Optimal Aging Through Research

Nursing Home Compare:
The First Four Years of the Five-Star Quality Rating System

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Outline of Presentation

1. Describe impetus for the Five-Star Quality Rating System on Nursing Home Compare

2. Review Five-Star rating methodology

3. Discuss trends over the first four years
Nursing Home Quality

- The quality of care in nursing homes has improved since 1987 OBRA reforms, but still room for improvement
- There is considerable variation in quality among nursing homes
- Public reporting supports key priorities for CMS
  - Transparency
  - Improved quality
  - Informed decision making
- Nursing Home Compare website launched in 1998
  - In December 2008, CMS launched the “Five-Star Quality Rating System” on NHC
Principles in Development of Quality Ratings System ("Five-Star")

- Use information already reported on NHC
- Incorporate multiple dimensions of quality
- Solicit input from experts in nursing home quality
Principles in Development of Quality Ratings System ("Five-Star")

- Use evidence base when possible to develop measures and rating thresholds
- Provide detailed technical information about the rating methodology to providers and consumers
- Remind consumers that ratings should be used together with other sources of information
Three Domains of Quality in Rating System

1. Health Inspections
2. Staffing levels
3. Quality Measures

There is a rating for each domain and an overall quality rating.
Five-Star Rating Methodology:
Health Inspections

- Points assigned by scope and severity of citations
  - Rating incorporates 3 most recent annual inspections and 3 years of substantiated complaints
  - Additional points for “substandard quality of care”

- Rating based on state-specific, fixed distribution
  - Top 10% (lowest score) within state get ★★★★★
  - Bottom 20% (highest score) within state get ★
  - Remaining 70% divided equally among 2, 3, & 4 ★s

- Thresholds re-assigned each month
Five-Star Rating Methodology: Quality Measures

- Nine MDS-based QMs are used: 7 long-stay and 2 short-stay measures
- Based on weighted average of 3 most recent quarters
- For each QM, 1-100 points assigned based on percentile distribution
- Thresholds based on the national distribution except for one measure (ADL decline)
- Unlike health inspections, the distribution of ratings is not held constant but allowed to shift
Five-Star Rating Methodology: Staffing

- Two staffing measures – equally weighted
  - Adjusted RN staffing ratio – (hours/resident/day)
  - Adjusted Total staffing ratio – (hours/resident/day)

- CMS staffing study identified a threshold for high quality care which is used for the 5 star category

- Relative distribution used for other 4 categories
  - Based on national distribution
  - Like QMs, the distribution is allowed to change
Five-Star Rating Methodology: Overall Rating - Computation

- **Step 1:** Start with **Health Inspection** rating (1 to 5 ★s)
- **Step 2:** Go up one ★ if **Staffing** rating 4 or 5 ★s; Go down one ★ if **Staffing** rating is 1 ★
- **Step 3:** Go up one ★ if **QM** rating is 5 ★s; Go down one ★ if **QM** rating is 1 ★
- **Step 4:** If **Health Inspection** rating is 1 ★, overall rating cannot be more than 2 ★s
- **Step 5:** If provider is a Special Focus Facility, overall rating cannot be more than 3 ★s
Overall ratings have gradually risen since the system was introduced in December 2008.
Trends in Overall Rating: 2009-2013

Overall Quality Rating

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Trends in Overall Rating: 2009-2013

Overall Quality Rating

% of Nursing Homes

Overall Quality Rating


22.7

11.8

11.5

22.3
Evidence of improvement in all three domains:

- **Staffing**: Proportion receiving 4 or 5 stars has increased while the proportion receiving 1 star has decreased.

- By design, **Health Inspection** ratings remain constant. However, there has been general improvement in health inspection scores for more recent surveys, except for 1-star facilities.

- **Quality Measures**: Proportion receiving 4 or 5 stars has increased, while the proportion receiving 1 or 2 stars has decreased.
  
  - Trend has accelerated since transition to MDS 3.0
Trends in Staffing Ratings: 2009-2013

• The proportion of 5-star nursing homes has increased slightly (7.2% to 10.3%)

• The proportion of 4-star nursing homes has increased considerably more, from 31% to 41%

• The proportion of 1-star nursing homes has decreased substantially, from 23% to 12%
Trends in QM Rating: 2009-2013

% of Nursing Homes

Quality Measure Rating

Abt Associates | pg 16
Trends in Health Inspection Deficiencies: 2003-2012

Mean Number of Health Deficiencies Cited in Nursing Home Surveys:
2003-2012

- 2003: 6.0
- 2004: 6.2
- 2005: 6.6
- 2006: 7.2
- 2007: 7.2
- 2008: 7.1
- 2009: 6.7
- 2010: 6.2
- 2011: 6.1
- 2012: 5.9
Conclusions

- Some evidence of improvement in performance of nursing homes since the implementation of the Five-Star Quality Rating System
  - Not possible to know whether this is due to the rating system or other factors
  - QM ratings have been increasing rapidly since the transition to quality measures based on MDS 3.0
Next Steps

- Continue to evaluate the rating methodology
  - Incorporate additional quality measures into the rating system
  - Incorporate additional staff types into the rating system
  - Consider an alternative method of case-mix adjustment to the staffing rating
  - Explore having separate ratings for long-stay vs. post-acute care

- Continue to monitor and analyze trends in the underlying data
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