CAMBIA GROVE™ 2020 Innovator Fellowship Program

Payer Perspectives: The CMS Patient Access API and the Future of Interoperability

Background and How We Arrived Here

In April 2020, CMS issued the Interoperability and Patient Access Rule, mandating publishing of standards based Application Programming Interfaces (APIs) by payers that fall under CMS oversight. Payers must comply with the rule on January 1, 2021 but CMS extended discretionary enforcement extended until July 1, 2021 due to the COVID-19 pandemic. The API is required to be structured using the Health Level 7 (HL7) Fast Healthcare Interoperability Resources (FHIR)[1] standard, specifically version 4.0.1 (R4) [2]. For some (not all), payers required to comply with the rule, including most state Medicaid agencies, this will be their very first introduction of FHIR based architecture and APIs. CMS set the example in how these types of APIs could be deployed by a payer to expose the data they hold to their members, through release of the Blue Button 2.0 API in 2019 [3].

With the CMS Patient Access API rule, payers face some of the biggest changes presented to them in how they exchange data since the HIPAA Interoperability provisions that were implemented in 2003, and just as they did then, payers have different considerations and perspectives they need to address to fully meet the Patient Access rule. Not surprisingly, focus for payers will be on the technology and data aspects, but it is also important for payers to consider the business, data, member experience aspects along with potential for future FHIR-based API use cases.

Challenges and Impacts for the 5 Points of Health Care™ [4]

Unfortunately, many payers still rely on legacy solutions for data exchange (faxes, service buses, inflexible batch interfaces, etc.), and the rule will push them to modernize their platforms to include FHIR, app registration, centralized authentication and APIs. For perspective, most commercial and many government sponsored payers have member portals that allow patients to access their data, but many payers, especially state Medicaid agencies, do not even have a member portal. For those payers with no portals, going from that position to implementing FHIR-based APIs is a significant leap forward in technology, and also requires significant financial investments. To date, advancements in the use of FHIR based solutions has been found more prominently in the provider pillar of the 5 Points of Health Care™, and payers are trying to catch-up in many cases. However, we must acknowledge there are some payers that have been at the forefront of FHIR adoption and are also founding members of some of the prominent projects to advance interoperability, such as HL7 Da Vinci [5], the CARIN Alliance [6], HL7 Argonaut Project [7], and ONC FHIR At Scale Taskforce (FAST)[8]. Some payers are where they need to be to meet the rule and even beyond, and we want to acknowledge their efforts and leadership so other payers can learn from their past and current efforts as they mature in their adoption of FHIR and interoperability.

But there is wide recognition that much of the payer community is facing significant challenges to implement the Patient Access API. In addition to the obvious work that payers need to do on the technology front, they also need to plan for other components of the rule, including production of patient education communications and materials. Beyond payers meeting the requirements of the rule, they need to embrace the benefits that will come from frictionless data interoperability. The solutions payers implement can serve as the foundation for further innovations to better the health of their members, enhance value based purchasing, and achieve other significant policy and coverage improvements that can be made using standards based APIs.

The rule impacts all pillars of the 5 Points of Health Care™ but in different ways. ***Payers*** are under pressure to quickly implement the Patient Access API, one of several new interoperability rules that they are required to meet over the next three years. ***Patients*** will have more control and access to their health care data allowing them to use any third party application of their choice to do so, and have a more full picture of their health and those costs associated with their care. ***Providers*** will be looking to see if payers can meet the requirements of the rule and look towards future enhancements in the provider and payer data exchange landscape. ***Policymakers*** at the federal level will closely monitor what happens, not only from an enforcement and compliance perspective, but also how they can look to additional rules to further promote interoperability. ***Purchasers*** want to see if the increase of transparency from payers and providers through interoperability can help drive down health care costs we see in the United States today.

Our Approach to this Work

Much like the interoperability rules are aiming to break down communication and data silos across the industry, our approach was to talk to many leaders across the spectrum of the health care industry, including those with deep expertise in health care policy, technology and interoperability. These industry leaders and experts came from across the health care landscape, including the federal government, payers, health care app creators, providers, FHIR solution vendors and consulting firms. We benefited greatly from our time with these industry leaders, their rich backgrounds in interoperability and willingness to share that expertise with us.

In addition to industry expert interviews, we also researched the various architectures and solutions that payers could implement to meet the rule. We also poured over materials produced from the current efforts underway developing frameworks and implementation guides for the API rule and future use cases, including those led by those workgroups mentioned earlier (e.g. Da Vinci, CARIN Alliance).

Our Findings and Considerations for Payers

We were able to gather the different perspectives from these interviews to provide guidance to payers as they implement their Patient Access API solutions, from the short-term goal of meeting the CMS mandate to the longer-term goal of leveraging the capabilities of FHIR to enhance other business processes, create new value propositions, and enhance the health care experience of their members. Payers that we interviewed are keeping an eye on both July 2021 and beyond with their solutions, ensuring that they are able to get the most value from their investment around FHIR and API development. We were able to gain very valuable insight and expertise from these industry experts, via their own personal experiences, assessments of the current landscape, and most importantly, their own opinions as well. There was a lot of consistency across the interviews we conducted, and an affirmation in our initial assessment - ***payers are behind and scrambling to meet the provisions of the final rule, but should still look to the future interoperability use cases when deciding how to implement their FHIR and API solutions.***

Our interviews and research focused on several critical areas that payers need to account for as they make decisions on how they will implement their Patient Access API solutions. While time, budget and the ongoing COVID-19 pandemic are obvious challenges to getting the FHIR foundation up and running in time for the enforcement date, payers also face other complexities such as interpreting the various nuances of the CMS rule as it applies to their business and data. In

terms of technology, payers will have to decide which reference architecture options to implement the FHIR capability, if they will do the work in-house, outsource to a vendor, or a combination of both. For their data, they first have to determine what data they hold and if it is in or out of scope for the API, and then, how will they map the data from current data sources to FHIR resources and more. Here are some of the important considerations that we accumulated through our interviews and research for payers to keep in mind:

Business and Member Experience Considerations

Rightfully so, the primary focus for many payers in regards to the rule will be on the technology and data, however, it is important for payers to not lose sight of the impacts to their overall business especially if a single payer holds multiple lines of business impacted by the rule (Medicare Advantage, Medicaid, Children's Health Insurance Program (CHIP)). How does a payer with multiple lines of business handle members that switch back and forth those lines of business, do they require the member to have multiple login IDs and passwords? Payers should keep in mind the member experience when developing their solutions, and engage their members early on for feedback as part of their pre-implementation or testing efforts. Another challenge that payers face is determining how to handle access to the APIs for Authorized Representatives or parents accessing their children's health care data. The rule is not clear on whether payers must account for these use cases, but they will need to make the decision on whether they should, nonetheless. Payers that we spoke to are holding fast to the provisions of the rule, which is to provide access to the patient data via the API for that specific patient and no more, no representative, parent or other person, only to the specific individual themselves.

Data Considerations

The domains of data that payers must expose in the API can vary depending on what data each payer holds, and each payer must make their own legal determinations what is required by the rule to be made available in the API at a minimum. Payers must also use certain industry standards to present the data, for example, for clinical data, payers must use the USCDI v1.0 format. In terms scope, the rule states that at a minimum, the API must include:

- Adjudicated claims data
- Encounter data (optional for State Medicaid and CHIP agencies)
- Clinical Data (including lab results if maintained by the payer)
- Formulary for Fee-For-Service Medicaid and CHIP, information on covered outpatient drugs

The mapping exercise for all data is one of the more challenging efforts required as part of implementation, taking the data that resides in the payer's existing data sources and mapping them to the FHIR resources and other standards required as part of the rule. Some of the experts we talked to revealed the difficulty that payers are having navigating the mapping of clinical data, as payers are more used to working with and managing claims and other administrative data. At the heart of the rule, and, interoperability at large, data is the focus, and payers will need to make important and consequential decisions when it comes to what data they include and exclude from their APIs.

Reference Architectures and Solutions

Through our interview sessions, we confirmed that there are two major architectural approaches to implementing FHIR APIs, which are façade or FHIR repository patterns. There are good reasons to use either of these architectures, and the decision which pattern to use will depend on how the payers current data sources are structured, and the technologies and architectures they already currently have in place. Here is a brief description of each potential architecture model:

- Façade pattern: Enabling FHIR on existing solutions using a façade pattern to orchestrate current data sources to feed data to the FHIR transformation layer in real time
- Repository pattern: FHIR Repository is the central design element using features such as profiles, extensions, structure definition, search parameters and capability statements

Analyzing different reference implementations provides solutions architects the options to use on their journey to implement Patient Access API as mandated. Payers must also make the "build" or "buy" decision for the API solution, which will heavily depend on how much internal FHIR and interoperability expertise they have, along with determining if there is enough time to build their own solution. Payers may also choose a hybrid approach in which they buy certain vendor offered components, but use internal developers to build the necessary mapping, Extract, Transform and Load (ETL) processes, and develop the APIs.

Future Strategy and Use Cases

Beyond compliance with the Patient Access API rule, payers should keep in mind future use cases for their FHIR implementations and interoperability. Some of these additional use case with the rule and leverage the solution for other high value targets such as:

- Value based purchasing
- Quality measures and improvement
- Cost Transparency
- Prior Authorization clinical data exchange for decision making
- Payer-to-Provider exchange to ensure members care is not impacted when they switch providers or are referred to specialists

Prior Authorization is a really interesting use case for FHIR, given the fact that many payers still rely on either hardcopy (paper), faxes or PDFs to make the clinical decisions for certain procedures. These legacy processes are very manually intensive and inefficient, the ability to take those burdensome processes for both providers and payers and move them into an interoperable, FHIR-based solution would be significant. The Da Vinci Project has already successfully developed solutions for some of the use cases above, including prior authorization [9]. Once payers are able to get past the urgent timeframe of the Patient Access API rule, they should begin looking to the future and opportunities to leverage their FHIR infrastructure to help improve service delivery and care quality and help reduce the burden of manually intensive processes such as prior authorization. Our experts we spoke to felt payers should take a strategic approach towards interoperability, even though at this time, most payers are singularly and laser-focused on being compliant on July 1, 2021.

Where Do We Go From Here?

Time to implement solutions to meet the Patient Access API is running short, even with the 6-month discretionary enforcement extension to July 1, 2021. For those payers starting from scratch when it comes to FHIR, this is breakneck speed for an implementation of this size, complexity and cost. Beyond the time constraint, the continuing COVID-19 pandemic has stretched resources very thin for payers, including most state Medicaid agencies who are facing significant state budget shortfalls. Even with federal funding support, state Medicaid agencies will still require hundreds of thousands of state matching dollars needed to implement their API solutions. As such, for all payers, the size of the investment being made requires them to think beyond July 1, 2021, and how they can leverage their solutions for additional future value-add use cases. Payers across the landscape should use this opportunity to prepare their long term interoperability strategies to allow for growth and more opportunities to help improve care to their members, inform policy and payment strategies, and drive down costs.

Payers can take the lessons they learn from this implementation to help inform the rest of the participants in the 5 Points of Health Care™ on the experience gained in implementing the first of these rules, and what more still needs to be done to further advance interoperability. With the rules in place from CMS and ONC, within the next five years, the health care industry will be in much better position to realize a more frictionless movement of data from payer-to-patient, provider-to-patient, payer-to-provider and payer-to-payer. Clearly, the events of 2020 and the COVID-19 pandemic have shown the acceleration of interoperability is necessary and extremely critical to the health and well-being of the country. Over the next year, implementation of the technology, processes, and frameworks to meet the Patient Access API rule is a significant step towards making that happen.

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