eCQM Implementation Testing

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Why Is Implementation Testing Important?

- To ensure that providers can utilize electronic clinical quality measures (eCQM) in the delivery of quality and safe care
- To decrease provider burden in the utilization of eCQM and reporting for CMS quality programs
- To achieve the goal of high quality data which means
 - yielding consistent results regardless of vendor product
 - > be implementable without "tweaks" to the code





What is Implementation Testing?

- Consumption of eCQM Health Quality Measures Format (HQMF) by EHR vendors in an automated way
 - Growing number of vendors use a 'parser' to read XML code
- Simulating eCQMs in a pre-production environment to validate the accuracy of coding in a vendor's EHR
- Maintaining the integrity of the eCQM the intent of the measure is not jeopardized
- Facilitating the consistent and accurate implementation of the eCQM





How is Implementation Testing Done?

Collaborating with vendors and providers by:

- Providing the HQMF and test cases to confirm:
 - Data elements exist in the electronic health record (EHR)
 - HQMF code is readable
 - Capture of data
 - Correct identification of measure populations and classification of test cases





When is Implementation Testing Performed?

- Testing is iterative; early and often
- In step with industry standards i.e. using the most current version
- Before including in CMS quality programs





How does implementation testing differ from other types of testing?

Bonnie Testing:

Assess measure logic accuracy for measure intent



Measure Property Testing:

Assess scientific acceptability and measure feasibility



Implementation Testing:

Assess accuracy of HQMF code





CMS Approach to Implementation Testing

National Testing Collaborative

- Identified as an area of improvement from adapting the Lean methodology
- Consists of CMS and external stakeholders: providers, measure developers and vendors
- Goal: to build a "rolodex" of external stakeholders that would test eCQMs any time during the development process





Implementation Testing: Recent Experience

- A limited number of vendors are directly consuming HQMF
- Epic and the National Patient-Centered Clinical Research Network (PCORnet) have worked with CMS measure developers to conduct eCQM implementation testing activities



