Digital Quality Measures and Patient Outcomes

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Patient Outcomes and (Digital) Quality Measurement

EDM Forum
EDM Forum Community

eGEMs (Generating Evidence & Methods to improve patient outcomes) — Publish

4-20-2017

Measuring Preventable Outcomes: Global Cardiovascular Risk (GCVR)

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"Measuring the quality of asthma care has been limited by a lack of reliable clinical data to assess the quality of patient-centered asthma care and track patient-specific outcomes… The movement toward patient-centered and patient-reported outcomes argues for the implementation of a new approach to promoting high quality asthma care."

HHS Public Access

Author manuscript

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Is It Time for a Patient-Centered Quality Measure of Asthma Control?

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"This pilot successfully demonstrated that a predicted outcome measure is feasible using electronic patient data. However, new specification standards are required before this approach is fully scalable to the level of a national quality reporting program."

What are Digital Quality Measures?

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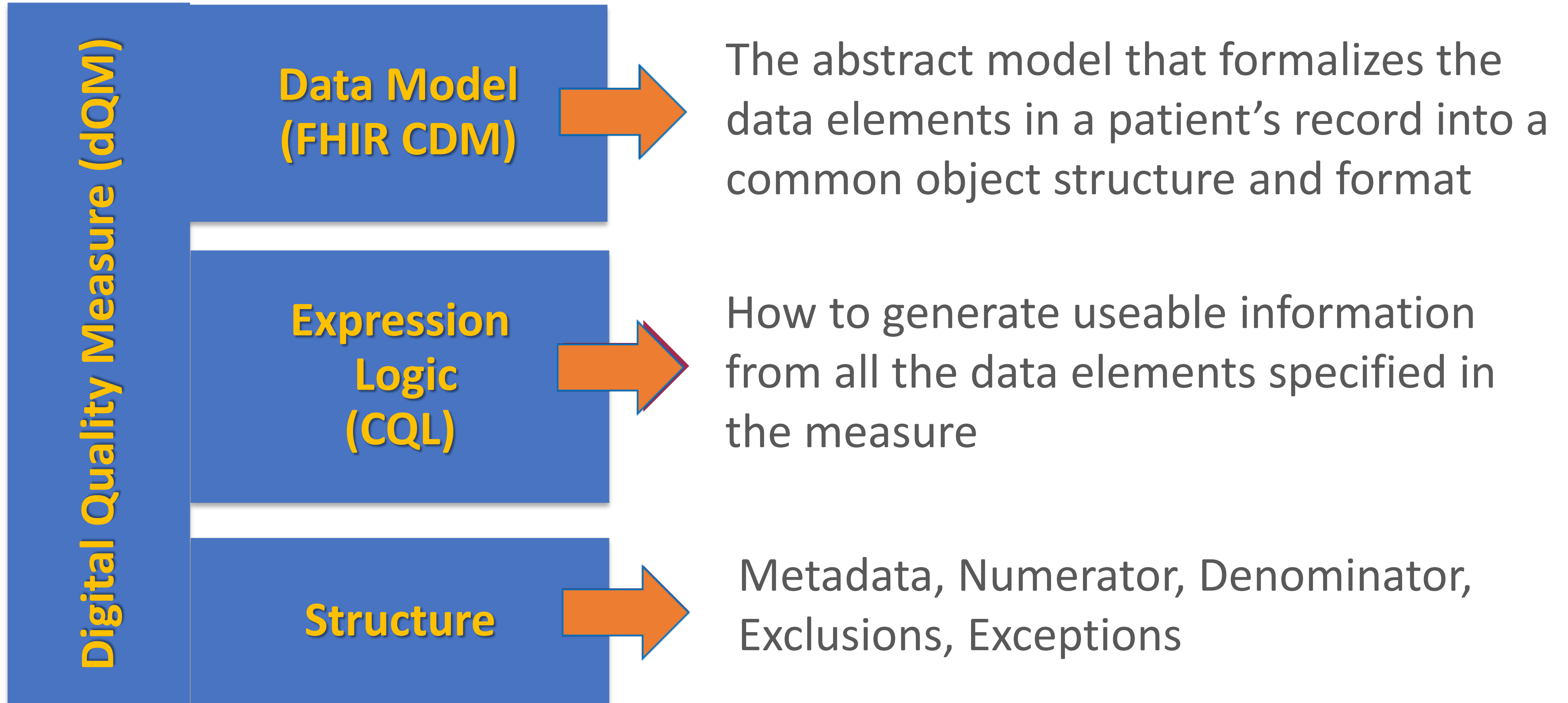
define "Numerator 2":
  exists "Follow Up Care on or 30 Days after First Positive Screen"
    or "Has Positive Brief Screen Same Day as Negative Full Length Screen"

define "Follow Up Care on or 30 Days after First Positive Screen":
  ( ( "First Positive Adolescent Depression Screen between January 1 and December 1"
    union "First Positive Adult Depression Screen between January 1 and December 1" ) Screening
    return ( Tuple {
      hasFollowUpVisit: exists ( Status."Finished Encounter" ( [Encounter: "Follow Up Visit"] ) ) FollowUpVisit
        where Encounters."Encounter Has Diagnosis" ( FollowUpVisit, [Condition: "Depression or Other Behavioral Health Condit
          and date from start of FHIRBase."Normalize Interval" ( FollowUpVisit.period ) 30 days or less on or after date from
      hasDepressionCaseManagementEncounterWithDx: exists ( ( Status."Finished Encounter" ( [Encounter: "Depression Case Manag
        where date from start of FHIRBase."Normalize Interval" ( dcmEnc.period ) 30 days or less on or after date from start
        where Encounters."Encounter Has Diagnosis" ( CaseManagementEncounterWithDx, [Condition: "Depression or Other Behavior
      hasDepressionCaseManagementEncounterWithSymptom: exists ( ( Status."Finished Encounter" ( [Encounter: "Depression Case
        where date from start of FHIRBase."Normalize Interval" ( dcmEnc.period ) 30 days or less on or after date from start
        where exists [Observation: "Symptoms of depression (finding)"] DepressionSymptoms
          where date from start of FHIRBase."Normalize Interval" ( DepressionSymptoms.effective ) ~ date from start of FHIRBa
      hasBehavioralHealthEncounter: exists ( ( Status."Finished Encounter" ( [Encounter: "Behavioral Health Encounter"] ) ) B
          where date from start of FHIRBase."Normalize Interval" ( BHEnc.period ) 30 days or less on or after date from start
      )
        or ( exists ( Status."Active Condition" ( [Condition: "Exercise counseling"] ) ) ExerciseDiagnosis
            where date from start of FHIRBase."Prevalence Period" ( ExerciseDiagnosis ) 30 days or less on or after date from
        ),
      hasAntidepressantMedication: exists ( Status."Dispensed Medication" ( [MedicationDispense: "Antidepressant Medications"
        where date from ADMeds.whenHandedOver 30 days or less on or after date from start of FHIRBase."Normalize Interval" (
    } ) FollowUpCare
      return if AnyTrue({ FollowUpCare.hasFollowUpVisit, FollowUpCare.hasDepressionCaseManagementEncounterWithDx, FollowUpCar
        else null ) screeningWithFollowUpCare
    where screeningWithFollowUpCare is not null
```

Anatomy of a Digital Quality Measure (dQM)



NCQA has developed person-centered outcome measures designed to assess care that matters

- For **individuals with complex care needs,** care should align with what matters to them, their health outcome goals
- **Measurement can be used to drive care that matters** and encourage clinicians to deliver care aligned with health outcome goals
- For quality measures, health outcome **goals must be measured and tracked in a standardized way**

Person-Centered Outcomes Approach

Measuring what individuals say matters most to them

Goal Attainment Scaling

Example: 82-year-old person with mobility problem, depression, history of arthritis and heart failure

Goal: Walk her dog outside once a week

Worse (-2)	Current State (-1)	Realistic Goal (0)	Stretch Goal (+1)	Super Stretch Goal (+2)
Unable to let the dog outside.	Does not go outside or walk her dog	Walk her dog outside once a week	Walk her dog outside twice a week	Walk her dog outside three times a week

What could be worse

Current State

Where they want to be

NATIONAL ACADEMY of MEDICINE

An Equity Agenda for the Field of Health Care Quality Improvement

By Margaret O'Kane, Shantanu Agrawal, Leah Binder, Victor Dzau, Tejal K. Gandhi, Rachel Harrington, Kedar Mate, Paul McGann, David Meyers, Paul Rosen, Michelle Schreiber, and Dan Schummers

September 15, 2021

Despite decades of accumulating evidence and policy recommendations, deep racial and other inequities remain in health care and outcomes in the United States. The existing health care quality infrastructure has not adequately addressed this issue, even though equity has been identified as one of the core domains of quality.

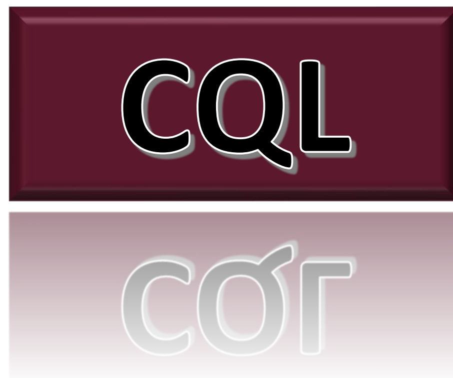
The **digital** quality agenda can also **help** improve health **equity**

Questions

Digital Measurement Standards

Fast Healthcare Interoperability Resources (FHIR)

- HL7 standard
- Enables automated data exchange through APIs



Clinical Quality Language

- HL7 standard
- Human readable