## Rapid EMR Integration Powers the Patient-Centered Medical Home

As healthcare transitions away from fee-for-service towards pay-for-performance, reporting and data exchange requirements are also evolving to support this new model of reimbursement. A related set of interoperability challenges are emerging as patients are given increasing control of their healthcare data. Learn how one client has harnessed the power and flexibility of PilotFish to meet these challenges and position itself for the future.
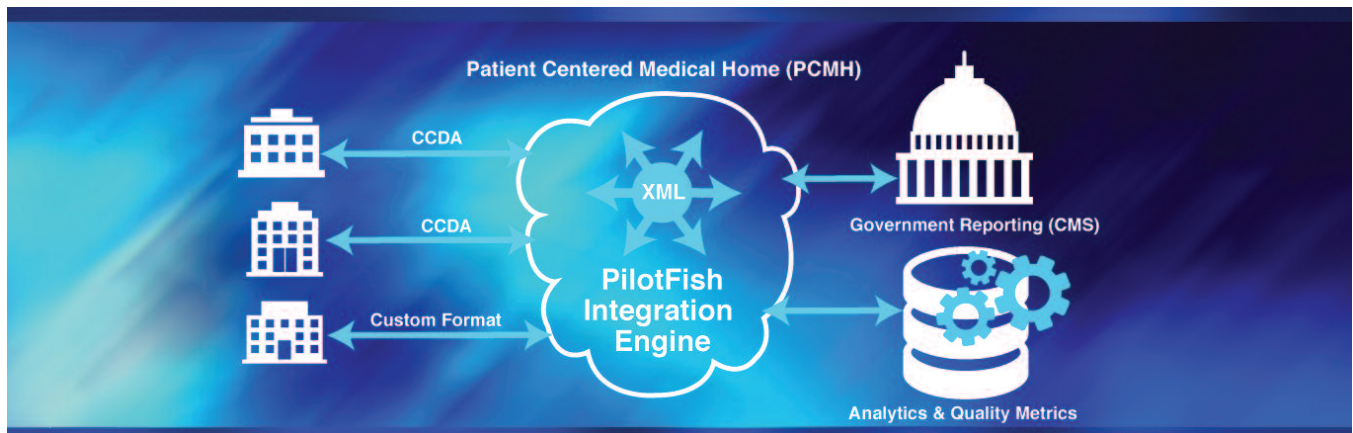
THE CLIENT

The client is a healthcare management organization and a leader in advancing the development and implementation of the Patient-Centered Medical Home (PCMH) as well as other advanced primary care initiatives. It is one of the largest physicians' groups in Michigan, with more than 1,000 physician members in primary care and specialty fields. The organization is an acclaimed leader in providing services that allow physicians and other providers to develop and sustain high performing independent practices. The organization offers a broad array of infrastructure, technology and clinical services to independent physician practices, mid-level providers, behavioral health professionals and chiropractors who are transitioning to fully integrated, population-based, patient-centric practices to meet health reform mandates.

THE CHALLENGE

The PCMH model is founded on the central patient/physician relationship, with the primary care physician's office serving as the patient's "medical home." The primary care physician's team coordinates all of a patient's medical care to improve patient health and outcomes. Care is coordinated and/or integrated across all elements of the complex health care system (e.g., subspecialty care, hospitals, home health agencies, nursing homes) and the patient's community (e.g., family, public and private community-based services).

Care is facilitated by registries, information technology, health information exchange and other means to assure that patients get the indicated care when and where they need and want it, in a culturally and linguistically appropriate manner. The disparate data that must be integrated to enable personalized, value-based care for patients via the

PCMH model may originate from claims and clinical sources as CSV, Pipe, XML, and CCD documents, as well as images and text. For example, in provider-to-provider scenarios - a radiologist may share information with the physician practice. In the provider-to-patient-to-provider scenario, a physician may share test results with a patient and the patient may then schedule a follow-up appointment.

The client supports members in participation in the MACRA Quality Payment Program, which provides "value over volume" Medicare payments to clinicians. The Quality Payment Program rewards the delivery of high-quality patient care through two avenues: Advanced Alternative Payment Models (Advanced APMs) and the Merit-based Incentive Payment System (MIPS).

MIPS consolidates components of three existing programs - the Physician Quality Reporting System (PQRS), the Physician Value-based Payment Modifier (VM) and the Medicare Electronic Health Record (EHR) Incentive Program for Eligible Professionals (EPs). MIPS continues the focus on quality, cost and use of certified EHR technology (CEHRT) in a cohesive program to avoid redundancies. Additionally, MACRA gives bonus payments to clinicians participating in eligible alternative payment models. The client supplies its PCMH-certified practices the QI reports that CMS requires for providers applying for said payments.

While most will agree that MACRA is complex, its approach is aligned with the Triple Aim of healthcare: better care, healthier people and smarter spending. Much of the information that is required to produce these quality reports and to facilitate PCMH exchange scenarios is provided by EMRs as HL7 C-CDA CCDs. C-CDA messages contain various types of clinical data expressed across a set of required and optional "templates". Templates use both unstructured and structured data often referencing, specific value sets created from terminology standards such as LOINC, RxNorm and SNOMED.

Aside from the required components, C-CDA documents are "open templates" that may be extended to meet the specific needs of the transmission and/or involved systems. As such, each EMR vendor may configure CCD documents differently. The client was challenged to adapt to and rapidly account for these differences, as well as to be flexible enough to accept data from those EMR vendors who may not be able to provide CCD documents and instead send the data in other formats such as flat files.

Beyond just these differences is message format, the client was required to communicate in a standard, secure fashion dictated by the IHE Profiles for interoperability. IHE Profiles offer a common framework for vendors and IT departments to understand and address clinical integration needs. The client selected the PilotFish suite of integration engine solutions to meet its healthcare interoperability challenges and pressing timelines. For those leveraging CCDs or other complex XML formats and dealing with variable data formats, the PilotFish template-based approach to graphical data mapping offers dramatic improvements in productivity over solutions requiring scripting, coding, or drawing "spider webs" of interconnecting lines between fields.

THE SOLUTION

The client found it remarkably easy and fast to accomplish EMR integrations using PilotFish interface engine and tools. While PilotFish always recommends its robust formal training and onboarding program, this client proceeded

immediately to implementation without formal training for staff. Using only PilotFish's Online Resource Center (http://cms.pilotfishtechnology.com) and an occasional call to PilotFish professional services, the client's team implemented seven (7) new interfaces in less than six months including:

1. AllScripts – IHE (XDS) Profile based integration
2. Athena – CCDA ingestion via SFTP
3. ModuleMD – CCDA ingestion via SFTP
4. eInformatics – Pipe (|) delimited file ingestion via SFTP
5. Oaklawn lab – CSV ingestion via SFTP
6. Bronson Lab – HL7 ingestion via SFTP
7. Oaklawn Hospital (Census data – Inpatient and ED Visit) – CSV via SFTP

Note: In the first interface, one of the most common IHE Profiles was leveraged. XDS.b Cross-enterprise Document Sharing profile is used for sharing of medical documents between healthcare entities, such as a private physician practice to an information exchange partner. In the PCMH model, this is achieved through a common registry. Another wrinkle faced in interface configuration is that while the C-CDA specification provided guidance regarding data encoding for hundreds of CCD fields, it does not require that it be followed. Once each EMR provides the CCDs and allows pushing data into its systems, the challenge of data exchange is still the variability of the data and its structure in the CCDs. Dealing with incomplete sets of data and documents, slightly incompatible formats or wildly different formats makes it difficult to create valid integrated data. The PilotFish interface engine solution facilitates 'normalizing such data into to a consistent, canonical format and template through a highly productive, repeatable process.

THE BENEFITS

The client leveraged PilotFish's integration software's flexibility, extensibility and short learning curve to accelerate integration. As this client's experience attests, creating interfaces via the exclusive "graphical automated interface assembly line" process and open APIs can be done at amazing speed, to wit:

• Implementation with new EMRs are now completed in as little as one or two weeks.
• Once an interface is configured - cloning, tweaking it and reusing can be accomplished in one to two days.

These technical benefits have delivered a quantifiable return on investment (ROI) for the business. These has been realized through:

• Avoidance of training costs for staff
• Shorter, less costly implementations
• Efficient data exchange out of the box
• The ability to easily dispatch IHE profiles and workflow interface requirements.

All of the potentials of healthcare coordination are made possible by health registries, health information exchanges and electronic health records (EHRs). By leveraging PilotFish for data normalization and reduced time for integrations, the client has made it easier to quickly evaluate and report on care quality and to create a unified view of the patients' health picture.

THE FUTURE STATE

The architecture and inherent flexibility of the PilotFish solution will enable the client to adopt and take advantage of new web technologies and standards as they take hold. The client anticipates future regulatory changes that may impact the data reporting requirements that CMS sets forth for Eligible Practices and MIPS participants. With PilotFish in place, such changes will be readily accommodated.

Use of PilotFish also supports instituting more sophisticated and more intuitive Clinical Decision Support (CDS) tools. These tools are gaining traction and technical maturity and once adopted will automate specific guidance on patient care to improve community health. These developments translate into an untapped opportunity for health organizations to extend capabilities and investments with a combined technology and information approach.

Going forward, the client may evaluate the utility of the PilotFish eiDashboard. The Dashboard allows monitoring the health of interfaces from high-level message orchestrations all the way down to discrete operations. Its web-based user interface delivers multi-level operational insight of all interface activity. It delivers with greatly reduced downtime and the ability to fix issues on the fly.

With the future-proofed PilotFish integration suite and highly extensible architecture, new client systems will be implemented much more rapidly, which in turn minimizes internal resource costs and realizes new revenue opportunities sooner.

Over the course of nearly 15 years and hundreds of implementations, PilotFish has developed and refined a methodology for the configuration, testing and deployment of interfaces and process orchestrations. We have an unblemished track record of success. Through years of Bake-Offs and Proof of Concepts (POCs), we have demonstrated the value of our integration engine solutions to future customers. Let us conduct a Free Use Case Evaluation for you to determine where PilotFish can provide the most value to your organization and solve your most complex integration challenges.

To schedule a Free Use Case Evaluation and to learn about what PilotFish Solutions can do for your organization, please contact us at 860 632-9900 x 309 or Email us at info@pilotfishtechnology.com