eCQM Affinity Group
Session #4

Operational Discussion –
Data quality programs for Data Sourcing, eCQM Assessment & Calculation, and eCQM Reporting
Agenda

• Introductions
• Context review
• Data Quality program examples
  – Data sourcing quality program – QHN
    • Discussion/Q&A
  – Data calculation quality at integrated data intermediary - David Kendrick
    • Discussion/Q&A
  – Data reporting quality at HIE intermediary – MiHIN
    – Discussion/Q&A
• Next Steps
Context

ONC is convening the eCQM Affinity Group as collaborative peer sharing providing assistance for eCQM strategy development.

The eCQM Affinity Group will discuss an end-to-end framework and state/regional examples discussing strategic planning, technical models, and implementation best practices.

• Federal trajectory for quality measurement to support Alternative Payment Models
• ONC Health IT Stack for Value-Based Payment Models
• **ONC Learning Event** – eCQMS – National and State Usage and Issues in Support of Value-Based Payments
• **eCQM Affinity Group #1** - Building Clinical Quality Measure Capacity Framework
• **eCQM Affinity Group #2** – State eCQM models, Data Intermediaries, Data Formats
• **eCQM Affinity Group #3** – Data Intermediary Functional Requirements, Reporting & Data Formats
Context: Affinity Group Objectives & Output

• Discuss CQM framework supporting:
  – Strategic planning for innovation and value based payment models;
  – Discussing governance and policy to support building measurement capacity;
  – Understanding technical models and considerations for choosing appropriate technical model for your state; and
  – Supporting quality improvement activities improving health, quality of care, and reducing costs.

• Output:
  – State-level Implementation Guide for eCQM Strategic Planning for Innovation Models and Value-based Payment Models
<table>
<thead>
<tr>
<th>Uses</th>
<th>Benefits</th>
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<tbody>
<tr>
<td>• <strong>Clinical Quality Calculation and Measurement</strong> improving quality of care delivery</td>
<td>• Produces better value through higher quality and lower cost of care</td>
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<tr>
<td>• <strong>Measure for Payment – Pay for Value</strong> financial incentives for health care providers</td>
<td>• Rewards providers for lower cost and better outcomes</td>
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<td>• <strong>Public Reporting</strong> for cost and quality transparency</td>
<td>• Provides transparency on quality of care supporting better decisions by consumers and purchasers</td>
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<td>• <strong>Reuse collected data</strong> for clinical action and population health measurement</td>
<td>• Collect data once and reuse for clinical quality measurement and clinical action (e.g., Clinical Decision Support (CDS) and provider self-monitor progress)</td>
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</table>
| • **Payment reform design, implementation, program monitoring and evaluation** | • Builds more effective programs using available quality measures  
• Assesses impact of payment reform programs on value |
| • **Decision support and gap analysis** of patient cohort | • Cohort identification and understanding of controlled and uncontrolled patient cohorts |
**Context: eCQM Framework**

**Build Capacity for Measurement**

- **Key Components**
  - Leverage new CEHRT and MU requirements
  - Promote HIT infrastructure development
  - Develop measurement infrastructure for analysis, reporting

**Broaden Governance**

- **Key Components**
  - Identify multi-stakeholder governance structure
  - Identify priority uses of eCQM information and value proposition for all stakeholder groups (payers, purchasers, providers, patients)
  - Align around a model
  - Align measures across models

**Strengthen Technical Infrastructure**

- **Key Components**
  - Assess current technical assets/data intermediaries in the state to build CQM technical capacity (current core capabilities, expanding functions, future technology, or does not exist)
  - Assess needs of data users and sources
  - Identify opportunities for shared technical services or
  - Confirm primary data intermediary functions

**Improve use of CQM information**

- **Key components**
  - Data quality assurance programs
  - Data Sourcing
  - Data Calculation
  - Data Reporting
  - Programmatic performance evaluation
  - Risk Stratification
  - Pt. Attribution
  - Public Reporting
  - Feedback to providers
Cannot achieve all uses without some common services and patient level data

Context: CQM Data Sources & Intermediaries

Data Sources
- Payers
- Registry

Data Intermediary
- Data Aggregation
- Data Transport and Load (Warehouse/Repository)
- Data Extraction
- Identity Management
- Security Mechanisms
- Governance
- Financing
- Reporting Services
- Consumer Tools
- Provider Portal
- Pt. Prov. Attribution

Reporting Formats
- QRDA III/I
- Num Denom

Priority Uses
- Clinical Quality Measurement DSR
- Pay for Value
- Clinical action and population health measurement
- Pt Cohort Decision support & management
- Program requirements and evaluation
- Cost and quality transparency public reporting

Options
- SLR; SDE; HIE; or Private
Data Quality Assurance

- **Data quality** improvement services supporting practices with data capture may be professional services or technical solutions
  - **Data completeness and consistency** – address data gaps and missing data elements

  - Sourcing data (Quality Health Network)
  - Reporting data (MiHIN – Michigan)
  - Integrated data (MyHealth Access – Tulsa)
## Operationalize Data Management
- Define use cases
- Understand the needs for data
- Work with data sources
  - Help them get better
- Work with data recipients
  - Quality changes over time

## Quantify Data Quality
- Understand and improve initial quality
- Put into place processes to identify changes
Data Quality Program

Identify and build data quality components into practice transformation efforts

- Data quality happens at the point of care and point of data entry
- Integrate data quality into the practices workflow and technology
- Work with the Practice Transformation Organizations teams on incorporating “Data quality plan in practice”
- Practice Assessment Tool data quality enhancements

Identify and build data quality components of into data acquisition

- Establish minimum standards for data and exchange and first prioritizing our usages
- Build into the data acquisition process the ability to monitor for data quality and proactively address issues with sources
Questions

• Who are QHN’s partners?
• Any other data sources other than EHRs?
• Any barriers or lessons learned?
My Health Access

• Demonstration
Quality Measure Initiatives

Jeff Livesay
Associate Director
livesay@mihin.org
Network of Networks:

Simple Data Sharing Organizations

Consumer QOs (more coming)

HIE
Qualified Organizations (QOs)

Virtual QOs

Doctors & Health Systems

Sponsored Organizations

Pharmacies (more coming)

Single point of entry/exit for state

Health Plan QOs (more coming)

MiSyndromic Surveillance System

MI Disease Surveillance System

MDHHS Data Hub

MyHealthPortal
MyHealthButton

Immunizations

Chronic Diseases

Data Warehouse

MISS

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“One and Done”- Easier, Simplified, Predictable Data Sharing

1. **Sign once**
   • Common legal framework across the state
   • Transparent data usage for each use case

2. **Connect once**
   • MiHIN network includes all of health care: HIEs, HISPs, health plans, the state and the federal agencies

3. **Publish once**
   • Patient and provider delivery preferences easily registered and centrally managed

4. **Report once**
   • Messages can be routed to multiple destinations – no duplicate interfaces or repeat reports

5. **Log-on once**
   • Single sign-on across patient/member and provider portals
Alignment of Quality Measures

<table>
<thead>
<tr>
<th>Set</th>
<th># of Measures</th>
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<tbody>
<tr>
<td>PQRS</td>
<td>254</td>
</tr>
<tr>
<td>EP eCQM</td>
<td>64</td>
</tr>
<tr>
<td>Medicaid Core Set</td>
<td>45</td>
</tr>
<tr>
<td>HEDIS</td>
<td>78</td>
</tr>
<tr>
<td>QRS</td>
<td>43</td>
</tr>
<tr>
<td><strong>Overlap</strong></td>
<td><strong>9</strong></td>
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Physician-Payer Quality Collaborative
Current State of Supplemental Clinical Data
Report Once:
Quality Measure “Superset”
Clinical Quality Measurement Recovery and Repository (CQMRR)

**Senders**
- Eligible Providers
- Eligible/Critical Access Hospitals

**Measure Payload**
- MIDIGATE®
  - inbox@direct.mihin.org
  - “Catch, Detach, Dispatch”

**Health Provider Directory**
- Validate Sender NPI and Use Case Agreement
- REST API

**Quality Data Mart**
- Convert to Desired Format
- Quality Check
- Validate

**Reporting Layer**
- Reports, Dashboards, Comparisons, Mining

**Quality Portals**
- Medicaid
- Medicare (PQRS)
- Consumers
- Payers
- Providers

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Thank You!

Questions? Comments?

quality@mihin.org
MiHIN Slides

- Who are MiHIN partners for eCQMs?
- How did MiHIN include eCQM reporting into HIE privacy policies?
- What policy levers is the State of Michigan using to advance eCQM reporting through MiHIN?
- What data quality efforts are in place at MiHIN?
eCQM Reporting

- **BONNIE**: Companion service for creating synthetic test patients
- **Cypress**: Testing tool for evaluating eCQM calculations in EHRs
- **Data Element Catalogue**: Summary of data elements required by CQMs
- **Measure Authoring Tool**: HQMF editor
- **Value Set Authority** – National Library of Medicine
  - Value Set management
Next Steps

• Session #5 (optional) – Thursday, 1/21 – 11 am ET
  – EHR Vendor eCQM Capabilities discussion

• Specific requests or questions contact ONC Resource Center or submit TA request through TASC system
  – Feedback loop for providers
  – Public reporting examples
  – Sustainability funding options
  – Risk stratification
  – Others?
Appendix: Building Quality Measurement Capacity

Dependencies

- **Governance**
  - Decentralized – services provided separately and by separate organizations
  - Central – one data intermediary providing services (e.g., SDE, HIE, state)
  - Coordinated – one or more data intermediaries with virtual trust community and technical services

- **Identity Management** supporting cross organization and provider calculation

- **Data Type** – claims, clinical encounter, administrative, and/or registry data
# Appendix – Data Sourcing: Quality Reporting, C-CDA, and other available data

<table>
<thead>
<tr>
<th>Reporting Format</th>
<th>Data Sourcing</th>
<th>Other data available for augmenting quality reporting data (e.g., claims, lab reporting, eRx)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Category</strong></td>
<td><strong>QRDA Cat I</strong></td>
<td><strong>C-CDA</strong></td>
</tr>
<tr>
<td><strong>Intended Use</strong></td>
<td>Quality reporting format for consistent, high reliable measurement for payment adjustment</td>
<td>ADT messages are important in HL7 communications because they provide vital data about the patient and why the message is being sent</td>
</tr>
<tr>
<td><strong>Perspective</strong></td>
<td>Ambulatory/hospital oriented: Aims to capture information on provider/hospital behaviors and processes and their impact on patient care and outcomes</td>
<td>Event oriented: Important patient data, event, and determine when and where message must go based on triggering event</td>
</tr>
<tr>
<td><strong>Function</strong></td>
<td>Used reporting format eCQM data between systems for quality measurement and reporting initiative</td>
<td>To carry patient demographic info for HL7 communications but also provide important trigger event information, such as patient admit, discharge, transfer, registration</td>
</tr>
<tr>
<td><strong>Available Data</strong></td>
<td>QRDA I Is limited to data required for eCQM calculation</td>
<td>C-CDA includes additional data components that can support multiple functions</td>
</tr>
<tr>
<td><strong>Structured Data</strong></td>
<td>Enforces structured data capture improving interoperability and comparisons</td>
<td>May require additional data quality efforts and manipulation for QRDA reporting</td>
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- **Data sourcing format** developed to acquire and provide for a longitudinal view of patient’s health information to support care coordination
- **Patient oriented**: Aims to capture information to provide a longitudinal view of a patient’s health and healthcare history
- **Event oriented**: Important patient data, event, and determine when and where message must go based on triggering event
- **Function**
  - Used reporting format eCQM data between systems for quality measurement and reporting initiative
- **Available Data**
  - QRDA I Is limited to data required for eCQM calculation
- **Structured Data**
  - Enforces structured data capture improving interoperability and comparisons
- **C-CDA**
  - Includes additional data components that can support multiple functions
- **ADTs**
  - Provide vital data about the patient and why the message is being sent
  - Supports structured data for trigger events and may require additional data quality efforts
Appendix: Quality Measurement Data Intermediary

Functional Requirements

- **Sourcing** – Obtaining data from EHRs for quality reporting or other uses
- **Cleansing and management** – Normalizing, scrubbing or cleaning data for reporting purposes
- **Calculation** – calculate eCQM results based on the criteria defined by an eMeasure specification
- **Consistent formatting** – produce a corresponding QRDA Category III report
- **Optional functions** – benchmarking and feedback reports
Appendix: Quality Measurement Data Intermediary Examples

- Data Warehouse
- Specialty Registry
- State Level Registry (e.g., Medicaid eCQM tool)
- Performance measurement system vendor
- State designated entity
- Health information exchange
  - State level or regional HIE
  - **Federated** – data is not stored at a central location but pulled from collection of clinical data repositories located remotely
  - **Centralized** – clinical data repository storing all data in single format - and transforming into different format
  - **Hybrid** – stores some data but queries data from contributing data systems
  - **Private** – act as central HIE under single, private governing
- **Integrated data intermediaries** aggregating multiple sites
- **Options**
  - Smaller states may consider a state owned registry for full solution – Wyoming
Appendix - CQM Data Intermediaries

Remember: Can not achieve all uses without some common services and patient level data
Appendix: State eCQM Technical Models

**Claims data only**
- Aggregation of claims data across payers
- HEDIS
- Manual chart review/surveys
- Time-limited
- No clinical quality measure data

**Numerator Denominator**
- Program reporting
- Organization/Provider level
- Calculation within EHR
- Can’t measure across organizations w/out Master Pt. Index
- Multiple attribution issues
- Uses:
  - Multiple reporting requirements

**Clinical data only**
- Data sourcing-
  - Indexing clinical data (keeping data at source)
- Extraction of data for quality measurement (QRDA III/I; CCDA; custom queries)
- Extraction of data for other uses (care coordination, longitudinal health record)
- Aggregation of clinical data at central source for
- Calculation – across providers/organizations
- Centralized Program Reporting to CMS/Medicaid/Comm. payers

**Integrated data**
- Clinical and claims data
- Aggregate centrally for data calculation
- Coordinated governance
- Uses:
  - Supports pay for value
  - Quality measurement
  - Population health measurement

**Iowa - VIS**

**Medicaid EHR Incentive Program attestation**

**Use of Data Intermediary**

**Michigan - CQMRR at HIE**

**Oregon - CQMRR at HIE**

**Connecticut - Indexing / Edge servers**

**MyHealth Access Network Tulsa, OK**

**The Health Collaborative - Cincinnati, OH**

**Utah -UHIN**
eCQM Resources

• eCQI Resource Center - https://ecqi.healthit.gov/
• CMS MeT HITECH Resource Center - http://www.medicaidhitechta.org/
• Center for Healthcare Transparency - http://www.pbgh.org/cht
• State-specific SIM models - contact your State SIM leadership teams
Appendix: Electronic Clinical Quality Measures (eCQMs) Criteria

- **2015 Certification continues with 2014 edition (MU2) eCQM certification approach**
- **What do we certify?**
  - Modular certification for:
    - Capture and export of quality measure data (c)(1)
    - Import and calculate quality measures (c)(2)
    - Report quality measures (c)(3) as aggregate data by provider and/or individual patient level data
  - Filter (c)(4) - new optional criteria, not required by MU.
- **Changes from 2014 (MU2)**
  - Enhanced rigor of testing, require ability for on demand export of quality measures by providers, all vendors must be certified to export patient level data.
  - Filter (c)(4) - Ability to filter eCQM results by demographics, payer, medical condition, practice site.
- **State Implications**
  - Re-affirmed QRDA (quality reporting data architecture) as the standard for eCQM.
  - CMS is requiring all providers to submit eCQM data to CMS in 2018.
  - States could require filter (c4) in 2018 (for 2019 data submission) if there are needs to filter data by practice site, payer or demographics.
  - States can currently require patient-level or aggregate data submission—this will continue.
Appendix: eCQMs for Program Evaluation

• What are examples of states using data intermediaries for Grant or Innovation Program Evaluations?
  – Colorado Comprehensive Primary Care Initiative (CPCI) –
    • Data sources: APCD, payers’ self-funded data
    • Use: Operational use and view of provider claims-based cost data
    • Program evaluation use: CPCi, SIM (potentially)
  – Others - ?

• What needs to be considered?
  – Measure alignment across stakeholders – Align to program objective measures
  – Data sourcing – Identify data sources (data intermediaries/Medicaid State Level Registries, APCD)
  – Reporting to whom – State evaluators, Federal evaluators, others?
  – Data use agreements and policies –