



Meaningful Use Clinical Quality Measure Reporting An Open Source Solution



Partners

The Office of the National Coordinator for
Health Information Technology



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What is popHealth?

Meaningful Use

Electronic
Health Record
Certification

Interoperability

Clinical Quality
Measure
Reporting

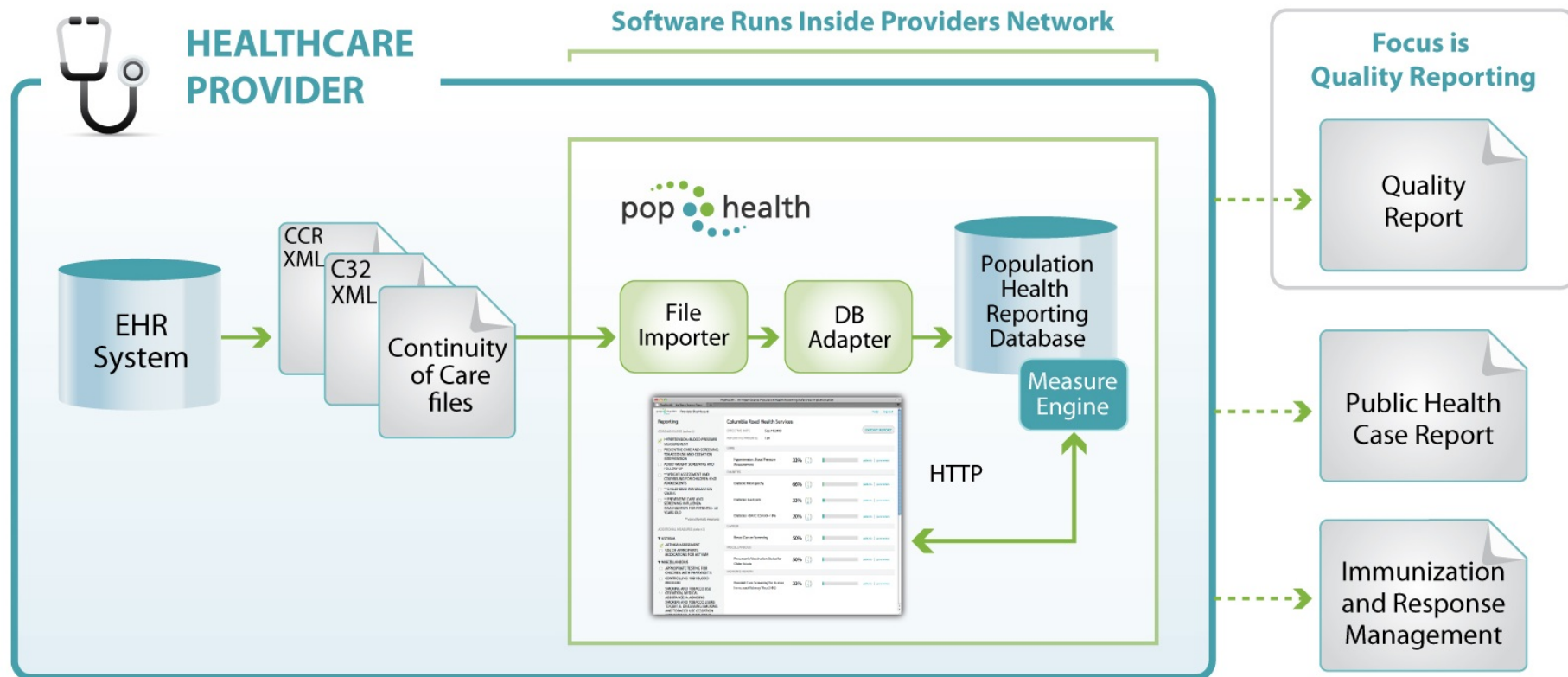


- Clinical Quality Measure reporting tool
- Features:
 - Provider-friendly user interface
 - Includes all 44 Meaningful Use Stage I ambulatory clinical quality measures encoded per CMS electronic specifications
 - Affordable, accessible, open source and multi-platform software
- A reference implementation for vendors and providers

Key Design Features

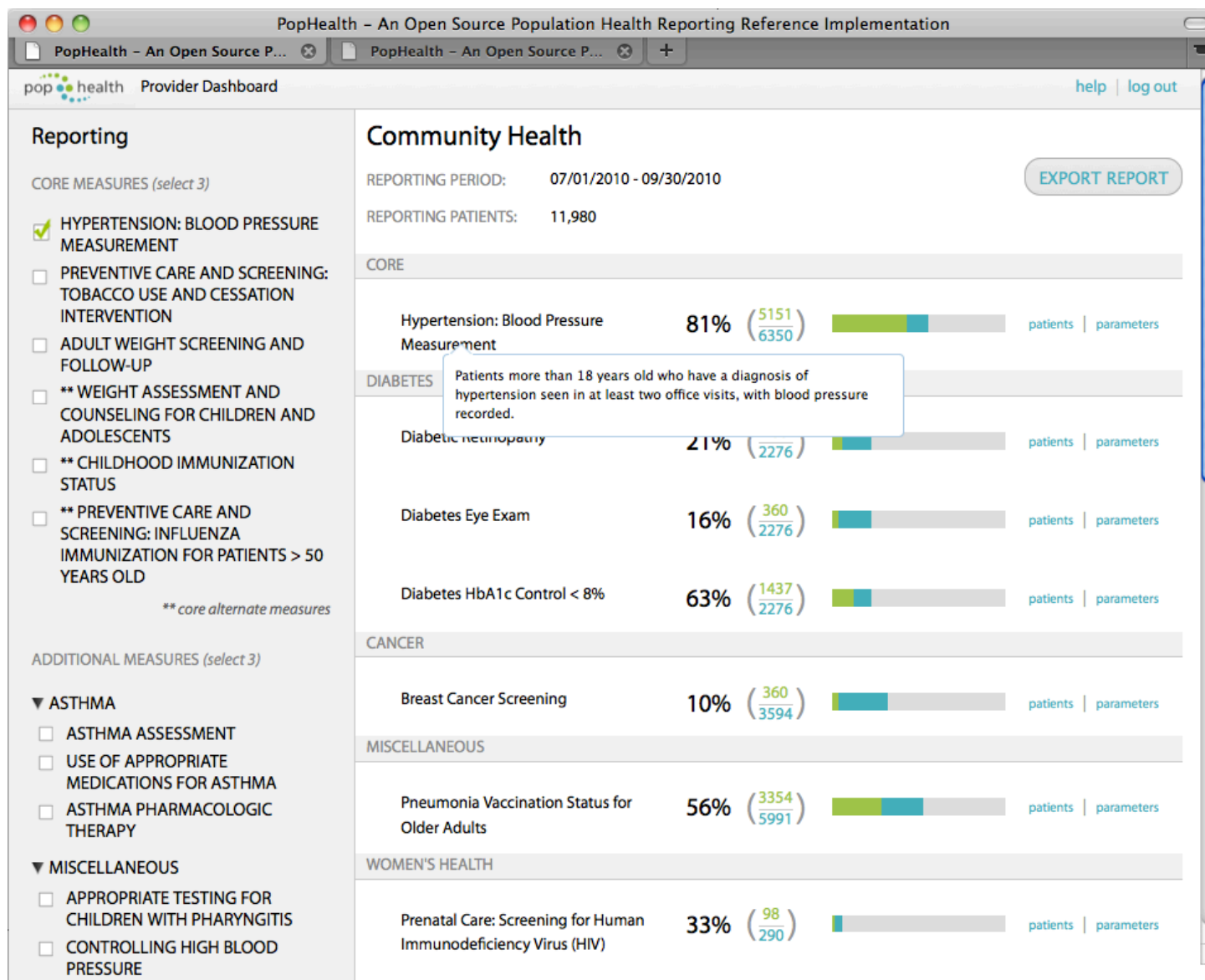
- **Standards-based data input**
 - Utilizes **ONC-certified EHR Continuity of Care data transmission standard** as patient data source
 - HITSP C32 XML
 - ATSM CCR XML
- **Open source solution easily deployed within Provider's firewall**
- **All identifiable patient data remains in provider practice to address security and privacy issues**
- **Provides aggregate stats and ability to drill down to named individuals**

Data Process Flow

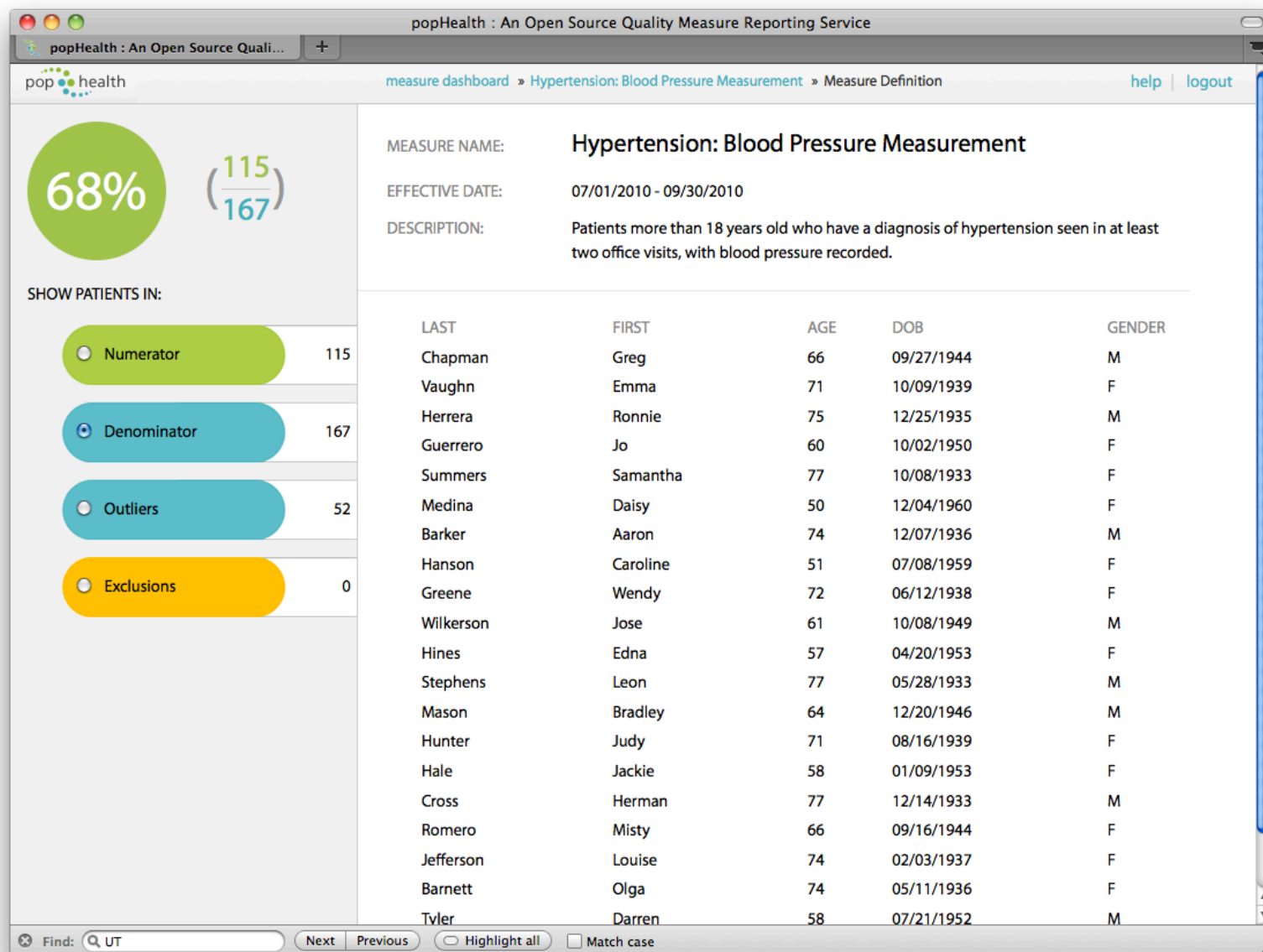


DEMO

Provider Dashboard



Patient List



Measure Definition Sample

popHealth : An Open Source Quality Measure Reporting Service

popHealth : An Open Source Quali...

pop health

measure dashboard » Childhood Immunization Status » Measure Definition

help | logout

82%

(¹²⁶/₁₅₃)

MEASURE NAME:

Childhood Immunization Status

EFFECTIVE DATE:

07/01/2010 - 09/30/2010

DESCRIPTION:

The percentage of children 2 years of age who had four diphtheria, tetanus and acellular pertussis (DTaP); three polio (IPV); one measles, mumps and rubella (MMR); two H influenza type B (HiB); three hepatitis B (Hep B), one chicken pox (VZV); four pneumococcal conjugate (PCV); two hepatitis A (Hep A); two or three rotavirus (RV); and two influenza (flu) vaccines by their second birthday. The measure calculates a rate for each vaccine and two separate combination rates.

denominator (153)

patient characteristic gender male

or

patient characteristic gender female

and

patient characteristic age between 1 and 2

and

encounter outpatient with pcp and obgyn

exclusions (0)

medication administered >= 1 count measles, mumps and rubella (mmr) vaccine prior to 2 years old

or

medication administered >= 1 count mumps vaccine prior to 2 years old

or

diagnosis mumps resolved

or

allergy mumps vaccine allergy

and

medication administered >= 1 count measles vaccine prior to 2 years old

or

Find: Q OHD

Next Previous

Highlight all

Match case

Phrase not found

Benefits:

Quality Measure Integrity

Validate Accuracy

- **Partnerships** with Measure Stewards to identify and resolve issues
 - American Medical Association (AMA)
 - National Committee for Quality Assurance (NCQA)
- **Testing** performed, both in-house and at provider pilot sites ensures accurate and reliable quality measure reporting

Ensure Confidence

- **Providers** are empowered to improve care with accurate and reliable clinical quality measure reports
- **Vendors** incorporate quality measure programming that meets Meaningful Use certification requirements; relieved from parallel development

Benefits of an Open Source Community

Creativity:

- Stimulates design and programming innovation

Transparency:

- Allows access and freedom to view, inspect, modify and re-distribute open source work

Auditability:

- Provides accessibility to inspect and scrutinize the underlying source code for the software

Lower Cost:

- Lowers financial costs normally associated with software development. Costs incurred by users to install, integrate and modify open source software

For More Information

For more information on popHealth,
please visit the project website at:

www.projectpophealth.org

popHealth was featured at the HIMSS 2011
Interoperability Showcase

Sponsored by:
Office of the National Coordinator for Health IT
Meaningful Use Division

Backup Material

Using Continuity of Care Records

- **popHealth's innovative design leverages the certified EHR generation of Continuity of Care records to produce clinical quality measure reports**
- **Benefits of this approach include:**
 - Utilizes standard CCR or C32 Continuity of Care files available per ONC Standards and Certification rule
 - Opportunity to reduce costs and speed implementation for quality measure reporting
 - Works with multiple EHR systems
 - Promotes Interoperability
 - Easily scales for new measures
- **Vendors/providers using clinical repositories for source data may directly integrate with popHealth and leverage the quality measure engine**



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Assists the U.S. Government with scientific research & analysis, development & acquisition, and/or systems engineering & integration

Refrains from manufacturing products, competing with industry, or working for commercial companies

**Previous technical background with continuity of care standards,
Developed Laika, an open source EHR testing framework
used in EHR certification process**