popHealth:
A Clinical Quality Measure Reporting Tool

The best decisions in health care come from good information.

This is the logic behind popHealth, an open-source project that allows providers to aggregate data from patient electronic health records (EHR) to generate clinical quality measures reports, providing physicians with a better understanding of the overall health of their patient population and the ability to identify opportunities to improve the care provided. popHealth automates the generation of these clinical quality measure and streamlines the submission of quality measure reports to public health organizations.

popHealth Value to the Providers:

- Empowers providers to easily perform their own clinical quality measure analysis
- Promotes easier submission of Meaningful Use clinical quality measures to public health organizations

The Office of the National Coordinator for Health IT (ONC) sponsored the development of popHealth to support providers and EHR vendors in achieving and reporting Meaningful Use of health IT. The popHealth prototype developed in 2009 by ONC received widespread positive reaction and has been further developed to encode the electronic specifications for the 44 Stage 1 clinical quality measures for eligible professionals. The majority of the software for popHealth runs atop the Laika software infrastructure, a widely used and proven, open-source EHR testing framework.
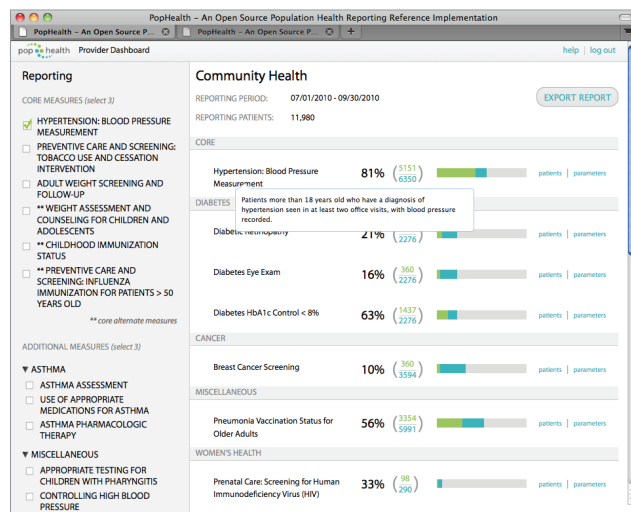
The popHealth solution demonstrates how a provider can use popHealth to analyze the quality of care provided as part of their existing workflow. popHealth helps providers easily understand the logic behind clinical quality measures and easily identifies patients requiring follow-up care. The transmission of summary quality data is simple and scalable, representing an alternative to traditional methods of data analysis and reporting.

popHealth's innovative design leverages the generation of Continuity of Care records from a provider's EHR to produce the clinical quality measure reports. Specifically, popHealth leverages the HITSP CCD/C32XML and ASTM CCR XML continuity of care standards as inputs. popHealth integrates with multiple EHR systems and will 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 is also designed to operate within a provider's infrastructure and export the PQRI XML as a reporting artifact for the transmission of summary data.

The popHealth software and more information are available at www.projectpophealth.org.

Sample Report Pulled from popHealth

popHealth was designed to be a valuable dashboard into patient health. The sample report to the right depicts a clinical quality report for a provider's patient population. This provider has selected Meaningful Use core measures and additional measures that best represent the patient population, and the resulting quality measure for the population. Valuable information on the patients and the measure definition are a short click away.
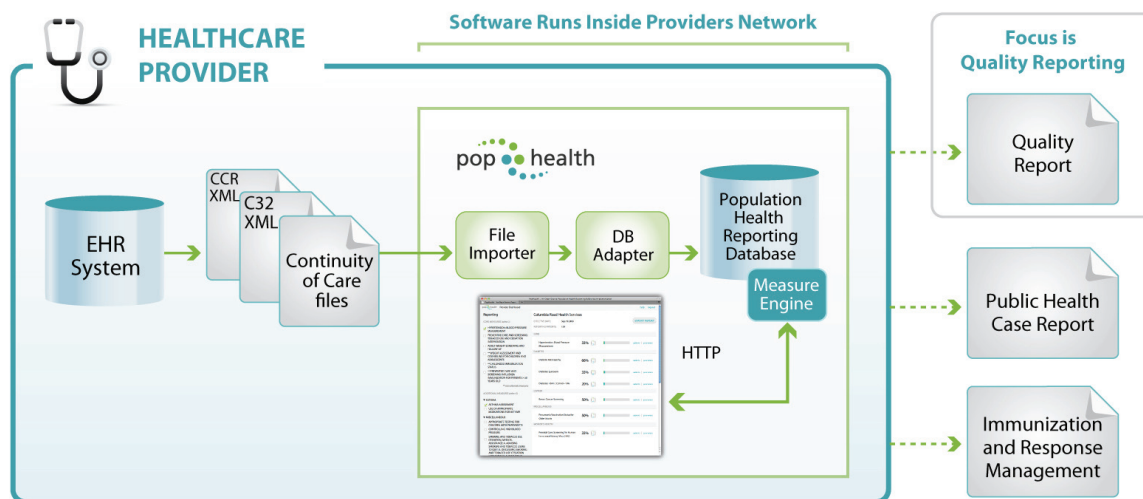

popHealth Features

- Allows for ease of use and access through a web-based interface
- Integrates with existing electronic health record systems that use nationally-recognized Continuity of Care health IT data standards
- Defines all 44 Meaningful Use Stage I clinical quality measures
- Streamlines submission of clinical quality measure reports to public health organizations

The popHealth prototype software and source code are freely available under an Apache 2.0 open source distribution license.

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.

For more information, go to www.projectpophealth.org.