Measuring and Reporting Long Term Care Quality: The US Experience

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Measuring the quality of long-term care
Public reporting of long-term care quality: the US experience

Vincent Mor

Summary: Efforts to improve the quality of long-term care services traditionally focus on regulatory and enforcement systems, however, increasingly provider quality improvement efforts stimulated by public reporting of provider performance has been emphasised in the US in both institutional and community based long-term care. Over the past decade, in the US publicly reporting provider performance has been advanced as a means of introducing competition on the basis of quality into the long-term care sector, providing benchmarks against which providers can compare themselves and be compared. This paper briefly summarises the US experience over the last decade in these efforts and proceeds to discuss and document research regarding the advantages and pitfalls of quality measurement and the effects that public reporting has had. Since provider comparisons in the acute care sector are already underway in many European countries, it is likely that these efforts will be expanded in those countries that have a uniform data system in place which can be used for measurement.

Key words: Quality, long-term care, USA, public reporting, measurement, policy, Medicare, Medicaid
The Nursing Home Resident Assessment Instrument (RAI)

1986 Institute of Medicine Report on Nursing Home Quality Recommended a Uniform RAI to Guide Care Planning

OBRA ‘87 Contained Nursing Home Reform Act Including RAI Requirement

A 300 Item, Multi-Dimensional RAI Tested for 2 Years

Mandated Implementation in 1991
Clinical Planning Basis of the RAI

Assessment Profile in Given Domain
“Triggers” Potential “Risk” Status

Resident Assessment Protocol Reviewed to Determine Presence of Problem or High Risk of Problem

Care Planning and Treatment Directed to the Problem

Assumes Data Quality Contingent upon conduct of Clinical Care Planning Process
RAI History

Version 1.0 Mandated for general use in 1991

Version 2.0 Introduced in 1996

Admission, Short Term and Quarterly Reassessments done on all Residents

Since 1998 all RAI records are computerized and submitted to Centers for Medicare & Medicaid

Version 3.0 introduced in 2010; reaffirms Care Planning Basis of Instrument
MINIMUM DATA SET (MDS) — VERSION 2.0
FOR NURSING HOME RESIDENT ASSESSMENT AND CARE SCREENING
FULL ASSESSMENT FORM

(Status in last 7 days, unless other time frame indicated)

SECTION A. IDENTIFICATION AND BACKGROUND INFORMATION

1. RESIDENT NAME
   a. (First) b. (Middle Initial) c. (Last) d. (Jr/Sr)

2. ROOM NUMBER

3. ASSESSMENT REFERENCE DATE
   a. Last day of MDS observation period
      Month — Day — Year
   b. Original (0) or corrected copy of form (enter number of correction)

4a. DATE OF REENTRY
    Date of reentry from most recent temporary discharge to a hospital in
    last 60 days (or since last assessment or admission if less than 60 days)
    Month — Day — Year

4b. MARITAL STATUS

4c. MEDICAL RECORD NO.

5. CURRENT PAYMENT SOURCES FOR N.H. STAY
   (Billing Office to indicate; check all that apply in last 30 days)
   a. Medicaid per diem
   b. Medicare per diem
   c. Medicare ancillary part A
   d. Medicare ancillary part B
   e. CHAMPUS per diem
   f. VA per diem
   g. Self or family pays for full per diem
   h. Medicaid resident liability or Medicare co-payment
   i. Private insurance per diem (including co-payment)
   j. Other per diem

6. REASONS FOR ASSESSMENT
   a. Primary reason for assessment
      1. Admission assessment (required by day 14)
      2. Annual assessment

3. MEMORY/RECALL ABILITY
   (Check all that resident was normally able to recall during last 7 days)
   a. That he/she is in a nursing home
   b. Location of own room
   c. Staff namesfaces
   d. NONE OF ABOVE are recalled

4. COGNITIVE SKILLS FOR DAILY DECISION-MAKING
   (Made decisions regarding tasks of daily life)
   0. INDEPENDENT—decisions consistent/reasonable
   1. MODIFIED INDEPENDENCE—some difficulty in new situations
      only
   2. MODERATELY IMPAIRED—decisions poor, cues/supervision
      (required)
   3. SEVERELY IMPAIRED—never/rarely made decisions

5. INDICATORS OF DELIRIUM—PERIODIC DISORDERED THINKING/AWARENESS
   (Code for behavior in the last 7 days) [Note: Accurate assessment
   requires conversations with staff and family who have direct knowledge
   of resident’s behavior over this time].
   a. EASILY DISTRACTED—(e.g., difficulty paying attention; gets
      sidetracked)
   b. PERIODS OF ALTERED PERCEPTION OR AWARENESS OF
      SURROUNDINGS—(e.g., moves lips or talks to someone not
      present; believes he/she is somewhere else, confuses right and
      day)
   c. EPISODES OF DISORGANIZED SPEECH—(e.g., speech is
      incoherent, nonsensical, irrelevant, or rambling from subject to
      subject; loses train of thought)
   d. PERIODS OF RESTLESSNESS—(e.g., fidgeting or picking at skin,
      clothing, napkins, etc; frequent position changes; repetitive physical
      movements or calling out)
   e. PERIODS OF LETHARGY—(e.g., sluggishness; staring into space;
      difficult to arouse; little body movement)
   f. MENTAL FUNCTION VARY OVER THE COURSE OF THE
      DAY—(e.g., sometimes better, sometimes worse; behaviors
      sometimes present, sometimes not)
# MDS 2.0 Rating Resident Function

1. **ADL SELF-PERFORMANCE** — (Code for resident's PERFORMANCE OVER ALL SHIFTS during last 7 days — Not including setup)
   - **INDEPENDENT** — No help or oversight — OR — Help/oversight provided only 1 or 2 times during last 7 days
   - **SUPERVISION** — Oversight, encouragement or cueing provided 3 or more times during last 7 days — OR — Supervision (3 or more times) plus physical assistance provided only 1 or 2 times during last 7 days
   - **LIMITED ASSISTANCE** — Resident highly involved in activity; received physical help in guided maneuvering of limbs or other nonweight bearing assistance 3 or more times — OR — More help provided only 1 or 2 times during last 7 days
   - **EXTENSIVE ASSISTANCE** — While resident performed part of activity, over last 7-day period, help of following type(s) provided 3 or more times:
     - Weight-bearing support
     - Full staff performance during part (but not all) of last 7 days
   - **TOTAL DEPENDENCE** — Full staff performance of activity during entire 7 days
   - **ACTIVITY DID NOT OCCUR** during entire 7 days

2. **ADL SUPPORT PROVIDED** — (Code for MOST SUPPORT PROVIDED OVER ALL SHIFTS during last 7 days; code regardless of resident’s self-performance classification)
   - **SELF-PERF**
     - No setup or physical help from staff
     - Setup help only
     - One person physical assist
     - Two+ persons physical assist
   - **SUPPORT**
     - ADL activity itself did not occur during entire 7 days

<table>
<thead>
<tr>
<th>Activity</th>
<th>Bed Mobility</th>
<th>Transfer</th>
<th>Walk In Room</th>
<th>Walk In Corridor</th>
<th>Locomotion</th>
</tr>
</thead>
<tbody>
<tr>
<td>How resident moves to and from lying position, turns side to side, and positions body while in bed</td>
<td></td>
<td>How resident moves between surfaces — to/from: bed, chair, wheelchair, standing position (EXCLUDE to/from bath/toilet)</td>
<td>How resident walks between locations in his/her room</td>
<td>How resident walks in corridor on unit</td>
<td>How resident moves between locations in his/her room and adjacent corridor on same floor if in wheelchair; self-sufficiency</td>
</tr>
</tbody>
</table>
MDS 3.0 Requires Resident Interview

**Interview for Mental Status.**

**C0200-C0500: Brief Interview for Mental Status (BIMS)**

**Brief Interview for Mental Status (BIMS)**

**C0260. Repetition of Three Words**

- **Ask resident:** "I am going to say three words for you to remember. Please repeat the words after I have said all three. The words are: sock, blue, and bed. Now tell me the three words."
- **Number of words repeated after first attempt**
  - 0. None
  - 1. One
  - 2. Two
  - 3. Three
  - After the resident's first attempt, repeat the words using cues: sock, something to wear; blue, a color; bed, a piece of furniture. You may repeat the words up to two more times.

**C0360. Temporal Orientation (orientation to year, month, and day)**

- **Ask resident:** "Please tell me what year it is right now."
  - 0. Missed by > 5 years or no answer
  - 1. Missed by 2-5 years
  - 2. Missed by 1 year
  - 3. Correct

- **Ask resident:** "What month are we in right now?"
  - 0. Missed by > 1 month or no answer
  - 1. Missed by 3-4 months
  - 2. Correct

- **Ask resident:** "What day of the week is today?"
  - 0. Missed or no answer
  - 1. Correct

**C0460. Recall**

- **Ask resident:** "Let's go back to an earlier question. What were those three words that I asked you to repeat?"
  - If unable to remember a word, give cue (something to wear; a color; a piece of furniture) for that word.
  - **A. Able to recall “sock”**
    - 0. No - could not recall
    - 1. Yes, after cueing (“something to wear”)
    - 2. Yes, no cue required
  - **B. Able to recall “blue”**
    - 0. No - could not recall
    - 1. Yes, after cueing (“a color”)
    - 2. Yes, no cue required
  - **C. Able to recall “bed”**
    - 0. No - could not recall
    - 1. Yes, after cueing (“a piece of furniture”)
    - 2. Yes, no cue required

**C0560. Summary Score**

<table>
<thead>
<tr>
<th>Score</th>
<th>Add scores for questions C0200-C0460 and fill in total score (0-12)</th>
<th>Enter 99 if unable to complete one or more questions of the interview</th>
</tr>
</thead>
</table>
Payment Uses of RAI

Early on in RAI development Medicare/Medicaid experimented with alternative uses

Case-Mix Reimbursement systems based upon functional and treatment needs designed

Many states used RAI to pay NHs based upon acuity mix of residents; Medicare used RAI for reimbursement beginning 1998
Quality Measurement Uses of RAI

Quality Indicators created using MDS 1.0 as early quality management experiments

Consortia of providers measured quality and shared best practices

Quality Indicators used to “guide” inspections

Movement toward public reporting culminated in 2002 with “Nursing Home Compare”
CMS Quality Measures - Long Term

Percent of Long-Stay Residents Given Influenza Vaccination During the Flu Season
Percent of Long-Stay Residents Given Pneumococcal Vaccination
Percent of Residents Whose Need for Help With Daily Activities Has Increased
Percent of Residents Who Have Moderate to Severe Pain
Percent of High-Risk Residents Who Have Pressure Sores
Percent of Low-Risk Residents Who Have Pressure Sores
Percent of Residents Who Were Physically Restrained
Percent of Residents Who are More Depressed or Anxious (Looks back 30 days)
Percent of Low-Risk Residents Who Lose Control of Their Bowels or Bladder
Percent of Residents Who Have/Had a Catheter Inserted and Left in Their Bladder
Percent of Residents Who Spent Most of Their Time in Bed or in a Chair
Percent of Residents Whose Ability to Move in and Around Their Room Got Worse
Percent of Residents with a Urinary Tract Infection (Looks back 30 days)
Percent of Residents Who Lose Too Much Weight (Looks back 30 days)
## Psychotropic Drug Use - October/December 2009

<table>
<thead>
<tr>
<th>State</th>
<th>Anti-Psychotics Overall</th>
<th>Anti-Psychotics LOW Risk</th>
<th>Anti-Anxiety Agents</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>18.6%</td>
<td>15.6%</td>
<td>23.1%</td>
</tr>
<tr>
<td>AK</td>
<td>11.2%</td>
<td>4.7%</td>
<td>21.5%</td>
</tr>
<tr>
<td>AL</td>
<td>15.9%</td>
<td>14.0%</td>
<td>27.2%</td>
</tr>
<tr>
<td>AR</td>
<td>17.9%</td>
<td>15.6%</td>
<td>21.1%</td>
</tr>
<tr>
<td>AZ</td>
<td>19.2%</td>
<td>15.8%</td>
<td>21.5%</td>
</tr>
<tr>
<td>CA</td>
<td>16.8%</td>
<td>14.0%</td>
<td>20.4%</td>
</tr>
<tr>
<td>CO</td>
<td>18.6%</td>
<td>15.1%</td>
<td>18.1%</td>
</tr>
<tr>
<td>CT</td>
<td>23.7%</td>
<td>21.2%</td>
<td>22.7%</td>
</tr>
<tr>
<td>DC</td>
<td>13.6%</td>
<td>12.4%</td>
<td>13.4%</td>
</tr>
<tr>
<td>DE</td>
<td>20.2%</td>
<td>17.8%</td>
<td>23.3%</td>
</tr>
<tr>
<td>FL</td>
<td>12.2%</td>
<td>10.1%</td>
<td>27.5%</td>
</tr>
</tbody>
</table>
Conceptual Issues Inherent in Applying Quality Indicators

Requires “shared” interpretation of Quality

Assumes all Providers have same goals

Assumes Measured Quality Domains are Important

Indicators are NOT Quality *per se*, BUT often used as evidence in and of themselves

Assumes Providers *Accountable* for most of the variation in the Indicator (e.g. outcomes)

Assumes Providers Know how to Change Practice
Public Reporting of Quality

NURSING HOME COMPARE allows consumers and advocates to identify facilities in their geographic area and to identify which NH’s perform best on one or more specific quality measures.
Percent of high-risk long-stay residents who have pressure sores

- **This is the average for all nursing homes in the United States**: 11%
- **This is the average for all nursing homes in the state of Rhode Island**: 10%
- **Charlestown Nursing Center**: 10%
- **Hallworth House**: 8%
- **Tockwotton Home**: 12%
Creating Composites: 5 Star Rating

Five years after public reporting multiple QMs, Advocates concerned that public didn’t understand; too complicated wanted simplicity

A 5 Star Rating was created by combining data from inspections, staffing levels & Qis

Inspections and Staffing weighted most highly; some technical adjustments to try to deal with data inadequacies of these data
### Reporting Composites: 5 Star Rating

#### Step 2 - Choose Nursing Home to Compare

**Search Results**

There are **4 Nursing Homes in Virginia**.

Select up to 3 Nursing Homes from the results table below and select the "Compare" button to compare your selections in more detail.

**Quality of Care Ratings**

The number of stars shows how well the nursing homes perform.

- Much Above Average: ★★★★★
- Above Average: ★★★★
- Average: ★★★
- Below Average: ★★
- Much Below Average: ★

**Your Search Criteria**

You have selected the following criteria for your search:

- **State**: Virginia

#### Facilities with Poor Survey Performance

- Special Focus Facility: This nursing home has a record of persistently poor survey performance, and has been selected for more frequent inspections and monitoring. To learn more, visit [http://www.cms.hhs.gov/website](http://www.cms.hhs.gov/website).

#### Choose up to 3 Facilities to Compare

<table>
<thead>
<tr>
<th>Facility Name and General Information</th>
<th>Overall Ratings</th>
<th>Quality Measures</th>
<th>Health Inspections</th>
<th>Staffing</th>
<th>Program Participation</th>
<th>Total Number of Certified Beds</th>
<th>Type of Ownership</th>
<th>Continuing Care Retirement Community</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Spring</td>
<td>★★★★★</td>
<td>★★★★</td>
<td>★★★★</td>
<td>★★★★</td>
<td>Medicare and Medicaid</td>
<td>100</td>
<td>For Profit - Corporation</td>
<td>Yes</td>
</tr>
<tr>
<td>5755 East Main Street, Fairfax, VA 22031</td>
<td>5 Stars</td>
<td>4 Stars</td>
<td>5 Stars</td>
<td>4 Stars</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Located in a hospitalse Residences & Family Councils: Both.
<table>
<thead>
<tr>
<th>Nursing Homes</th>
<th>Address</th>
<th>Phone</th>
<th>Overall Rating</th>
<th>Health Inspections</th>
<th>Nursing Home Staffing</th>
<th>Quality Measures</th>
<th>Fire Safety Inspections</th>
</tr>
</thead>
<tbody>
<tr>
<td>HALLWORTH HOUSE</td>
<td>66 BENEFIT STREET PROVIDENCE, RI 02904</td>
<td>(401) 274-4505</td>
<td>★★★★★</td>
<td>★★★★</td>
<td>★★★★★</td>
<td>★★★★</td>
<td>0</td>
</tr>
<tr>
<td>TOCKWOTTON HOME</td>
<td>75 EAST STREET PROVIDENCE, RI 02903</td>
<td>(401) 272-5280</td>
<td>★★★★★</td>
<td>★★★★★</td>
<td>★★★★★</td>
<td>★★★★</td>
<td>0</td>
</tr>
<tr>
<td>CHARLES GATE NURSING CENTER</td>
<td>100 RANDALL STREET PROVIDENCE, RI 02904</td>
<td>(401) 861-5858</td>
<td>★★</td>
<td>★★★★★</td>
<td>★★★★★</td>
<td>★★★★★</td>
<td>0</td>
</tr>
</tbody>
</table>

Mapping & Directions

Show Information

Show Information

Show Information

Show Information

Show Information

Show Information
Does Reporting Improve Quality?

Werner & colleagues (2009) found significant improvement in BOTH measured and unmeasured quality measures following public reporting – BUT general improvement trend

Mukamel et al. (2007) looked carefully at initial response relative to prior quality patterns and also found improvement on most but not all measures

Werner, et al. 2010 also found improvement in post-acute quality scores
Does Reporting Affect Patients’ “Choices” of Nursing Home

Werner and colleagues (2011) found small but significant changes in admission patterns and apparent willingness of patients to travel longer distance based upon publicly reported quality.

HOWEVER, most admissions are for short stay rehabilitation BUT most quality measures are based upon performance on long stay residents.

These studies pre-dated introduction of 5-Star
Can we Integrate the Residents’ Voice into Quality Measures?

MDS 3.0 interviews residents; post-acute AND long stay

Asks about Quality of Life; percent of residents answering higher than anticipated; BUT

Long way to go before a quality of life measure can be used and reported;

If clinical quality is hard to define and measure, QoL even more so
Summary

Public Reporting of long term care providers’ quality performance is possible;

All measures are flawed, but no more than acute and ambulatory care.

Pre-requisite is to have uniform data collected with relevant clinical detail AND should be able to be audited with penalties to minimize bad data.
Issues for the Future

Preferable to have common items, measures and metrics across different types of long term care options, technically AND for consumers

Consumers want Composite Scores, but they are less sensitive than domain specific measures

Measures will never be perfect; so, careful how they are applied and interpreted