

# Measures of hospital use for long-stay nursing facility residents

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# Context

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- 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

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

# Hospital use measures

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- 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

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- 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

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- 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

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- 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

Measure	Percentile						Ratio 90:10 percentile
	Average	10 <sup>th</sup> (best)	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	90 <sup>th</sup> (worst)	
Potentially-avoidable hospitalizations	0.8	0.4	0.5	0.7	0.9	1.2	3.0
All-cause ED visits and observation use	1.9	0.8	1.2	1.7	2.3	3.1	3.6
SNF days	76	16	32	54	95	168	10.8

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

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- 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

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- 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

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- 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

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- 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