Measures of hospital use for long-stay nursing facility residents

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Context

- A majority of long-stay nursing facility (NF) residents are Medicare beneficiaries
- A substantial percentage of hospital admissions from NFs may be avoidable
- Potentially avoidable hospitalizations of NF residents:
  - Expose beneficiaries to several health risks
  - Increase Medicare spending
Outline of today’s presentation

- Measures
  - Hospital use
  - Rates of skilled nursing facility use
- Risk adjustment
- Results
- Spending implications
- Next steps
Hospital use measures

- Potentially-avoidable hospital use
  - Measures hospital admissions across 20 conditions that:
    - Should be managed in a nursing facility
    - Should be prevented from occurring with high-quality care

- “All-cause” emergency department and observation use
  - Measures the extent to which beneficiaries are transferred to a hospital without an admission
Skilled nursing facility (SNF) use measures

- **Rate of SNF days**
  - Measures the SNF days facility residents use
  - Higher rates may indicate either:
    - Longer-than-average use of the SNF benefit
    - More frequent use of the SNF benefit

- **Rate of gap days**
  - Measures the days between the time a beneficiary is eligible to start a new benefit period and the triggering hospitalization that leads to a SNF-covered stay
  - Higher rates may indicate:
    - More frequent use of the SNF benefit
Risk adjustment

- Risk adjusted for medical conditions, function, and comorbidities
  - Included a measure of cognitive impairment, but not significant
- Accounting for socio-economic status in quality programs
Volume of hospital and SNF use

- Potentially-avoidable hospital admissions
  - ~200,000 admissions per year
- All-cause emergency department visit and observation use
  - ~500,000 visits per year
- Skilled nursing facility days
  - ~20 million days per year (about 400,000 stays)

Note: Data are preliminary and subject to change.
Source: Preliminary Providigm analysis of 1.4 million long-stay nursing facility residents using data from fiscal years 2013 and 2014.
### Wide variation in rates across facilities

#### Risk-adjusted average facility rates per 1,000 days for long-stay beneficiaries

<table>
<thead>
<tr>
<th>Measure</th>
<th>Percentile</th>
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<tbody>
<tr>
<td></td>
<td>Average</td>
</tr>
<tr>
<td>Potentially-avoidable hospitalizations</td>
<td>0.8</td>
</tr>
<tr>
<td>All-cause ED visits and observation use</td>
<td>1.9</td>
</tr>
<tr>
<td>SNF days</td>
<td>76</td>
</tr>
</tbody>
</table>

**Note:** Data are preliminary and subject to change.

**Source:** Preliminary Providigm analysis of 1.4 million long-stay nursing facility residents using data from fiscal years 2013 and 2014.
Facility-level characteristics

- Rates stratified by facility characteristics showed only small differences
  - Lower-rate facilities were disproportionately:
    - Urban
  - Higher-rate facilities were disproportionately:
    - Rural, small

- Facility-level characteristics contributed to the rate of potentially-avoidable hospital admissions:
  - Lower rates associated with:
    - Higher rates of hospice use, visits from physicians or other health professionals, and access to on-site x-ray
    - SNF measure only: Higher rates of use of certified nursing assistants
  - Higher rates associated with:
    - Higher rates of use of licensed practical nurses
State-level analysis

- Two-fold differences in rates of potentially-avoidable hospital admissions across states
- State-level variation could result from other characteristics including:
  - Staff requirements
  - Culture regarding end-of-life care
  - Other state-level policies
Spending implications

- About 200,000 potentially-avoidable hospital admissions in 2014 for long-stay nursing facility residents
- Estimate spending on potentially-avoidable hospital admissions for long-stay nursing facility residents in 2014: $1.4 billion
- Rough estimate of spending on SNF stays associated with potentially-avoidable hospital admissions: $2-$3 billion
Discussion

- Feedback on measures
  - Potentially-avoidable hospital admissions
  - ED visits and observation use
  - Skilled nursing facility days
- Interest in incorporating measure into SNF quality program including for public reporting on Nursing Home Compare
- Interest in incorporating measure into SNF value-based purchasing program