Leveraging Electronic Clinical Data for Quality Measurement

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Conflict of Interest

Mary Barton, M.D, M.P.P.
Has no real or apparent conflicts of interest to report.

Emily Morden, M.S.W.
Has no real or apparent conflicts of interest to report.
Agenda

1. Electronic Clinical Data Systems (ECDS)
2. Depression care quality measures - feasibility of using ECDS
3. Future of ECDS for health plan quality measurement
Learning Objectives

• Discuss the methods by which electronic clinical data can be collected from a variety of sources and used for quality reporting at various levels of the healthcare system
• Recognize the challenges and limitations of using electronic clinical data at the provider level and at higher levels of aggregation
• Identify future opportunities for using electronic clinical data for national quality reporting
How Benefits Realized for the Value of Health IT

Treatment/Clinical:
Quality measures in this project have an impact on the clinical care and treatment for those with depression.

Patient Engagement/Population Management:
Electronic clinical data can be used to capture health outcomes at the plan level (i.e., population level). It will encourage the development of population-based strategies to improve disease outcomes.
Issue: Needed Shift in Measuring Quality for Health Plans

• Interest in Patient Reported Outcome Measures (PROMs)
• Limitations of current data collection methods
• The increasing availability of electronic clinical data provides new opportunities for measurement
• Question: how can these data sources be used efficiently and effectively to measure health plan quality?
Vision of Using Electronic Clinical Data

• Open the door to new measurement opportunities
• Decrease need for chart review measures
• Leverage existing clinical data for quality reporting that is:
  – already being captured in routine workflows
  – already being used for physician-level quality reporting
• Pull structured data using approved standards
Electronic Clinical Data Systems (ECDS)

- Patient care captured in a structured, electronic format
- Maintained over time
- Includes some or all key clinical data relevant to care
- Automated access to information
- Accessible by the healthcare team at the point of care
Potential Electronic Clinical Data Systems
ECDS Architecture

Question #1: Do you have experience linking different data systems?

a) Much experience
b) Some experience
c) Little experience
d) No experience

1 Author: Hamlin, B., Research Scientist, National Committee for Quality Assurance
Approach: Depression Care Measures

• Depression quality measures as test case for using ECDS
  – Need ECDS to measure outcomes for depression
  – Existing provider measures in use:
    • Screening for Clinical Depression and Follow-Up Plan (NQF# 0418, eMeasure 2)
    • Depression Utilization of the PHQ-9 Tool (NQF# 0712, eMeasure 160)

PROM • Remission at 6 Months (NQF# 0711, eMeasure 159 for 12 month version)

Question #2: With which depression measures are you familiar or using?
   a) Depression screening
   b) Utilization of PHQ-9
   c) Remission at 6 months
   d) Multiple measures
Why Focus on Depression?

• Depression is 2\textsuperscript{nd} leading cause of disability worldwide
• Known quality gaps
• Effective treatment and care for depression: psychotherapy, antidepressants, collaborative care model
  – Patient engagement
  – Care manager (care coordination between primary care and behavioral health)
  – Routine follow-up
  – Treatment adjustments
  – Managing to outcomes
Role of Health Plan in Depression Care

• Depression case management
• Facilitate and coordinate care across settings and patient care teams
• Improve access to mental health resources
• Educate providers about mental health and community resources
• Incentive Programs
Considerations for Adapting Existing Measures

- Different level of accountability
  - Providers manage patients, health plans manage populations

- Can utilize multiple data sources (e.g., administrative claims to find diagnoses and receipt of care)

- Health plan measures can assess if care was received
  - Screening and Follow-Up measure: follow-up plan documented versus follow-up care received

- Include adolescent population
## Depression Care Measures

<table>
<thead>
<tr>
<th>Measure</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depression Monitoring</td>
<td>Percentage of individuals age ≥12 with a diagnosis of major depression or dysthymia who had a PHQ-9 tool administered at least once during a four-month period</td>
</tr>
<tr>
<td>Depression Remission or Response</td>
<td>Percentage of individuals age ≥12 with a diagnosis of major depression or dysthymia and an elevated PHQ-9 score, who had evidence of response or remission within 5–7 months of the elevated PHQ-9 score</td>
</tr>
<tr>
<td>Depression Screening and Follow-up</td>
<td>Percentage of individuals age ≥12 who were screened for clinical depression using a standardized tool and, if screened positive, received appropriate follow-up care</td>
</tr>
</tbody>
</table>
Identified Challenges and Barriers

- Lack of integration of data from behavioral health settings
- Need increased data flow from provider/practice level to health plan level
  - Direct export from practice to plan
  - Through data aggregator
  - Through HIE
- Ensuring that data collected is used to improve patient care/outcomes (not just used for improving quality scores)

Question #3: What do you see as the biggest challenges?

a) Lack of data integration
b) Lack of data flow
c) Data not used to improve care
d) Other
Methods

Phase 1:
2014 Quantitative Field Testing

Two health plans with integrated systems using EHR data

Phase 2:
2015 Implementation Testing

Two health plans using case management data and EHR data

Phase 3:
2016 Implementation

Learning Collaborative of 15 health plans
Phase 1: Quantitative Testing

- Goals:
  - Test feasibility of using structured clinical data from EHR to report health plan results
  - Test performance of measures (by product line, age, gender)
  - Identify quality gaps

Phase 1: 2014 Quantitative Field Testing

Two health plans with integrated systems using EHR data
## Results Phase 1 – Depression Monitoring

<table>
<thead>
<tr>
<th></th>
<th>Medicare</th>
<th>Commercial</th>
<th>Medicaid</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Denominator(^1)</td>
<td>%(^2)</td>
<td>Denominator(^1)</td>
</tr>
<tr>
<td>Plan 1</td>
<td>14,962</td>
<td>56.6</td>
<td>31,443</td>
</tr>
<tr>
<td>Plan 2</td>
<td>5,118</td>
<td>16.9</td>
<td>9,912</td>
</tr>
</tbody>
</table>

\(^1\)Members with depression and a visit during a 4-month time period

\(^2\)Percent who had a PHQ-9 administered during same 4-month time period
## Results Phase 1 – Depression Outcome

<table>
<thead>
<tr>
<th>Plan</th>
<th>Medicare</th>
<th>Commercial</th>
<th>Medicaid</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Denominator(^1)</td>
<td>%(^2)</td>
<td>Denominator(^1)</td>
</tr>
<tr>
<td>Plan 1</td>
<td>2,639</td>
<td>11.1</td>
<td>7,058</td>
</tr>
<tr>
<td>Plan 2</td>
<td>837</td>
<td>6.9</td>
<td>3,728</td>
</tr>
</tbody>
</table>

\(^1\) Members with depression and an elevated PHQ-9 score
\(^2\) Percent who reached remission or response 6-months after
# Results Phase 1 – Screening and Follow-Up

<table>
<thead>
<tr>
<th>Denominator¹</th>
<th>%²</th>
<th>Denominator¹</th>
<th>%²</th>
<th>Denominator¹</th>
<th>%²</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Plan 1</strong></td>
<td>58,142</td>
<td>8.5</td>
<td>158,215</td>
<td>8.5</td>
<td></td>
</tr>
<tr>
<td><strong>Plan 2</strong></td>
<td>64,357</td>
<td>5.5</td>
<td>232,503</td>
<td>6.8</td>
<td>3,048</td>
</tr>
</tbody>
</table>

¹Members with no depression and a visit
²Percent who were screened for depression and if positive had follow-up
Phase 1 Conclusion and Next Steps

- Demonstrated feasibility of reporting population level results for measures using ECDS data
- Practices and health plans use standardized tools to screen for depression
- BUT, low rates of using tools for ongoing monitoring of symptoms for those who have depression
- Very low rates of remission and response among those identified with symptomatic depression

Next Steps:
- Large quality gap = need for implementation of measures
- Conduct further testing to explore feasibility of implementation
  - Phase 2
Phase 2 – Testing Implementation

Phase 2:
2015 Implementation Testing

Two health plans using case management data and EHR data

• Goals:
  – Further explore feasibility of implementing depression measures
  – Test measures using new sources of ECDS data
  – Understand the percent of plan’s population that can be reported on

• New structural measure - ECDS Coverage rate:
  – Percentage of the health plan’s members who are covered by an ECDS that could be used to report the measures
## Results Phase 2 – Members with Depression

<table>
<thead>
<tr>
<th>Product</th>
<th>All Members</th>
<th>Members with Depression</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Plan A</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State 1</td>
<td>22,573</td>
<td>2,405 (10.7)</td>
</tr>
<tr>
<td>State 2</td>
<td>435,000</td>
<td>30,379 (7.0)</td>
</tr>
<tr>
<td><strong>Plan B</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medicare</td>
<td>37,319</td>
<td>6,437 (17.2)</td>
</tr>
<tr>
<td>SNP</td>
<td>27,746</td>
<td>8,048 (29.0)</td>
</tr>
</tbody>
</table>
Results Phase 2 – ECDS Coverage for Depression Monitoring and Outcome

ECDS Coverage
State 1: 17.8%
State 2: 19.7%
Medicare: 18.7%
SNP: 14.9%
# Results Phase 2 – Depression Monitoring

<table>
<thead>
<tr>
<th></th>
<th>Product</th>
<th>Members with Depression Visit</th>
<th>Had PHQ-9 Administered</th>
<th>Performance Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Plan A</strong></td>
<td>State 1</td>
<td>678</td>
<td>16</td>
<td>2.4</td>
</tr>
<tr>
<td></td>
<td>State 2</td>
<td>9,856</td>
<td>2,110</td>
<td>21.4</td>
</tr>
<tr>
<td><strong>Plan B</strong></td>
<td>Medicare</td>
<td>1,771</td>
<td>28</td>
<td>1.6</td>
</tr>
<tr>
<td></td>
<td>SNP</td>
<td>1,378</td>
<td>109</td>
<td>7.9</td>
</tr>
</tbody>
</table>
## Results Phase 2 – Depression Outcome

<table>
<thead>
<tr>
<th>Plan</th>
<th>Product</th>
<th>Members with Depression and PHQ-9 &gt;9</th>
<th>Reached Remission or Response</th>
<th>Performance Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan A</td>
<td>State 1</td>
<td>0</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>State 2</td>
<td>390</td>
<td>31</td>
<td>7.9</td>
</tr>
<tr>
<td>Plan B</td>
<td>Medicare</td>
<td>1</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>SNP</td>
<td>4</td>
<td>0</td>
<td>0.0</td>
</tr>
</tbody>
</table>
Results Phase 2 – ECDS Coverage for Depression Screening

ECDS Coverage
State 1: 6.2%
State 2: 8.0%
Medicare: 15.5%
SNP: 14.6%
## Results Phase 2 – Depression Screening and Follow-Up

<table>
<thead>
<tr>
<th>Plan</th>
<th>Product</th>
<th>Members without Depression</th>
<th>Screened for Depression N (%)</th>
<th>Received Follow-Up (% of those screened positive)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Plan A</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State 1</td>
<td></td>
<td>145</td>
<td>13 (9.0)</td>
<td>1 (33.3)</td>
</tr>
<tr>
<td>State 2</td>
<td></td>
<td>16,651</td>
<td>2,843 (17.1)</td>
<td>239 (39.1)</td>
</tr>
<tr>
<td><strong>Plan B</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medicare</td>
<td></td>
<td>4,032</td>
<td>50 (1.2)</td>
<td>2 (33.3)</td>
</tr>
<tr>
<td>SNP</td>
<td></td>
<td>2,565</td>
<td>205 (8.0)</td>
<td>4 (40.0)</td>
</tr>
</tbody>
</table>
Phase 2 Conclusion and Next Steps

• Conclusions:
  – Percent of members covered by ECDS varied by plan, product line and age
  – Feasible to calculate measures for those members covered by ECDS

• Next Steps:
  – Given variety of health plans and data sources:
    • Need standardized approach to using data from ECDS for health plan quality measurement
    • Need rules and guidelines for health plans and auditors
Phase 3 – Implementation

Phase 3: 2016 Implementation

• Convene a Learning Collaborative
• Goals and objectives:
  – Support for health plans reporting measures using data from ECDS
  – Identify how health plans can use ECDS to report plan-level results for HEDIS measures
  – Understand availability of electronic clinical data to health plans
  – Refine HEDIS guidelines for measure reporting and auditing
Phase 3 – Results and Next Steps

• HEDIS Learning Collaborative launched in October 2015
• 13 health plans from across the country participating
• Will use various data sources to report the depression measures:
  – Case management data system
  – Integrated EHR
  – EHR data aggregated from providers
  – Regional quality reporting database
  – HIE
• Next Step: health plans to report measures in June of 2016
Future of ECDS for Health Plans

• Core Team at NCQA working on ECDS measures will make recommendations on:
  – Changing NCQA’s performance measurement, data collection, software certification, audit and validation procedures
  – Existing health plan measures that should be re-specified for ECDS
  – Developing new measures for ECDS
Efforts on ECDS Beyond HEDIS

• eMeasure Certification Program
  – Certify an organization’s software code that produces eCQM results
  – Health plans will be able to obtain QRDA files from vendors certified by NCQA and use the data for quality reporting

• Use of electronic clinical data at multiple levels of accountability
  – PCMH measure reporting
Benefits Realized for the Value of Health IT

Value STEPS Impacted:

Treatment/Clinical

• Use/reporting of quality measures will have impact on the clinical care and treatment for those with depression
• Routine monitoring of depression symptoms has been shown to lead to improved outcomes
• Allows plans to understand whether programs in place to manage depression and other conditions are effective
Benefits Realized for the Value of Health IT

Value STEPS Impacted:

Patient Engagement and Population Management

- ECDS data can be used to capture health outcomes at the plan level (i.e., population level)
- Can identify gaps in care
- Encourages development of population-based strategies to improve disease outcomes
Questions

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• Twitter: @NCQA