2009 Annual Quality Report

A Comprehensive Report on the Quality of Care in America’s Nursing and Rehabilitation Facilities
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7 Principles of Quality First Pledge

Continuous Quality Assurance and Quality Improvement
We are committed to making patient health and well-being paramount priorities in our organization’s management. We also are committed to a philosophy of management that stimulates continuous quality improvement through the establishment of uniform quality measures, the creation of annual quality improvement goals, and the identification and use of clinical “best practices” in an effort to achieve appropriate patient outcomes.

Workforce Excellence
We are committed to enhancing the human potential of our employees through education and training programs that strive to improve the quality of care delivered, and we are committed to sensitizing our staff to the special needs of frail and vulnerable patients.

Patient/Resident and Family Rights
We are committed to clearly articulating and honoring patient and family rights, and working to ensure that our employees understand and uphold those rights.

Public Input and Community Involvement
We are committed to seeking the input of consumers as we work to improve quality, and we will work with others - in the private and public sectors - to identify, understand, and, ultimately, to resolve concerns associated with care practices or patient outcomes.

Public Disclosure and Accountability
We are committed to continuing to disclose information on quality to patients, employees, and the public, and we will assist them in accessing this information in a timely manner, while protecting confidentiality and complying with other legal requirements.

Ethical Practices
We are committed to developing and implementing organization-specific programs that promote ethical and lawful conduct, and we will lead in the development of responsible laws, regulations, and other standards supporting the quality of care in the facilities we manage.

Financial Stewardship
As providers of care to a unique patient population that is funded in large part by government programs, we are committed to acting as responsible stewards of scarce financial resources. We also recognize our responsibility to serve as champions for public financing levels that will support improved quality and enhanced staffing.
Our Quality Commitment

In 2002, the long term care provider community, including the American Health Care Association (AHCA) and the Alliance for Quality Nursing Home Care (the Alliance) — who together represent an overwhelming majority of the country’s long term care patients and workforce — joined forces to make a national, public pledge to improve quality care for patients and residents. This pledge, known as Quality First, also promised to promote a progressive workplace for our employees, advance the development of key quality measures and publicly report the results of our quality performance. In the spirit of maintaining this promise to openly disclose performance results from Quality First, AHCA and the Alliance are pleased to release the first Quality Report.

To achieve the goals set forth in Quality First, we established a set of core principles that reflect long term care providers’ commitment to continuous quality improvement, leadership and transparency, which are detailed on the following pages. Our first years of the initiative involved encouraging skilled nursing facilities across the country to “sign the pledge” and join us in this effort. In the ensuing years, nearly 6,500 facilities — consisting of large and small, for-profit and non-profit facilities — have pledged their commitment to ensuring quality long term care services that maintain and cultivate the trust of the American people.

Our goal in preparing this report is to provide an objective and representative overview of the state of nursing and rehabilitative care in America by highlighting key quality trends, improvements and areas that require more attention in the future. The report relies primarily on publically available government data and findings from some of the nation’s leading researchers in long term care. There is ample evidence that quality initiatives such as Quality First have improved quality of care and quality of life for our residents and patients in key areas such as reducing use of restraints and improvements in wound care. And evidence is mounting on the cost effectiveness of our services as compared with other sites of service, especially for patients requiring intensive rehabilitative and medically complex care. At the same time, we acknowledge there is still much room for improvement, and these areas are also highlighted in the report so that providers, consumers and policymakers can work together to chart a course for improvement in the future.

Many of these challenges are directly related to the dramatic changes our nation’s nursing and rehabilitation facilities have undergone in recent years due to changes in the people we serve and the modernization of long term care delivery. What was once known commonly as a “nursing home” is more accurately described today as a “nursing and rehabilitation facility,” which is how we refer to these facilities within this report. A variety of factors have contributed to these changes, including significant increases in the medical complexity of patients and an increase in short-term rehabilitation patients who are able to return to their community following treatment, resulting in meaningful changes to our skilled labor force and to the way we provide care. Consistent with these trends, throughout this report we refer to people admitted to facilities for short-stay, rehab intensive or medically complex care as “patients” while we refer to longer stay, chronic care people as “residents.”

This report includes a detailed overview of the 21st century nursing and rehabilitation center of today, analysis and data on recent quality trends in skilled nursing care, consumer and workforce satisfaction data and a community-wide self-assessment of the progress we have made through the Quality First pledge.

We intend for this report to serve as an educational resource for the public and policymakers about the new ways in which we are providing care, our recent successes and the areas for improvement our profession is addressing, just as we promised to do when we originally made the Quality First pledge. Through an annual Quality Report, we will consistently communicate our sustained efforts to improve quality. We remain committed to continuously promoting quality improvements, challenging ourselves to always do better and building upon these gains in the years ahead.

Sincerely

Bruce Yarwood
President & CEO
American Health Care Association

Alan Rosenbloom
President
Alliance for Quality Nursing Home Care
“Nursing and rehabilitation facilities have evolved to serve two distinct patient populations: short-stay rehabilitation and medically complex patients, and long-stay chronic care residents.”

-Nursing and Rehabilitation Facilities of the 21st Century (Avalere Health, LLC)

“Almost 40 percent of short-stay Medicare patients were discharged to the community in 2006 after a stay of about 25 days, highlighting the interdependence of facility and home-based care.”

-Nursing and Rehabilitation Facilities of the 21st Century (Avalere Health, LLC)

“The acuity of the nursing home resident population has increased dramatically and the length of stay of most patients is now less than 90 days.”

-Changes in the Quality of Nursing Home Care in the U.S. (Mor, et al)

“It is clear that nursing home quality is multi-dimensional; what is also becoming clear is that it is no more appropriate to compare all nursing homes with one another than it would be appropriate to compare an Obstetrics hospital with an Oncology hospital.”

-Changes in the Quality of Nursing Home Care in the U.S. (Mor, et al)

“Working in concert with all stakeholders at both the national and state level we can, together, assist nursing homes to become high performance organizations that, in partnership with their staff and residents, will be able to demonstrate the long term care community’s ability to deliver the best.”

-Mary Jane Koren, M.D., M.P.H., Chair, National Steering Committee for Advancing Excellence
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Since a vast majority of nursing facilities are certified to take both Medicare and Medicaid patients, they must be capable of handling the care needs of a wide spectrum of patients, with different expectations for functional improvement and chances of return to the community.
Nursing and Rehabilitation Facilities of the 21st Century

Report Contributors: Alexis Ahlstrom, Nicole Cafarella, Julia Dreier
Avalere Health, LLC

- Nursing and Rehabilitation Facilities of the 21st Century
  - Quality: By the Numbers
  - Consumer and Workforce Satisfaction in Nursing Homes
  - Improving Quality through the Quality First Program: 2009 Survey Results
Overview

The common perception of a “nursing home” as a convalescent center where chronically ill elderly people go to live with no hope of recovery is outdated. The nursing home of the 21st century is more accurately described as a “nursing and rehabilitation facility” where nearly half of the people admitted are able to return home after a stay of only about one month.¹ Nursing and rehabilitation facilities also treat longer stay residents with chronic care management needs and cognitive impairments, but even these residents reflect a higher degree of medical complexity than ever before. The changing characteristics of these two distinct populations require nursing and rehabilitation facilities to adapt their service delivery systems in order to maintain and even improve high quality of care. As is discussed throughout this report, policymakers and payers for their part must refine quality measurements to reflect the changing population and ensure that payment systems support care for a higher intensity, more medically complex population.

¹ A majority of patient admissions are paid for by the Medicare program (2007 Medicare cost reports) and the Medicare program average length of stay is approximately one month (2006 Medicare claims data).
Nursing and Rehabilitation Facilities Have Evolved to Serve Distinct Populations: Short-Stay Rehabilitation and Medically Complex Patients, and Long-Stay Chronic Care Residents

Patient demographic changes have occurred in part because Medicare policy changes have caused an influx of short-stay post-hospitalization patients with more medically complex conditions into nursing and rehabilitation facilities; concurrently, state Medicaid policy shifts have avoided or delayed admission for lower acuity long-stay residents. As a result, two distinct patient population groups have emerged: short-stay patients requiring intense rehabilitation and/or medically complex care, and older and more disabled long-stay residents with more medically complex conditions than previous cohorts.

**Short-Stay Rehabilitation-Intensive and Medically Complex Patients**

The types of services short-stay patients receive and their typical payment source characterize the group as much as their length of stay. Medicare is the primary payer for nursing and rehabilitation facility patients needing intense medical care following a hospital stay. Many of these short-stay patients receive care that is restorative and recuperative before returning home. Typical short-stay patients are younger and may have been admitted to the facility to receive rehabilitation services after having a hip or knee replacement surgery or in order to recover from a bout of pneumonia before returning home.
**Long-Stay Residents**

The term “long-stay resident” typically refers to a separate patient population of frail elderly and disabled who reside in nursing facilities. This population tends to have chronic care needs that the community cannot meet. Long-stay residents typically receive help with activities of daily living (ADLs), such as bathing, dressing, transferring from a bed or chair, and eating, (as any of these alone is an ADL), plus medical services such as rehabilitation, medication management, and mental and behavioral health counseling. About 17 percent of long-stay residents have a primary diagnosis of Alzheimer’s or dementia, or are in a special program for individuals with behavioral problems or dementia. Medicaid is the primary payer for this population, although higher-income residents who pay using their own funds or with long-term care insurance constitute a significant minority of long-stay residents. Long-stay is a bit of a misnomer, since the average length of stay for this resident population has dropped significantly in the past few years and now on average is less than 100 days, according to a recent study.

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**Short-Stay Patients Are Younger and Paid for Primarily by Medicare**

*Figure 1. Key Differences in Characteristics of Short- and Long-Stay Patients.*

<table>
<thead>
<tr>
<th>Dominant Payment source at time of admission</th>
<th>Short-Stay Patients</th>
<th>Long-Stay Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>36% male; 54% female</td>
<td>27% male; 73% female</td>
</tr>
<tr>
<td>Percent of patients over age 85 at time of admission</td>
<td>6%</td>
<td>25%</td>
</tr>
<tr>
<td>Average length of stay</td>
<td>33 days</td>
<td>386 days</td>
</tr>
<tr>
<td>Percent of patients with three or more ADL limitations</td>
<td>88%</td>
<td>70%</td>
</tr>
</tbody>
</table>

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2 Avalere Health analysis of 2004 National Nursing Home Survey.
The Majority of Medicare Post-Hospitalization Patients Are Now Admitted to Nursing and Rehabilitation Facilities Rather than other Post-Acute Providers

A key driver of the increase in acuity levels and medical complexity is that nursing and rehabilitation facilities are now the dominant provider of post-hospitalization services in the Medicare program. In 2006, hospitals discharged approximately 4 million Medicare cases to post-acute settings, of which over 50 percent went to nursing and rehabilitation facilities. In the past six years alone there has been a 15 percent increase in the share of Medicare patients admitted to nursing and rehabilitation facilities. These post-hospitalization patients have a wide range of medical and rehabilitation needs (see Figure 2 below).

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Share of Admission</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major joint and limb reattachment of lower extremity</td>
<td>6.9%</td>
</tr>
<tr>
<td>Heart failure and shock</td>
<td>4.8%</td>
</tr>
<tr>
<td>Simple pneumonia and pleurisy age&gt;17, with complication or comorbidity</td>
<td>4.5%</td>
</tr>
<tr>
<td>Hip and femur procedures except major joint age&gt;17, with complication or comorbidity</td>
<td>3.7%</td>
</tr>
<tr>
<td>Intracranial hemorrhage and stroke with infarction</td>
<td>3.3%</td>
</tr>
<tr>
<td>Kidney and urinary tract infections age&gt;17, with complication or comorbidity</td>
<td>3.3%</td>
</tr>
<tr>
<td>Septicemia, age&gt;17</td>
<td>2.9%</td>
</tr>
<tr>
<td>Renal failure</td>
<td>2.5%</td>
</tr>
<tr>
<td>Nutritional and miscellaneous metabolic disorders age&gt;17, with complication or comorbidity</td>
<td>2.3%</td>
</tr>
<tr>
<td>Respiratory infection and inflammations age&gt;17, with complication or comorbidity</td>
<td>2.3%</td>
</tr>
</tbody>
</table>

5 Avalere analysis of 2006 Medicare 100 Percent Standard Analytic File (SAF) claims data base from the Centers for Medicare and Medicaid Services (CMS). Post-acute refers to settings of care that admit patients for restorative and recuperative services following a hospitalization for an acute episode.

6 Avalere analysis of 2001-2007 Medicare cost reports.

7 Ibid.
As nursing and rehabilitation facilities have begun to treat an increasing number of hospital discharges associated with certain rehabilitation conditions, such as joint replacement, Inpatient Rehab Facilities (IRFs) have experienced a corresponding reduction in their share of these patients. Recent analyses indicate that the percent of nursing facility patients receiving rehabilitative care increased from 77 percent in 2003 to 81 percent in 2005 and to 87 percent in 2007. Not only do nursing and rehabilitation facilities treat more of these patients, but these rehabilitation patients appear to be increasing the overall acuity level of their patient population.

![Most Medicare Patients Receive Rehabilitative Services](image)

**Figure 3.** Case-Mix of Medicare Beneficiaries, 2007

- 52% Rehabilitation
- 35% Rehab Plus Extensive Services
- 3% Special Care
- 2% Other
- 4% Clinically Complex
- 5% Extensive Services

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9. Ibid.
10. Ibid. Acuity was measured as the case mix change for patients discharged from hospitals to nursing and rehabilitation facilities within the Medicare program over the 2004-2006 time period.
In addition to a growing role in caring for intensive rehabilitation patients in the Medicare program, nursing and rehabilitation facilities are a major provider of care for all kinds of high acuity, medically complex, patients discharged from hospitals. Nursing and rehabilitation facilities are second only to long-term acute care hospitals (LTACHs) in the number of patients they treat in the highest severity of illness categories.12

Compared to Other Post-acute Providers, Nursing and Rehabilitation Facilities Treat a Large Share of High-severity Patients

Figure 4. Distribution of Patient Severity of Illness across Settings 13

<table>
<thead>
<tr>
<th>Severity of Illness Score</th>
<th>All Post-Acute Care Patients</th>
<th>LTACH Patients</th>
<th>IRF Patients</th>
<th>Nursing and Rehab Facility Patients</th>
<th>Home Health Patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>16%</td>
<td>3.6%</td>
<td>19.4%</td>
<td>11.7%</td>
<td>18.7%</td>
</tr>
<tr>
<td>2</td>
<td>46.5%</td>
<td>24.1%</td>
<td>48.5%</td>
<td>45.7%</td>
<td>47.6%</td>
</tr>
<tr>
<td>3</td>
<td>29.3%</td>
<td>36.6%</td>
<td>25.7%</td>
<td>33.3%</td>
<td>27.3%</td>
</tr>
<tr>
<td>4</td>
<td>5.9%</td>
<td>33.2%</td>
<td>5.4%</td>
<td>6.9%</td>
<td>4.0%</td>
</tr>
</tbody>
</table>

12 In this analysis the severity of illness was measured during the hospital stay, before the patient was discharged to the post-acute care setting. The all patient refined diagnosis-related group (APR-DRG) classification system was used to first classify patients into a disease category; within that category, the APR-DRG system classifies patients by severity of illness, which refers to the extent of physiologic decompensation or organ system loss of function. The four severity of illness subclasses and subclasses are numbered sequentially from 1 to 4 indicating respectively, minor, moderate, major, or extreme severity of illness. From: Barbara Gage, et al. “Examining Relationships in an Integrated Hospital System.” RTI International. March 2008.

Evidence Supports the Cost-Effectiveness of Nursing and Rehabilitation Facility Services

The Medicare program may be benefiting from this shift in site of service for rehabilitation cases. Promising new research suggests that the place of service (IRF versus SNF) has less effect on patient outcomes than other variables, such as patient volume, patient age, and functional status. Medicare can expect some cost savings from this change in payment policy as well. A recent study analyzed episodic payments for major joint replacement cases and found that the mean episodic payment for patients discharged from an acute care hospital to a nursing and rehabilitation facility and then to a home health agency (HHA) was $19,715 while the payment for a patient discharge from an acute hospital, to an IRF, and then to home health was $25,448.

Nursing and Rehabilitation Facilities Are a Lower Cost Setting

Figure 5. Mean Episodic Payment for Major Joint Replacement Patients by Provider, 2005

15 Avalere analysis of post-acute care payments for certain rehabilitation patients, using 2004-2006 SAFs.
17 Ibid.
Quality Metrics Such As “Discharge Rate to Community” Are Important for Short-Stay Patients

To manage the care needs of higher acuity short-stay patients, nursing and rehabilitation facilities have revamped care processes and adopted quality of care measures that specifically apply to this population.18 For example, the rate of patient discharges to the community within 100 days increased from 38.0 percent in 2004 to 39.5 percent in 2006, indicating facilities are increasingly able to discharge patients to the community quickly with a high functional level.19

Nursing and Rehabilitation Facilities and Home- and Community-Based Service Providers are Both Important Parts of the Care Continuum

Although nursing and rehabilitation facilities are still the main providers of formal long-term care (LTC), long-stay residents are older, more disabled, and need more highly skilled medical care in comparison to previous cohorts. This development has occurred due to the availability of alternative settings of care, such as home care or assisted living, which people with fewer LTC needs are increasingly choosing.

Almost 40 percent of short-stay Medicare patients were discharged from nursing and rehabilitation facilities to the community in 2006, after a stay of about 25 days highlighting the interdependence of facility and home-based care.

18 Other chapters of this report document the changing quality metrics that facilities are using to measure the effectiveness of the care processes they have implemented and the quality improvements the sector has achieved.
19 Avalere analysis of the 2004-2006 SAFs. Results were statistically significant.
Despite the growth in the share of low acuity long-term residents receiving care in their homes, nursing and rehabilitation facilities will continue to play an important role in the continuum of LTC. The number of Medicaid enrollees using nursing facilities, for example, shows no signs of decline even after a decade of experience “diverting” patients from facilities and emphasizing home- and community-based services (HCBS) in Medicaid programs.\textsuperscript{20}

The reason for this is that HCBS do not appear to be a substitute for nursing and rehabilitation facility care. Rather, these settings act as complements, providing an overlapping but distinct set of services. Nursing and rehabilitation facilities have the capacity to deliver high-level care 24 hours to residents with high ADL needs and cognitive impairment; conversely, most patients receiving HCBS have lower care needs that can be met on an intermittent basis. While there has been less comprehensive research on the ADL needs level of patients using HCBS, a few reports indicate average needs with 2 or fewer ADLs.\textsuperscript{21}

\begin{figure}
\centering
\includegraphics[width=\textwidth]{figure6.png}
\caption{ADL Need Has Increased in Nursing and Rehabilitation Facilities\textsuperscript{23}}
\end{figure}


Compared with only 13.8 percent of nursing and rehabilitation facility residents with 2 or fewer ADLs in 2004, it appears as if nursing facilities are serving a population with more complex and intensive care needs.\(^22\) As a growing number of short-stay patients are discharged to the community, HCBS will become increasingly important to helping this population transition back into the community setting.

In addition, even people living in their homes may eventually need nursing facility care as their disability levels increase.\(^24\) This is likely due to increased frailty and an inability of the community-based care provider to meet their care needs. While use of HCBS can delay patient entry into nursing and rehabilitation facilities, they are a common setting of care for patients who have needed LTC for many years. As a result of the shift of Medicaid programs toward HCBS and the proliferation of alternative settings of care, nursing and rehabilitation facility residents of 2004 are older and have a greater degree of dependence compared to residents in 1985.\(^25\) For example, the share of nursing and rehabilitation facility patients with 5 or 6 ADLs swelled from 50.2 percent in 1985 to 65.1 percent in 2004.\(^26\) Given these trends, the role of nursing facilities can be expected to increasingly be one of taking care of the highest acuity, long-stay residents.

\(^{22}\) Lewin Group. 2006.


\(^{26}\) Lewin Group, 2006.
Nursing Facilities Are Responding to these New Care Needs by Providing More Intensive and Regular Nursing Care

The nursing and rehabilitation facility workforce contains a diverse group of professionals. Facilities employ or contract with staff to provide intensive and regular nursing and therapy care, such as extensive rehabilitative therapy, in order to prepare patients to return home. In contrast, high-need long-stay patients require a different mix of staffing, such as professionals who can assist them with multiple ADLs and/or manage their Alzheimer’s or dementia symptoms. While the mix of services these groups require differs, both need more constant and regular care than residents a few decades ago.

To care for an increasingly complex patient population, nursing facilities are redirecting resources toward more intensive and regular nursing care. The typical nursing and rehabilitation facility employs a large number of nursing and therapy staff to provide care to their patients and residents. Registered nurses (RNs), licensed practical nurses (LPNs), and certified nursing assistants (CNAs) accounted for nearly 60 percent of the almost 1.6 million workers employed at nursing care facilities in 2007.27 With current nursing and rehabilitation facility occupancy rates at around 1.4 million patients, the number of staff is approximately equal to the number of patients in a facility.28

In addition to nursing staff changes, many facilities are utilizing employed or contracted nurse practitioners to increase the level of care offered to patients. Nurse practitioners are involved in the patient’s initial admission assessment and care plan development. They regularly evaluate patients to identify and prevent worsening conditions. They are also involved in training nursing staff in patient care. Nurse practitioners also play a large role in communicating with family members about the condition and treatment plan for the patient. The use of nurse practitioners is growing as nursing facilities increase their clinical staff to meet the needs of a higher acuity case mix.

Yet, nursing and rehabilitation facilities need more nursing and therapy staff to meet the growing demand for their services. Many nursing

28 AHCA. Nursing Facility Patients by Payer: December 2008 OSCAR Survey Results.
facilities are already facing nursing and therapy staff shortages. The number of nursing vacancies swelled from about 95,800 full-time equivalent positions in 2002 to 109,900 positions in 2007 – an increase of 4.7 percent. A rise in certified nursing assistant (CNA) vacancies accounted for the majority of the increase during this period.\textsuperscript{29}

Nursing and rehabilitation facilities’ staffing shortages are due in part to facilities’ difficulty in recruiting and retaining nursing staff. Fortunately, nursing and rehabilitation facilities are making progress in both areas. Between 2002 and 2007, turnover rates dropped moderately for directors of nursing, staff RNs, and CNAs.\textsuperscript{31} The share of nursing facilities reporting difficulty recruiting new direct care staff, particularly for RNs and LPNs, declined overall from 2002 to 2007.\textsuperscript{32}

\textsuperscript{30} Ibid.
\textsuperscript{31} Ibid.
\textsuperscript{32} Ibid.
Quality Measurement and Evaluation Must Evolve To Account for the Changing Population

Today, patients discharged from hospitals to nursing and rehabilitation facilities are often younger than long stay patients and include Medicare beneficiaries receiving rehabilitation services as well as other services to care for more complex needs. This influx of intense rehabilitation and medically complex short-stay patients is forcing a sea of change in the way nursing and rehabilitation facilities operate and care for patients. As a growing number of these higher acuity short-stay patients are discharged to their homes, home and community-based services are becoming an increasingly critical part of the continuum. Likewise, the long-stay population in nursing facilities is changing, becoming older, more disabled, and increasingly frail. Nursing and rehabilitation facilities have responded to these patient demographic changes by reforming their care management systems, workforce, and facility capacity.

Importantly, as nursing and rehabilitation facility patient populations and their care needs change over time, the metrics used to evaluate that care also must continue to evolve. And as providers and policymakers focus on finding ways to improve care quality and reduce rehospitalization rates, identifying and implementing the most appropriate quality measures are critical. The growing number of nursing and rehabilitation facility patients returning to the home, for example, may necessitate the development of a new set of quality metrics designed specifically for post-acute patients transitioning from one site of care to another over the course of their treatment. Taken together, the quality information gained from these metrics and others developed in the future will inform and shape policymakers’ efforts to reform how care is delivered in nursing and rehabilitation facilities and how care is coordinated across other providers as patient and resident needs continue to evolve.
CHANGES IN THE QUALITY OF NURSING HOMES IN THE US:
A REVIEW AND DATA UPDATE

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August 15, 2009

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² Senior Researcher, PointRight, Lexington, MA
Changes in the Quality of Nursing Homes in the US: A review and data update

This report summarizes the literature and presents syntheses of data from over the last half decade on changes in nursing home quality as measured by staffing, process and outcome quality as well as the results of regulators' inspections. Since these changes in quality occurred within the context of substantial changes in the role of U.S. nursing homes, changes that resulted in large increases in the acuity and complexity of those being served, we also summarize changes in case-mix acuity and in the “segmentation” of the nursing home market as facilities increasingly specialized in caring for different groups of residents. In reviewing the literature, we’ve focused on the manner in which policies ranging from state Medicaid reimbursement to federal public reporting efforts have influenced nursing home quality since provider efforts to improve quality have not occurred in a vacuum. The report closes with recommendations made in the light of the changing role and composition of US nursing homes and the need for measures of quality that more precisely reflect the different reasons people use nursing homes and in light of impending policy changes.

We examined structural, process and outcome measures of quality. Literature and data summaries indicate that nurse staffing has increased, although this has been primarily at the low skill level. Indeed, using existing data we observe both an increase in the proportion of homes achieving high levels of nurse staffing as well as an increase in the proportion falling below minimum levels. At the same time, most existing staffing measures ignore the fastest growing segment of facility staff – therapists who are concentrated in high Medicare facilities. Process quality measures like the use of physical restraints continued to improve with increases in both the number of “restraint” free homes and the number with high proportions of residents restrained. While use of psychotropic drugs seems to have increased, most of this is attributable to ongoing increases in anti-depressant use; growth in anti-psychotic use has leveled off. Most of the CMS reported outcome measures, particularly for the long stay population, have improved over time from ADL decline to facility acquired pressure ulcers. In contrast, incontinence among long stay residents has worsened in spite of the fact that there is evidence that toileting programs can be effective. The results of state regulators’ inspections of nursing homes are not consistent with the measured outcomes; both the number and severity of deficiencies levied against nursing homes tended to increase. However, there is so much inter and intra-state variation in how the survey guidelines are apparently applied, it is difficult to understand precisely what those mean. Finally, while there is no agreement as to what the appropriate rate of hospitalization is, the outcomes of
re-hospitalization of post-acute Medicare patients and hospitalization of long stay residents increased substantially, becoming a major policy concern.

These improvements in process and outcome quality were observed in spite of substantial evidence of increasing case-mix acuity and specialization amongst US nursing homes. The clinical complexity and functional impairment of both admitted and long stay residents has increased virtually across the board and since 2002 there was almost a doubling of the proportion of free-standing facilities serving more than 20% of Medicare patients on any given day, a phenomenon that more than offset losses in the number of hospital based facilities. Other more challenging forms of segmentation are also underway, with some facilities increasingly “specializing” in psychiatric patients and the concentration of Medicaid patients in selected facilities.

Nursing home policies that affect quality have achieved their intended effect, although not as completely as many would desire. Medicaid case mix reimbursement has improved access to many very sick patients residents and rising Medicaid payment rates appear to be associated with greater improvements in quality and lower rates of hospitalization. Public reporting of nursing homes’ quality performance has clearly stimulated many providers to institute quality improvement efforts which appear to have resulted in greater improvements in both measured and some unmeasured quality scores but there is also evidence suggesting that public reporting has begun to “steer” those seeking nursing home care to better performing facilities, at least in the post-acute care arena.

Many challenges remain. The mixed picture of findings is at least partly related to the fact that our measures of the structure, process and outcomes of quality nursing home care continue to be very crude, uncorrelated and, therefore, seem to confuse both providers and consumers. Regulators’ inspection results don’t seem to resolve the confusion amongst the other measures and indeed, appear to be responsive to political influences at both the local and the national levels. Clearly we need better measures if we are to understand how we are making improvements and where else there are gaps to be filled. Even more importantly, if we are to respond to the growing specialization of nursing home care in the US, we must develop measures that are appropriate to the different populations of people using nursing homes for different purposes. All of this important measure development work to guide quality improvement efforts will have to be made while the industry, regulators, policy makers and researchers are struggling with the scheduled introduction of MDS 3.0 with its new emphasis on hearing the voice of the resident so that clinical care planning can be even more individualized.
I. Introduction and Purpose
In an effort to review how nursing home quality has changed over the last decade and to place those changes within the context of broader changes in how nursing home care is rendered in the US, this paper reviews the literature on nursing home quality, identifies the policies and other trends that have influenced nursing home quality over the past decade and presents data documenting recent progress in quality. Since the role nursing homes play in providing post-acute care has expanded greatly and nursing homes appear to be increasingly “specializing” in serving certain types of residents and providing certain types of services, we characterize quality performance by these emerging specialized nursing home categories. While there are numerous types of measures of nursing home quality, this paper draws upon the published literature and presents new data based only upon publicly available information; staffing, nationally reported quality measures and selected summary deficiency information from regulatory inspections. Other measures capturing residents’ and families’ satisfaction with their experience are not included here. Finally, the paper concludes with a series of recommendations regarding future directions and challenges for better understanding how to improve nursing home quality of care.

II. Background of Policy Changes in the Nursing Home Arena since OBRA ’87
Concerns about inadequate quality provided to nursing home residents have been discussed in the lay media and the professional literature for decades (U.S. Senate 1974). In 1986, the Institute of Medicine (IOM) published its landmark report that called for major revisions in the way nursing home quality is monitored (Vladeck 1982; IOM 1986). It recommended the continuation of the existing system that periodically monitors quality through a survey process with deficiency citations but called for more emphasis on quality of life as well as quality of care and encouraged the use of outcome indicators to assess quality. Implementation of many of the IOM recommendations began in 1987 with the passage of the Nursing Home Reform Amendment to the Omnibus Budget Reconciliation Act (OBRA). This mandated a new system of standards of care, including increased minimum staffing regulations, and quality of care monitoring (Harrington & Carrillo, 1999). These efforts culminated in the 1991 nationwide implementation of the Resident Assessment Instrument (RAI) system, which is the cornerstone of the CMS (Centers for Medicare & Medicaid Services) Health Care Quality Improvement Program (HCQIP) for nursing homes. The RAI was designed to improve quality by requiring nursing homes to develop individual care plans, protocols for follow-up care and algorithms to “trigger” residents’ potential care needs. The Minimum Data Set (MDS), a component of the RAI, is used to collect information about patients’ physical and mental health status as well as specific treatments at regular time intervals. In addition to structuring resident care planning, the MDS made it possible to compare health outcomes of nursing home residents across facilities and to compare trends over time using more detailed resident level data rather than relying upon the cruder facility level reports.

Despite documented improvements in various aspects of nursing home quality following passage of OBRA, including reductions in the use of physical restraints (Phillips, Hawes et al. 1996; Castle, Fogel et al. 1997; Hawes, Mor et al. 1997; Mor 2002), psychotropic drug use (Rovner, 1992; Shorr, 1994), catheter use (Hawes, Mor et al. 1997; Harrington, Swan et al. 1999) and pressure ulcers (Fries, Hawes et al. 1997), opportunities for improvement remained (IOM 2001). The literature from that period documented quality problems ranging from malnutrition, (Abbasi & Rudman, 1994; Crogan, Shultz, Adams, & Massey, 2001) and dehydration, (Kayser-Jones, Schell, Porter, Barbaccia, & Shaw, 1999) to medication errors
(Gurwitz, Field, Avorn, et al. 2000) and pain (Teno, Weitzen et al. 2001). These mixed findings related to nursing home quality have been attributed to many different phenomenon including small samples drawn from different parts of the country, poor and inconsistent measurement and inadequate controls for the variation in resident acuity.

One factor underlying the inconsistent findings regarding changes in nursing home quality over the last several decades has been the growing heterogeneity of US nursing homes. First, due to federal and state policy changes in reimbursement as well as the emergence of community based services, particularly the rise of assisted living, the acuity of the nursing home resident population has increased dramatically and the length of stay of most patients is now less than 90 days (Decker 2005; Feng, Grabowski et al. 2006; Mor, Zinn et al. 2007). Secondly, there is considerable heterogeneity among facilities with respect to the mix of residents they serve, for example how many are short-stay, post-acute, Medicare patients, and even their location in poor communities appears to have a significant impact on staffing, deficiencies and the outcomes residents experience (Grabowski and Castle 2004; Mor, Zinn et al. 2004; Smith, Feng et al. 2007; Zinn, Mor et al. 2009). Regional variation in medical practice as well as the availability of alternative long term care resources also appears to affect who enters nursing homes and their likelihood of hospitalization (Baicker, Chandra et al. 2004; Mor, Zinn et al. 2007; Teno, Feng et al. 2008). Finally, states’ policies, ranging from Medicaid payment rates to Medicaid reimbursement models and rules clearly affect the composition of patients served, the services facilities offer and the rate of outcomes like hospitalization and selected indicators of care quality (Grabowski, Angelelli et al. 2004; Intrator and Mor 2004; Intrator, Feng et al. 2005; Feng, Grabowski et al. 2006; Gruneir, Mor et al. 2007). Throughout this report, we emphasize that findings regarding changes in the quality of care of US nursing homes must be considered in light of both the changing heterogeneity of facilities as well as changes in the overall composition of the nursing home population. Furthermore, these changes have occurred relatively quickly, making it all the more important to consider these influential factors.

III. Changing Roles of Nursing Homes in the Last Decades

Since the introduction of Medicare’s hospital prospective payment policy in the early 1980’s, nursing homes in the US have increasingly served as a “release valve” for hospitals, permitting more rapid discharge into a setting where patients could recuperate in controlled circumstances. Initially this phenomenon was largely restricted to hospital based skilled nursing facilities, but by the early 1990’s, free-standing facilities began investing in the staff expertise allowing them to specialize in post-acute care. At around the same time, assisted living facilities began to emerge throughout the country, providing an alternative residential care setting to nursing homes. Finally, as a new generation of elderly persons began requiring long term care, their preferences for home care were increasingly met by states’ investments in home and community based services. In the following paragraphs, we briefly summarize each of these developments and their implications for assessing improvements in the quality of nursing home care.

a. Increasing Case Mix Acuity

Numerous studies have documented the increasing acuity of nursing home residents over the last several decades (Davis, Freeman et al. 1998; IOM 2001; Grabowski 2002; Decker 2005; Feng, Grabowski et al. 2006). The Institute of Medicine 2001 report examining long term care quality summarized changes in the mix of individuals using nursing homes as part of a comprehensive effort to understand whether quality had improved since the passage
of OBRA 1987. Decker and colleagues, using data collected from the National Nursing Home surveys between 1977 and 1999, found that the number of discharges per bed rose from 86 per 100 to 134 per 100, (a 56% increase) between 1985 and 1999 (Decker 2005). In addition to the rising number of admissions, the composition of those residents changed to an older population more dependent in activities of daily living, with the proportion of residents able to walk independently declining from nearly 40% to under 20%. Using OSCAR data from the 1990’s, Grabowski examined changes in resident acuity attributable to different state policies, and found that “management minutes”, a measure of resident dependence translated into estimated care time, increased significantly during the same period and even more so in states with case mix reimbursement (Grabowski 2002). Feng and colleagues extended these analyses both in time and by examining changes in the acuity of residents as well as of all admissions to nursing homes between 1996 and 2002. They observed a strong secular trend in the rising rate of acuity for both admissions and residents, averaging nearly a 1% per year increase in case mix acuity (using the RUGS nursing case mix index) among admissions and somewhat less than that for residents (Feng, Grabowski et al. 2006).

The importance of taking increasing case mix into consideration is that case mix affects virtually all of our measures of quality, both those based upon person level measures like the MDS quality measures, and also many of the deficiencies levied by inspectors since these are predicated upon the likelihood that residents will experience a clinical problem, clearly a more likely outcome for the sicker residents.

b. Changing Composition of Facilities
Not only has the overall acuity of nursing home residents been increasing, there has been an increasing concentration of different types of residents in certain facilities. That is, in most markets some facilities have ended up caring for a disproportionate share of certain types of residents, be they post-acute Medicare reimbursed residents or those with dementing disorders or psychiatric histories. There is considerable evidence that specialization in Medicare post-acute care patients has emerged as a result of a strategic focus. Zinn and colleagues found that following the introduction of the Balanced Budget Act (BBA) and the introduction of Medicare case mix reimbursement, there was a tremendous change in the industry resulting in the closure of many hospital based facilities and the bankruptcy of a number of nursing home systems (Zinn, Mor et al. 2003; Stevenson and Grabowski 2008; Zinn, Feng et al. 2008). Evidence suggests that those facilities able to anticipate and respond to policy changes and/or who adopted service innovations earlier than their local competition performed better viz. occupancy rate and payer mix (Zinn, Mor et al. 2009). The net result has been a growing segmentation of the market, with an increasing share of all post-acute patients served in a minority of facilities specializing in that type of care. In contrast, “lower tier” facilities in all markets end up with high concentrations of Medicaid patients or patients with long term psychiatric histories or minority patients. These facilities are much more likely to fail and to have chronic quality problems (Mor, Zinn et al. 2004; Smith, Feng et al. 2007; Zinn, Mor et al. 2009).

The substantial differences among these types of nursing facilities make it very difficult to compare their quality performance. Current quality measures are only minimally risk adjusted and even were there to be more complete risk adjustment (a significant challenge both technically and conceptually), the fact that the different types of facilities select their residents from very different patient populations means that there are likely to be many unmeasured confounders that undermine the validity of many comparisons (Mor, Berg et al. 2003).
c. The Effect of State and Federal Policies on Quality

As noted, over the past decade there have been a number of policy changes associated with changes in the acuity of those using nursing homes. However, these policies have also had an impact on the level and type of staffing as well as on selected indicators of quality.

The policy that has been most extensively studied is the introduction of case-mix reimbursement, either at the federal or state level. Feng and his colleagues definitively demonstrated that the introduction of state based (as well as federal) case mix reimbursement was associated with a 1% (for long stay residents) or 2% (for admissions) increase in RUGS based nursing case mix index over the period from 1996 to 2002 (Feng, Grabowski et al. 2006). Since that time, additional states have adopted this form of Medicaid reimbursement and the evidence continues to support an immediate and sustained increase in acuity (Miller, Mor et al. 2009). One fear often voiced by opponents of case mix reimbursement is that patients will be treated so as to maximize reimbursement levels, through the use of feeding tubes or even intravenous therapy. Rapid increases in the proportion of nursing home residents with feeding tubes during the 1990’s appeared to confirm this “common wisdom” (Teno, Mor et al. 2002). However, careful analysis of the impact of the introduction of state based case mix reimbursement clearly revealed that there was no policy effect after controlling for general secular trends present in all states, but which apparently began to slow around 2002 (Teno, Feng et al. 2008). Indeed, recent research clearly reveals that most feeding tubes are inserted during hospitalizations and that regional variation in medical practice is highly correlated with this phenomenon which is most prevalent (and of questionable benefit) among severely demented nursing home residents (Teno, Mitchell et al. 2009).

On the other hand, staffing levels have not been so positively affected by case mix reimbursement. Konetzka and colleagues found that the introduction of Medicare case mix reimbursement under BBA was associated with significant reductions in professional staffing (Konetzka, Yi et al. 2004), while Feng reported that the level of professional staffing dropped with the introduction of state based case mix reimbursement, accompanied by large increases in lower skilled aides (Feng, Grabowski et al. 2008). Closer analyses of these data by Zinn and colleagues suggest that some of this drop in professional direct care staffing may have occurred by the hiring of additional administrative staff, presumably needed to document patients’ clinical needs and care processes under most case mix reimbursement schemes, or by switching how nursing staff are classified (Zinn, Feng et al. 2008). Still not accounted for in the examination of the impact of case mix reimbursement on direct care staffing levels is the wide spread use of therapy staff needed to meet the needs of the increasing number of post-acute Skilled Nursing Facility (SNF) residents. Because most research to date hasn’t included these individuals in the calculation of direct care staff, it is difficult to fully appreciate the impact of case mix reimbursement since this critical staffing resource has remained uncounted.

There is a long history of research on the impact that Medicaid payment rates have on quality. The health economics literature on nursing home quality of care in the 1980s and 1990s was largely based on Scanlon’s model in which nursing homes face two markets (Scanlon 1980); one for private residents with downward sloping demand, and the other for Medicaid residents who are insensitive to price. The existence of supply constraints in the form of Certificate of Need (CON) were consistent with the economists’ perception that excess demand blunts any impact of payment increases on quality (Grabowski 2001). Some empirical research, largely based upon cross-sectional data from the 1980’s were consistent with this theoretical perspective (Nyman 1988; Gertler 1989).
Perhaps because of the recent decline in nursing home occupancy rates, repeal of CON laws in certain states, and the emergence of improved data and methods, results from more recent studies, generally relying upon longitudinal data and more detailed outcome measurements, have by and large found a modest positive relationship between state Medicaid payment rates and nursing home quality. Higher payment rates have been found to be associated with fewer pressure ulcers (Grabowski and Angelelli 2004), more staffing (Cohen and Spector 1996; Grabowski 2001), fewer hospitalizations (Intrator and Mor 2004; Intrator, Grabowski et al. 2007), fewer physical restraints and feeding tubes (Grabowski 2004; Grabowski, Angelelli et al. 2004), and fewer government-cited deficiencies (Grabowski 2004). In terms of the size of the effect, these studies typically indicate a payment-quality elasticity in the range 0.1 to 0.7 (i.e., a 10% increase in payment improves quality by 1%-7%), depending upon the quality measure. For example, a 10% increase in Medicaid payment reduced pressure ulcers by roughly 2% (Grabowski 2004; Grabowski and Angelelli 2004). Importantly, across all recent studies, there is virtually no support for a negative relationship between the Medicaid payment level and quality.

d. Impact of Public Reporting on Quality
Public reporting of nursing home quality has been in place since 2002 with the advent of the CMS “Nursing Home Compare” website (Harris and Clauser 2002). In actuality, data on facilities’ staffing levels and inspection results had been publicly reported for some time prior to 2002, and this information was supposed to have been prominently displayed and available to any consumer on all Medicare/Medicaid certified facilities for decades before MDS based clinical quality measures were publicly reported on the CMS website. Public reporting may have an effect on quality because consumers (or their advocates) use the information to select facilities that appear superior viz. quality performance and/or by inducing providers to institute quality improvement efforts to compensate for poor performance reports. While early research on the topic suggested that consumers weren’t using the sites, or at least providers didn’t believe they were, more recent research suggests that the publication of quality measures on Nursing Home Compare is associated with independent improvements in outcomes, both reported as well as unreported (Mor 2005; Mukamel, Weimer et al. 2008; Zinn, Spector et al. 2008; Werner, Konetzka et al. 2009; Werner, Konetzka et al. 2009).

More recently, Werner and her colleagues examined the effect of public reporting of pos-acute measures on the patterns of admissions to skilled nursing facilities. They found significant reduction in pain, improvements in walking and in delirium associated with both nursing home specific improvements as well as changes in the market share of post-acute admissions entering higher quality facilities. Depending upon the post-acute measure, they estimate that as much as half of the improvement observed across all three quality measures is attributable to patients’ selecting higher quality facilities and the rest was associated with facility specific improvements (Werner 2009).

IV. Examining Changes in Nursing Home Quality
The literature cited above, particularly that covering the period of the last decade strongly suggests a general pattern of improvement in quality, partly associated with increases in Medicaid payment rates but also associated with public reporting. In the section below, we present data on changes in staffing, in various MDS based quality measures and deficiencies emanating from the federal inspection process. In some instances the data are presented separately from the earlier to the later part of the current decade and although we find that the trends are not always consistent, these data directly reflect the three differ-
ent ways to think about quality structure (staffing); processes (deficiencies and selected aggregated MDS measures), and outcomes (measures like ADL decline or pain).

a. Staffing Changes
Staffing levels are often thought of as the sine qua non of nursing home quality since without adequate staff it is not possible to care for the frail population (Harrington, Kovner et al. 2000; Schnelle, Bates-Jensen et al. 2004). In keeping with the substantial heterogeneity of case mix acuity across US nursing homes, there is great heterogeneity in the level of staffing, in spite of the existence of state specific mandated staffing levels (Feng, Grabowski et al. 2008). While there have been numerous complaints about the inadequacy of the OSCAR staffing data since they are self-reported by administrators around the time of their certification inspection, these data are the only consistent national source of information regarding staffing levels and composition. Feng and colleagues documented changes in direct care staffing levels between 1996 and 2004 in terms of the proportion of facilities that met selected minimum and recommended staffing levels and recently updated these data (see Figure 1). They found increases in total direct care staffing as an increasingly high proportion of facilities achieved the benchmark of 3.0 or more FTEs per resident (Feng, Grabowski et al. 2008). In more recent years,

![Figure 1](image-url)

**Figure 1**

**Total Direct Care Staff (RN+LPN+CNA) HPRD, 1996-2008**

- 4.44+
- [3.90, 4.44]
- [3.00, 3.90]
- [2.75, 3.00]
- < 2.75
there appears to have been a simultaneous increase in number of highly staffed and poorly staffed facilities, presumably reflecting continuing specialization in certain types of residents.

Figure 2 presents summary data on the number of hours of staff time per resident day by type of staff person from the period 2005 through 2009, looking at all facilities whose most recent inspection occurred in Quarter 1 of each of those years. As is evident, when all facilities are averaged, we see growth in the number of aides per resident day, the number of licensed practical nurses per day and stability in the number of RNs per resident day. As noted above, missing in these figures were therapy staff, particularly important for facilities concentrating in post-acute care; nor were “administrative” nurses, a group that has grown substantially in the last decade, included in the figures summarized here.

b. Quality Measures
i. Process indicators
As noted above, the literature is consistent in documenting reduced rates of physical restraints since OBRA ‘87. Using MDS data from all certified US nursing homes aggregated to the level of the facility, Brown investigators documented the continuing rate of decline in restraint use between 1999 and 2005. Figure 3 presents the “box and whisker plots” of these data by quarter, indicating the median facility restraint rate as well as the 10th and 90th percentile. Of note
is that both the median and the 90th percentile have been dropping over the same time period.

More recent national data (2005-09) from the OSCAR which is based upon annual inspections is presented below in Table 1 standardized by the quarter in which the inspection occurred. As can be seen, the downward trend in the proportion of residents restrained has continued to the point that by the first quarter of 2009, in the average US nursing home, only 3.5% of residents were restrained. While there was a slight increase in the proportion of residents receiving any psychoactive drugs, this was largely attributable to an increase in the proportion of residents taking antidepressants and anti-anxiety agents so that the proportion of residents taking antipsychotics dropped from 26.1% to 24.6% between 2005 and 2009. Other process quality measures have also improved substantially over the last five years including improvements in immunization rates for both influenza and pneumonia. Small improvements were also noted for process measures such as providing pain management programs for residents in pain or providing bladder training programs for those who are incontinent.

**ii. Outcome indicators**

The availability of the MDS provides numerous opportunities to measure changes in patients’ condition which, if properly constructed, risk adjusted, and averaged, while accounting for patient selection, can provide insight into the variation in the outcomes of

![FIGURE 3](image)

**Figure 3**

Restraints

care that short stay and long stay residents experience due to differences in the providers caring for them. Most existing measures in common use fall short of the ideal either because of inadequate risk adjustment, selection or sample size (Wu, Miller et al. 2005; Mor 2007). Nonetheless, as long as one doesn’t attempt to explicitly compare the performance of facilities, it is very useful to track MDS based outcome measures over time to get a sense of the trends in the industry altogether. Using a risk adjusted measure of ADL decline among long stay residents, Brown investigators examined changes in the rates of ADL change across all non-hospital based facilities in the country having a minimum of 30 observations per quarter. As can be seen in Figure 4, the likelihood that long stay residents decline at least 4 points on the MDS based ADL scale dropped between 1999 and 2005. These declines might appear small, but it is clear that both the median and the 90th percentile homes are experiencing lower rates of ADL decline. Using the CMS publicly reported measure of ADL decline among the long stay residents, we find that between 2005 and 2008 the pattern of improvements in ADL decline continued with the average facility reducing the rate of decline by about one half of a percentage point. Consistent with the ADL decline measure, as can be seen in Table 2, worsening mobility declined as well over the last five years, suggesting a more generalized improvement in nursing facilities’ ability to maintain their residents’ functional status.

Again, as can be seen in Table 2, even larger declines are observed for pain, a finding consistent with Brown

TABLE 1  Process Measures and Outcomes

<table>
<thead>
<tr>
<th>Process Measures and Outcomes</th>
<th>2005 Q1</th>
<th>2006 Q1</th>
<th>2007 Q1</th>
<th>2008 Q1</th>
<th>2009 Q1</th>
</tr>
</thead>
<tbody>
<tr>
<td>† Percent of Residents with Facility-Acquired Pressure Ulcers</td>
<td>3.5%</td>
<td>3.3%</td>
<td>3.2%</td>
<td>3.1%</td>
<td>3.1%</td>
</tr>
<tr>
<td>† Percent of Residents with Facility-Acquired Restraints</td>
<td>5.7%</td>
<td>5.3%</td>
<td>4.8%</td>
<td>4.2%</td>
<td>3.5%</td>
</tr>
<tr>
<td>† Percent of Residents with Facility-Acquired Catheters</td>
<td>1.9%</td>
<td>1.8%</td>
<td>1.8%</td>
<td>1.7%</td>
<td>1.7%</td>
</tr>
<tr>
<td>† Percent of Residents with Pneumonia Immunization</td>
<td>32.2%</td>
<td>39.1%</td>
<td>53.0%</td>
<td>58.9%</td>
<td>61.8%</td>
</tr>
<tr>
<td>† Percent of Residents with Influenza Immunization</td>
<td>60.5%</td>
<td>64.0%</td>
<td>68.5%</td>
<td>70.4%</td>
<td>70.7%</td>
</tr>
<tr>
<td>† Percent of Residents with Advanced Directives</td>
<td>62.2%</td>
<td>62.5%</td>
<td>62.5%</td>
<td>62.6%</td>
<td>62.3%</td>
</tr>
<tr>
<td>† Percent of Residents with Pain Management</td>
<td>24.6%</td>
<td>25.5%</td>
<td>26.6%</td>
<td>27.0%</td>
<td>27.6%</td>
</tr>
<tr>
<td>† Percent of Residents with Bladder Training</td>
<td>5.7%</td>
<td>6.0%</td>
<td>6.6%</td>
<td>6.7%</td>
<td>6.4%</td>
</tr>
<tr>
<td>† Percent of Residents Receiving any Psychoactive Medications</td>
<td>63.4%</td>
<td>64.1%</td>
<td>65.1%</td>
<td>65.4%</td>
<td>65.4%</td>
</tr>
<tr>
<td>† Percent of Residents Receiving any Antipsychotic Medications</td>
<td>26.1%</td>
<td>25.8%</td>
<td>25.9%</td>
<td>25.0%</td>
<td>24.6%</td>
</tr>
<tr>
<td>† Percent of Residents Receiving Anti-anxiety Medications</td>
<td>17.3%</td>
<td>17.9%</td>
<td>18.6%</td>
<td>19.3%</td>
<td>20.1%</td>
</tr>
<tr>
<td>* Percent of Residents Receiving Antidepressant Medications</td>
<td>45.0%</td>
<td>46.0%</td>
<td>47.0%</td>
<td>48.0%</td>
<td>48.2%</td>
</tr>
</tbody>
</table>
investigators’ for the period 1999-2004, using a measure based upon more extensive case mix adjustment and which appeared responsive to public reporting in a recently published paper (Werner, Knetzka et al. 2009). Table 2 also reveals almost a 2 percentage point reduction in the prevalence of pressure ulcers among high risk nursing home residents between 2004 and 2005. Since even the measures Brown investigators have been using are not optimally risk adjusted, these reductions must be interpreted in light of the substantial year to year increase in case mix acuity in the resident nursing home population.

iii. Hospitalization and Re-hospitalization
Hospitalization of those in nursing homes is another marker of nursing home care quality that is increasingly being examined due to the high cost as well as the implications for continuity of care. High rates of hospitalization and re-hospitalization from SNFs have been documented, calling into question the practice of rapidly discharging Medicare patients from the hospital to be cared for in nursing homes (Coleman, Min et al. 2004; Ma, Coleman et al. 2004; Gruneir, Miller et al. 2008). Researchers at Brown, PointRight, and elsewhere have been studying the determinants of hospitalization of long stay residents and the re-hospitalization of those admitted to SNF for short stays (Mor, Intrator et al. 1997; Intrator, Castle et al. 1999; Miller, Gozalo et al. 2001; Gruneir, Miller et al. 2007). As many have noted, a significant, but imprecise, number of these hospitalizations are avoidable. First, a failure of advanced care planning, either in the
hospital or in the SNF, often leads to hospitalizations that are of no benefit to patients who are terminal (Teno, Mitchell et al. 2009). Secondly, inadequate communication and transfer of clinically important information between the discharging hospital and the receiving nursing home facility has been shown to increase “bounce back” re-hospitalizations (Coleman, Min et al. 2004). Thirdly, the availability of a cohesive medical staff and physician extenders such as nurse practitioners and physician assistants is consistently associated with reduced likelihood of hospitalization (Intrator, Castle et al. 1999; Intrator, Grabowski et al. 2007; Konetzka, Spector et al. 2008). Finally, there are substantial regional differences in the rates of hospitalization of nursing home residents and re-hospitalization of post-acute patients in the same way that Wennberg and his colleagues have observed large regional variation in all manner of health care utilization (Fisher, Wennberg et al. 2000).

Brown investigators have prepared data on state variations in the rates of hospitalization and rehospitalization of persons in nursing homes for use in the Commonwealth Fund Chartbook on High Performing Health Care systems which compares the performance of states’ “health care systems” on a variety of different parameters.\(^3\) Using Medicare claims matched to MDS records of all ‘fee for service’ Medicare beneficiaries ever using a nursing home between 1999 and 2006, Brown investigators identified two cohorts of Medicare nursing home users: 1) those who’d been in a facility continuously for at least 6 months; and, 2) those who had, based upon the available data,

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**TABLE 2 National Trends – CMS Quality Measures**

<table>
<thead>
<tr>
<th>Quality Measures</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>↑ Statistically Significant Improvement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>↑ ADL Decline</td>
<td>15.7%</td>
<td>15.8%</td>
<td>15.9%</td>
<td>15.3%</td>
<td>15.2%</td>
</tr>
<tr>
<td>↑ Pain in Long Stay Residents</td>
<td>6.3%</td>
<td>6.2%</td>
<td>5.1%</td>
<td>4.4%</td>
<td>4.0%</td>
</tr>
<tr>
<td>↑ Pressure Ulcers in High Risk Residents</td>
<td>13.7%</td>
<td>13.4%</td>
<td>12.8%</td>
<td>12.3%</td>
<td>12.0%</td>
</tr>
<tr>
<td>↓ Incontinence in Low Risk Residents</td>
<td>46.9%</td>
<td>47.6%</td>
<td>48.1%</td>
<td>49%</td>
<td>49.8%</td>
</tr>
<tr>
<td>↑ Adjusted Prevalence of Indwelling Catheter Use</td>
<td>5.9%</td>
<td>6.0%</td>
<td>5.8%</td>
<td>5.7%</td>
<td>5.5%</td>
</tr>
<tr>
<td>↓ Worsening Mobility</td>
<td>12.5%</td>
<td>12.7%</td>
<td>12.8%</td>
<td>12.2%</td>
<td>11.9%</td>
</tr>
<tr>
<td>↓ Urinary Tract Infection</td>
<td>8.5%</td>
<td>8.7%</td>
<td>8.8%</td>
<td>9.0%</td>
<td>9.1%</td>
</tr>
<tr>
<td>↑ Delirium in Short Stay Patients</td>
<td>3.2%</td>
<td>2.8%</td>
<td>2.4%</td>
<td>2.0%</td>
<td>1.8%</td>
</tr>
<tr>
<td>↑ Pain in Short Stay Residents</td>
<td>22.7%</td>
<td>22.5%</td>
<td>21.4%</td>
<td>20.7%</td>
<td>20.0%</td>
</tr>
</tbody>
</table>

never been in a nursing home before. For the first
group, we calculated the probability of hospitaliza-
tion during the subsequent 6 months whereas for the
second group, we calculated the likelihood that the
patient was rehospitalized at least once within 30 days
of hospital discharge. For both groups we aggregated
the person level hospitalization rates to the state in
which the nursing home was located and examined
how these rates changed between 2000 and 2006.

Figure 5 below presents the 6 month hospital-
ization rates of long stay residents by year, based upon
the inter-state distribution. The median state’s rate of
hospitalization increased from 16% to 20% between
2000 and 2006, while the state with the highest rate
of hospitalization increased to over 30%. Consistent
with our observation about the importance of regional
variations in patterns of medical care use, in examin-
ing changes in the rates of hospitalization of long stay
residents, we observed consistency among those states
which were ‘high users’ and those states classified as
‘low users’. The lowest using states, Oregon, Utah
and Arizona remained under 10% over the seven year
period, while the highest using states, Mississippi and
Louisiana, ended up exceeding a 30% hospitalization
rate over the 6 month period. It is important to note,
that this definition of hospitalization excludes those
individuals who experience multiple hospitalizations
within a 6 month period, a proportion that also ap-
ppears to vary substantially by state.

Findings for the newly admitted residents are
remarkably similar even though all the individuals are
very different and tend to be concentrated in facilities
that specialize in providing post-acute care. Rehospi-
talization has increased each year and the inter-state
differences are large, ranging from around 13% to
28% in 2006. As noted, we calculate the percentage of
residents re-hospitalized within 30 days of admission to a SNF. It should be noted that in terms of calculating the “true” rate of rehospitalization, the proportion re-hospitalized is an underestimate since some of these individuals were re-hospitalized on more than one occasion during the 30 day period following their originating hospitalization. Obviously, those individuals who have never before used a SNF for post-acute care are less likely to be among the “frequent flyers” so often noted in the literature (Coleman 2007). What is most surprising about these data is that in spite of the presumably “healthier” selected residents included in these analyses, the median state re-hospitalizes about one fifth (and growing) of Medicare beneficiaries’ first time ‘fee for service’ SNF post-acute users. The highest using state is the same as for the long stay population, Louisiana. However, New Jersey has a rate of about 25% as well, suggesting another dynamic is operating here. The lowest use rate states again include Utah and Oregon, states that, according to the Dartmouth Atlas of Health Care, have low aggregate Medicare expenditures per capita.

iv. Quality reflected in the Nursing Home Survey Process

Medicare/Medicaid certified nursing homes are inspected at least once every 15 months by state officials following centrally established guidelines. The surveyor guidelines provide detailed review processes for inspectors to follow as they review patient care processes based upon a sample of residents’ records, observation of residents, and the interaction between residents and care staff. Emerging from the inspection are findings regarding the number and severity of deficiencies which are violations of the clinical care guidelines. In spite of the detailed guidelines, the literature clearly documents large inter-state variation in the number and severity of deficiencies (Angelelli, Mor et al. 2003; Mor 2007; Kelly, Liebig et al. 2008). Kelly and colleagues found that state funding levels, the “professionalism” of the state’s bureaucracy and even the character of the state’s legislature is related to the regulatory stringency applied to nursing homes by state inspectors. Indeed, these authors and Brown investigators note that some states are prone to levy a higher average number of deficiencies while other

FIGURE 6

Trends and Inter-State Variations in the Percentage of Facilities Cited for Actual Harm or Immediate Jeopardy to Residents, 1995-2004

Source: OSCAR.
states are much more likely to identify deficiencies that are viewed as more severe, placing residents’ lives at risk. In addition to interstate variation, historically there has also been substantial variation in the propensity of state officials to levy deficiencies.

Figure 6 reveals changes over time as well as inter-state variation in the percentage of facilities cited for actual harm or immediate jeopardy to residents of US nursing homes. As can be seen, in 1997 and 98, there was considerable inter-state variation around a national median of 30% whereas by 2004 there was much less variation around a much lower proportion.

A more recent analysis performed for CMS as part of an examination of how the Five-Star rating system might be revised, reveals continued increases in the number of severity weighted deficiencies. As can be seen in Figure 7, these increases were apparently occurring in response to policy initiatives emanating from CMS, which is one reason we can see periodic shifts in the volume and severity of deficiencies.

According to CMS staff, the period of the late 1990’s coincided with directives requiring less predictable survey scheduling and greater focus on complaint investigations. No new quality review initiatives were instituted outside of the introduction of public reporting and providing quality measures to the survey teams until 2004 when additional surveyor guidance directives were released and the trend toward more deficiency citations resumed.

During the period 2003 through 2008, the proportion of nursing facilities in the US that were cited for pressure ulcer clinical care problems increased from around 15% to around 18% during a period of time when, as we’ve just seen, the prevalence of pressure ulcers among high risk patients was actually declining. This is quite consistent with the national finding that there is relatively little correlation between the measures of nursing home quality that emanate from the survey and inspection process and those which pertain to the reported and unreported measures of clinical quality created from the MDS. While this is not to say that there is no validity to the survey results, it does mean that these two sources of information are capturing very different aspects of quality.

**FIGURE 7**

![Graph showing changes in oversight and deficiency citations from 1996 to 2007.](image-url)
V. Future Directions and Recommendations for Additional Research

There are numerous unanswered questions about the changing nature and role of nursing homes in the US context and how to improve the measurements of the outcomes that patients experience. In the next few paragraphs we discuss some of the challenges that need to be addressed in order to better understand the determinants of nursing home quality and how to best measure and think about nursing home quality for the increasingly heterogeneous groups of nursing home residents.

First, we need to better understand the current process of nursing home specialization that is underway since it is crucial to our understanding of whether quality is improving and in which sector(s) it is and is not improving. This is particularly important in light of the recent study suggesting that consumers and their advocates appear to be selectively “choosing” post-acute nursing homes with superior quality measures (Werner 2009). If one consequence of public reporting is, as was originally hypothesized, to “steer” patients to superior facilities, given the heterogeneous long term care needs nursing homes meet, it is incumbent upon us to better understand which types of homes appear to best meet the needs of which types of residents. The increasing use of the nursing home as a post-acute care setting following hospitalization for serious surgeries, medical infections and complications means that a subset of nursing homes will increasingly resemble the general medical hospital wards of yesterday. Hospital based facilities have traditionally served this population but now nearly 20% of free-standing nursing homes have 20% of their patient days covered by Medicare, a number that has been growing almost annually. Another area of specialization that has arisen is care of the seriously demented, long stay resident; and nearly 30% of nursing homes now care for over 50% of residents with dementia, whether within or outside of dementia special care units (Gruneir, Lapane et al. 2008). An emerging trend, perhaps arising by default, is one of serving the growing number of young old, relatively recent Medicare beneficiaries with a long standing serious psychiatric disorder who are entering nursing homes and staying there. (Fullerton, McGuire et al. 2009; Grabowski, Aschbrenner et al. 2009) While there is still much to be learned, there are indications that facilities with a disproportionate share of residents with serious mental illness diagnoses have more serious quality problems, have lower staffing levels and very high proportions of Medicaid residents. (Mor, Zinn et al. 2004) In light of the different types of individuals being served, it is difficult to imagine that the same set of quality measures are appropriate for these different types of homes. Since specialization is obviously occurring, we need to consider the implications for measuring quality and publicly reporting those results so that they are useful to consumers and their advocates.

Nursing home quality is currently being measured using a multiplicity of different “instruments” and approaches. Survey and certification results along with complaints vary between states (and even within states as a function of inspection team districts) and seem quite responsive to political and policy initiatives. As importantly, they are not correlated with quality measures purportedly measuring a similar concept. Quality measures focus on clinical outcomes but have been shown to be strongly correlated with facility acuity and so are inadequately case mix adjusted (Mukamel, Glance et al. 2008). Structural measures such as staffing levels are widely acknowledged to be important, but the level of staffing should clearly be related to the mix of patients being served and the specific types of needs that they have. While the new CMS Five-Star rating system takes resident acuity into account, there are some types of clinical staff like therapists and nurse practitioners that aren’t counted and there appears to be great variation in how the staffing data
are reported. Finally, other measures like rehospitalization, satisfaction, patients' experience and a host of other possible process quality measures have not been examined in relation to the existing set of measures nor in terms of which types of patients and homes they matter for the most. It is clear that nursing home quality is multi-dimensional; what is also becoming clear is that it is no more appropriate to compare all nursing homes with one another than it would be appropriate to compare an Obstetrics hospital with an Oncology hospital.

One corollary to both the heterogeneity of facilities and the different types of quality measures is the need to greatly enhance our measures of quality for the post acute patients using nursing homes. Presently, there are only three measures and these are only possible for that group of SNF residents who are in the facility long enough to have at least two measures—generally the 5 day Medicare assessment and the 14 day admission assessment. One of the main goals of post-acute care, whether it is for residents undergoing rehabilitation or those recovering from a serious medical problem, is recovery to pre-morbid functioning, or at least improvement from their level of functioning at the time of admission. The alternatives to post-acute nursing home care, home health and rehabilitation hospitals, both have outcome measurements that are clearly calculated as the difference between patients' condition upon entry and upon discharge. It is imperative that nursing homes adopt a discharge assessment that can be used to calculate improvement in functioning, as well. As it is, too many post-acute patients are being treated and returned to their pre-hospital living situations without an opportunity to contribute to the performance evaluation of the nursing home. Furthermore, the array of possible quality measures for post-acute nursing home residents is greatly restricted without the benefit of having a discharge assessment with which to calculate a change score.

Finally, implementation of the MDS 3.0 is rapidly approaching. It will introduce even more complex conceptual and empirical measurement problems than currently face us for interpreting outcome measures based upon staff input and assessment (Mor, Berg et al. 2003). Currently, small facilities or facilities with very short lengths of stay may not have enough observations to be able to generate a quality measure. Under MDS 3.0, efforts to appropriately hear the residents' voice by asking staff to determine which residents can be interviewed will greatly complicate any quality of life measures, since it will require an understanding of the fact that the proportion of residents that may actually be interviewed will vary by type of resident. For example, a higher proportion of those who have experienced declines in locomotion or in other areas of physical functioning will be interviewed compared with those who have experienced cognition loss, aphasia or other disorders that may prevent them from providing coherent responses. Furthermore, measures relying upon the residents' voice cannot reasonably be combined with measures of the same concept that are based upon staff observation. Beyond the obvious advantages and complications that interviewing the resident brings to the situation, almost all of the existing quality measures have to be revised, making comparisons over time unlikely, if not utterly impossible. Thus, the pending changes will be of sufficient magnitude to require a complete reconstruction of much of the measurement research that has developed around the MDS 2.0 over the last decade.

If this review has done anything it is to underscore the heterogeneity of US nursing homes and the need to explicitly take that heterogeneity into account in describing their performance and staffing, in comparing the manner in which they serve their distinct populations and in comparing the outcomes experienced by their residents. It is perhaps time to begin thinking explicitly about this heterogeneity in considering how CMS sets policy governing nursing homes in the US.
Bibliography


Quality: By the Numbers
Quality Trends from Publicly Available Data

The Office of Inspector General (OIG) of the U.S. Department of Health and Human Services (HHS) recently published a trend analysis of nursing home performance on publicly reported quality metrics mandated and collected by the Centers for Medicare and Medicaid Services (CMS). According to the OIG, the Quality Indicators/Quality Measures (QI/QMs) are among the most prominent metrics used to evaluate quality in nursing homes. The QI/QMs are “incidence or prevalence measures derived from information recorded during periodic assessments of residents performed by nursing home staff…. Information from these assessments is aggregated to the nursing home level for each QI/ QM...and cover areas of care such as accidents, behavioral and emotional patterns, quality of life, and skin care.” The QI/QMs are available to the public on CMS’s “Nursing Home Compare” website (www.nursinghomecompare.gov).

The table and charts on the page below and following pages reproduce the results published by the OIG. The data show that nursing homes have improved on most QI/QMs between 1999 and 2007.

Figure 1. Improvement in Percentage of Residents Losing Weight

Figure 2. Improvement in Percentage of Residents Restrained

Figure 3. Improvement in Prevalence of Resident Dehydration

Figure 4. Improvement in Level of Resident Activity

Figure 5. Improvement in Percentage of Residents Experiencing Pain
## Figure 6. Quality Indicator Trends

<table>
<thead>
<tr>
<th>Quality Indicator</th>
<th>1999</th>
<th>2007</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Accidents</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incidence of new fractures</td>
<td>1.8</td>
<td>1.5</td>
<td>-16.7%</td>
</tr>
<tr>
<td>Prevalence of falls</td>
<td>14</td>
<td>12.9</td>
<td>-7.9%</td>
</tr>
<tr>
<td><strong>Behavior / Emotional / Cognitive Patterns</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residents who have become more anxious or depressed</td>
<td>16.5</td>
<td>14.6</td>
<td>-11.5%</td>
</tr>
<tr>
<td>Prevalence of behavioral symptoms affecting others</td>
<td>23</td>
<td>17.6</td>
<td>-23.5%</td>
</tr>
<tr>
<td>Prevalence of symptoms of depression without anti-depressant therapy</td>
<td>7.9</td>
<td>4.7</td>
<td>-40.5%</td>
</tr>
<tr>
<td>Incidence of cognitive impairment</td>
<td>11.6</td>
<td>12</td>
<td>3.4%</td>
</tr>
<tr>
<td><strong>Clinical Management</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use of nine or more different medications</td>
<td>39.3</td>
<td>66.1</td>
<td>68.2%</td>
</tr>
<tr>
<td><strong>Incontinence Care</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low-risk residents who lost control of their bowels or bladder</td>
<td>42.4</td>
<td>48.5</td>
<td>14.4%</td>
</tr>
<tr>
<td>Residents who have/had a catheter inserted and left in their bladder</td>
<td>55.5</td>
<td>45.2</td>
<td>-18.6%</td>
</tr>
<tr>
<td>Prevalence of occasional or frequent bladder or bowel incontinence without a toileting plan</td>
<td>9.3</td>
<td>8.5</td>
<td>-8.6%</td>
</tr>
<tr>
<td>Prevalence of fecal impaction</td>
<td>1.1</td>
<td>0.1</td>
<td>-90.9%</td>
</tr>
<tr>
<td><strong>Infection Control</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residents with a urinary tract infection</td>
<td>8.7</td>
<td>9.7</td>
<td>11.5%</td>
</tr>
<tr>
<td><strong>Nutrition / Eating</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residents who lose too much weight</td>
<td>12.3</td>
<td>9.9</td>
<td>-19.5%</td>
</tr>
<tr>
<td>Prevalence of tube feeding</td>
<td>8.1</td>
<td>6.7</td>
<td>-17.3%</td>
</tr>
<tr>
<td>Prevalence of dehydration</td>
<td>1.6</td>
<td>0.3</td>
<td>-81.3%</td>
</tr>
<tr>
<td><strong>Pain Management</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residents who have moderate to severe pain</td>
<td>13.7</td>
<td>8.7</td>
<td>-36.5%</td>
</tr>
<tr>
<td><strong>Physical Functioning</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residents whose need for help with daily activities has increased</td>
<td>15.9</td>
<td>15.4</td>
<td>-3.1%</td>
</tr>
<tr>
<td>Residents who spend most of their time in a bed or in a chair</td>
<td>8.5</td>
<td>5.1</td>
<td>-40.0%</td>
</tr>
<tr>
<td>Residents whose ability to move in and around their rooms got worse</td>
<td>15</td>
<td>14.9</td>
<td>-0.7%</td>
</tr>
<tr>
<td>Incidence of decline in range of motion</td>
<td>9.8</td>
<td>6.9</td>
<td>-29.6%</td>
</tr>
<tr>
<td><strong>Psychotropic Drug Use</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prevalence of antipsychotic use, in the absence of psychotic conditions</td>
<td>16.4</td>
<td>20.2</td>
<td>23.2%</td>
</tr>
<tr>
<td>Prevalence of antianxiety/hypnotic drug use</td>
<td>18.2</td>
<td>21.2</td>
<td>16.5%</td>
</tr>
<tr>
<td>Prevalence of hypnotic use more than two times in the last week</td>
<td>3.9</td>
<td>5.0</td>
<td>28.2%</td>
</tr>
<tr>
<td><strong>Quality of Life</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residents who were physically restrained</td>
<td>10.5</td>
<td>5.2</td>
<td>-50.5%</td>
</tr>
<tr>
<td>Prevalence of little or no activity</td>
<td>30.9</td>
<td>7.5</td>
<td>-75.7%</td>
</tr>
<tr>
<td><strong>Skin Care</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pressure ulcers</td>
<td>10.8</td>
<td>9.5</td>
<td>-12.0%</td>
</tr>
</tbody>
</table>

Each nursing home in America is to be “surveyed” at least every 15 months by state surveyors on behalf of the Centers for Medicare and Medicaid Services (CMS) to assess compliance with federal regulations relating to quality of care, quality of life, physical plant and safety. The surveyors assign “deficiencies” to nursing homes failing to meet one or more of these regulations. Deficiencies falling into certain categories directly related to quality of care are designated as “substandard care.” All deficiencies are publicly reported in a database maintained by CMS known as the Online Survey, Certification and Reporting system (OSCAR).

The chart below reproduces survey results published by CMS in the OSCAR system for the average number of deficiencies from annual nursing home surveys as well as the percentage of nursing homes cited for “substandard quality of care.”

The data show that the percentage of nursing homes cited for substandard quality of care decreased by 11 percent between 2000 and 2009 while the average number of deficiencies cited increased by slightly more than 1 deficiency per nursing home on annual surveys during the same time period.³

³ For a more detailed description of survey deficiencies and data analysis of trends please see Changes in the Quality of Nursing Home Care in the U.S. (August 2009)
**Advancing Excellence in America’s Nursing Homes: 2006-2009**

Building upon *Quality First* and other profession-driven quality initiatives, AHCA and the Alliance were founding partners of the *Advancing Excellence in America’s Nursing Homes* campaign – a nationally coordinated initiative among provider, caregiver, consumer, government and other stakeholder parties designed to promote quality in skilled nursing and rehabilitation facilities around eight measurable goals.

One of the hallmarks of the campaign is the evidence-based resources provided to nursing homes as well as access to support from the Quality Improvement Organizations (QIOs). The initiative has collected best practices and other materials that give skilled nursing and rehabilitation facility staff the information and tools needed to improve on clinical quality goals.

Since *Advancing Excellence* launched in 2006, skilled nursing and rehabilitation facilities participating in the campaign have experienced measurable improvements at a rate higher than non-participating facilities. The chart below reproduces data published by the Medicare Quality Improvement Organization for Colorado and the *Advancing Excellence* website (http://www.nhqualitycampaign.org) in the areas of high risk pressure ulcers, physical restraints, chronic care pain and post acute care pain.

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**Advancing Excellence Quality Improvements**

**Figure 8. AE Quality Trend**

<table>
<thead>
<tr>
<th>Group</th>
<th>2005 Q4</th>
<th>2006 Q4</th>
<th>2007 Q4</th>
<th>2008 Q4</th>
<th>Change 2005-08</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High Risk Pressure Ulcers</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Nursing Facilities</td>
<td>12.9%</td>
<td>12.5%</td>
<td>12.0%</td>
<td>11.5%</td>
<td>-1.4%</td>
</tr>
<tr>
<td><em>Advancing Excellence</em> Participants Selecting the Goal</td>
<td>12.7%</td>
<td>12.4%</td>
<td>11.5%</td>
<td>11.2%</td>
<td>-1.5%</td>
</tr>
<tr>
<td><strong>Physical Restraints</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Nursing Facilities</td>
<td>6.6%</td>
<td>5.9%</td>
<td>4.8%</td>
<td>3.9%</td>
<td>-2.7%</td>
</tr>
<tr>
<td><em>Advancing Excellence</em> Participants Selecting the Goal</td>
<td>8.0%</td>
<td>7.2%</td>
<td>5.3%</td>
<td>4.1%</td>
<td>-3.9%</td>
</tr>
<tr>
<td><strong>Chronic Care Pain</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Nursing Facilities</td>
<td>5.7%</td>
<td>4.7%</td>
<td>4.2%</td>
<td>3.9%</td>
<td>-1.8%</td>
</tr>
<tr>
<td><em>Advancing Excellence</em> Participants Selecting the Goal</td>
<td>5.8%</td>
<td>4.8%</td>
<td>4.0%</td>
<td>3.9%</td>
<td>-1.9%</td>
</tr>
<tr>
<td><strong>Post Acute Care Pain</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Nursing Facilities</td>
<td>22.9%</td>
<td>21.6%</td>
<td>20.9%</td>
<td>20.6%</td>
<td>-2.3%</td>
</tr>
<tr>
<td><em>Advancing Excellence</em> Participants Selecting the Goal</td>
<td>23.0%</td>
<td>22.1%</td>
<td>20.8%</td>
<td>20.6%</td>
<td>-2.4%</td>
</tr>
</tbody>
</table>
National Quality Campaign is Making a Difference

By Mary Jane Koren, M.D., M.P.H.
Chair, National Steering Committee for Advancing Excellence
Assistant Vice President, The Commonwealth Fund

When Advancing Excellence, the nursing home quality campaign, was launched in 2006, we initially planned on a two-year effort. However, initial successes at helping nursing homes to measurably improve care for residents, along with the positive feedback we received, convinced us to build on the foundation of participants, successes and solid resources.

Today, the Advancing Excellence campaign, led by a coalition consisting of 28 organizations, continues to gather evidence that shows the Campaign is helping nursing homes make a measurable difference in the lives of residents and staff. The data for residents indicate that specific improvements occurred in reduction in the number of pressure ulcers, reduction in the use of physical restraints and improved pain management. Campaign nursing homes that selected these goals and set performance targets improved the most and at a faster rate as compared to the nation’s nursing home performance overall.

For all nursing homes, Advancing Excellence provides practical resources, developed by nationally recognized experts in long term care, free of charge to ensure staff have the tools they need to succeed in quality improvement efforts. For example, the Campaign has offered popular Webinars/teleconferences on each campaign goal. One presentation on reducing pressure ulcers attracted more than 5,000 nursing home staff.

An integral component of the Advancing Excellence campaign has been the establishment of 49 state-based coalitions of stakeholders interested in nursing home quality. Called Local Area Networks for Excellence, or LANEs, they raise awareness about the Campaign, help recruit nursing homes, provide information about the Campaign’s practices, encourage nursing homes to visit the Advancing Excellence Web site for valid interventions to improve care and may also offer state-specific resources to foster success within the state’s long term care community.

However, nursing homes aren’t the only ones who can sign on to participate in the Campaign. Consumers and individual staff members can register to join the Campaign as well. To help these two groups become meaningful participants, consumer- and staff-friendly fact sheets on each of the eight goals can be downloaded from the Web site. In the near future, a Guide on the Campaign and all of its goals, written with residents and family in mind, will be posted to the Advancing Excellence Web site.
The next phase of the Campaign will be starting in September 2009. There will still be eight goals. There will be continued focus on the clinical areas of reducing pressure ulcers and use of physical restraints and improved pain management. There will be some changes, however, in the five organizational goals. Target setting, which had been a stand-alone goal, was shown to be a powerful mechanism for accelerating and enhancing performance and thus will not only remain a Campaign priority, it will receive increased emphasis in the next phase since participating nursing homes will be expected to set targets for every goal chosen. For Resident/family Satisfaction, Staff Turnover and Consistent Assignment, clearer definitions and measurement techniques will make the goals easier to use and give facilities better information upon which to base improvement efforts. Two new goals will make their appearance. One, Staff Satisfaction, acknowledges the importance of a committed workforce to high performance. The other, Advanced Care Planning, recognizes that for many residents, the nursing home will be their last home. Encouraging them to talk about their end of life wishes will ensure that staff are aware of, and can thus honor, those goals.

Working in concert with all stakeholders at both the national and state level we can, together, assist nursing homes to become high performance organizations that, in partnership with their staff and residents, will be able to demonstrate the long term care community’s ability to deliver the best.
Consumer and Workforce Satisfaction in Nursing Homes

Report Contributors: A. Grant, Ph.D.; Brad Shiverick, C.P.H.Q.; Peter Janelle M.P.P; Michael Davern, Ph.D.; Amy Hu, M.S.; and Eric Lewerenz, M.S.

Compiled directly from the 2008 National Survey of Consumer and Workforce Satisfaction in Nursing Homes

My InnerView (May 2009)
As part of *Quality First*, providers pledged to advance progressive initiatives in the areas of consumer satisfaction and workforce excellence. In a 2004 evaluation of the status of *Quality First* implementation, Avalere Health recommended that providers improve and standardize the way that consumer and employee satisfaction is measured and establish benchmarks so that individual providers could measure relative performance and tailor quality improvement programs accordingly.¹

Following this recommendation, many provider members of AHCA and the Alliance have been using My InnerView, a national consumer and workforce satisfaction survey tool, to assess performance and improve organizational excellence. Through direct consumer and workforce feedback, My InnerView establishes benchmarks for performance that long term care providers can use to identify opportunities for improvement and significantly enhance quality.

Today, about one-third, or more than 5,000 nursing and rehabilitation facilities in the United States voluntarily take part in the national survey, demonstrating the profession’s commitment to improving quality. Excerpts from the 2008 National Survey of Consumer and Workforce Satisfaction in Nursing Homes illustrate the measurable progress nursing homes nationwide have made in their efforts to improve care and achieve excellence and also point to areas for improvement.

Consumer & Workforce Satisfaction

Compiled directly from the 2008 National Survey of Consumer and Workforce in Nursing Homes
Report contributors: Leslie A. Grant, Ph.D.; Brad Shiverick, C.P.H.Q.; Peter Janelle M.P.P.; Michael Davern, Ph.D.; Amy Hu, M.S.; and Eric Lewerenz, M.S.
My InnerView, May 2009

My InnerView has compiled annual reports measuring consumer satisfaction in nursing homes since 2005, and workforce satisfaction since 2006. Every year since 2005, the number of nursing homes participating in these voluntary surveys has increased — reaching one in three facilities in the United States as of 2008. This is by far the largest database ever assembled about the levels of satisfaction among residents, families and workers in America’s nursing homes. These reports are potentially useful to consumers, providers and policymakers because they establish important benchmarks about consumer and workforce satisfaction in the nation’s nursing homes.

**Key findings: Improvements in consumer and workforce satisfaction**

The 2008 National Survey of Consumer and Workforce Satisfaction in Nursing Homes marks the fourth and largest annual report of nursing home satisfaction published by My InnerView. It represents the voices of 425,000 nursing home consumers (residents and families) and workers who completed satisfaction surveys during 2008. Included are

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**Figure 1. Consumer: Overall Satisfaction**
*Combined percentage “excellent” & “good” consumer recommendations of the nursing home to others*

**Figure 2. Workforce: Overall Satisfaction**
*Combined percentage “excellent” & “good” consumer recommendations of the nursing home to others*
responses from 223,449 employees, 54,711 residents and 146,949 family members in 5,075 nursing facilities across the United States.

Prior to research conducted by My InnerView, there were no national benchmarks available to compare nursing home quality on metrics beyond regulatory survey compliance and clinical outcomes.

The level of consumer and workforce satisfaction was stable from 2005 to 2007 and reached its highest level in 2008. Both consumers and workers consistently reported high levels of satisfaction with nursing homes. Eighty-five percent of consumers rated their overall satisfaction and their recommendation of the facility to others as either “excellent” or “good.” Sixty-six percent of employees rated their facility as an “excellent” or “good” place to work, and 73% rated their facility as an “excellent” or “good” place to receive care.

**Why Satisfaction Matters**

Demonstrating value to key stakeholders, such as consumers and payers, is paramount in discussions about how to set priorities in the allocation and expenditure of state and federal resources. Policymakers, payers, regulators, consumers and providers need to reach a consensus as to how quality can be redefined to better align their interests as important stakeholders. This report suggests that input from nursing home residents, family members and employees is important in any comprehensive system of quality measurement and improvement.

**Key Findings**

- Consumers rating their overall satisfaction as “excellent” increased from 31% in 2007 to 35% in 2008.

- Consumer satisfaction increased across all demographic groups (e.g., among both family and resident respondents; in groups stratified by other demographics, such as the family member’s relationship to the resident, resident’s length of stay and age, and how often family members visited) and other demographic characteristics; and facility characteristics (e.g., stratified by type of ownership, geographic region, size and other factors).

- Although rates of improvement varied, workforce satisfaction increased across job classifications (e.g., nurses, nursing assistants, housekeeping, food service, administration and other job classifications), demographic groups (e.g., stratified by gender, length of employment, shift worked, length of tenure and other employee characteristics) and organizational characteristics (e.g., type of facility ownership, geographic region, size and other facility characteristics).

Consumers and payers are demanding more: Renewed efforts by the long-term care profession are warranted to demonstrate value to consumers and payers, especially when it comes to the expenditure of state and federal taxpayer dollars.
Family and Resident Satisfaction

Although their perspectives are not identical, both families and residents are important stakeholders who are able to provide valid feedback about the quality of nursing home care. Input from both groups can help improve nursing home performance overall.

- Family and resident satisfaction are positively correlated. Facilities ranked high on family satisfaction also have high resident satisfaction, and facilities ranked low on family satisfaction also have low resident satisfaction.
- The most powerful drivers of whether a resident or family member would recommend a nursing facility are workforce issues: care or concern shown by staff, competency of staff, quality of service, and attention to the resident’s choices or preferences.
- Differences exist in terms of how residents and family members experience care, as well as in the factors that are most strongly correlated with the recommendation of a facility to others.
- In planning quality-improvement initiatives, providers need to look carefully at their results to better understand how the responses of families and residents are interrelated.

**Figure 3. Resident: Overall Satisfaction**

*Combined percentage “excellent” & “good”*

**Figure 4. Family: Overall Satisfaction**

*Combined percentage “excellent” & “good”*
Workforce and Consumer Satisfaction

The relationship between consumer and workforce satisfaction is seen in the factors that underlie satisfaction among these groups. For consumers, the care and competency of staff are the most important drivers of satisfaction. This holds true for both resident and family respondents. For employees, management practices are the most important drivers of satisfaction. More importantly, these same management practices are among those rated the lowest by employees.

- Consumer and workforce satisfaction are correlated positively. Facilities with higher workforce satisfaction also have higher consumer satisfaction. Facilities with lower workforce satisfaction also have lower consumer satisfaction.
- Competent and caring staff is a consistent predictor of resident and family satisfaction.
- The level of satisfaction in America’s nursing homes can be increased through strategies to simultaneously enhance quality from the consumer’s perspective and improve the work environment for staff. Clearly, an effective strategy for quality improvement has to include a focus on the workforce that provides care for residents and their family members.

![Figure 5. Nurse: Overall Satisfaction](image)

* Combined percentage “excellent” & “good”

![Figure 6. Nursing Assistant: Overall Satisfaction](image)

* Combined percentage “excellent” & “good”
Opportunities for Improvement

National benchmarks for consumer and workforce satisfaction are powerful tools that providers can use to drive greater value for all stakeholders. By comparing the performance of individual facilities against national benchmarks, providers can identify opportunities for improvement.

Survey items that are important drivers of satisfaction, but are low scoring, are potential areas that providers should prioritize for improvement. For both residents and families the following items represent primary opportunities:

Consumer Identify Opportunities

*Items Ranked by Correlation with Recommendation*

<table>
<thead>
<tr>
<th>Opportunities Identified by Residents</th>
<th>Opportunities Identified by Families</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choices/Preferences</td>
<td>Grooming</td>
</tr>
<tr>
<td>Management responsiveness</td>
<td>Choices/preferences</td>
</tr>
<tr>
<td>Grooming</td>
<td>Management responsiveness</td>
</tr>
<tr>
<td>Nursing assistant care</td>
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</tbody>
</table>

Nurses and nursing assistants have identical results for primary strengths and primary opportunities. Survey items that are important drivers of global satisfaction based on the respondent’s recommendation of the facility as a place to work, but are low scoring, represent potential areas that providers should target for improvement.

Help with job stress is the top priority item for both nurses and nursing assistants. Other opportunities for improvement are the following items:

Workforce Identify Opportunities

*Items Ranked by Correlation with Recommendation*

<table>
<thead>
<tr>
<th>Opportunities Identified by Nurses</th>
<th>Opportunities Identified by Nursing Assistants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Help with job stress and burnout</td>
<td>Help with job stress and burnout</td>
</tr>
<tr>
<td>Management listens</td>
<td>Management listens</td>
</tr>
<tr>
<td>Management cares</td>
<td>Management cares</td>
</tr>
<tr>
<td>Training to deal with difficult residents</td>
<td>Training to deal with difficult residents</td>
</tr>
<tr>
<td>Supervisor appreciates</td>
<td>Supervisor appreciates</td>
</tr>
<tr>
<td>Adequacy of equipment/supplies</td>
<td>Adequacy of equipment/supplies</td>
</tr>
</tbody>
</table>
The level of satisfaction in the country’s nursing homes is showing incremental improvements for the first time since these data were first collected in 2005.

The Impact of Quality Initiatives on Improvement

National collaborative partnerships such as the Quality First initiative, CMS’ Nursing Home Quality Initiative and the Advancing Excellence in America’s Nursing Homes campaign are promoting a broader, more systematic definition of long-term care quality that views consumer and workforce satisfaction as critical indicators of organizational excellence. This report underscores the fact that providers of senior care services in the United States are responding to those initiatives, and are paying attention to the voices of consumers and the workforce. My InnerView data lend support to the view that incremental progress is being made, in part because greater attention is now being paid to these matters.

The value proposition for key stakeholder groups for long-term care services continues to evolve. Regulatory compliance and clinical outcomes will remain central themes in ongoing debates about what quality of nursing home care really means from the perspective of diverse stakeholder groups. For consumers, measuring and understanding the voices of residents and their families are of paramount importance. Assessing the satisfaction among workers who care for residents and their families is another essential strategy toward developing a comprehensive approach to quality management. The 2008 National Report is part of an expanding series of My InnerView reports that are helping to guide the development of more systematic approaches to quality improvement in America’s nursing homes.
Implications for practice

For the field of practice, this year’s report contains very positive results. The level of satisfaction in the country’s nursing homes is showing incremental improvements for the first time since these data were first collected in 2005. We now have empirical evidence that ongoing national collaborative partnerships such as the Quality First initiative, CMS’ Nursing Home Quality Initiative and the Advancing Excellence in America’s Nursing Homes campaign may be helping to improve levels of consumer and workforce satisfaction nationwide. Although these partnerships differ in their specific objectives, they have similar goals encompassing clinical outcomes, workforce performance and consumer satisfaction. These voluntary programs are gaining wider acceptance among provider organizations and other stakeholders. A more systematic quality-improvement paradigm that views consumer and workforce satisfaction as important indicators of organizational excellence appears to be taking hold.

This report highlights the interdependence of resident and family satisfaction. It also underscores the interdependence of workforce and consumer satisfaction. Although we are unable to identify the causal factors that underlie the interdependence among these metrics, it is likely that the same organizational systems that drive performance in one area are likely to impact performance in other areas. For example, good leadership, good management and good supervision are likely to have salutary effects on resident, family and employee satisfaction. A recent paper by My InnerView researchers found that leadership competencies are strongly associated with job satisfaction in nursing homes.¹ We recommend that aging services professionals focus on leadership competencies and workforce development as key initiatives to sustain quality improvement efforts in nursing homes.

To care for an increasingly complex patient population, nursing facilities are increasing resources for more intensive and regular nursing care.
Improving Quality through the Quality First Program: 2009 Survey Results

Report Contributors: Alexis Ahlstrom, Nicole Cafarella, Julia Dreier
Avalere Health, LLC
In 2002, the Alliance for Quality Nursing Home Care (the Alliance), the American Health Care Association (AHCA), and the American Association of Home and Services for the Aging (AAHSA) committed to Quality First, with support from then-Secretary of Health and Human Services (HHS) Tommy Thompson and the American Association of Retired Persons (AARP). Since then, thousands of long-term care (LTC) providers across the nation have embarked upon a quality improvement process to improve care for patients and residents and to foster the trust of the American public.

At root, Quality First reflects a commitment to quality improvement, a process whereby long term care (LTC) providers, mostly nursing and rehabilitation facilities, invest in care infrastructures and implement care processes in order to achieve quality outcomes for patients, residents and their families. This classic quality paradigm (structure, process, outcomes) can have another key component, which is a feedback loop. In order to improve quality, providers should periodically engage in critical self-evaluation to assess the extent to which the quality improvement structures, processes, and outcomes they have committed to are actually being implemented.

To advance the critical component of quality improvement, the Alliance engaged Avalere Health to conduct a baseline survey of Alliance member companies in 2003 to evaluate progress in implementing the elements of the Quality First pledge one year after its adoption. Avalere found that progress had been made in key areas, but also made recommendations for improvement, including standardizing measurement of consumer satisfaction and improving the degree of “transparency” by providers more actively disclosing quality performance to the public.

Six years after adoption of Quality First, the Alliance and AHCA asked Avalere to administer a second self-evaluation survey. The survey was developed by quality improvement experts within member organizations. It is important to emphasize that the survey’s purpose was not to evaluate whether Quality First has resulted in actual quality improvements. Quality: By the Numbers of this report summarizes trends in quality improvements based on publicly available data. Instead, the self-survey assesses the extent to which Quality First is being used at the facility level as a framework to advance quality care and to identify areas for improvement.

The self-survey was completed by 73 organizations representing 5,713 nursing and rehabilitation facilities as well as 631 individual facilities. This sample constitutes over one-third of the nation’s nursing and rehabilitation facilities. Approximately 84 percent of survey respondents were for-profit and 16 percent not-for-profit, as compared with a national percentage of 67 percent and 26 percent of for-profit and not-for-profit facilities, respectively.1 The survey was conducted from April to May of 2009.

Generally, survey results show that the majority of facilities use many of the elements of the Quality First pledge as a way to frame their efforts to improve quality. At the same time,

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1 From the Centers for Medicare and Medicaid (CMS) June 2009 Online Survey Certification and Reporting (OSCAR) file. The remaining seven percent of facilities in OSCAR are government-owned facilities. The Avalere analysis did not break out government-owned from not-for-profit.
the survey also highlighted that nursing and rehabilitation facilities can improve how they share their quality improvements with the public and increase employee retention.

**Improving Quality through the Quality First Program: 2009 Survey Results**

**Continuous Quality Improvement**

“We are committed to a philosophy of management that stimulates continuous quality improvement through the establishment of uniform quality measures, the creation of annual quality improvement goals, and the identification and use of clinical ‘best practices’ in an effort to achieve appropriate patient outcomes” (*Quality First* pledge, 2002).

Since the launch of *Quality First* in 2002, nursing and rehabilitation facilities have adopted a range of continuous quality improvement (CQI) programs. CQI is a management philosophy of focusing on quality in all organizational functions to improve customer satisfaction and patient outcomes. Many CQI programs include gathering data on quality services, conducting training and providing information on different types of quality improvement techniques, monitoring patient conditions, and implementing more effective methods of care. Of the nursing facilities that responded to the survey, 99 percent have adopted a CQI program; adopters include smaller facilities with only 8 beds as well as larger facilities with more than 300 beds.

![Figure 1. Responses to Continuous Quality Improvement Questions](image)

<table>
<thead>
<tr>
<th>Continuous Quality Improvement Programs</th>
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<tbody>
<tr>
<td>81% have a written statement of commitment to CQI</td>
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<tr>
<td>95% have established processes to address customer grievances and complaints</td>
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<tr>
<td>96% use data to identify quality problems and monitor improvement</td>
<td></td>
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<tr>
<td>95% use interdisciplinary employee teams to analyze and improve processes</td>
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<tr>
<td>78% conduct employee satisfaction surveys at least every two years</td>
<td></td>
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<tr>
<td>85% have a clearly defined list of their facility’s key processes and performance measures for which all staff receive training</td>
<td></td>
</tr>
<tr>
<td>99% conduct regular customer (resident/family) satisfaction surveys</td>
<td></td>
</tr>
<tr>
<td>82% empower employees to take action on quality problems</td>
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</tbody>
</table>
Use of Uniform Quality Measures

One important aspect of CQI programs is improvement in care delivery along measurable process and outcome metrics, as identified in the Quality First pledge. In the survey almost 100 percent of respondents indicated that they have taken at least one step to make improvements in the ten quality measures established by CMS’s Five Star Quality Rating program.

These quality measures include:

- Reducing the number of patients developing pressure ulcers;
- Decreasing the number of residents experiencing pain;
- Maintaining residents’ ability to move about either by walking or using a wheelchair;
- Decreasing the percentage of residents who have an infection in their urinary tract;
- Decreasing the use of indwelling catheters;
- Reducing the use of physical restraints; and
- Reducing the incidence of delirium.

In addition, respondents reported on average 80 percent of nursing and rehabilitation facility residents received the influenza vaccination during the 2008-2009 flu season and 77 percent of nursing facility residents have a current pneumococcal vaccination.
Workforce Excellence

“We are committed to enhancing the human potential of our employees through education and training programs that strive to improve the quality of care delivered, and we are committed to sensitizing our staff to the special needs of frail and vulnerable patients” (Quality First pledge, 2002).

The quality of care delivered in nursing and rehabilitation facilities is heavily dependent on recruiting, training, and maintaining a high-performing workforce. Many respondents reported that they have increased involvement of direct care and support staff to address workforce issues, create ongoing educational opportunities, and actively involve all staff in decisions regarding how care is delivered.

Providers report that they are continually seeking to improve the quality of care delivered to their patients by making investments in their workforce through compensation, benefits, training and reward initiatives. Specifically, the majority of facilities reported actively involving employees in quality of care discussions and planning, as summarized in Figure 3.

Retaining more staff will help nursing and rehabilitation facilities address staffing shortages and meet the growing demand for more complex nursing and therapy services. The average annual turnover rate for all nursing and rehabilitation facility personnel in the survey is 39 percent. Notably, the average annual turnover rate varies by type of direct care worker. The combined average annual turnover rate for registered nurses (RAs) and licensed practical nurses (LPNs) is lower – 34 percent. This figure jumps to 46 percent for certified nursing assistants (CNAs). While these rates are lower than the national average, high turnover rates can impede a facility’s ability to continue to provide high quality care. As a result, providers are continuing to explore ways to recruit and maintain a well-trained workforce.

Figure 3. Ways in Which Facilities Are Using CQI Results

<table>
<thead>
<tr>
<th>Most Successful Continuous Quality Improvement Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>83% found that empowering employees to take action on quality problems produced positive results</td>
</tr>
<tr>
<td>90% discovered that systematically evaluating resident and employee satisfaction data improved quality</td>
</tr>
<tr>
<td>92% stated that using interdisciplinary employee teams to analyze and improve processes was a successful quality improvement tool</td>
</tr>
</tbody>
</table>

Patient/Resident and Family Rights

“We are committed to clearly articulating and honoring patient and family rights, and working to ensure that our employees understand and uphold those rights” (Quality First pledge, 2002).

Patients and their families also play an essential role in the delivery of care. A majority of survey respondents reported that they actively involve family and resident councils in determining how care is delivered within a nursing and rehabilitation facility. In addition, respondents reported they are educating residents and their families on ways to report grievances and making sure policies and procedures—including federal and state requirements as well as additional organizational policies—are accessible to residents and their families.

Public Input on Quality

“We are committed to seeking the input of consumers as we work to improve quality, and we will work with others—in the private and public sectors—to identify, understand, and, ultimately, to resolve concerns associated with care practices or patient outcomes” (Quality First pledge, 2002).

As part of the CQI programs and as a way to actively involve patients and their families in care decisions, many nursing and rehabilitation facilities are gathering additional feedback from residents and their families through customer satisfaction surveys—a point of view that is currently missing from the Centers for Medicare & Medicaid’s (CMS) Five-Star Quality Rating system.

On average, 81 percent of residents and their families say that they are willing to recommend their nursing and rehabilitation facility to others. Many respondents indicated that since 2002 they have altered the variety and types of services delivered as a result of satisfaction survey results. Fifty-one percent reported that they have made changes to dining selections and/or implemented an open dining program which allows residents to eat according to their own schedules and needs. Some changed laundry providers, others created more spiritual opportunities for residents, and one organization specifically reported increasing the safety of residents’ personal belongings. Another 19 percent reported that they have changed the types and variety of activities available to residents.

Customer satisfaction surveys have also altered how medical care is delivered to residents. Almost 15 percent of respondents noted that they have made changes to staffing levels or staffing assignments based on customer feedback. Several facilities specifically stated that they have restructured case management and discharge planning. Additionally, 77 percent of facilities increased training on issues identified by customer satisfaction surveys. Ninety-six percent of respondents reported that using data to identify quality problems and monitor improvement has helped them see improvement in quality. Other methods reported included using interdisciplinary employee teams to analyze and improve care processes and conducting a systematic evaluation of resident and employee satisfaction.
Public Disclosure and Accountability

“We are committed to continuing to disclose information on quality to patients, employees, and the public, and we will assist them in accessing this information in a timely manner, while protecting confidentiality and complying with other legal requirements” (Quality First pledge, 2002).

Regularly disclosing quality information allows consumers to make informed decisions about where to access care and it helps caregivers to work together in their efforts to deliver better care. The survey results indicate that facilities could be doing a better job of sharing results with a broader array of stakeholders. One reason facilities should share their quality data with the public is that it could lead to a change in the public’s perception of them and educate consumers that this setting is focused on providing high quality medical care and in many cases returning patients to the community. Based on survey results, 81 percent of respondents share their quality benchmark goals. However, for most nursing and rehabilitation facilities this means sharing this information internally with their staff and less frequently with residents and their family members. Less than 40 percent of respondents indicated that they share their reports with the public at large.3

“Transparency is an important ingredient to our success, as it not only allows everyone to see ourselves as we are, but provides a stimulus to becoming better as an organization.”

—Excerpt from UHS Pruitt Corporation’s 2008 Quality Report

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3 Kindred, Genesis, UHS Pruitt, and Sun, among others have released quality reports to the public. These reports are available on their respective websites.
Ethical Practices

“We are committed to developing and implementing organization-specific programs that promote ethical and lawful conduct, and we will lead in the development of responsible laws, regulations, and other standards supporting the quality of care in the facilities we manage” (Quality First pledge, 2002).

Just as important as improving the quality of the care provided, facilities report being engaged in preventing poor care and customer dissatisfaction. Respondents stated that they are undertaking activities to help prevent fraud and abuse. Virtually all respondents educate residents, families, and staff on how and to whom they may report concerns, events, and grievances without fear of retribution; have implemented written policies and procedure and a code of conduct; and conduct additional training. Over 90 percent of nursing and rehabilitation facilities said that they aim to respond promptly to detected offenses and develop corrective actions to these offenses, and 87 percent of respondents conduct internal monitoring and auditing.

Focusing on the Future

The Quality First pledge is one of several methods nursing and rehabilitation facilities can use to identify and address methods to advance quality and improve patient care outcomes. However, this program and the activities that facilities engage in to meet its goals cannot be static. Providers, and policymakers, should be exploring new ways to improve how care is delivered to patients as the patient population within facilities evolves over time. With patient acuity increasing, new care processes and standards should be developed and quality measurement and quality programs should be reviewed and adapted to reflect the changes. Further, quality improvement can be enhanced with the adoption of new information technologies that are emerging, such as electronic health records. Future surveys should reflect the evolution of the health care system if they are to be relevant to patients and their families, the public, and policymakers.