

April 4, 2012

TO: Paul Tang, Farzad Mostashari
FROM: David Lansky, Quality Measures Workgroup
RE: EHR platforms for calculating and reporting quality measures

The HIT Policy Committee has repeatedly identified several difficulties with the current mechanism for extracting clinical quality measures from certified EHR technology systems. Major concerns include:

- Long lead time for programming precise specifications for each measure into each product
- Burden to vendors and users of introducing new measures
- Inability of users to generate quality measures of special interest to them
- Difficulty of producing drill-down or sub-population analyses
- Difficulty of supplying data to multiple clinical and public health registries from clinical systems
- Difficulty of integrating multiple data sources for purposes of calculating quality measures (e.g., from claims or patient-report data)

Two approaches have been suggested to address these concerns:

1. Development of a “plug-and-play” capability within each EHR product, that can receive a downloaded quality measurement specification and produce a reliable result
2. Development of a flexible data extraction capability within each EHR product, that allows the user to output the necessary data fields to support one or many quality measure calculations, which are actually generated by a separate application. The PopHealth application follows this approach by applying standard calculations to data contained in extracted CCR or CCD records.

We recognize several concerns with these approaches, such as the difficulty of assuring comparable results, the complexity and variability of local workflows used to populate the EHR, and the lack of standards for specifying a query or calculation algorithm. Nevertheless, the long-term value of EHRs in contributing to the quality improvement and value-promotion goals of health care reform will be very limited if we are unable to solve these problems across the industry.

Here is a sampling of use cases the quality measurement engine would need to address:

1. Accept simple numerator/denominator specifications as well as exclusion criteria from an authoritative external source and produce a reliable score

- a. Example: NQF0032 – Percentage of women 21-64 years of age who received one or more Pap tests to screen for cervical cancer;
 - b. Example: Proposed “core” measure (Table 6 of NPRM) - Lipid control by risk group: Percentage of patients aged 20 through 79 years who had a fasting LDL test performed and whose risk-stratified fasting LDL is at or below the recommended LDL goal.
2. Accept more complex next generation measure specifications
- a. Example: ONC111 – Percentage of patients 18 years of age and older receiving outpatient chronic medication therapy who had the appropriate therapeutic drug monitoring during the measurement year (ex: Warfarin monitoring with INR in-range)
 - b. Example: NQF0312 – Percentage of patients with back pain who received inappropriate imaging studies in the absence of red flags or progressive symptoms
3. Accept data from multiple sources to produce score
- a. EHR case finding linked to external data transactions
 - i. Example: Closing the referral loop (NPRM, Table 6): Percentage of patients regardless of age with a referral from a primary care provider for whom a report from the provider to whom the patient was referred was received by the referring provider.
 - b. EHR clinical data with repeat measurements:
 - i. Example: ONC103: Percentage of patients aged 18 years and older with hypertension whose blood pressure improved during the measurement period.
 - c. EHR clinical data linked to external patient reported data
 - i. Example: NQF0711 – Depression remission at 6 months: Adult patients age 18 and older with major depression or dysthymia and an initial PHQ-9 score >9 who demonstrate remission at 6 months defined as PHQ-9 score <5.