health record that is accurate and accessible.

CLINICAL PERSPECTIVE: DATA SHARING – THE CURES ACT FINAL RULE AND OPEN NOTES

"There are multiple large health systems throughout our area and we recognize that patients may seek care at different systems and in order to be safe and efficient we're going to have to have access to that different data." Dr. Eric Rogers, Chief Medical Informatics Officer, Marshfield Clinic Health System

Marshfield Clinic Health System (MCHS) is an integrated health system which serves Wisconsin with more than 11,000 employees including over 1,200 providers in 52 specialties in 10 hospitals and over 50 ambulatory sites. Dr. Eric Rogers, CMIO, MCHS spoke about both the need and challenge of responding to requests for data while also avoiding any delays to provide access. Their data sharing needs within and outside of their system vary and are summarized below:

- With other health systems
    - Several large health systems in the region
    - Patients seek care across multiple health systems
    - Data sharing is critical to providing efficient and safe care
- Within MCHS system
    - Geographically dispersed
    - Range of hospitals from tertiary to rural/critical access
    - Widely distributed ambulatory clinics

The ONC Cures Act final rule provides the following guidelines:

What is required?
- Respond to requests for information and fulfill those requests in a digital format that aligns with current electronic health information (EHI) requirements.
- Delays or other unnecessary impediments could implicate the information blocking provisions.

What is not required?
- There is no requirement to proactively make EHI available to patients or others who have not requested EHI.

Based on the guidelines, MCHS implemented a solution to meet the requirements of the Cures Act final rule that prevents information blocking while meeting data sharing compliance. As more patients become aware of the responsibility of providers to provide on-demand access, Dr. Rogers stated it will be difficult for healthcare systems to respond to episodic requests, so at MCHS they utilize Open Notes to share medical records with patients. Open Notes is the international movement promoting and studying transparent communication in healthcare that helps patients and clinicians share meaningful notes in medical records.[9]

Using Open Notes meets the challenge of responding flawlessly and immediately to episodic requests involving complex health information management (HIM) workflows. It is also responsive to the evolving regulatory data scope requirements and relieves market pressures across vendors. Many clinicians do not support the use of Open Notes due to a fear of increased workload, patient anxiety, change in practice and documentation style and other adverse outcomes; however, there is strong evidence in the literature that Open Notes implementations are much better received than anticipated by both patients and by providers.

While the Health Insurance Portability and Accountability Act (HIPAA) allows patient access to their records in the format of their choosing, the Cures Act final rule requires certain actors to send patient records upon request - or they could face information blocking penalties. While providing proactive access such as Open Notes is not required, the level of performance required by the Cures Act will be difficult to achieve and maintain in an episodic, reactive fashion. The Open Notes approach is well received by clinicians and patients but engenders very substantial concern and resistance. A comprehensive approach to deploying Open Notes at MCHS will be developed that includes significant emphasis on change management, communication and provider preparation and readiness.

Dr. Rogers summarized the perspective of a provider that needs access to information when he said, "I don't want to have to worry about what CMS says when I'm taking care of the patient in front of me. I certainly don't think about what insurance they're on. I just want to know, 'Can I get access to that information that patient can't tell me? Can I see what happened in Florida before they flew up for vacation?'"

It's imperative that patients access their data to ensure they receive proper care, which can become life-threatening in emergency situations. MCHS is balancing the needs of the patient and providing a supportive environment for clinicians.

TECHNOLOGY PERSPECTIVE – SOLUTIONS AND THE WAY FORWARD

As a leader in this work, LexisNexis Risk Solutions has been working hard to develop potential tools. Josh Schoeller, CEO, Health Care Business of LexisNexis Risk Solutions presented actionable work that's currently being done in the field of patient matching and interoperability.

With a database full of protected profiles, LexisNexis Risk Solutions use this "highly regulated data to help solve some of the biggest problems the US is having such as threats to our safety and security, stopping fraud, waste and abuse in the healthcare space."[10]

A solution that LexisNexis Risk Solutions has developed, and continues to improve on, is the LexID® linking platform.[11] The LexID technology "offers an alternative, unique identifier for patient record matching and interoperability." These unique identifiers, "allow healthcare organizations to identify duplicate records as well as match and merge like records."[12] It helps solve issues that organizations see with patient matching, including under-linking and over-linking patient records, and medical errors caused by misidentification. The LexID number helps health organizations by satisfying a "need for automated patient matching, relieving the burden and cost of manual matching on staff."

As Schoeller put it, "...The ultimate goal of interoperability is...not for a single organization to be able to understand it, but for them to be able to exchange that data with everybody who's responsible for a patient's care and have that full picture, so that matching is of the highest importance." LexID can help with this goal. The simple API aids in the matching of patient records with options like authentication quizzes, and one-time passwords sent to a user's phone.
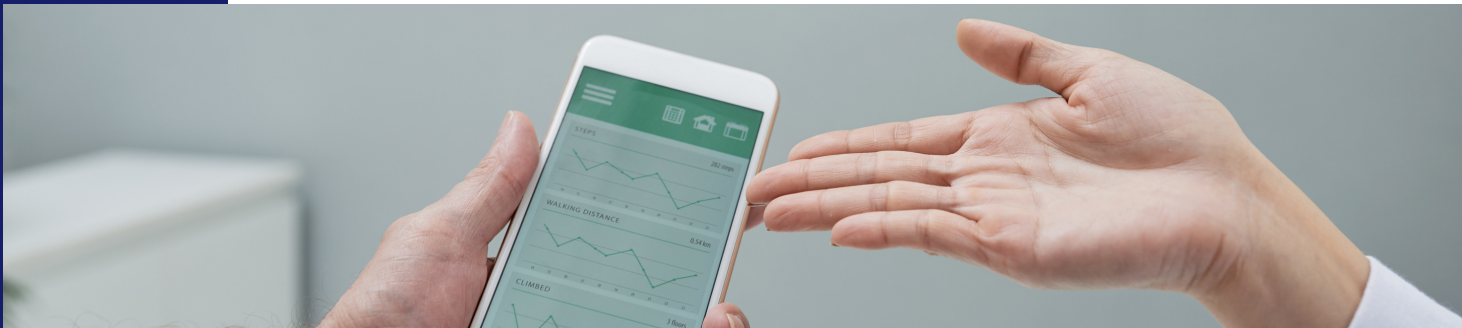
CONCLUSION

There is great opportunity for healthcare organizations that embrace patient matching and interoperability. It can be achieved through continued efforts to learn, collaborate, and promises to ethically use data. There are real patient matching solutions available today. Incorrectly matching patient's data, or too-cautiously withholding data can cause irreparable damage to patient health and client trust. The summation of a patient's care journey through the healthcare system relies on achieving true interoperability for completeness and accuracy. As stakeholders, it is important to be flexible and agile to meet the rapidly evolving needs of patients, providers, public health, and pharmacies that require access to patient data.

About Executives for Health Innovation

Executives for Health Innovation (EHI) is a catalyst for healthcare transformation, convening diverse leaders from across the industry to unlock opportunities for collaborative innovation. EHI, along with its coalition of members, focuses on education, thought leadership, and advocacy. We believe that innovation and diverse perspectives power the transformation of healthcare. Our members are working toward consumer-centered health that is lower cost, higher quality, and more accessible for all populations. **www.ehidc.org/**

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About LexisNexis® Risk Solutions

LexisNexis Risk Solutions harnesses the power of data and advanced analytics to provide insights that help businesses and governmental entities reduce risk and improve decisions to benefit people around the globe. We provide data and technology solutions for a wide range of industries including insurance, financial services, healthcare and government. Headquartered in metro Atlanta, Georgia, we have offices throughout the world and are part of RELX (LSE: REL/NYSE: RELX), a global provider of information-based analytics and decision tools for professional and business customers. For more information, please visit **www.risk.lexisnexis.com** and **www.relx.com**.

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ENDNOTES

[1] https://www.carecloud.com/continuum/what-is-interoperability/

[2] https://www.healthit.gov/topic/patient-identity-and-patient-record-matching

[3] https://bluebutton.cms.gov/

[4] Health Level Seven International (HL7) is a not-for-profit, ANSI-accredited standards developing organization dedicated to providing a comprehensive framework and related standards for the exchange, integration, sharing, and retrieval of electronic health information that supports clinical practice and the management, delivery and evaluation of health services.

[5] Virtual Presentation, Devi Mehta, June 9th 2021

[6] [7] [8] Virtual Presentation, Desla Mancilla June 9th 2021

[9] https://www.opennotes.org/

[10] Josh Schoeller, Virtual Presentation, Executive Insights, June 9, 2021

[11] [12] https://risk.lexisnexis.com/products/lexid-for-healthcare?trmid=HCCRM21.HCALL.GAdSearch.PHGO-401910 gclid=Cj0KCQiA5OuNBhCRARIsACgaiqWtlbDAVrRpIfmMvej1hbFQNIhEjsCAIQzIGu30 O0HG fLW0m_bB2aMaAiOrEALw_wcBIbid