Using Assessment Data to Perform Outcome-Based Quality Measurement

Marybeth McCaffrey
University of Massachusetts Medical School

Follow this and additional works at: https://escholarship.umassmed.edu/commed_pubs

Part of the Geriatrics Commons, Health Economics Commons, Health Services Administration Commons, and the Health Services Research Commons

Repository Citation
https://escholarship.umassmed.edu/commed_pubs/74

This material is brought to you by eScholarship@UMMS. It has been accepted for inclusion in Commonwealth Medicine Publications by an authorized administrator of eScholarship@UMMS. For more information, please contact Lisa.Palmer@umassmed.edu.
DISCLOSURE

I have no relevant commercial relationships to disclose.
USING ASSESSMENT DATA TO PERFORM OUTCOME-BASED QUALITY MEASUREMENT

Marybeth McCaffrey, JD, Principal
University of Massachusetts Medical School
Center for Health Law and Economics
Overview

• Need for Outcome Measures for Community-Based Services
• Study Methodology
• Implementing Quality Measures
Need for Outcome Measures for Community-Based Services

- Current measures: process, medical, consumer survey
- Need reliable and **objective** outcome measures community services
  - Help improve program services
  - Support alternative payment models
Need for Outcome Measures, con’t

• **Measures based on MDS-HC**
  - Outcome-based
  - Validated
  - Existing data
  - Used in Ontario, Manitoba and Michigan
  - Population-level analysis

• **Research question**
  Can State use its assessment data to implement *interRAI’s* outcome measures?
Set up analysis

- Map MDS-HC to assessment questions
  - Identify any textual differences between questions (e.g., “last 30 days” vs. “last 2 weeks”)

<table>
<thead>
<tr>
<th>Measure</th>
<th>MDS-HC Question</th>
<th>Corresponding State Assessment Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevalence of unintended weight loss</td>
<td>W24. Unintended weight loss of 5% or more in last 30 days (or 10% or more in last 180 days)</td>
<td>Q.1243 Unintended weight loss of 5% or more in last 2 weeks</td>
</tr>
<tr>
<td>Prevalence of delirium</td>
<td>C3.1. Sudden or new onset/change in mental function -OR- Client has become agitated or disoriented</td>
<td>Q.1148 Sudden or new onset/change in mental function -OR- Q.1149 Client has become agitated or disoriented</td>
</tr>
</tbody>
</table>
Set up analysis, cont’d

• Create study protocols
  – Link client assessments to program enrollment date
  – Develop filters (age, target programs, etc.)

• Gain in-depth understanding of how assessments are given

• Utilize iterative process
Analyze results

• **Response Rates per question (%)**
  – Overall response rates
  – Longitudinal questions
  – Response rates overall vs. by program

• **Response Patterns per question (answer options)**
  – Examined face validity of patterns
  – Compared patterns for low vs. high LOC programs
Response pattern for entire population

Ability to use the toilet

- Independent: 55%
- Limited Assistance: 7%
- Supervision: 4%
- Intermittent supervision or minimal physical assistance: 4%
- Extensive Assistance: 3%
- Total Dependence: 1%
- Unwilling to perform: 1%
- Activity did not occur: 0%

Figures drawn from feasibility study
Response pattern by program

*Ability to use the toilet*

1. Independent
2. INDEPENDENT - but experiences difficulty
3. Intermittent supervision or minimal physical assistance
4. Supervision
5. Limited Assistance
6. Extensive Assistance
7. Total Dependence
8. Unwilling to perform
9. Activity did not occur

Figures drawn from feasibility study

Programs based on level of Care (LOC) – Skilled Nursing Facility (SNF) vs. lower level
Implementing Quality Measures

• Implement measures
  – 13 ready for use

• Resolve data issues
  – Additional 3 measures may be ready with increased response rates
## Summary of Phase One Results

<table>
<thead>
<tr>
<th>Measure</th>
<th>Domain</th>
<th>Subdomain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ready for construction and Phase 2 evaluation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Prevalence of not receiving <strong>medication review</strong> by a physician</td>
<td>Program Performance</td>
<td>Effectiveness/Quality of Services</td>
</tr>
<tr>
<td>2. Prevalence of ADL/rehabilitation potential and no <strong>therapies</strong></td>
<td>Program Performance</td>
<td>Effectiveness/Quality of Services</td>
</tr>
<tr>
<td>3. Prevalence of <strong>weight loss</strong></td>
<td>Client Functioning</td>
<td>Effectiveness/Quality of Services</td>
</tr>
<tr>
<td>4. Prevalence of <strong>dehydration</strong></td>
<td>Client Functioning</td>
<td>Effectiveness/Quality of Services</td>
</tr>
<tr>
<td>5. Prevalence of <strong>negative mood</strong></td>
<td>Client Functioning</td>
<td>Health and Well-Being</td>
</tr>
<tr>
<td>6. Failure to improve/incidence of <strong>cognitive decline</strong></td>
<td>Client Functioning</td>
<td>Health and Well-Being</td>
</tr>
<tr>
<td>7. Failure to improve/incidence of <strong>bladder incontinence</strong></td>
<td>Client Functioning</td>
<td>Health and Well-Being</td>
</tr>
<tr>
<td>8. Failure to improve/incidence of <strong>ADL impairment</strong></td>
<td>Client Functioning</td>
<td>Health and Well-Being</td>
</tr>
<tr>
<td>9. Prevalence of <strong>falls</strong></td>
<td>Client Functioning</td>
<td>Health and Well-Being</td>
</tr>
<tr>
<td>10. Failure to improve/incidence of difficulty in <strong>communication</strong></td>
<td>Client Functioning</td>
<td>Health and Well-Being</td>
</tr>
<tr>
<td>11. Failure to improve/incidence of impaired <strong>locomotion in the home</strong></td>
<td>Client Functioning</td>
<td>Health and Well-Being</td>
</tr>
<tr>
<td>12. Prevalence of no <strong>assistive device</strong> among clients with difficulty in locomotion</td>
<td>Program Performance</td>
<td>Health and Well-Being</td>
</tr>
<tr>
<td>13. Prevalence of <strong>social isolation</strong></td>
<td>Client Experience</td>
<td>Full Community Inclusion</td>
</tr>
<tr>
<td><strong>Potential to use with increased response rates</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Prevalence of inadequate <strong>meals</strong></td>
<td>Client Functioning</td>
<td>Health and Well-Being</td>
</tr>
<tr>
<td>15. Failure to improve/incidence of <strong>skin ulcers</strong></td>
<td>Client Functioning</td>
<td>Effectiveness/Quality of Services</td>
</tr>
<tr>
<td>16. Prevalence of <strong>delirium</strong></td>
<td>Client Functioning</td>
<td>Health and Well-Being</td>
</tr>
<tr>
<td><strong>Claims data is a better source for these measures</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. <strong>Hospitalization</strong></td>
<td>Health Care Utilization</td>
<td>Effectiveness/Quality of Services</td>
</tr>
<tr>
<td>18. <strong>Emergency Department</strong> Visit</td>
<td>Health Care Utilization</td>
<td>Effectiveness/Quality of Services</td>
</tr>
<tr>
<td>19. <strong>Emergent Care</strong></td>
<td>Health Care Utilization</td>
<td>Effectiveness/Quality of Services</td>
</tr>
</tbody>
</table>
Potential application: Using quality measures to compare providers

Prevalence of unintended weight loss (rate of negative outcomes)

Boxes show average score per provider; horizontal lines show range of scores with confidence intervals. Green boxes show 75th %ile achievability level. Successful providers can share best practices.
Questions?

Marybeth McCaffrey, Principal
Center for Health Law and Economics (CHLE)
University of Massachusetts Medical School
Marybeth.McCaffrey@umassmed.edu
office: (617) 886-8302
    cell: (802) 349-3936
THANK YOU!