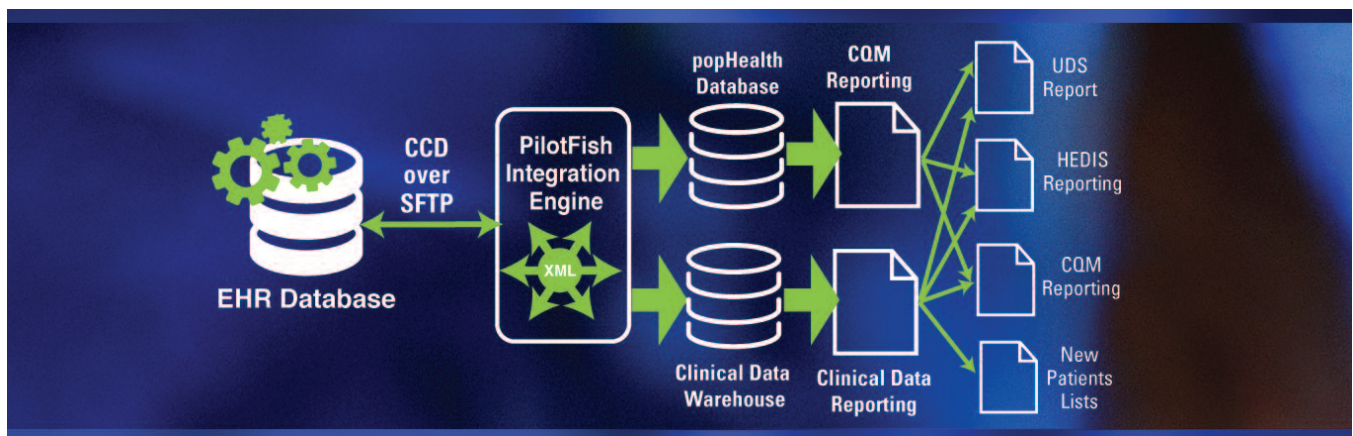### Integration and Data Analytics Deliver for Population Health Initiative

Population Health enabling technologies from SMC Partners and PilotFish delivered big returns for this large Community Health Organization serving underserved residents in its state. This forward-thinking organization invested in IT to harness population health data from multiple sources to achieve the linked goals of value-based care: improving quality, lowering population health costs and improving patients' experience of care. Using data of all types - clinical, financial, administrative, claims - is fast becoming one of the highest priorities for effective and scalable Population Heath efforts. To accelerate its Population Health capabilities, the organization turned to SMC Partners for its Pop Health IT leadership and to PilotFish for best-of-breed healthcare interface engine solutions to automate integration of diverse data formats.

THE CLIENT

The client is a not-for-profit service organization dedicated to strengthening and supporting the clinical and administrative operations of its nearly twenty-member community health centers. Its members represent Federally Qualified Health Centers (FQHC's) and qualified FQHC Look-Alikes - delivering services to a population that is often underserved. They currently serve ten percent of the state's residents, providing over a million medical, dental and behavioral health visits each year. Their mission is to advance the common interests of these federally qualified health centers in providing quality health care. Those common interests now must include responding to a health care system moving to implement strategies around population health management, accountable care and consumer and community engagement. In fact, these are the driving forces behind government healthcare policy and funding.

THE CHALLENGE

The client had strong incentives to prove that it delivered quality and improved patient and population health. They quickly realized the claims data being used in reporting quality measures is insufficient in defining a population health picture. Additional clinical data is necessary to proactively manage population health. However, a big barrier is that it is notoriously difficult to access and integrate clinical data from EHRs. The client's aim too has been to maximize the use of EHR records to achieve the clinical and financial objectives tied to the Meaningful Use Program and now to MACRA/MIPs as required. The Medicare Access and CHIP Reauthorization Act (MACRA) repeals the Medicare

Sustainable Growth Rate (SGR) methodology and replaces it with a new approach to payment called the Quality Payment Program that 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). Financial incentives and penalties are set for meeting or failing to meet quality and other performance measures. Medicaid MU participants who also bill Medicare will need to participate in both Medicaid MU (through 2021) and MIPS. In short, there are more rules and regulations in 2017 and going forward for FQHCs to deal with.

Lastly, the client intends their Population Health Initiative to leverage data as a strategic resource for ad hoc reporting and analytics through building out of a data warehouse infrastructure. The organization turned to SMC Partners and PilotFish to develop HIT bandwidth to bridge their data and technology gaps, add capabilities to acquire, transform, normalize and use multiple sources of data and become more data-driven in order to achieve their Population Health goals.

THE SOLUTION

Partnering with PilotFish, SMC helped the organization and its members adopt and use healthcare information technology to improve the quality and efficiency of services that they each provide. SMC created a special project to utilize popHealth, an open source, flexible data extraction tool to enhance the organization's ability to extract data, produce other reports or data feeds for Uniform Data Set (UDS), Patient Centered Medical Home (PCMH), Department of Public Health (DPH) or other reporting needs. Through an HRSA funded HCCN grant, SMC Partners has also been contracted to build on the successes of the popHealth project to extract and normalize the clinical data from member EHRs and to collaboratively build a data warehouse as well as reporting analytics with comingled claims and clinical data.

The PilotFish solution, with its automated interface assembly line process and ability to integrate anything to anything, enabled the projects to easily dispatch interfacing issues. PilotFish is incredibly robust and can handle every data format and connectivity that Population Healthcare initiatives need for integration. Proven in practice, PilotFish has conquered every integration challenge ever thrown at it in the complex world of healthcare. The PilotFish architecture is both extensible using open source components and flexible to keep up with an evolving Population Health technology landscape and ever-changing requirements. Its data mapping tools, the easiest and most efficient on the market, made quick work of all the transformations required. It's been a key element of the client's Population Health initiative's early and ongoing success in overcoming data exchange and interoperability barriers.

The challenge with integrating claims data lays in poor data quality—missing critical data elements—and in frequency of data delivery with the inherent lag associated with claims files. Too, claims data represents an incomplete, hit-or-miss representation of a patient's and a population's full health needs. Importantly, Population Health initiatives can't be solely reliant on claims data to define the patient population health picture and report outcomes, certainly not in value-based healthcare models. Over time, and particularly as healthcare organizations bear more financial risk, it is necessary to add clinical data.

Here, a disparate group of competing EHR vendors was the clinical data source of HL7 C-CDA CCDs. Each EHR configured its CCD documents differently while including required data. C-CDA templates reference specific value

sets created from terminology standards such as LOINC, Rexnord, SNOMED, etc. Each CCD received from the EHRs includes both required and optional data. All C-CDA document templates are "open templates" so EHR vendors can include additional sections too, those that are optional plus others. Another major integration challenge with CCDs is the lack of consistency in data entry by staff and in encoding of the XML documents. Yes, C-CDA does require certain sections in a specific format within a CCD. So that's fine as far as it goes, but while the C-CDA specification provided guidance regarding data encoding, it did not require that it be followed. Once each EHR provides the CCDs and allows pushing data into its systems, then the challenge of data exchange is 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. With PilotFish, this is virtually no problem. For those leveraging CCDs or other complex XML 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 PilotFish interface engine facilitates normalizing the data to a canonical format and template through a consistent, repeatable process.

THE BENEFITS

The organization's member health centers now have the use of electronic health records to achieve the clinical and financial objectives tied to the Meaningful Use Program and other reporting requirements. With CCDs normalized by PilotFish into a canonical template that popHealth can consume, any center has the ability to be able to look at any calculated quality measure that is certified by CMS. By leveraging PilotFish for encounter data normalization and reduced time for integrations, it's easier to quickly evaluate care quality and possible to create a unified view of the patients' health picture.

With enhancements that SMC Partners contributed to the open source popHealth application, popHealth now has all the required measures built in - so centers can more easily report them to the feds. Clinical Quality Measures (CQMs) are calculated and presented with drill-down ability as well as ability to compare to aggregates. Side by side with financial data, a reporting system is being layered on top of the clinical data to give member healthcare centers an ever-fuller picture. Documents and data can be uploaded into popHealth and also sent to the data warehouse via SFTP. Without PilotFish, that entire process would have required a much more manual process, writing custom scripts and programing for point-to-point interfaces each time, to achieve what was envisioned.

Another benefit of PilotFish is that once rules are built for data mapping and creating an interface, they can be applied across multiple health centers. Interface reuse can be highly leveraged, saving time and money. With PilotFish in the mix, now a new FHQC can now be onboarded faster as well, in two weeks or less on average. Timelines were slashed and bringing on FQHCs systematically streamlined.

THE FUTURE STATE

With the benefits achieved by both the client and its member FQHCs with the data warehouse, the client is interested in moving towards a system of care made up of participating health centers with the help of further HIT

transformation. They could operate more like an ACO or as a type of integrated delivery network (IDN) in coming years. Before that, they have the ability to look at that data as a whole from multiple centers for better utilization of HIT to further improve patient care and lower costs in serving an underserved, often uninsured and vulnerable population.

As the organization expands its population health efforts, it can focus on patients and cohorts with single or multiple chronic conditions, even drilling into social determinants of health such as lack of transportation. The next stage is to be able to make some clinical decisions and care plans for patients with diabetes, hypertension or other chronic conditions. In doing this, they will be able to deliver more personalized patient care achieved with higher quality at less cost.

With the data warehouse and new capabilities, the client is exploring predictive analytical capabilities. Overall, with Population Health, the system will shift from a focus on treating illness to emphasizing prevention, wellness and chronic disease management. Another development of interest to the organization is that some not-for-profit health-care organizations already demonstrate their population health outcomes to payers to negotiate for better support. New contractual commercial sector opportunities might also be pursued. The organization also can demonstrate efficiencies overall throughout the state whose residents it serves as well as at individual member healthcare centers. Its successful Population Health Initiatives show that a Community Healthcare organization and the member FQHCs can achieved big wins in delivering quality and improving patient experience with better financial outcomes.

About SMC Partners, LLC
SMC Partners, LLC is an information technology, business process, and human performance consulting & solution delivery company. SMC is a professional services company focused on health care, health insurance, and social services. SMC is also a Value Added Reseller of PilotFish products and an authorized PilotFish implementation services partner. Learn more at: https://smcpartners.com

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 organiza-tion, please contact us at 860 632-9900 x 309 or Email us at info@pilotfishtechnology.com