

Track: SOPS in Medical Offices, Nursing Homes, and Other Settings
Session: Linking SOPS Results to Outcomes and Setting Characteristics
Date & Time: Wednesday, April 21, 2010, 8:00 am



Is Safety Culture Related to Nursing Home Quality? Linking Nursing Home SOPS Scores With CMS Five-Star Quality Ratings

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Background

- Challenge to change culture of healthcare organizations.
- Focus has been on hospital patient safety and quality
- What about nursing homes?
- New diagnostic tool: *AHRQ Nursing Home Survey on Patient Safety Culture*



Research Objective

- Examine relationship between resident safety culture and nursing home quality, as measured by:
 - AHRQ Nursing Home Survey on Safety Culture
<http://www.ahrq.gov/qual/patientsafetyculture/nhsurvindex.htm>
 - Nursing Home Compare Five-Star Quality Ratings
<http://www.medicare.gov/NHCompare/>
- Hypothesis: facilities with higher culture scores will have higher Five-Star Ratings.

AHRQ Nursing Home SOPS (NH SOPS)

- Staff survey designed to assess the culture of safety in nursing homes
- Developed and tested in 2007
 - 40 nursing homes
 - 3,600+ staff respondents
- Twelve composites
 - Three or four items each
 - 5-point Likert scale
- Two overall ratings
 - Overall recommendation: Yes, Maybe, No
 - Overall rating: Poor, Fair, Good, Very good, Excellent



Nursing Home Compare Five-Star Quality Ratings



- Released by Centers for Medicare and Medicaid Services (CMS) in December 2008
- Provides snapshot of quality of care in facility
- Consists of four ratings (from one to five stars)
 - Health Inspections
 - Quality Measures
 - Staffing
 - Overall Rating

Health Inspections Rating



- Health Inspections Rating based on:
 - Annual Inspections
 - Complaint Investigations
- Examples:
 - “Keep all essential equipment working safely”
 - “Properly mark drugs and other similar products”
 - “Try to resolve each resident’s complaints quickly”

Quality Measures Rating



- Quality Measures Rating based on ten clinical/physical measures of quality
- Examples:
 - % Short-Stay Residents with Moderate to Severe Pain
 - % Long-Stay Residents with Urinary Tract Infection
 - % High-Risk Long-Stay Residents with Pressure Sores

Staffing and Overall Ratings



- Staffing Rating based on hours of care
- Overall Rating combines:
 - Health Inspections Rating
 - Quality Measures Rating
 - Staffing Rating

Method

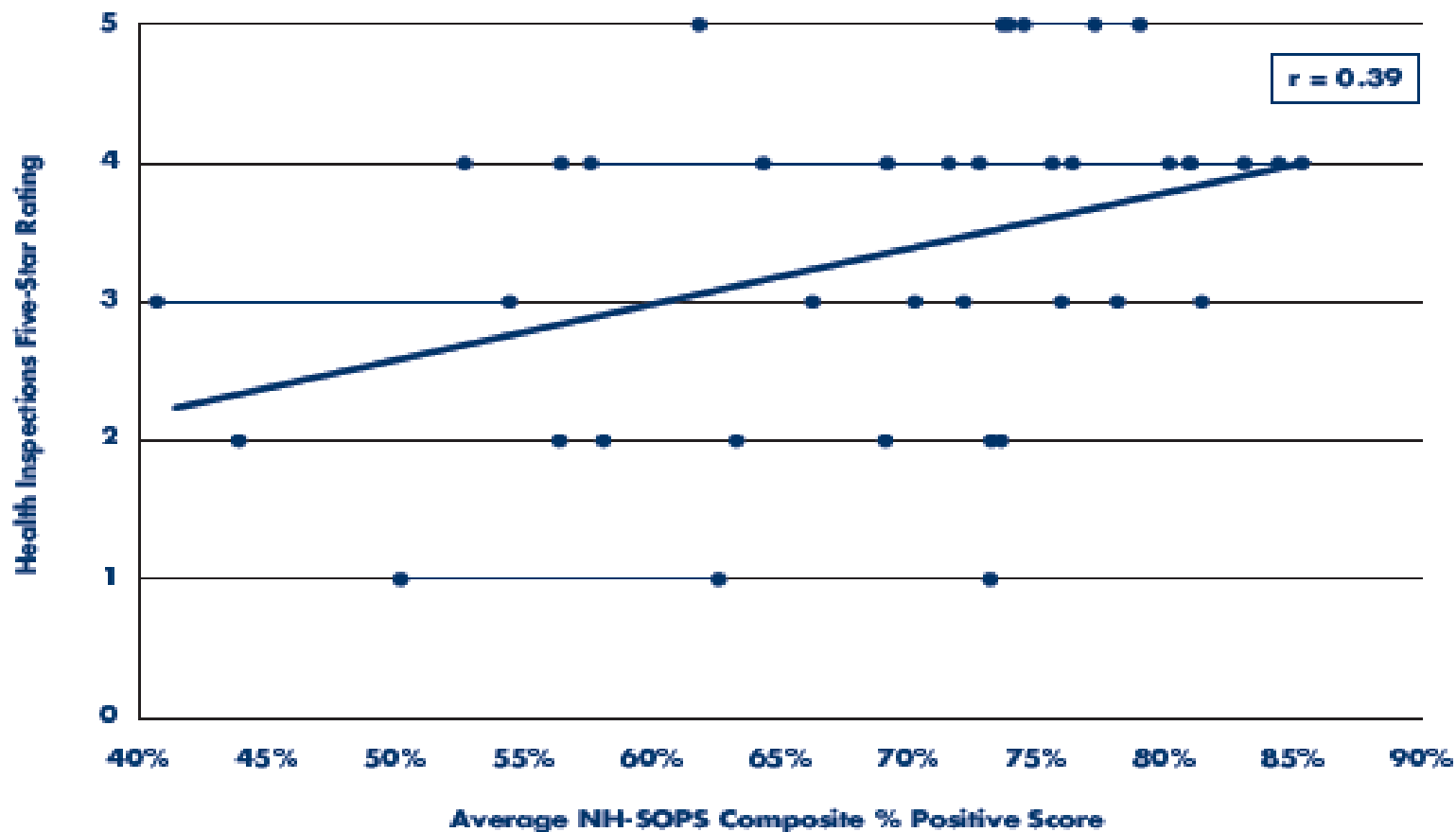
- Five-Star Rating data identified for 39 of 40 nursing homes from NH SOPS pilot study.
- Used the following 15 NH SOPS scores:
 - 12 composite scores,
 - Average composite score, and
 - 2 overall ratings.
- Looked at correlations between NH SOPS and four Five-Star Ratings (N=39).

Results

- Almost all SOPS measures (13/15) positively correlated with **Health Inspections Rating**.

Results

Health Inspections Rating vs. Average NH SOPS Composite Score



Results

Correlations between NH SOPS Measures and Health Inspections Rating (N=39)

NH SOPS Measure	Correlation (r)
1. Training & skills	0.45**
2. Staffing	0.44**
3. Average NH SOPS Composite Score	0.39*
4. Overall perceptions of resident safety	0.38*
5. Overall Rating on Resident Safety	0.38*
6. Feedback & communication about incidents	0.37*
7. Overall Recommendation	0.37*
8. Compliance with procedures	0.37*
9. Handoffs	0.36*
10. Teamwork	0.36*
11. Supervisor expectations & actions promoting resident safety	0.34*
12. Nonpunitive response to mistakes	0.34*
13. Management support for resident safety	0.33*
14. Organizational learning	0.31
15. Communication openness	0.28

*p<.05, **p<.01.

Results

- Almost all SOPS measures (13/15) positively correlated with **Health Inspections Rating**.
 - Correlations moderate in magnitude (0.33 to 0.45)
 - Correlations are significant even after controlling for **number of beds** and **number of employees**
- Null findings: other three Five-Star Ratings not significantly correlated with NH SOPS.
 - Quality Measures
 - Staffing
 - Overall Rating

Conclusions/Lessons Learned

- Important first step linking safety culture and other measures of nursing home quality.
- Nursing homes with more positive safety culture tend to have Health Inspections Ratings.
- Staffing and Quality Measures Five-Star Ratings not associated with safety culture.

Future Directions

- AHRQ funding national comparative database for NH SOPS.
- Further studies needed to...
 - Replicate study on larger set of nursing homes,
 - Examine validity of Nursing Home Compare Five-Star Rating System, and
 - Study relationship between improvements in safety culture and the impact on quality of care.