Description:

Background: Electronic health records (EHRs) can provide a host of benefits to providers and their patients. How much value can be derived of EHRs depends widely on how they're used. Meaningful use (MU) is the set of standards, defined by the Centers for Medicare & Medicaid Services (CMS) Incentive Programs, which administers the use of EHRs and allows eligible providers and hospitals to earn incentive payments by meeting those specified criteria. The ultimate goal of Meaningful Use is to promote the widespread use of electronic health records to improve health care. The primary benefits of MU of EHRs are

- Complete and Accurate Information
- Better Access to Information
- Patient Empowerment

In order to receive an EHR incentive payment, providers have to show that they are "meaningfully using" their certified EHRs to meet the thresholds of a number of stated objectives. CMS has established the objectives for "meaningful use" that eligible professionals, eligible hospitals, and critical access hospitals (CAHs) must meet in order to receive an incentive payment. For eligible professionals, there are a total of 25 meaningful use objectives. To qualify for an incentive payment, 20 of these 25 objectives must be met:

- 15 required core objectives
- 5 objectives chosen from a list of 10 menu set objectives.

Core Objectives:

- CPOE (Computerized Provider Order Entry)

- Implement Drug-Drug/Drug-Allergy Interaction Checks

- Maintain an up-to-date problem list of current and active diagnosis

- Generate and transmit permissible prescriptions electronically (eRX)

- Maintain Active Medication List

- Maintain Active Medication Allergy List

- Record Demographics : Preferred Language , Gender , Race, Ethnicity, Date of Birth

- Record and Chart changes in the vital signs : Height, Weight, Blood Pressure, BMI, Growth Charts for children 2 -20

- Record Smoking Status for Patients >= 13 years

- Report Ambulatory Clinical Quality Measures

- Implement one Clinical Decision Support rule relevant to specialty

- Provide Patients with Electronic copy of their health information

- Provide Clinical Summaries for Patient for each office visit

- Capability to Exchange Key Clinical Information

- Protect Electronic Health Information

For more details visit

https://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/downloads/EP-MU-TOC.pdf

Project Overview:

It is the desire to become eligible for getting the financial incentive which is currently attracting a number of new practices to adopt the use certified EHRs. Since the eligibility is hinged on following certain criteria, it proves to be of high value for Physicians to use a **Core Measure Dashboard** to keep track of things. Such a dashboard not only enables them to quickly determine whether they are meeting the required goals at any instance but also allows them to track progress and to show the required calculations at any point in time.

The Meaningful Use utility is a dashboard which displays how your Practice is faring on the basis of the set of core requirements mentioned by CMS. The utility also provides a physician with the necessary information to meet each individual CMS established objective.

Project Description:

Technology:

The UI comprises of the interactive and animated Kendo-UI charts, custom designed and applied using client side technologies (like jQuery, CSS). The UI is tightly coupled with the WCF service in background which is used to fetch data available for the clinic.
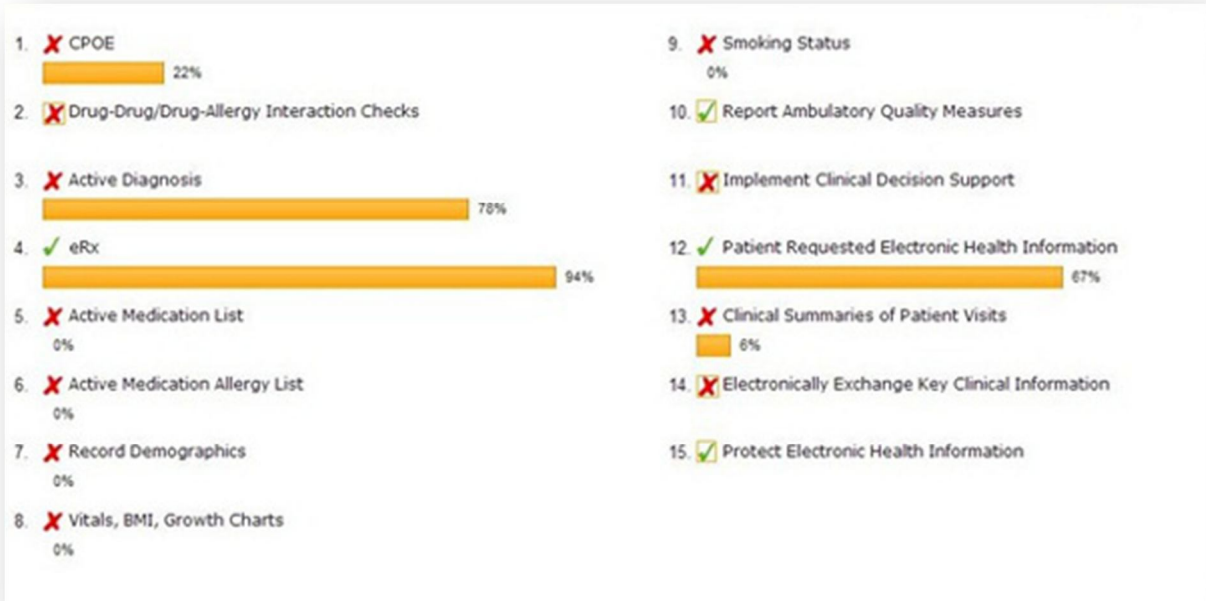
Work engine:

Each clinic within the EHR needs to be parsed against each of the MU measures. The parsing request of the clinic is stored and a confirmation mail is sent to the required email Id once the clinic is successfully parsed.
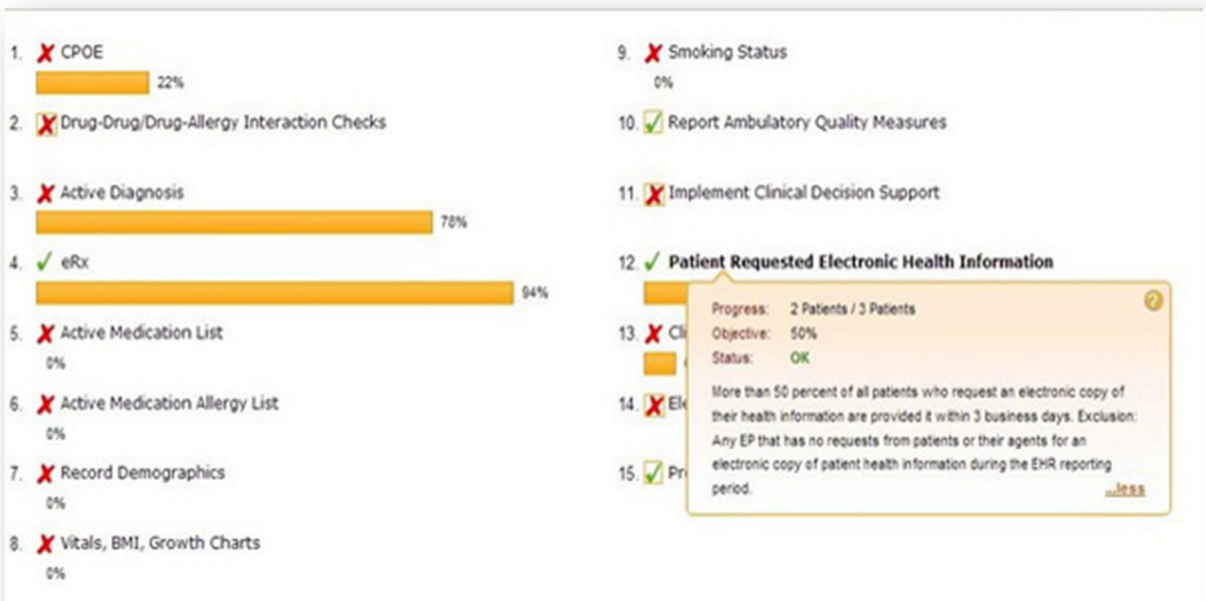
There is a windows service in the background which regularly (at certain fixed time intervals) looks at the new requests made for parsing clinics and does that one by one and stores the related DB details.

The UI (web interface) requests the web service to look into those details of clinics (which gets populated by windows service), and shows those details in an interactive way. In the UI, there's an option to re-parse the clinic for MU measures.
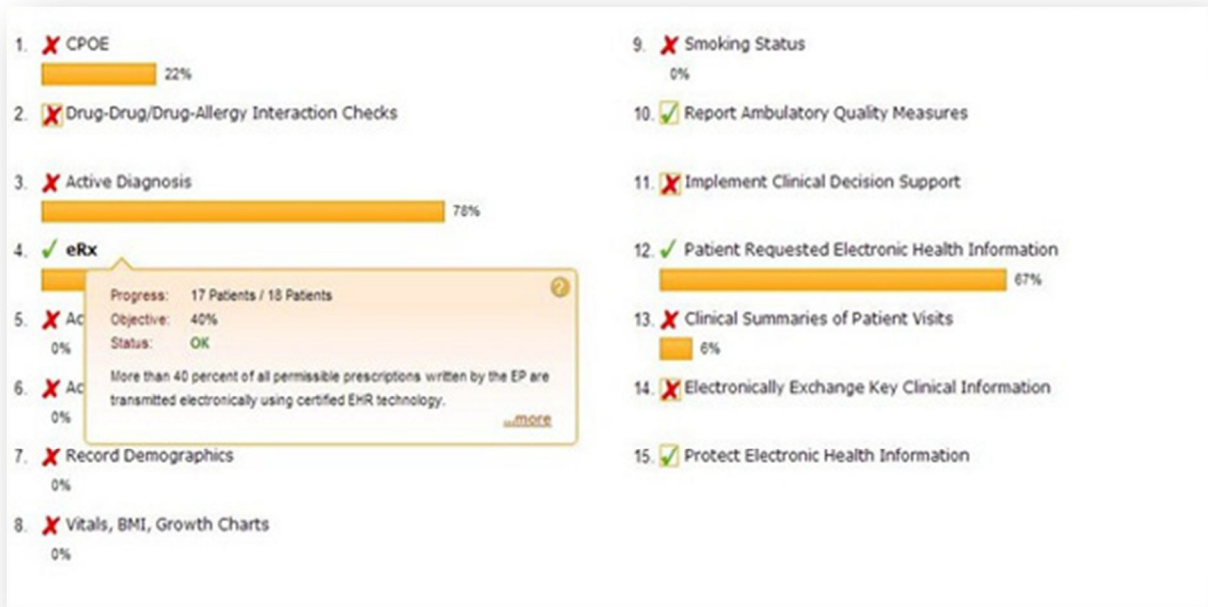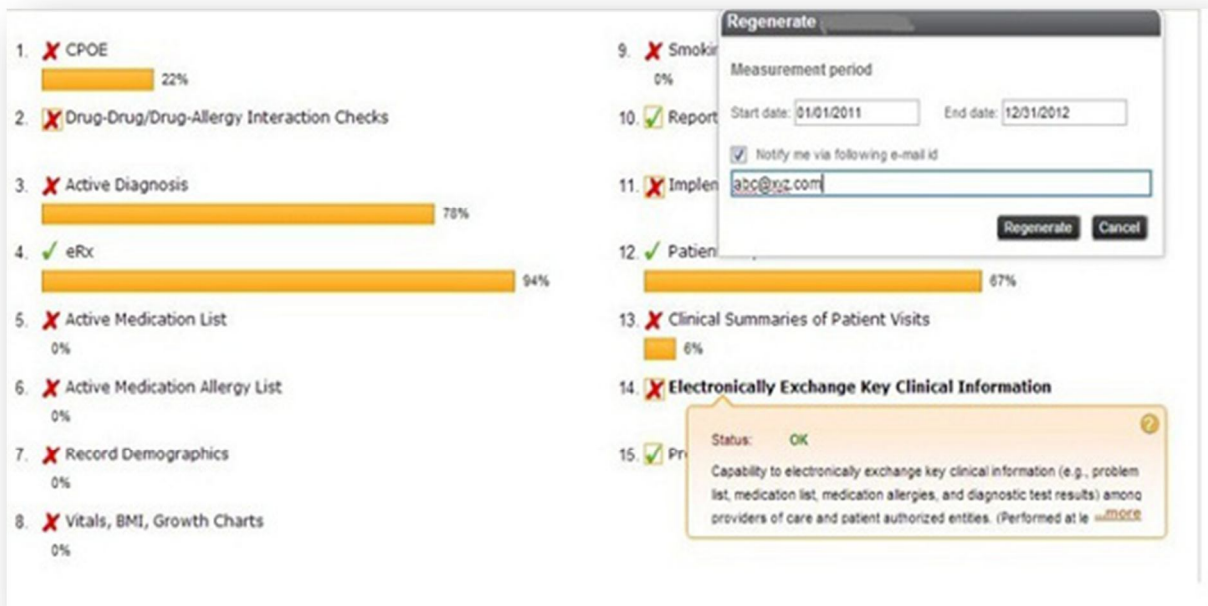
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Screen Shots:

MU Utility Dashboard Sample Image 1

MU Utility Dashboard Sample Image 2

MU Utility Dashboard Sample Image 3

MU Utility Dashboard Sample Image 4