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## ***The Pay-Off on Nursing Home Report Cards***

Editor's note: For the past decade, policymakers have used public reporting of quality measures as a strategy to improve quality in nursing homes. In theory, public reporting might improve overall quality in two ways: first, if consumers choose nursing homes with better performance, and second, if public reporting encourages nursing homes to improve their performance. Has public reporting had its intended effects? Does improving quality give nursing homes a competitive advantage in the marketplace, thereby improving their bottom line? This Issue Brief summarizes a series of studies that assess the impact of public reporting on nursing home quality and on the financial performance of these facilities.

### ***Nursing Home Compare website provides public information on nursing home quality measures***

In 2002, the Centers for Medicare and Medicaid (CMS) began publicly reporting the quality of care at more than 17,000 Medicare- or Medicaid-certified nursing homes in the US through the website, Nursing Home Compare (NHC). The website provides general information about nursing home characteristics, nurse staffing information, clinical quality measures, and inspection results.

- When NHC was launched, it included three measures of postacute (short-stay) care and seven measures of chronic (long-term) care. About 11% of nursing home beds are filled at any one time by Medicare beneficiaries receiving postacute care as a transition between hospitalization and home or other long-term setting. The NHC measures contain information on residents' health, physical functioning, mental status, and psychosocial well-being.
- Public reporting of nursing home quality provides greater transparency and understanding of the care these facilities provide. Nevertheless, two important questions remain: First, does this reporting improve the quality of care delivered to nursing home residents? Second, what costs do these measures (or responses to them) create for nursing homes, and are those costs offset by any financial gains? Even if performance improves, nursing homes may want solid evidence that quality pays before making the continued investment that may be necessary to sustain it.

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## ***Study links small improvements in postacute nursing home care to NHC***

To analyze the effect of public reporting on the quality of nursing home care, Werner and colleagues compared clinical measures before and after the launch of NHC. They focused on postacute care because high turnover rates and younger, less cognitively impaired residents make finding an effect from public reporting more likely in a short time frame.

- The study used data from Medicare's Minimum Data Set (MDS) for the years 1999-2005, spanning 2002, when NHC was launched. The MDS is the source of quality information reported on NHC. They used data from small nursing homes (that were not included in NHC) as a control group.
- They used the three measures of postacute care quality on NHC since 2002: percent of patients without moderate or severe pain; percent of patients without delirium; and percent of patients whose walking improved. To separate out the effects on reported versus unreported performance, they also looked at a general measure of quality that is not reported on NHC—the rate of preventable hospitalizations within 30 days of admission.
- A total of 8,137 nursing homes were included in the study. The control group consisted of 2,277 small nursing homes. The investigators used statistical measures to account for changes in patient profiles within each nursing home and market shares across nursing homes.
- The three reported quality measures were better in the three years after NHC was launched compared with before. Rates of preventable hospitalizations, which were not reported, did not change. Over those years, the percent of patient without moderate to severe pain improved by 2 percentage points (on a base of 76%), the percentage of patients without delirium improved by 0.5 percentage points (on a base of 96%) and the percentage of patients with improved walking improved by 0.2 percentage points (on a base of 7%). The largest change in quality occurred between 2002 and 2003, when NHC was launched.
- The magnitude of the improvements was small. For example, improvement in pain control attributable to NHC was less than 1%. But with more than 1.5 million patients admitted to postacute care annually, this quality improvement translates into about 12,000 fewer patients in moderate to severe pain.

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## ***Analyses reveal why performance reporting improved quality***

The investigators sought to determine the pathways by which public reporting could affect quality measures.

- The investigators found that patient-level quality improved both because consumers chose higher-quality nursing homes and because providers improved the care they delivered.
  - Further analyses of resident characteristics at admission revealed evidence of “sorting”—changes in illness severity. After the launch of NHC, high-risk patients—or patients with pain on admission—were more likely to go to facilities that scored well on the pain quality measure and low-risk patients were more likely to go to low-scoring facilities for postacute care.
  - The investigators also found that the incidence of admission pain decreased after the NHC launch in a way not fully predicted by other patient characteristics, suggesting that the facilities were “downcoding” high-risk patients.
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## ***Making the business case for quality***

Werner and colleagues examined whether high performance or improvement on quality measures led to economic rewards for nursing homes in the presence of public reporting. They used the MDS and Medicare Cost Reports to obtain financial information, the MDS for clinical quality measures, and data from state inspections to assess facility-level changes from the pre-public reporting period (1999-2002) and the post-public reporting period (2003-2005).

- For this analysis, the investigators used 15 facility-level quality measures. They linked these measures with Medicare Cost Reports and inspection data from the same year for each facility.
- They examined four standard measures of financial performance: net resident revenues, total operating expenses, operating profit margin, and total profit margin.
- They controlled for other factors that might affect financial performance, such as ownership, whether the facility was part of a chain, bed size, and market concentration.

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## ***Nursing homes that improve on quality may reap economic rewards***

The study included 6,286 facilities having consistent financial data and quality information. These facilities were categorized by quality score (812 as high-scoring, 802 as low-scoring, and 4,672 as middle-scoring) and by improvement (1,507 as improved, 4,337 as no change).

- Generally, high-scoring nursing homes and those that improved had better financial performance in the post-NHC period compared to facilities that did not perform as well, as measured by larger increases in revenues.
  - Neither high-performing nor improving facilities exhibited cost savings, consistent with the expectation that quality improvement requires some investment of resources.
  - The net effect on finances, as measured by operating and total profit margins, is that facilities that improve on quality measures also improve in profitability compared to facilities that do not improve. High-scoring facilities show similar patterns, although the changes are not statistically significant. Importantly, improving facilities had better financial performance even at middle levels of quality scores.
  - Further analyses revealed that high-performing and improving facilities had larger increases in occupancy and Medicare days (as opposed to Medicaid days) than the nonimproving group. It appears that the effects of NHC on financial status are not realized through increases in occupancy per se, but rather through changes in payer mix.
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## POLICY IMPLICATIONS

The results support the use of public reporting to improve the quality of care in nursing homes. The “business case” suggests that public reporting offers a viable incentive to induce sustainable change. At least part of the improved financial performance is due to an increased ability to attract high-margin Medicare patients.

- These results indicate that public reporting seems to be working as intended, albeit to only a modest degree. To achieve more robust quality improvement, stronger incentives may be needed. One strategy is to combine public reporting with pay for performance.
- Some questions about public reporting remain, including whether quality improvements extend to all patients, are large enough to be meaningful to patients, and result in improved overall care.
- These results raise an important policy concern that over time public reporting may reduce a low-scoring facility’s ability to further respond to quality improvement incentives. If it worsens finances for low-performing providers, and those providers disproportionately serve low-income and Medicaid patients, it may widen the disparities in quality between these patient groups.

*This Issue Brief is based on the following articles: J. Park, R.T. Konetzka, R. M. Werner. Performing well on nursing home report cards: does it pay off? Health Services Research, April 2011, vol. 46, pp. 531-554; R.M. Werner, R.T. Konetzka, E.A. Stuart, D. Polsky. Changes in patient sorting to nursing homes under public reporting: improved patient matching or provider gaming? Health Services Research, April 2011, vol. 46, pp. 555-571; R. Werner, E. Stuart, D. Polsky. Public reporting drove quality gains at nursing homes. Health Affairs, September 2010, vol. 29, pp.1706-1713; R. M. Werner, R. T. Konetzka, E.A. Stuart, E.C. Norton, D. Polsky, J. Park. Impact of public reporting on quality of postacute care. Health Services Research, August 2009, vol. 44, pp. 1169-1187.*

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