Setting eCQMs on FHIR

Progression to Electronic Clinical Quality Measures (eCQMs) and Digital Quality Measures (dQMs) with HL7 Fast Healthcare Interoperability Resources (FHIR®)

CMS.gov Centers for Medicare & Medicaid Services

HL7 FHIR

What is FHIR?

FHIR is a data interoperability platform created by the HL7 Community that:

- Standardizes data capture to support eCQM and dQM requirements for patient-centered care

- Uses the latest technology to streamline the sharing of data

- Defines 'Resources' as the fundamental standard blocks of data

Why FHIR for eCQMs & dQMs?

Promote Interoperability to Reduce Burden
– Align quality measurement with industry standards to reduce mapping effort

Simplify Data Exchange
– Enable automated data retrieval from EHRs and submission of quality data through use of standards-based APIs
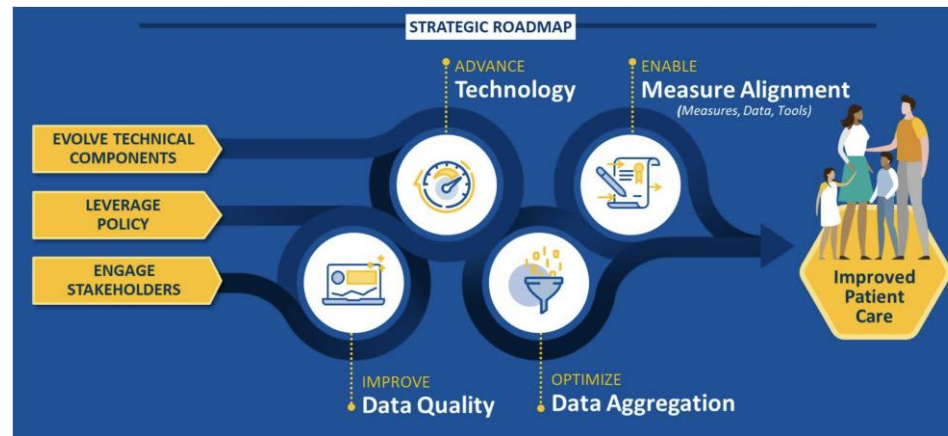
Engage the Community
– Enlist the diverse community of FHIR stakeholders to help drive development of standards that are most useful to users

CMS dQMs

dQMs are quality measures:

- Use standardized, digital data from one or more sources (wearable devices, HIEs, administrative systems) of health information, captured and exchanged via interoperable systems using FHIR APIs.
- Are computable in an integrated environment.
- eCQMs are considered a type of dQM.

Figure 1. CMS' vision for transitioning to full digital quality measurement (source: Centers for Medicare and Medicaid Services, dQM Strategic Roadmap)

eCQI Ecosystem

Figure 2. Quality Improvement Ecosystem (source: https://hl7.org/fhir/us/davinci-deqm/#quality-improvement-ecosystem)

Highlights the ideal iterative flow of evidence-based information from research to clinical practice and measurement to evaluate clinical performance and outcomes for healthcare organizations.

References

CMS. (2022). *Digital Quality Measurement Strategic Roadmap*. https://ecqi.healthit.gov/sites/default/files/CMSdQMStrategicRoadmap_032822.pdf
CMS. (n.d). *Reference Brief: Digital Quality Measurement eCQMs*. https://ecqi.healthit.gov/sites/default/files/Digital%20Quality%20Measurement%20eCQMs%20reference%20brief_508ed.pdf
eCQI Resource Center. (2023, September 7). *dQMs—Digital Quality Measures* |. https://ecqi.healthit.gov/dqm?qt-tabs_dqm=1

Acronyms

CQL: Clinical Quality Language
DEQM: Data Exchange for Quality Measures
eCQM: Electronic Clinical Quality Measure
HL7: Health Level Seven International

HQMF: Health Quality Measure Format
QDM: Quality Data Model
QI-Core: Quality Improvement Core
QRDA: Quality Reporting Document Architecture

How do I learn more?
Visit the eCQI Resource Center for recorded sessions and upcoming training events at at
https://ecqi.healthit.gov
Contact the FHIR eCQM Standards Team: ecqm@icf.com