Meaningful Use: Capacity/ Functionality in Quality Reporting

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Question One

- What are realistic goals for certified inpatient and ambulatory EHRs to achieve with respect to capture, retrieval, and reporting of data needed for quality measurement and informed clinical decision making in 2011?

Realistic Goals

- Realistic goals in the next 6 months include:
  - Analysis of the data available in certified EHRs that can be reported in an unambiguous manner (dependent upon certification criteria)
  - Identification of a small set (e.g. 3-4) of performance measures
  - Development of performance measure definitions (Denominator, Numerator, Exceptions) and identification of the source of data (specific data fields) in certified EHRs
  - Development of clinical decision support logic for these reminders based on 'certified' EHR criteria
  - Beginning of a structure for a meta data dictionary that is integrated into certification at some future point
  - Proposed open source architectural design of the reporting software

Proposed Ambulatory EHR

- Quality Measurement and Informed Clinical Decision Making in 2011
  - Capture
    - Denominator
      - Age / Gender
      - Diagnosis – limited with unambiguous definition
      - Exceptions
    - Numerator
      - Vitals (BP, BMI) - e.g. obesity; BP measured; BP controlled
      - Qualitative and Quantitative lab results (numeric) - e.g. HgA1C measured; results reported and available
      - Immunization
      - Exceptions

  - Retrieval

  - Reporting- in aggregate
    - Obesity and overweight rates in specified age groups based on BMI
    - Adult population with BP measurement
    - Specified age group with appropriate immunization
    - Diabetics with HgA1C measured

Proposed Inpatient EHR

- Quality Measurement and Informed Clinical Decision Making in 2011
  - Capture
    - Denominator
      - Age / Gender
      - Diagnosis – limited with unambiguous definition
    - Numerator
      - Vitals (BP, BMI, pulse ox in certain conditions) - e.g. obesity; BP measured; BP controlled
      - Qualitative and Quantitative lab results (numeric) - e.g. HgA1C measured; results reported and available
      - Appropriate intervention

  - Retrieval

  - Reporting
    - Obesity and overweight rates in specified age groups based on BMI
    - Patients with specific diagnoses with appropriate intervention (pneumonia and pulse oximetry)
    - Patients who received discharge instructions at hospital discharge

Anticipated Problems

- The electronic reporting of national measures where the measures are clearly defined is a time consuming process
  - Mitigate by defining detailed specification of the FEW measures by start of FY 2010
- Many current measures are not defined electronically
  - Mitigate by a 'quality software sandbox' at CMS through a public-private partnership to evaluate the measures, develop rapid prototypes for testing using a few certified EHR's, and test the results prior to endorsing the measures
  - For 2012 and beyond, develop, define and test in the 'quality software sandbox' at least two years ahead of implementing reporting requirement

Question Two

- What is the trajectory over time toward a "quality data set" to enable broader standardization of electronic data capture and reporting with EHRs needed to support clinical care and quality measurement? Describe the end goal and any interim milestones, barriers and enablers.

Question Two

The establishment of a quality data set (**QDS**) should be driven by *standardized* performance measures that are determined to be a priority for the nation to improve quality of care and achieve health equity, and those measures required for accountability for payment or incentive payments. These may **NOT** be the same measures.

QDS needs to be developed based on the information that is needed for reporting, as opposed to data that is already collected. However, for 2011, **QDS** should be driven by data that is already being collected routinely in electronic health records.

Long term, quality data sets for the patient need to reside within a population health quality data set within the electronic health record. The electronic health record needs to display not only the patients **QDS** results, but the results for the population that includes the patient.

Question Two

- Interim Milestones
  - Required for certification at x year
    - Data fields and comprehensive measures that reflect the goals of the QDS
    - Standardized Clinical Decision Support definitions that are coupled with the QDS
    - Population Health functionality within the architectural design of the EHR
    - Interim trajectory goals assuming adequate resourcing
      - X number of measures by X period of time
      - Focus on accountability and improvement

Question Two

- Barriers:
  - Fiscal investment required to develop and agree upon these standards
  - Time lag required to develop, test, deploy and implement QDS
    - A two year lead time is essential to developing, deploying and populating additional data fields that can be used within quality data sets (e.g. ejection fraction), let alone develop and test the electronic algorithm
  - Development of CDS (clinical decision support) at the same time as QDS to increase quality
  - Failure to include business process change in the incentive schematic
  - Incentives for individual providers versus group practices
  - Inherent problems with unadjusted populations and denominators and the resultant 'comparison' of data
- Enablers:
  - Providers commitment to quality
  - Patients desire for patient activation and transparency

Question Three

- What other infrastructure or policy requirements need to be considered for HHS to enable and prepare for the sharing of electronic data for quality measurement?

Question Three

- Infrastructure
  - Develop and publish
    - Standard file structure
    - Standard secure transmission methodology
    - File acceptance criteria
    - Certification criteria that includes recommended architectural design for clinical quality reporting and exporting for both accountability and improvement
  - Data warehouse at regional level
  - Field support for technical, transmission, and clinical questions

Question Three

- Policy requirements:
  - Determination of *which* definition will be used for the performance measures. There are currently several different definitions that exist for the same general performance measure
  - Evaluation of impact of differences in population on quality measure results across the nation
  - Clear goals of quality reporting and the potential impact on the provider and patient
  - Determination of the inclusion of administrative vs clinical data sets

Question Four

- Insofar as quality measures reporting using EHRs would be to State or Federal agency designated repository, what if any potentially practical mechanisms or other implications for assuring accuracy, validity, and privacy of submitted data should be considered?

Question Four

- Practical Measures to help ensure accuracy and validity
  - Federal adoption of a standard core measure set for each type of health care setting (inpatient, outpatient or primary care, nursing home, emergency) stratified by disease and population
  - Precision of the definition of the components of the measure
  - Ability of EHR's to record comparable data that can be identified, extracted and aggregated
    - Defined parent-child relationships of data fields, within a meta data registry
  - Validated software through a defined SQA process
  - Inability to modify the software except at a defined access level
  - Test case scenarios that are developed, promulgated and tested for quality measures through the certification process

Conclusions

- Policy issues need to be defined and addressed
- Technical issues continue to exist but are surmountable
- Implementation should move slowly

Indian Health Service

- Indian Health Service (IHS) and tribes provide care to over 1.5 million people in more than 400 sites in 36 states

- The Resource and Patient Management System (RPMS) is the IHS Health Information Technology (HIT) Solution used in over 90% of these facilities for the last 25 years

- RPMS is an integrated suite of software applications that includes a database that functions as a clinical data repository at each site

- IHS developed the RPMS Clinical Reporting System (CRS) application in FY 2000 to electronically compile clinical quality results

- Currently includes 300+ clinical quality measures, including over 100 measures collected and reported on 1.25 million patients on a quarterly and/or annual basis

- Data is used by the Agency, DHHS and OMB for improvement, accountability and performance based budgeting