Improving Digital Healthcare Experience with Secure FHIR Platform

POV by Dr. Sweta Patekar, Business Analyst – Mphasis Healthcare Business Unit

Healthcare interoperability can be considered one of the biggest challenges in the industry currently. It is one of the most crucial drivers of technology adoption in healthcare. It enables seamless systems integration that provides quick access to comprehensive patient data to the patients, providers and payers reliably and securely.

Access to disparate information of patient and health records for healthcare providers comes with multiple challenges such as long and tedious paperwork, out-of-network provider visits and documentation, no-shows, patient health illiteracy and a large amount of social & behavioral data, which contribute to complex and isolated patient experience. Moreover, different patients have different care needs. Thus, seamless care provisioning and care accessibility have become more of a necessity than a choice for healthcare providers, especially with the continuing situation of COVID-19.

While dealing with a global health crisis, any confusion and obstacles in care could be dangerous or critical for the patient's care journey. If technology, people and processes come together in a standardized manner, then we can think of achieving true interoperability to create a seamless patient journey.

1.
Future of Healthcare with a Secure FHIR Platform

Many healthcare organizations use multiple third-party tools and have more than one Electronic Health Record (EHR), Practice Management (PM), Revenue Cycle Management (RCM) solutions, Portals, back-office operation solutions, claim systems, Pharmacy Management System to cover all their patient care journey needs. Yet, providers are unable to synthesize these source systems efficiently and meaningfully.

Integrating fragmented solutions creates complications – solution development and maintenance is costly, license and utilization services fees are high, and data exchange exposes healthcare organizations to increased security risk.

FHIR can enable successful data exchange with a single source of truth so that providers can access patients' complete medical records, provide better care to patients and achieve regulatory requirements.

FHIR healthcare standards help to make the system, comprising of many third-party apps, interoperable and manage big data effectively

A healthcare platform should be able to work with the healthcare industry standards like Health Level Seven (HL7), Continuity of Care Document (CCD) and Fast Health Information Resource (FHIR). Data should be shareable with different clinical and financial systems and the platform should support bi-directional interface capabilities and provide users with a single, user-friendly interface that allows access to important tools, Using FHIR standards, these requirements and capabilities can be implemented efficiently.

FHIR Implementation Challenges

Every innovation has its own advantages and disadvantages. FHIR-compliant systems are time-consuming and resource-intensive, FHIR integration customizes to the needs of specific enterprises, and data manageability and consistency are critical for FHIR API functionality. Despite this, FHIR implementations are still worthwhile.

FHIR Platform Enablement: Multiple Opportunities

The FHIR-enabled healthcare platform strives to standardize and simplify healthcare data exchange, thereby allowing healthcare managers, service providers, payers and others to share patient data in a safe, simple and hassle-free manner. In addition to standardization, health systems can benefit from FHIR by making it easier to connect with other systems.

The healthcare platforms that use FHIR as a unifying system can deliver secure, omnichannel and persona-specific experiences on a single unified healthcare ecosystem.

• It can enable patients, practitioners and other healthcare personnel specific experiences

• Reduce meantime to resolve workflows that involve multiple partners and/or services

• Empower patients with extended services through a cohesive partnership network

• Can capture trends by staying relevant and connected

Engage Patients
Patients are provided with seamless on-demand access to physicians, labs, wellness programs, vaccination and health records

1

Connect Physicians
Digitally and in real-time, physicians are able to view patient data and interact live with patients

2

Link Labs & Radiology
Labs have a platform to securely distribute diagnostic reports to physicians and patients

3

Consumer Insights
Actionable insights and recommended actions are deduced from physician and patient data

4

Experience the Marketplace
One-stop location for purchasing all the latest physician and patient healthcare devices and tools as well as for booking lab tests and viewing results

5

Fig. 1: Healthcare Platform Enablement

Having data integrated into healthcare has allowed medical professionals to easily cross-reference healthcare systems to build a comprehensive patient Health Record, improving the patient experience.

For example, consider the Digital Front Door or digital optimization for patient and provider experience as one of the FHIR-enabled healthcare platform use case.

2.
Digital Front Door: Use case of FHIR Platform

A digital engagement tool can be one of the solutions where the healthcare platform leverages the FHIR capability.

As a part of patient engagement enablement of the healthcare platform, Digital Front Door (DFD) can enhance patient engagement and health education holistically. Through this solution, healthcare organizations, providers and payers can save time and educate, engage and empower their communities to take charge of their own health.

A Digital Front Door provides a hassle-free experience for patients as they move through the healthcare delivery process, starting with discovery and ending with follow-up, whether they engage through a website, call center or patient portal.

Survey data between March and May 2020 revealed that patients are more receptive to virtual healthcare than ever before. Physicians, too, are more open to virtual care access. They now believe that virtual care can provide quality 360-degree care more than ever before.

*Source: KLAS, Patient Perspectives on Patient Engagement Technology, 2020*

A **Digital Front Door strategy** can benefit a healthcare organization in multiple ways including:

* It is an overall healthcare system experience that will establish a relationship between individuals and healthcare providers with the help of digital technology. It is the beginning of an entirely new health ecosystem and experience in healthcare, where the customers take responsibility for their own health and are constantly connected to their healthcare team (Provider & Payer).

* Both the healthcare experience and patient outcomes will see meaningful changes when Digital Front Door guides them along their care journeys

* The Digital Front Door must offer patients the key attributes and features when they want to virtually manage and take responsibility for their health

3.
Key areas of DFD Solutions with FHIR Platform

Some examples of DFD solution's key areas and functionalities are:
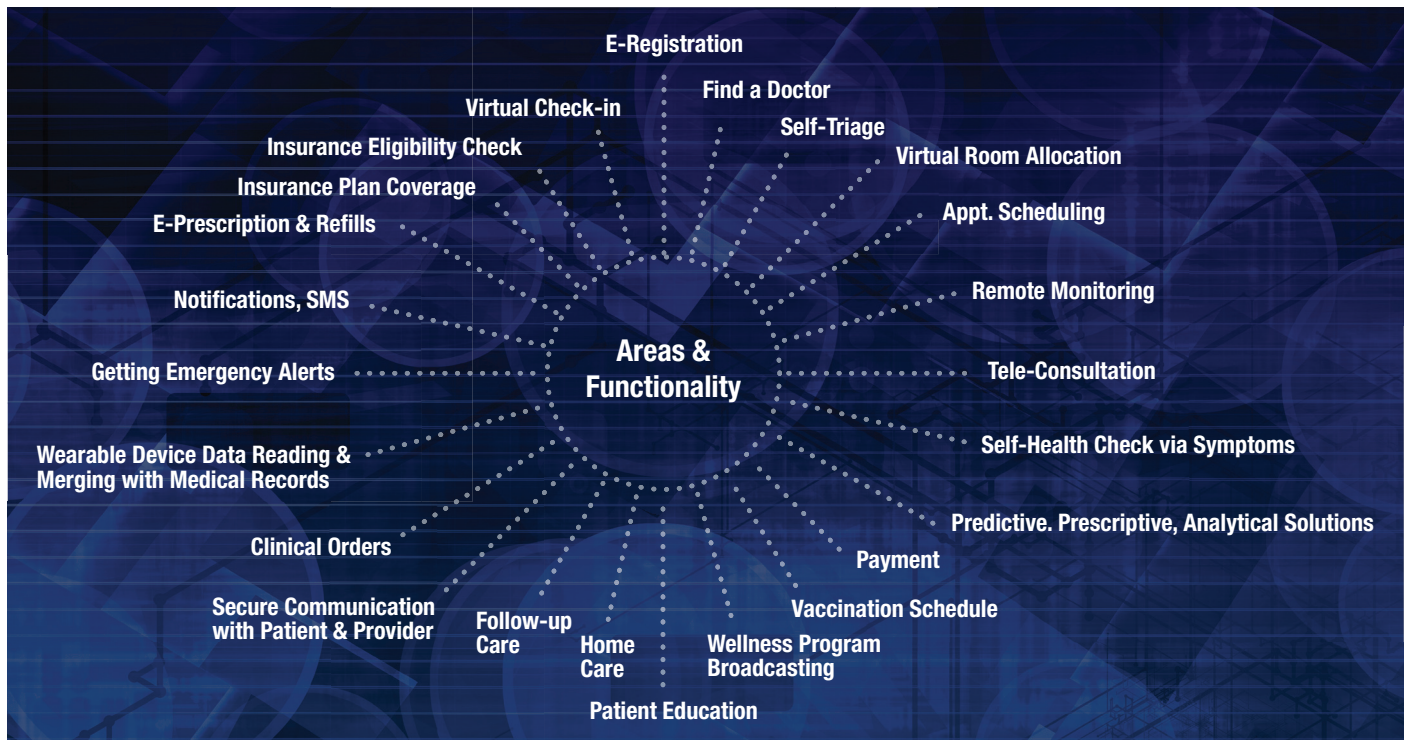
Providers and payers can both benefit from higher revenue and reimbursements as a result of providing patients with a 360-degree view experience.

An elevated risk of re-admission and meaningful reductions in re-admission rates have been shown to correlate with patient follow-up after discharge from a hospital. Therefore, digital tools that allow hospitals to follow up with the patients post-discharge effectively enable them to earn higher Medicare and Medicaid reimbursements and better manage all patients.

4.
Conclusion

FHIR integration with healthcare can result in several advantages, including reduced healthcare costs, avoiding penalties and adhering to CMS compliance. As a result, healthcare providers would be able to enhance their capabilities.

Secure and reliable healthcare integration is the answer for all the stakeholders involved in the healthcare ecosystem – providers, payers, pharma industry, diagnostic & medical device industry, clinical trials industry and regulatory bodies.

Digital healthcare strategy can significantly improve healthcare delivery and future experiences that will change healthcare and improve patient outcomes.

5.
References

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Dr. Sweta Patekar is a Business Analyst with Mphasis Healthcare Business Unit. She has over 8 years of experience in the Hospital & Healthcare IT industry as a physician, administrator, and healthcare product designing, development & implementation expert for solutions like EMR/EHR, Mobility, FHIR/HL7, CDSS & Analytics.

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