

popHealth Primer: ONC Funds Open-Source Software to Streamline Clinical Quality Measures Reporting for Meaningful Use Program

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Sarah Cottingham, MHA, RHIT, CPHQ

Reporting clinical quality measures from an electronic health record (EHR) system is new territory and can be challenging for providers. However, that is just what eligible professionals must do to participate in the meaningful use EHR incentive program.

Recognizing the challenge, the Office of the National Coordinator for Health IT (ONC) funded the development of software called popHealth, which is designed to simplify the reporting of clinical quality measures and streamline the exchange of summary quality data for the meaningful use program.

What Is popHealth?

popHealth is an open-source reference implementation software service that automates the reporting of meaningful use clinical quality measures for physicians. It streamlines the automated generation of summary quality measure reports on a provider's patient population and provides aggregate statistics and the ability to drill down to named individuals.

popHealth is meant to "integrate with existing health IT systems as an extract, transform, and load (ETL) process," according to its Web site. The process involves extracting data from outside sources, transforming it to fit operational needs such as clinical quality measures, and loading it into the end target.

The software leverages Continuity of Care records from a provider's EHR to produce clinical quality measure reports. So all identifiable patient data remain within the provider practice and provides for secure privacy and security of the practice's health information.

Specifically, popHealth uses standard clinical data from the XML Continuity of Care formats required in the current meaningful use certification program. The two standards are Health Level Seven's Continuity of Care C32 Document and ASTM International's Continuity of Care Record.

popHealth integrates with multiple EHR systems and is intended to easily scale as clinical quality measures are added. Vendors and providers using clinical repositories for source data may directly integrate with popHealth and leverage the quality measure engine.

popHealth's Origins

ONC began working on popHealth in 2009, before the meaningful use final rule was published. It contracted with the MITRE Corporation, a not-for-profit-company chartered to work solely in the public interest, to develop the software.

ONC selected the MITRE Corporation to work on popHealth because of its previous technical background with Continuity of Care standards. MITRE also developed Laika, an open-source EHR testing framework used in the EHR certification process.

"Through our partnership with the Office of the National Coordinator for Health IT, we were able to support ONC's ongoing needs for designing innovative solutions to complex national problems and provide objective advice on modeling solutions that support the health IT community as a whole," says Joy Keeler Tobin, health IT program manager at MITRE.

Testing popHealth

Currently popHealth is still in the pilot testing stage for the ambulatory practice setting. The software is expected to officially launch sometime this year and become certified for meaningful use as an EHR module. EHR vendors and healthcare providers are free to download, use, and integrate the popHealth software in their systems now.

"The meaningful use clinical quality measure reporting process is made real for healthcare providers through both hands-on experience with the popHealth demo system on the www.projectpophealth.org Web site and downloading the open-source system for use in their practices," says Lisa Tutterow, program manager for popHealth at MITRE.

"EHR system vendors are supported in their clinical quality measure reporting development efforts with the ability to download and inspect the application code and incorporate any pieces that can augment their systems with no associated license fees."

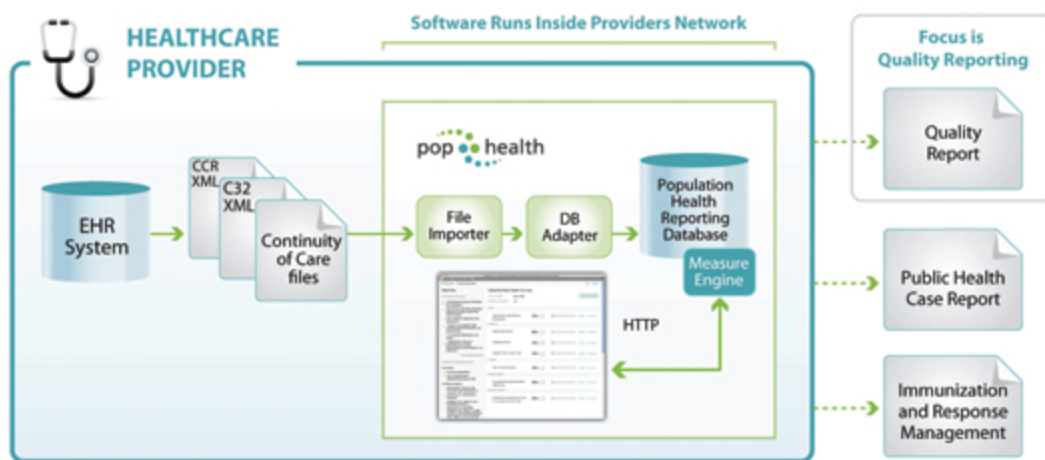
Organizations and vendors can view demonstrations of popHealth and learn more about the software by visiting <https://demo.projectpophealth.org>.

There has been a positive response to popHealth in the pilot tests, and it is anticipated that the MITRE Corporation will work with ONC to develop a popHealth clinical quality measure reporting tool for the inpatient quality measures.

"Though the current popHealth project was designed to model the meaningful use eligible professional [in the ambulatory setting], the positive feedback it has received has encouraged consideration for further development of popHealth for inpatient measures," says Rob McCready, project leader and chief engineer for MITRE.

popHealth Concept of Operations

popHealth was designed to operate within a provider's infrastructure. This design decision was made to address privacy and security concerns regarding access to information associated with individual patient records.



Source: MITRE Corporation. "popHealth: A Clinical Quality Measure Reporting Tool." 2011. www.mitre.org/work/health/downloads/pophealth.pdf.

HIM's Role in Quality Reporting

The role of the HIM professional is evolving and becoming more crucial as the American healthcare industry undergoes a transformation. Some liken this transformation to building a highway while also trying to drive on it. This is the current landscape of healthcare quality.

With healthcare reform, more and more legislation is being handed down with reportable quality measures to ensure accountability and performance. The HIM professional will be the leader for the healthcare provider and organization to ensure that data are valid and coded correctly.

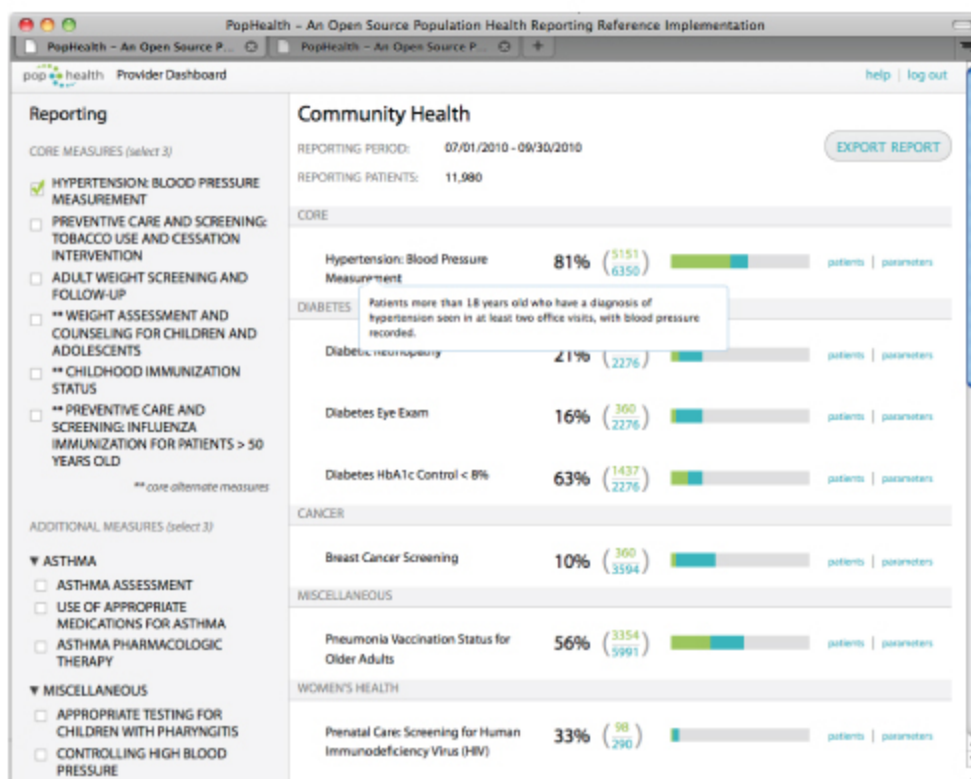
"The accuracy of an EHR's coded clinical data is key to the accuracy of clinical quality measure reports," says Maggie Lohnes, RN, clinical lead for popHealth. "The meaningful use specifications for clinical quality measures call for data coded in ICD, CPT, SNOMED, and other clinical lexicons. The role of HIM professionals in assuring the accuracy of the coded data is critical to the success of clinical quality measure reporting."

The structure and format of data must evolve as the industry moves from unstructured data consisting of dictation, free-text fields, and handwritten notes to structured data consisting of structured data elements.

HIM professionals need to ensure building blocks including data validity, relevant standard code sets, and accurate, comprehensive documentation are in place to enable electronic reporting of clinical quality measures and continue providing high-quality healthcare for patients, families, and the nation.

popHealth Sample Report

This sample report from popHealth depicts a clinical quality report for a provider's patient population.



Source: MITRE Corporation. "popHealth: A Clinical Quality Measure Reporting Tool." 2011. www.mitre.org/work/health/downloads/pophealth.pdf.

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Sarah Cottington (cottington.sarah@gmail.com) is a quality improvement advisor with the Iowa HIT Regional Extension Center at IFMC.

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