Funding was received from the Centers for Medicare & Medicaid Services through Contract HHSM -500-2013-13001I, Task Order HHSM-500T0002. The views and opinions expressed are solely those of the authors and do not reflect the official positions of the institutions or organizations with which they are affiliated or the views of the project sponsors.
OASIS Field Test team

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OASIS Field Test team
Background: Home health quality

- Outcome and Assessment Information Set (OASIS) (1999)

- Calculation of quality measures
  - Outcome (2000); Process (2010); Claims-based utilization (2012)

- Public reporting

- Conditions of Participation for Home Health (§ 484.55)

- Consumer Assessment of Healthcare Providers and Services (CAHPS) in Home Health (HH) (2009)

- GAP: No patient reported outcomes
Trial of Patient Reported Outcomes

- **OASIS Field Test** 2016-2017
  - Reliability & validity of OASIS items

- **Selection of PROMIS**
  - Well-established, valid & reliable
  - Relevant to home health; easy to complete
  - Resources for scoring, interpretation
  - The NIH and CMS jointly recommend the PROMIS Tool for potential incorporation into CMS QRPs.
Please respond to each item by marking one box per row.

<table>
<thead>
<tr>
<th></th>
<th>Excellent</th>
<th>Very Good</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
</tr>
</thead>
<tbody>
<tr>
<td>General, would you say your health is?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General, would you say your quality of life is?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General, how would you rate your physical health?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General, how would you rate your mental health, including your mood and your ability to think?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General, how would you rate your satisfaction with your social activities and relationships?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General, please rate how well you carry out your usual social activities and roles. (This includes activities at home, at work and in your community, and responsibilities as a parent, child, spouse, employee, friend, etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In the past 7 days,

<table>
<thead>
<tr>
<th>How often have you been bothered by emotional problems such as feeling anxious, depressed or irritable?</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>Mild</td>
<td>Moderate</td>
<td>Severe</td>
<td>Very Severe</td>
<td></td>
</tr>
</tbody>
</table>

How would you rate your fatigue on average?

<table>
<thead>
<tr>
<th>How would you rate your pain on average?</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>No pain</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Worst imaginable pain</td>
</tr>
</tbody>
</table>

To what extent are you able to carry out your everyday physical activities such as walking, climbing stairs, carrying groceries, or moving a chair?

<table>
<thead>
<tr>
<th>Completely</th>
<th>Mostly</th>
<th>Moderately</th>
<th>A little</th>
<th>Not at all</th>
</tr>
</thead>
</table>

Abt Associates | pg 6
PROMIS data collection

- **Face-2-Face Training**
  - Focus on defining PRO & relevance
  - Stressed importance of self-administration
  - Addressed how to respond in special situations

- **Data Collection**
  - Intent: PROMIS offered in two modes (computer; paper)
  - Patients completed surveys during Field Test data collection home visits

# Surveys completed

## Patient Characteristics

<table>
<thead>
<tr>
<th>Number of Patients</th>
<th>150</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Surveys completed</td>
<td>SOC-ROC</td>
</tr>
<tr>
<td></td>
<td>75</td>
</tr>
<tr>
<td>Age (n=121)</td>
<td>&lt;65</td>
</tr>
<tr>
<td></td>
<td>23.1%</td>
</tr>
<tr>
<td>Race/ethnicity* (n=113)</td>
<td>White</td>
</tr>
<tr>
<td></td>
<td>79.8%</td>
</tr>
<tr>
<td>Gender (n=136)</td>
<td>Male</td>
</tr>
<tr>
<td></td>
<td>39.4%</td>
</tr>
</tbody>
</table>
## Length of Stay by State

<table>
<thead>
<tr>
<th>State</th>
<th>Total # Episodes</th>
<th>Total # Episodes Field Test</th>
<th>Weighted Avg. Length of Stay</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO</td>
<td>2339</td>
<td>32</td>
<td>58.06</td>
</tr>
<tr>
<td>MA</td>
<td>30821</td>
<td>34</td>
<td>51.29</td>
</tr>
<tr>
<td>NC</td>
<td>4150</td>
<td>47</td>
<td>56.38</td>
</tr>
<tr>
<td>OH</td>
<td>7058</td>
<td>37</td>
<td>69.67</td>
</tr>
</tbody>
</table>
Quantitative Results: Global Physical/Mental Health Scores

- **GPH**¹ significantly worse than the US reference population subgroup aged 65 and older²
  - *GPH Scores:* $M = 38.5$, $SD = 4.9$, $N = 106$
  - *Reference Population:* $M = 50.5$, $SD = 9.6$, $N = 1396$; $p < .001$

- **GMH**¹ significantly worse than the US population aged 65 and older²
  - *GMH Scores:* $M = 45.7$, $SD = 6.9$, $N = 108$
  - *Reference Population:* $M = 53.3$, $SD = 8.6$, $N = 1394$; $p < .001$

---

2. Compare PROMIS scores to relevant reference population: [http://www.healthmeasures.net/score-and-interpret/interpret-scores/promis](http://www.healthmeasures.net/score-and-interpret/interpret-scores/promis)
Quantitative Results: Overall & Physical Health

Patients’ ratings of overall & physical health are similar. Patients as a group reported improvement between SOC/ROC and DC.

**Overall health**

<table>
<thead>
<tr>
<th></th>
<th>SOC/ROC % (n=129)</th>
<th>DC % (n=75)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor</td>
<td>11.6</td>
<td>6.7</td>
</tr>
<tr>
<td>Fair</td>
<td>38.0</td>
<td>25.3</td>
</tr>
<tr>
<td>Good</td>
<td>41.3</td>
<td>32.6</td>
</tr>
<tr>
<td>Very good</td>
<td>14.7</td>
<td>21.3</td>
</tr>
<tr>
<td>Excellent</td>
<td>3.1</td>
<td>5.3</td>
</tr>
</tbody>
</table>

**Physical health**

<table>
<thead>
<tr>
<th></th>
<th>SOC/ROC % (n=130)</th>
<th>DC % (n=75)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor</td>
<td>14.6</td>
<td>5.3</td>
</tr>
<tr>
<td>Fair</td>
<td>36.2</td>
<td>26.7</td>
</tr>
<tr>
<td>Good</td>
<td>42.7</td>
<td>36.9</td>
</tr>
<tr>
<td>Very good</td>
<td>10.0</td>
<td>20.0</td>
</tr>
<tr>
<td>Excellent</td>
<td>2.3</td>
<td>5.3</td>
</tr>
</tbody>
</table>

**Global01:** In general, would you say your health is:

**Global03:** In general, how would you rate your physical health?
Quantitative Results: Quality of Life; Mental Health

Patients’ ratings of quality of life and mental health are similar.

**Quality of Life**

- **SOC/ROC % (n=129)**
  - Poor: 7.0
  - Fair: 24.8
  - Good: 44.2
  - Very good: 18.6
  - Excellent: 5.4

- **DC % (n=75)**
  - Poor: 6.7
  - Fair: 16.0
  - Good: 46.7
  - Very good: 22.7
  - Excellent: 8.0

**Global02:** In general, would you say your quality of life is:

**Mental Health**

- **SOC/ROC % (n=128)**
  - Poor: 4.7
  - Fair: 5.4
  - Good: 45.3
  - Very good: 18.8
  - Excellent: 18.0

- **DC % (n=74)**
  - Poor: 10.8
  - Fair: 20.3
  - Good: 46.0
  - Very good: 13.3
  - Excellent: 17.6

**Global04:** In general, how would you rate your mental health?
Quantitative Results: Social activities and roles

Slightly more patients reported satisfaction with social activities/relationships than reported ability to carry out social activities/roles.

**Global05:**
In general, how would you rate your satisfaction with your social activities and relationships?

- **Social activities**
  - SOC/ROC % (n=130) vs. DC % (n=75)

- **Social roles**
  - SOC/ROC % (n=127) vs. DC % (n=75)

- **Percent**
  - Poor: 7.7, 6.7
  - Fair: 16.2, 13.3
  - Good: 46.9, 45.3
  - Very good: 20.8, 18.7
  - Excellent: 8.5, 16.0

- **Percent**
  - Poor: 7.9, 10.7
  - Fair: 24.4, 20.0
  - Good: 37.0, 41.3
  - Very good: 22.8, 14.7
  - Excellent: 7.9, 13.3
Quantitative Results: Physical Activities

Most patients reported being able to carry out everyday physical activities moderately (34%) or a little (31%) at SOC/ROC. At DC, more patients were mostly (31%) or completely (16%) able to do so.

**Global06:**
To what extent are you able to carry out your everyday physical activities?
Most patients reported having emotional problems ‘never’ or ‘rarely’. About 1 in 2 patients indicated a moderate fatigue level at SOC/ROC and DC.

<table>
<thead>
<tr>
<th></th>
<th>SOC/ROC % (n=125)</th>
<th>DC % (n=73)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>16.0</td>
<td>30.1</td>
</tr>
<tr>
<td>Rarely</td>
<td>33.6</td>
<td>37.0</td>
</tr>
<tr>
<td>Sometimes</td>
<td>38.4</td>
<td>21.9</td>
</tr>
<tr>
<td>Often</td>
<td>8.8</td>
<td>8.2</td>
</tr>
<tr>
<td>Always</td>
<td>3.2</td>
<td>2.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Global10: How often have you been bothered by emotional problems such as feeling anxious, depressed or irritable?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>SOC/ROC % (n=126)</th>
<th>DC % (n=74)</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>4.8</td>
<td>4.1</td>
</tr>
<tr>
<td>Mild</td>
<td>23.0</td>
<td>36.5</td>
</tr>
<tr>
<td>Moderate</td>
<td>55.6</td>
<td>48.7</td>
</tr>
<tr>
<td>Severe</td>
<td>15.1</td>
<td>8.1</td>
</tr>
<tr>
<td>Very Severe</td>
<td>1.6</td>
<td>2.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Global08: How would you rate your fatigue on average?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Quantitative Results: Pain

Pain intensity was relatively normally distributed, except for 15% and 31% reporting ‘no pain’ for SOC/ROC and DC, respectively.

Global07:
How would you rate your pain on average?
Quantitative Results: Self-Reported Improvement for Matched Surveys

Higher percentages of patients reported improved pain, physical activity, emotional problems at DC when compared to their scores at SOC/ROC.

Self-Reported Improvement for Patients with Matched Surveys by Global Health Item

- Better
- No Change
- Worse

<table>
<thead>
<tr>
<th>Category</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall health (n=56)</td>
<td>8.9</td>
</tr>
<tr>
<td>Quality of life (n=55)</td>
<td>14.5</td>
</tr>
<tr>
<td>Physical health (n=56)</td>
<td>14.3</td>
</tr>
<tr>
<td>Mental health (n=55)</td>
<td>20.0</td>
</tr>
<tr>
<td>Social satisfaction (n=56)</td>
<td>23.2</td>
</tr>
<tr>
<td>Social ability (n=55)</td>
<td>32.7</td>
</tr>
<tr>
<td>Physical ability (n=53)</td>
<td>18.9</td>
</tr>
<tr>
<td>Emotional problems (n=54)</td>
<td>11.1</td>
</tr>
<tr>
<td>Fatigue (n=54)</td>
<td>18.5</td>
</tr>
<tr>
<td>Pain (n=53)</td>
<td>13.2</td>
</tr>
</tbody>
</table>
Quantitative Results:
Global Physical/Mental Health Scores

- **Global Physical Health (GPH) Score Items¹**
  - *Global03:* How would you rate your physical health?
  - *Global06:* To what extend are you able to carry out your everyday activities?
  - *Global07:* How would you rate your pain on average?
  - *Global08:* How would you rate your fatigue on average?

- **Global Mental Health Score (GMH) Items¹**
  - *Global02:* Would you say your quality of life is…?
  - *Global04:* How would you rate your mental health?
  - *Global05:* How would you rate your satisfaction with your social activities and relationships?
  - *Global10:* How often have you been bothered by emotional problems?

1. Item descriptions abbreviated.
The majority of patients showed improvement in the global physical health score (62%) and global mental health score (59%).
Quantitative Results: Goodness of Fit analyses

Based on the Start/Resumption of Care PROMIS ratings, which of the following best characterizes the home health patients who participated in the field test?

- Patients’ ratings are …
  - evenly distributed across response options.
  - normally distributed across response options.
  - skewed toward lower than average response options.

Based on Goodness of Fit tests, the answer is … .
Quantitative Results: Goodness of Fit analyses

Based on the Start/Resumption of Care PROMIS ratings, which of the following best characterizes the home health patients who participated in the field test?

- Patients’ ratings are …
  - normally distributed across response options.

Based on Goodness of Fit tests, the answer is … .
Quantitative Results: Conclusions

- Patients reported improvement in global physical and mental health between SOC/ROC and DC
  - Raw change rates were lower

- Most notable improvement in pain and physical activities from SOC/ROC to DC
  - Focus of home health care

- Social ability mostly unchanged between SOC/ROC and DC
  - Expected due to short episodes of care
Qualitative

- Focus Groups
  - Site Coordinators facilitated at each of the 12 HHA
  - Participants: RNs, PTs, support staff involved in field test

- Semi-structured discussions
  - PROMIS was one topic
  - 10 groups provided substantial feedback; 2 minimal
Perceptions of feasibility

- Clinicians were about evenly divided in concluding whether their patients found survey confusing or difficult.
- Clinicians noted survey does not apply to patients with cognitive impairment & did not include caregivers, who play an essential role in home health.
- Clinicians acknowledged and appreciated the value of PRO.
Perceptions of self-report

- Clinicians in 50% of groups characterized patient self-report as ‘subjective,’ ‘unrealistic’
  - Comparing with their clinical assessment
  - Considering what the information will be used for

- Clinicians suggested home health patients overstate their independence; health and functional status
  - Avoid having to move from home to a more restrictive, higher level of care setting
Conclusions

- **Quantitative**: Improvement between SOC/ROC & DC, most notably in pain, physical abilities

- **Qualitative**: PRO feasible among cognitively intact and Clinicians find value in patient self report

- **Limitations**: small convenience sample; English speaking; cognitively intact.

- **Next Steps**
  - National testing of PROMIS© Global10 across all PAC settings underway
  - Considerations for cognitively impaired; caregivers; integration with clinical practice; implications for quality measurement