2010 ANNUAL QUALITY REPORT

A Comprehensive Report on the Quality of Care in America's Nursing and Rehabilitation Facilities

The Alliance For Quality Nursing Home Care

ahca® American Health Care Association

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Overall, the long term and skilled nursing care community's commitment to ongoing and sustained quality improvement is paying off with positive trends in quality measures, quality indicators and patient outcomes.

Executive Summary

EXECUTIVE SUMMARY

In 2010, the American Health Care Association (AHCA) and Alliance for Quality Nursing Home Care (Alliance) have committed, for the second consecutive year, to publish an annual quality report that assesses the changing dynamic of the nation's rehabilitation and skilled nursing facilities and trends in quality associated with the care provided. In order to, once again, develop a report that objectively and critically analyzes trends in quality patient outcomes, new approaches to care, and programs that seek to enhance performance excellence, AHCA and the Alliance engaged some of the nation's preeminent analysts, researchers and area experts and compiled their work within this report.

The goal of the 2010 Annual Quality Report is to clearly present analysis and data that builds upon the *Quality First* initiative launched by the long term and post-acute care profession in 2002. The experts identified by AHCA and the Alliance for inclusion in this report are Avalere Health, Stefan Gravenstein, MD, MPH and Richard Besdine, MD of the Quality Partners of Rhode Island and Alpert Medical School of Brown University; and Leslie Grant, Ph.D. Additionally, the report is supplemented by publicly available data from the Centers for Medicare and Medicaid Services (CMS) and consumer & workforce satisfaction scores as assessed by the independent research company My InnerView.

The independent data and analysis indicates that, overall, the profession's commitment to ongoing and sustained quality improvement is paying off with positive trends in many quality measures, quality indicators and patient outcomes. However, this 2010 Annual Quality Report also highlights the need for ongoing efforts focused on ensuring that enhanced quality and increased consumer and employee satisfaction are universal throughout the nation's long term and post-acute care profession.

Analysis of Nursing Facilities: Focus on Quality

The *Analysis of Nursing Facilities: Focus on Quality* conducted by Avalere Health provides a critical assessment of the changing role of nursing facilities in America. According to the analysis, the role of rehabilitation and nursing facilities has continued to evolve over the past twenty years, as the sector has provided care for increasingly complex patients, for both short-stay rehabilitative patients and longer stay residents. While the report states that "the current, available measures for evaluating the effectiveness of facilities in improving care outcomes and meeting the needs of patients show substantial improvement on many measures but the overall picture is somewhat mixed," these two distinct populations "present very different care challenges and demands that are difficult to capture with a single set of metrics."

In looking at trends in quality, the chapter asserts that most measures of quality, including staffing, care processes, and outcomes indicate that nursing facility quality is improving. Additionally, there have been improvements in other measureable areas including the rate of patient discharges to the community within 100 days of admission. In its analysis, Avalere cautions that despite the improvements, the trends may not be applicable to all facilities. In order to truly measure quality trends and outcomes, policymakers should look to develop ways to measure quality based on patient needs and consumer expectations, rather than the setting of care. Further within the chapter, it is stated that "quality measures' effectiveness depends, however, on the relevance of measures and their ability to describe the full range of patients. In

addition, quality metrics must be applied in a way that reflects the heterogeneity of nursing facilities."

In addition to a growing number of short-stay, rehabilitative patients, nursing facilities also care for a medically-complex, functionally limited and cognitively impaired longer stay population. This population has exhibited increasing severity of need over time. Despite the growing acuity, the Avalere analysis indicates that services provided for longer term residents complement the services provided in home and community based settings – often "acting as a safety net when an individual's frailty has progressed to the point that the round-the-clock, comprehensive care available in a facility best meets their needs."

As well as providing a comprehensive care setting, the Avalere analysis indicates that rehabilitation and nursing facilities represent the lowest-cost institutional setting and that there is significant overlap in patient profile and need among other post-acute care settings.

In total, the Avalere analysis concludes that, "future quality improvement will depend on our ability to understand the heterogeneity of current nursing facility patients and the specialization within specific facilities… [which will] foster the adoption of a more diverse set of quality metrics that are developed with a focus on the particular patient population – rather than a particular type of facility."

Quality: By the Numbers

The Quality: By The Numbers chapter of this 2010 Annual Quality Report presents publicly reported and available data pertaining to the care quality delivered in our nation's rehabilitation and skilled nursing facilities. The data includes changes in Quality Indicators and Quality Measures as tracked by the Centers for Medicare and Medicaid Services (CMS), trends in compliance with the federal Survey & Certification program, and trends in the levels of satisfaction of the consumers (resident/family member) who receive care daily and the employees who work in the long term and post-acute environment and deliver care to increasingly complex patients.

Improving Performance through Person-Centered Care

Since the major overhaul of the nation's long term care deliver system in the late 1980's, a small subset of providers began an initiative of transforming the care that was delivered in "nursing homes." The goal was to change the mindset of treating patients in an institutional setting to caring for residents in a home-like environment. This movement toward "person-centered" care is often characterized as "culture change."

In this chapter, Leslie A. Grant, Ph.D., analyzes the impact that the culture change movement has had on care delivery and quality outcomes. According to Grant's report, "culture change innovations are diffusing more broadly into the mainstream as more stakeholder groups such as providers, consumers, policymakers and researchers recognize the value of person-centered care practices in long term care." He further presents within the body of his work data that indicates culture change initiatives can be credited with higher levels of resident and staff satisfaction, better workforce performance and higher occupancy rates.

Once thought of as being utilized by only small, independent nursing facilities, now person-centered care is being implemented in a growing number of facilities nationwide including national multi-facility chains, regional multi-facility companies as well as independent facilities through varying culture change models.

While recent reports indicate that 56 percent of nursing facilities have either adopted culture change or are committed to culture change adoption, Grant indicates that thus far the central focus of culture change has been on the longer stay resident for whom the facility is his or her "home."

In this chapter, Grant describes the culture change models that have been evaluated through empirical research, including the Eden Alternative, Green Houses, Golden Living's Resident Centered Care, and Wellspring.

The analysis concludes that "person-centered care is associated with improved organizational performance including higher resident and staff satisfaction, better workforce performance and higher occupancy rates." Yet "much more work needs to be done about how the culture change movement can or should evolve to address the diverse needs of the changing patient population in nursing facilities. The culture change movement is likely to continue its growth throughout the long term care continuum."

Large-Scale Approaches to Improving Quality Nursing Home Care

In order to assess the movement of quality of care and quality of outcomes as driven by certain quality initiatives, Stefan Gravenstein, MD, MPH & Richard Besdine, MD provide two comprehensive case studies. Specifically, these experts provided case studies on the *Pain Collaborative* as well as the first phase of the *Advancing Excellence in America's Nursing Homes* campaign.

REGIONAL QUALITY IMPROVEMENT CASE STUDY: PAIN COLLABORATIVE

As pain management has long been a challenge to rehabilitation and nursing care providers and for the individuals receiving care, extensive efforts have been pursued to improve this important quality of life indicator. From

August 2000 to December 2001, the Quality Improvement Organization for Rhode Island, Quality Partners of Rhode Island, established and facilitated a collaborative of the stakeholders essential to improving pain management in 21 nursing facilities in Rhode Island.

The collaborative generated significant success over the course of the project, with **moderate-to-severe pain among long-stay residents decreasing from 12.2 percent to 7.2 percent** in the 21 participating facilities. This represents a 41 percent relative improvement, which was in stark contrast to the 72 facility control group, which experienced a non-significant 12 percent relative improvement. While the project also targeted the short-stay population, there was no reliable measure available at that time to assess improvement.

With the primary goal of improving pain management, the secondary goal was to break down barriers between stakeholders and better understand the challenges to moving toward a new, team-driven approach.

Within the collaborative, each participating facility developed a quality improvement team that consisted of certified nursing assistants, nurses and their director of nurses. This "community of practice" enabled the cross-functional caregiving team the opportunity to collaborate on approaches, share best practices and discuss challenges. The project clearly identified that one such barrier to the collaborative approach has been the staff's historical and primary focus on the survey and certification process, rather than on quality improvement programs.

NATIONAL QUALITY IMPROVEMENT CASE STUDY: THE FIRST PHASE OF THE ADVANCING EXCELLENCE CAMPAIGN

Starting in 2005, a broad group of stakeholders joined together to agree on the concept of working collaboratively to improve quality care, quality outcomes and quality of life for patients and residents in rehabilitation and nursing facilities nationwide. This collaboration included groups like AHCA, the Alliance, the Centers for Medicare and Medicaid Services (CMS), AARP, consumer groups, caregiver and professional groups and other long term care provider entities. Working together, they collectively identified the organizational aspects of quality improvement as essential. This concept developed into the *Advancing Excellence in America's Nursing Homes* campaign that was launched in September 2006.

Advancing Excellence was built upon the success of the Institute for Healthcare Improvement's (IHI's) successful "100,000 Lives" hospital campaign.

At the end of phase 1 of the *Advancing Excellence* campaign, nearly half the nation's nursing homes had voluntarily enrolled in the initiative and each participating facility was working on an average of 3.8 of the 8 campaign goals. This illustrates that a majority of participating facilities were committed to more than the prerequisite 3 goals each.

According to the analysis, participating facilities generally selected goals where the facility had the most room for improvement. Additionally, the case study points out

that "setting targets for improvement predicted faster progress, and setting aggressive targets resulted in the fastest progress."

The case study highlights the significant fact that the improvements realized during phase 1 of the *Advancing Excellence* campaign have been "sustained across all clinical measures."

LESSONS LEARNED FROM BOTH CASE STUDIES: GRAVENSTEIN & BESDINE

According to the analysis and case studies conducted by Gravenstein and Besdine, "voluntary participation in collaboratives and campaigns has proven an effective strategy for improving quality of care in nursing homes."

For future initiatives, the experts recommended that participants be provided the data gathered so that they may use the information to benchmark their own progress against other providers' performance and track their improvements. Finally, though change and improvements may be incremental, utilizing collaborations and partnerships may foster larger scale, system-wide improvements over time.

Given the diversity of nursing facility patients and residents' needs and the increasing specialization of facilities, such that some serve principally Medicare beneficiaries recovering from a hospitalization whereas others serve the cognitively impaired, the ability to measure and improve quality depends on our ability to define these populations and apply metrics that are meaningful to the patients and populations served.

Analysis of Nursing Facilities: Focus on Quality

AUTHORS:
Avalere Health

INTRODUCTION

Nursing facilities fill a unique and integral role in our health care system caring for more than 1.4 million Americans each day.[1] They are the most widely used post-hospital setting of care for Medicare beneficiaries and they care for a majority of Medicaid beneficiaries receiving long-term care.[2, 3] The role of nursing facilities in the United States has evolved substantially over the past twenty years. Nursing facilities today treat an increasingly clinically complex and functionally-limited population, many of whom have relatively short lengths of stay.

This evolution of nursing facilities creates challenges for policymakers in designing quality measures and evaluating nursing facility performance. Quality measurement in this setting is further complicated by the diversity of nursing facility patients—Medicare patients receiving post-hospital services tend to differ substantially from long-stay chronically ill and functionally limited residents. Notwithstanding these limitations, most measures of quality, such as staffing, care processes, and outcomes, suggest nursing facility quality is improving.[4] However, these improvements are not universal. Regulatory inspection results show a fluctuating pattern in the average number of reported deficiencies with increases in the late 1990s, decreases from 2000-2004, and

1 American Health Care Association (AHCA). "Nursing Facility Patients by Payor - Percentage of Patients CMS OSCAR Data Current Surveys, December 2009." AHCA website. December, 2009. http://www.ahcancal.org/research_data/oscar_data/NursingFacilityPatientCharacteristics/patients_payer_Dec2009.pdf

2 Avalere analysis using 2008 Medicare standard analytic file (SAF).

3 Kassner, Enid, Susan Reinhard, Wendy Fox-Grage, Ari Houser and Jean Accius. "A Balancing Act: State Long-Term Care Reform." AARP Public Policy Institute. 2008. http://assets.aarp.org/rgcenter/il/2008_10_ltc.pdf

4 American Health Care Association (AHCA). "2009 Annual Quality Report." AHCA website. September 2009. http://www.ahcancal.org/research_data/quality/Documents/2009AnnualQualityReport.pdf

then recent increases.[5] The percentage of facilities cited for the serious regulatory designation of "substandard care," however, has declined since 2000 and despite increases over the past few years, appears to be decreasing in 2010.[6] Rates of hospitalization and rehospitalization, although not solely a function of nursing facility care, continue to increase.

The Affordable Care Act (ACA) includes several delivery and payment system reforms, many of which focus on making providers more accountable for patient care across settings. In the context of these bundled and accountable care organization (ACO) models, better measurement and understanding of nursing facilities' care and quality contributions is critical. These policies are likely to drive greater focus both at the federal policy level and in local markets on some of the limitations to current quality measurement.

In addition, the ACA includes several quality and value-based purchasing provisions, such as penalties for rehospitalization. Understanding the cost-effectiveness of care, that is, the cost and outcomes of care across settings, will become increasingly important. Comparing outcomes is complicated as there are no standard PAC measures that apply across all PAC settings. As a result, it is difficult to compare outcomes between nursing facilities and other PAC settings, such as inpatient rehabilitation facilities (IRFs) and long-term care hospitals (LTCHs). Developing measures that apply to all PAC settings will become increasingly important to drive high-quality, low-cost care models.

Better measurement of nursing facility quality and cost-effectiveness holds great promise as a mechanism to foster better patient care. Clearer articulation of quality goals may also lead to greater transparency around the level of care supported through current payment rates. As nursing facilities treat diverse patients and, in some cases, become more specialized to treat a targeted population, policymakers may consider how to measure quality based on the patients' needs, rather than the setting of care.

Background: The Changing Role of Nursing Facilities

In recent years the nation's 15,000 nursing facilities have emerged as a central hub of the health care system, with a growing responsibility for providing comprehensive services to maintain or improve the health and functional status of the 3.7 million people they serve annually.[7] Nursing facilities today serve as the primary provider of post-acute care to Medicare beneficiaries. These facilities provide intensive medical, rehabilitative, and therapeutic care to patients following an acute hospital admission. Nursing facilities also simultaneously care for a longer-stay population of people with disabilities and seniors with very significant, long lasting impairments. These residents' conditions have also been increasing in acuity.

Most patients arrive at a nursing facility directly from a hospital setting. Upon discharge from a hospital, patients often require extensive and intensive services to improve their functioning so that they can return to their homes and to active lives in their communities. This is the role of the nursing facility as a post-acute care provider—to admit patients in the middle of their episode of care, provide nursing and rehabilitation services designed to improve functional status, and then as often as possible, discharge patients back to their homes. Thirty-nine percent of Medicare patients admitted to nursing facilities receive care that allows them to return home within 100 days.[8]

5 American Health Care Association (AHCA). "Trends in Nursing Facility Standard Survey Citations, March 2010." AHCA website. March 2010. http://www.ahcancal.org/research_data/trends_statistics/Documents/trends_nursing_facilities_characteristics_Jun2010.pdf

6 *Ibid.*

7 Avalere analysis of 2008 cost reports.

8 Avalere analysis of the 2006 Medicare Standard Analytical Files.

Some post-acute care patients become longer-stay residents. In addition, some nursing facility patients may be admitted from the community, usually because their health has deteriorated to the point where the facility is a safer alternative to home and because they need around-the-clock nursing care. These patients may need help getting dressed, taking a bath, and getting in and out of bed—known as activities of daily living or ADLs—that require round-the-clock, low-intensity services by facility staff. This group also requires therapy and nursing services, such as occupational therapy and medication management, to maintain their health—a suite of services called long-term care.

In short, nursing facilities can be described as caring for two distinct populations: short-stay post-hospitalization patients requiring intense rehabilitation and/or medically intensive care, and long-stay residents with more medically complex conditions needing help with ADLs. Nursing facilities are the most common care setting for both of these distinct patient populations. This chapter describes nursing facilities' role in maintaining and improving the health of both populations.

Short-Stay Patients Cared for Following a Hospitalization

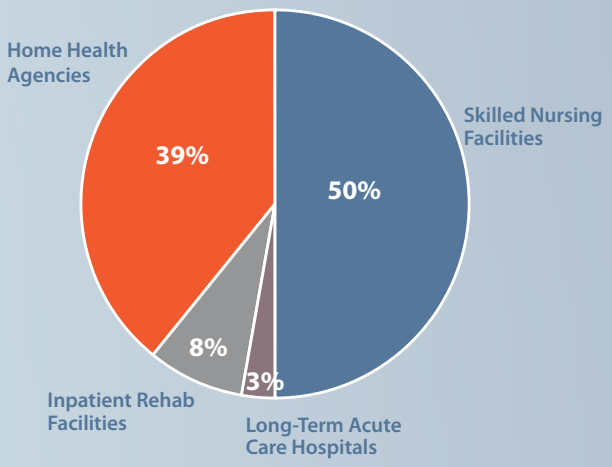
A majority of patient admissions to nursing facilities are funded through Medicare and immediately follow a hospital stay.[9] The share of nursing facility admissions coming from Medicare has increased over the last decade, and in lock step, so has the acuity of these patients.[10] Today, a majority of Medicare patients discharged from a hospital needing post-hospital care get that care from skilled nursing facilities (see chart below).[11] In this capacity, nursing facilities are treating patients who have been stabilized and need intensive nursing and rehabilitation care in order to resume their lives in the community, where possible.

Post-acute care patients increasingly return to the community after discharge. On average, Medicare patients have 27 covered days, with patients increasingly returning

9 Avalere analysis of 2008 cost reports.
10 Avalere analysis of 2001-2008 cost reports and 2004-2006 SAFs.
11 Avalere analysis of 2008 Medicare SAFs.

FIGURE 2.1

Share of Post-Acute Discharges



Source: Avalere analysis of 2008 Medicare standard analytical files (SAFs).

to the community (home) after discharge.[12, 13] Even over relatively short time intervals, the rate of discharge to the community is increasing. For example, the rate of patient discharges to the community within 100 days of admission increased from 38.0 percent in 2004 to 39.5 percent in 2006.[14] This improvement in community discharge rates coincided with a period of increasing acuity suggesting that nursing facilities are effectively managing an increasingly complex post-acute care patient population.[15]

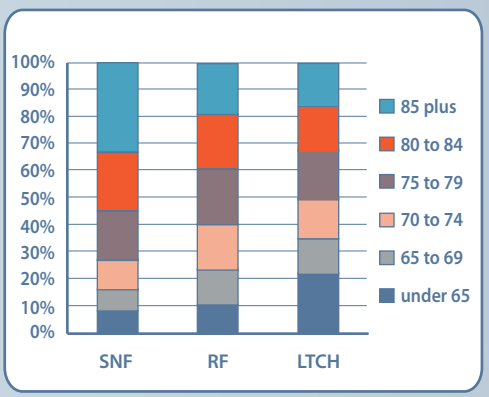
Medicare Patients Treated in Nursing Facilities Post-Hospitalization Tend to be Clinically Complex

Over seventy percent of Medicare beneficiaries receiving post-hospital care in nursing facilities are over age 75 and more than 30 percent are older than 85. Patients treated in inpatient rehabilitation facilities (IRFs) and long-term care hospitals (LTCHs) tend to be younger with 60 percent and 50 percent of patients older than 75 respectively (see Figure 2.2). The oldest group of beneficiaries (85 years and older), make up only 20 percent of IRF Medicare patients and about 15 percent of LTCH patients.[16]

Medicare patients discharged to nursing facilities tend to be high-acuity relative to patients seen in other PAC settings. An analysis of the severity of illness of patients discharged to post-acute care suggests that only LTCHs treat more severely ill patients than nursing facilities. Figure 2.3 shows the percentage of short-stay patients by severity of illness category. The severity of illness categories numbered sequentially from 1 to 4 indicate respectively minor, moderate, major, or extreme severity of illness. Over 50 percent of Medicare patients treated in nursing facilities are categorized as having major or extreme severity of illness.

FIGURE 2.2

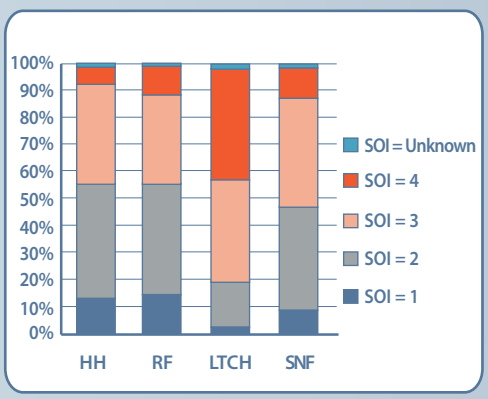
Age of Medicare Beneficiaries Admitted Post-Hospitalization to Facility Settings



Source: Avalere analysis of 2006 Medicare Provider Analysis and Review (MedPAR) file.

FIGURE 2.3

Short-Stay Patient Acuity, 2008[17]



Source: Avalere analysis of the 2008 Medicare Standard Analytical Files (SAFs).

12 Medicare Payment Advisory Commission March 2010 Report to Congress, Section 3A: Skilled Nursing Facilities.

13 Min, Sung-Joon et al. "Updates to SNF Quality Measures Risk Adjustment."

14 Avalere analysis of the 2004-2006 SAFs. Results were statistically significant.

15 Avalere analysis of 2004-2006 SAFs.

16 Avalere analysis of 2006 MedPAR file.

17 The all patient refined diagnosis-related group (APR-DRG) classification system was used to first classify patients based on their hospital stay into a disease category; within that category, the APR-DRG system classifies patients by severity of illness (SOI), which refers to the extent of physiologic decompensation or organ system loss of function. The four SOI subclasses are numbered sequentially from 1 to 4 indicating respectively, minor, moderate, major, or extreme severity of illness. Avalere analysis of 2008 SAFs.

Nursing facilities treat a broad, diverse set of clinical conditions. This diversity has implications for quality measures as, even among post-acute care patients, there is considerable variation in care needs. Table 2.1 shows the most common hospital diagnoses of patients discharged to nursing facilities from hospitals. Although there are several rehabilitation-related hospital diagnoses, nursing facilities are also helping patients recover from infections and exacerbations of chronic conditions, such as congestive heart failure.

These patients require a wide range of services, including nursing care; physical, occupational, and speech language therapy; pain management; medication management; wound care; and counseling and social services. Over 80 percent of patients are receiving some rehabilitation services to improve clinical and functional outcomes.[18]

18 Avalere analysis of 2007 Standard Analytical Files.

Nursing Facilities Also Play an Important Role in the Long-Term Care Continuum

Nursing facilities also care for a longer-stay population, most of whom are medically complex, functionally limited, and, in most cases, cognitively impaired.[19] These patients can come from the community needing assistance in performing activities of daily living (ADLs), such as walking, eating, and bathing. They receive services such as physical, occupational, and speech therapy to maintain their functional level.[20] Three-quarters of long-stay residents are aged 75 or older and 70 percent are female; 48 percent take nine or more medications.[21] Medicaid pays for most of the care for these patients although private out-of-

19 Alecxih, Lisa. "Nursing Home Use by the 'Oldest Old' Sharply Declines." The Lewin Group.

20 U.S. Government Accountability Office. "Nursing Homes: Quality of Care More Related to Staffing than Spending." Publication No. GAO-02-431R website. June 2002 http://www.gao.gov/new.items/d02431r.pdf

21 Jones, Adrienne L, Lisa L. Dwyer, Anita R. Bercovitz and Genevieve W. Strathan. "The National Nursing Home Survey: 2004 Overview." Centers for Disease Control and Prevention Website. 2009. http://www.cdc.gov/nchs/data/series/sr_13/sr13_167.pdf

TABLE 2.1

Top 10 Most Common Hospital Patients Discharged to Nursing Facilities

MS-DRG	Description	Number of cases	Percent of total cases
470	Major joint replacement or reattachment of lower extremity w/o MCC	146,788	6.6%
871	Septicemia w/o MV 96+ hours w MCC	87,404	3.9%
690	Kidney & urinary tract infections w/o MCC	59,880	2.7%
291	Heart failure & shock w MCC	51,138	2.3%
481	Hip & femur procedures except major joint w CC	49,469	2.2%
194	Simple pneumonia & pleurisy w CC	47,352	2.1%
641	Nutritional & misc metabolic disorders w/o MCC	38,884	1.7%
292	Heart failure & shock w CC	38,855	1.7%
193	Simple pneumonia & pleurisy w MCC	33,815	1.5%
683	Renal failure w CC	32,770	1.5%

Source: Avalere analysis of 2008 Medicare Provider Analysis and Review (MedPAR) file

pocket payments contribute substantially as well.[22] Private long-term care insurance pays for very little of this nation's long-stay nursing home care.

The severity of need among the longer-stay population has increased over time. Multiple studies report increases in the acuity of nursing facility patients with one study suggesting that acuity, as based on patient case mix, increased in the mid to late 1990s by 1.3 to 2.5 percent per year.[23, 24] This increase in nursing facility patient acuity is due in part to market trends and policy changes, which expanded assisted living and home and community-based services options. Privately financed assisted living grew dramatically over the past 15 years in response to consumer demand. In early 1998, a study estimated that there were 611,300 ALF units in the U.S. at facilities with over 10 units each.[25] By 2007, another study estimated that there were 839,746 units at facilities with over 25 units each, or 1,072,536 units at all surveyed facilities.[26]

Medicaid home and community-based services programs (HCBS) also grew dramatically over this time period. The number of Medicaid beneficiaries using HCBS increased from 1.9 million in 1999 to 2.9 million in 2006, while Medicaid spending on HCBS increased from 18 percent ($12.5 billion) of total LTC expenditures in 2000 to 30 percent ($35 billion) in 2009. [27, 28] As a result of the increased use of HCBS and assisted living, many individuals enter a nursing facility only as their care needs outstrip the resources available to them in the community.

22 Alecxih, Lisa. "Nursing Home Use by the 'Oldest Old' Sharply Declines." The Lewin Group. November, 2006. http://www.adrc-tae.org/documents/NHTrends.pdf

23 Feng, Zhanlian, David Grabowski, Orna Intrator and Vincent Mor. "The Effect of State Medicaid Case-Mix Payment on Nursing Home Resident Acuity." *Health Services Research*, 41(1 Part 1) (2006): 1317-1336.

24 Grabowski, David. "The Economic Implications of Case-Mix Medicaid Reimbursement for Nursing Home Care," *Inquiry*, 39(3) (2002): 258-278.

25 Hawes, Catherine, Miriam Rose and Charles Phillips. "A National Study of Assisted Living for the Frail Elderly: Results of a National Survey of Facilities." Department of Health and Human Services. December 1999. http://aspe.hhs.gov/daltcp/reports/facres.htm

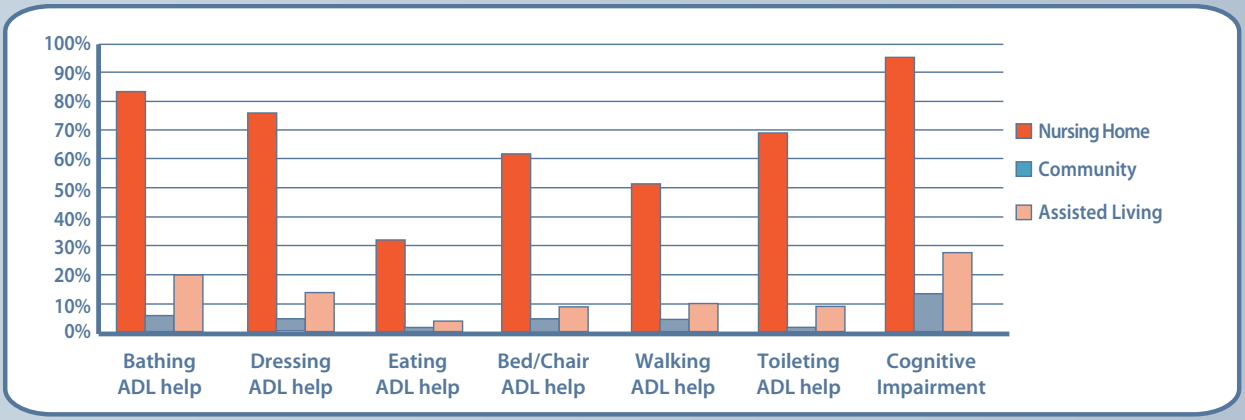
26 Stevenson, David G. and David C. Grabowski. "Sizing Up the Market for Assisted Living." *Health Affairs*, 29(1) (2010): 35-43.

27 Kaiser Commission on Medicaid and the Uninsured. "Medicaid Home and Community-Based Services: Data Update." KCMU website. November 2009. November 2009. http://www.kff.org/medicaid/upload/7720-03.pdf

28 Eljay, LLC . "A Report on Shortfalls in Medicaid Funding for Nursing Home Care." AHCA website. October 2009. http://www.ahcancal.org/research_data/funding/Documents/2009%20Medicaid%20Shortfall%20Report.pdf

FIGURE 2.4

Proportion of Individuals Needing Help with Activities of Daily Living (ADLs), 2004



Source: Avalere analysis of 2004 Medicare Current Beneficiary Survey Access to Care (MCBS) file

In this way, for many patients, nursing facilities now act as complements to community-based long-term care services—acting as a safety net when an individual's frailty has progressed to the point that the round-the-clock, comprehensive care available in a facility best meets their needs. Thus, patients are now often admitted at a much later stage of illness. The data illustrate the implications of this trend. For example, the average length of stay for Medicaid residents in FY 2007 was 386 days, about half of what it was about a decade ago.[29, 30] The average may be skewed by some very long stays as over 40 percent of stays are under a year.[31]

Furthermore, nursing facility residents' needs versus seniors in the community is striking. As Figure 2.4 illustrates, nursing facility residents have significantly higher deficits managing their daily activities than either residents of assisted living facilities or seniors living in the community.[32] When compared to individuals enrolled in home and community-based services (HCBS) programs, facility residents have about twice the ADL need.[33, 34, 35]

Nursing facilities treat a disproportionate share of patients with cognitive impairments. Ninety-five percent of nursing facility patients experience some level of cognitive impairment. Figure 2.5 shows the percent of individuals with alzheimers in nursing facilities versus the community. Nursing facilities have about four times the proportion of individuals diagnosed with Alzheimer's disease than community long-term care settings.[36]

29 Avalere Health analysis of 2007 Medicare cost reports.

30 Alecxih, Lisa. "Nursing Home Use by 'Oldest Old' Sharply Declines," 2006.

31 Jones et al. "National Nursing Home Survey: 2004 Overview."

32 Avalere analysis of 2004 Medicare Current Beneficiary Survey Access to Care (MCBS) file.

33 Researchers found that 65% of nursing home residents needed help with 5-6 ADLs. Alexcih, Lisa. "Nursing Home Use by 'Oldest Old' Sharply Declines," 2006.

34 Fortinsky, Richard H., Julaine R. Fenster and James O. Judge. "Medicare and Medicaid Home Health and Medicaid Waiver Services for Dually Eligible Older Adults: Risk Factors for Use and Correlates of Expenditures." *The Gerontologist,* 44(6): 739-749. The authors found that 70% of HCBS users in Connecticut had 2 or fewer ADL disabilities.

35 Khatutsky, Galina, Wayne L. Anderson and Joshua M. Weiner. "Personal Care Satisfaction among Aged and Physically Disabled Medicaid Beneficiaries." *Health Care Financing Review,* 28(1) (2006): 69-86. The authors found that the average ADL disability level in their study population was 2.4.

36 Avalere analysis of 2004 Medicare Current Beneficiary Survey Access to Care (MCBS) file.

Most Nursing Facility Quality Trends Show Improvements but Results are Mixed

Many of the CMS-mandated quality metrics published on the Nursing Home Compare website show substantial improvement from 1999 to 2007. Facilities have lowered the number of patients with pressure ulcers, experiencing pain, losing too much weight, and experiencing dehydration. In addition, fewer patients are being restrained while the incidence of new fractures and falls is also declining.[37] Also fewer residents have become anxious or depressed. More recent data from 2008 and 2009 confirm that these positive quality trends have continued.[38]

However, during that same 1999-2007 period, CMS data show that there was an increase in incontinence for low-risk patients and urinary tract infections. The data also indicate that there has been an increase in the use of antipsychotic medications in the absence of psychotic conditions.[39] Additional quality data and statistics are included in the data chapter of this report.

Another measure of the quality of care that facilities provide to short-stay residents is their rate of return to the community. This measure focuses on how well nursing facilities' improve the health and functional status of their patients so that they may return home to the community. Rates of return to the community have improved.[40]

Since 2003, there has been a half a percentage point annual increase in the percentage of Medicare beneficiaries discharged to the community within 100 days. Given the increasing complexity and acuity of this population, these numbers suggest the continued ability of nursing facilities to provide therapeutic and rehabilitative services that enable patients to return to their homes.

37 Levinson, David R. "Quality of Care in Nursing Homes under Corporate Care Agreements." Department of Health and Human Services, Office of the Inspector General. April 2009. http://oig.hhs.gov/oei/reports/oei-06-06-00570.pdf

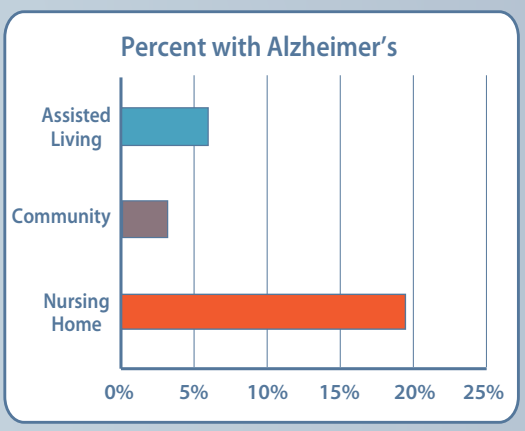
38 Mor, Vincent, Cheryl Caswell, Stephen Littlehale, Jane Niemi, and Barry Fogel. "Changes in the Quality of Nursing Homes in the US: A Review and Data Update." Alliance for Quality Nursing Home Care. August 2009. http://www.ahcancal.org/research_data/quality/Documents/ChangesinNursingHomeQuality.pdf

39 Levinson, David R. "Quality of Care in Nursing Homes under Corporate Care Agreements."

40 Medicare Payment Advisory Commission. "Report to the Congress: Medicare Payment Policy." Section 3A. March 2010.

FIGURE 2.5

Percent of Individuals with Alzheimers, by Residential Setting, 2004



Source: Avalere analysis of 2004 Medicare Current Beneficiary Survey Access to Care (MCBS) file.

RATES OF HOSPITALIZATION AND REHOSPITALIZATION

Another measure on which policymakers have increasingly focused is rates of hospitalization and rehospitalization. Rehospitalizations are costly. In 2004, the Medicare program spent an estimated $17.4 billion on unplanned rehospitalizations of which an estimated $4.3 billion was associated with patients admitted from nursing facilities.[41, 42] Rates of rehospitalization are growing. Rehospitalizations within 30 days of hospital discharge grew by 29 percent between 2000 and 2006 for short-stay nursing facility patients.[43]

Hospitalizations of long-stay patients are also increasing. The average hospitalization rate for long-stay residents by state increased from 18.9 percent in 2000 to 20.9 percent in 2004, an increase of almost 11 percent.[44] Studies suggest that some portion of nursing facility-to-hospital transfers are unnecessary because the conditions for which the patient was admitted could have been safely treated in the nursing facility.[45]

As a measure of nursing facility quality, rehospitalizations and hospitalizations are complex as they reflect many factors outside the patients' experience in the nursing facility, such as local practice patterns and consumption of healthcare services, lack of care coordination between the hospital and post-acute care provider, and premature discharge of the patient from the hospital.

Studies have shown that there is geographic variation in rates of rehospitalization among nursing facilities, with facilities in areas with high rates of inpatient reimbursements having elevated rehospitalization rates.[46] Localized care coordination models have reported mixed results in reducing costs and rehospitalizations, though some programs have achieved success by providing additional "care transition" services that bridge multiple settings of care.[47]

Policymakers are working to better define and understand avoidable hospitalizations and rehospitalizations. Several provisions included in the ACA target reductions in rehospitalizations through hospital financial penalties and episode-based bundling pilots. These initiatives may encourage greater collaboration across settings of care to reduce rehospitalizations.

41 Jencks, Stephen F., Mark V. Williams and Eric A. Coleman. "Rehospitalizations Among Patients in the Medicare Fee-For-Service Program." *New England Journal of Medicine*, 360(14) (2009): 1418-1428.

42 Mor, Vincent, Orna Intrator, Zhanlian Feng and David C. Grabowski. "The Revolving Door of Rehospitalizations from Skilled Nursing Facilities." *Health Affairs*. 29(1) (2010): 57-64.

43 Mor, Vincent, and David C. Grabowski. "Understanding Skilled Nursing Facility Rehospitalizations: Variation by Patient Type and Region." December 2008.

44 Coleman, Eric A., et al. "The Care Transitions Intervention: Results of a Randomized Controlled Trial." *Archives of Internal Medicine* 166(17): 1822-1828. September 2006.

45 Grabowski, David, A. James O'Malley, and Nancy R. Barhydt. "The Costs and Potential Savings Associated with Nursing Home Hospitalizations." *Health Affairs* 26(6) (2007): 1753-1761.

46 Mor, Vincent, and David C. Grabowski. "Understanding Skilled Nursing Facility Rehospitalizations: Variation by Patient Type and Region."

47 Coleman, Eric A., et al. "The Care Transitions Intervention: Results of a Randomized Controlled Trial." *Archives of Internal Medicine* 166(17) (2006): 1822-1828.

Research indicates that there are some conditions that inhibit a return to the community: individuals suffering from strokes, cognitive impairment, or greater mobility impairment are less likely to return to the community than their peers.[48]

In addition to collecting and reporting quality measures, state regulators inspect or "survey" nursing facilities at least once every 15 months. The number and severity of deficiencies cited in these surveys were relatively low in 1995, increased from 1996-1999, decreased from 2000 to 2004, and then began increasing again. The percentage of facilities cited for substandard care has declined by 11 percent since 2000 and despite some increases in recent years, began decreasing again in 2010.[49] Researchers suggest caution in interpreting these results for several reasons including that the volume and severity of deficiencies vary substantially among states and these measures can reflect political pressure from the state or federal government, rather than actual changes in care.[50]

48 Arling, Greg, Arthur R. Williams and Donna Kopp. "Therapy Use and Discharge Outcomes for Elderly Nursing Home Residents." *The Gerontologist 40*(5) (2000): 587-595.

49 American Health Care Association (AHCA) "Nursing Facility Patients by Payor - Percentage of Patients CMS OSCAR Data Current Surveys, December 2009."

50 Mor, et al. "Changes in the Quality of Nursing Homes in the US: A Review and Data Update."

Future quality measures may help in developing a clearer picture of the quality of nursing facility care. These more refined measures may foster greater consistency in state surveys and inspections as well as better target process and outcomes measures to more accurately reflect the care provided by type of patient.

Measuring Value in Terms of Cost Savings for Comparable Patients

Policymakers are increasingly focused on providers' ability to deliver high-quality care in a cost-effective manner. This focus on value has become an integral component of quality discussions. Evaluating nursing facilities' value is challenging due to several issues: few approved metrics relating to quality of care, in particular around outcomes, are available; the few metrics that are available are often not used in other settings which provide similar kinds of care, hindering efforts to compare effectiveness across settings; and finally, nursing facilities care for diverse patients so defining a single set of metrics that apply to all patients is problematic.

Nevertheless, CMS and policy researchers have worked to examine nursing facility costs versus other settings, and care processes and outcomes measures that allow for a partial picture of the value of nursing facilities in the healthcare system.

One dimension of value is the cost of care in one setting versus another. In the Medicare program today patients with similar hospital diagnoses may be discharged to one of several post-acute care settings. For example, joint replacement patients may receive post-acute care in a nursing facility, through home health agencies, in a long term care hospital, or in an inpatient rehabilitation facility. As table 2.2 indicates, the Medicare program pays disparate amounts for joint replacement patients treated at different settings of care. [51]

EVALUATING REHABILITATION OUTCOMES

Several recent studies have examined functional outcomes and community discharge rates for patients treated in SNFs and IRFs. The JOINTS study examined the functional status of nursing facility and inpatient rehabilitation facility patients at admission and at discharge. The study compared comparable patients using functional independence measure (FIM) scores, which measure independent performance in self-care, sphincter control, transfers, locomotion, communication, and social cognition. A key finding of this study was that the volumes of patients, patient age, intensity of rehabilitation services, and patient functional status had a greater influence on outcomes than site of care.[52] The study also found that IRFs had slightly better improvement in motor outcomes at discharge.[53]

Other studies found that IRFs did achieve greater functional improvement for patients that suffered from a stroke ("poststroke patients") but that nursing facilities and IRFs achieved similar outcomes for Medicare beneficiaries suffering from a hip fracture.[54,55] In addition, for Medicare beneficiaries with a hip fracture, those treated in a nursing facility were more likely to be discharged back to the community.[56]

With regard to utilization of services after discharge from a nursing facility or inpatient rehabilitation facility, the study found that both sets of patients received significant amounts of follow-up care. Patients with hip replacements discharged from IRFs had higher rehospitalization rates (7.6 percent) than those from nursing facilities (3.1 percent).[57]

51 2005 CMS data provided to Avalere Health. From a CMS letter dated November 30, 2005 entitled, "Inpatient Rehabilitation Facility PPS and the 75 Percent Rule."

52 DeJong, Gerben, Susan D. Horn, Randall J. Smout, Wenqiang Tian, Koen Putman, Julie Gassaway. "Joint Replacement Rehabilitation Outcomes on Discharge From Skilled Nursing Facilities and Inpatient Rehabilitation Facilities." *Archives of Physical Medicine and Rehabilitation, 90*(8) (2009): 1284-1296.

53 *Ibid.*

54 Deutsch, Anne, Carl V. Granger, Allen W. Heinemann, Roger C. Fiedler, Gerden DeJong, Robert L. Kane, Kenneth J. Ottenbacher, John P. Naughton, Maurizio Trevisan. "Poststroke Rehabilitation: Outcomes and Reimbursement of Inpatient Rehabilitation Facilities and Subacute Rehabilitation Programs." *Stroke 37* (2006): 1477-1482.

55 Deutsch, Anne, Carl V. Granger, Allen W. Heinemann, Roger C. Fiedler, Gerden DeJong, Robert L. Kane, Kenneth J. Ottenbacher, John P. Naughton, Maurizio Trevisan. "Outcomes and Reimbursement of Inpatient Rehabilitation Facilities and Subacute Rehabilitation Programs for Medicare Beneficiaries With Hip Fracture". *Medical Care 43*(9) (2005): 892-901.

56 *Ibid.*

57 DeJong, Gerben, Wenqiang Tian, Randall J. Smout, Susan D. Horn, Koen Putman, Pamela Smith, Julie Gassaway, Joan E. DaVanzo. "Use of Rehabilitation and Other Health Care Services by Patients With Joint Replacement After Discharge from Skilled Nursing and Inpatient Rehabilitation Facilities". *Archives of Physical Medicine and Rehabilitation 90* (2009): 1297-1302.

TABLE 2.2

Medicare Payment Levels, by Care Setting, 2005

Hospital Diagnosis	LTCH	IRF	SNF	Home Health
Stroke	$32,724	$18,253	$10,445	$3,546
Hip Fracture	$27,497	$14,117	$11,265	$3,832
Total Hip Replacement	$26,315	$11,918	$8,399	$3,035
Total Knee Replacement	$22,703	$9,722	$5,244	$3,027

Source: 2005 CMS data provided to Avalere Health. From a CMS letter dated November 30, 2005 entitled, "Inpatient Rehabilitation Facility PPS and the 75 Percent Rule."

These data suggest that nursing facilities represent the lowest-cost institutional setting and that there is some overlap of patient types between settings. There are several limitations to these data, however. There is no adjustment for patient severity, demographics, or other clinical characteristics that may independently predict spending. In addition, these data relate solely to costs; there is only limited information on patient outcomes across settings.

As policymakers increasingly consider how to pay based on patient characteristics rather than the setting of care, measuring patient outcomes and adjusting for patient severity will become increasingly important. The table above indicates that nursing facilities may provide policymakers with an opportunity for shifting of high acuity patients to nursing facilities with the goal of lowering program payments. In making this decision, it will be critical to understand whether the care outcomes that nursing facilities are able to achieve for similar patients at these lower payment rates are comparable to the outcomes achieved at higher cost settings of care.

The JOINTS study represents an example of how research can begin to assess patient care and outcomes across settings. Additional analyses for other patient conditions as well as the inclusion of other post-hospitalization settings would be highly useful in developing a more complete picture of the value of nursing facility services in the post-acute care continuum. In addition to better understanding costs of care and outcomes for like patients across settings, researchers may define the patient care processes that lead to optimal outcomes, irrespective of setting.

Driving Continued Quality Improvement

There are underlying factors that can contribute to improving care quality, such as nursing facility leadership and staffing, but quality measurement can also drive improvements. Given the diversity of nursing facility patients and residents' needs and the increasing specialization of facilities, such that some serve principally Medicare beneficiaries recovering from a hospitalization whereas others serve the cognitively impaired, the ability to measure and improve quality will depend on our ability to define these populations and apply metrics that are meaningful to the patients and populations served.[58]

Research indicates that staffing is an important factor in nursing facility quality. Higher staffing levels of nurse's aides, licensed practical nurses, and registered nurses are associated with higher quality of care. [59, 60] The availability of specialized staffing, such as nurse practitioners and physician assistants, in the nursing facility setting appears to reduce rates of initial hospital admissions and rehospi-

58 Mor, Vincent, et al. "Changes in the Quality of Nursing Homes in the US: A Review and Data Update."

59 Castle, Nicholas G, John Engelberg and Aiju Men. "Nurse Aide Agency Staffing and Quality of Care in Nursing Homes." *Medical Care Research and Review* 65 (2008): 232-252.

60 U.S. Government Accountability Office. "Nursing Home Expenditures and Quality."

61 Intrator, Orna, David C. Grabowski, Jacqueline Zinn, Mark Schleinitz, Zhanlian Feng, Susan Miller and Vince Mor . "Hospitalization of Nursing Home Residents: The Effects of States' Medicaid Payment and Bed-Hold Policies." *Health Services Research 42.2* (2007): 1651-1671.

62 Aiken Linda, Douglas M. Solane, Jeannie P. Cimiotti, Sean P. Clarke, Linda Flynn, Jean Anne Seago, Joanne Spetz and Herbert L. Smith. "Implications of the California Nurse Staffing Mandate for Other States." *Health Services Research* 45(4) (2010): 904-921.

talizations.[61] Higher nurse staffing levels in hospitals has been associated with lower mortality, as well.[62]

Staffing stability can also contribute to higher-quality care. Research indicates using nursing agencies to staff facilities is associated with lower quality of care related to pain, depression, and delirium management; so facilities must be careful in how they increase their staffing ratios.[63] Staffing turnover has been high historically in this setting, although it appears to be improving. For example, the turnover rate for certified nurse aides decreased from 71.1 percent in 2002 to 65.6 percent in 2007, and the turnover rate for staff registered nurses decreased from 48.9 percent to 41.0 percent over the same period.[64]

Payment rates and quality are also linked, which may reflect the effect of payment levels on the intermediate variable, staffing. Since Medicaid programs pay facilities in almost all states below costs, concentration of Medicaid residents is negatively correlated with key quality indicators. Nursing facilities with high concentrations of Medicaid residents have higher hospitalization rates and increased prevalence of bed sores compared to facilities with more Medicare or privately insured patients.[65, 66, 67]

Quality measurement holds promise as a strategy to improve quality. Quality measures allow facilities to make baseline assessments and track the effectiveness of their care; they allow facilities to benchmark themselves against others and set goals for their performance; and measures provide guidance to facilities on where they should focus their performance improvement efforts. Quality measures' effectiveness depends, however, on the relevance of meas-

DESIGNING QUALITY MEASURES APPROPRIATE TO THE PATIENT POPULATION

While some measures are appropriately implemented across the post-hospitalization Medicare population as well as the long-stay population, distinct measures should also be applied. For example, facilities are currently measured on their rate of return to community for shorter stay patients, which is not necessarily an appropriate measure for longer-stay residents. This is particularly important as facilities have begun to specialize in the kinds of patients they treat; for example some facilities admit a high percentage of short-stay rehabilitation patients while others concentrate on treating patients with dementia or psychiatric conditions.[68] Comparing both types of facilities using the same set of measures may be difficult, especially absent adequate risk adjustment tools; furthermore, important information about their performance may be missed unless distinct quality metrics are applied to each.[69] For example, it may be useful to measure functional improvement levels at short intervals for rehabilitation-concentrated facilities, which may be a less relevant metric for facilities serving residents with cognitive impairments.

63 Castle, Nicholas G, John Engelberg and Aiju Men. "Nurse Aide Agency Staffing and Quality of Care in Nursing Homes." *Medical Care Research and Review 65* (2008): 232-252.

64 American Health Care Association. "2007 AHCA Survey: Nursing Staff Vacancy and Turnover in Nursing Facilities." AHCA website. July 2008. http://www.ahcancal.org/research_data/staffing/Documents/Summary_Vacancy_Turnover_Survey 2007.pdf

65 Intrator, Orna, et al. "Hospitalization of Nursing Home Residents: The Effects of States' Medicaid Payment and Bed-Hold Policies."

66 Gruneir, Andrea, Susan C. Miller, Orna Intrator and Vincent Mor. "Hospitalization of Nursing Home Residents with Cognitive Impairments: The influence of Organizational Features and State Policies." *The Gerontologist 47*(4) (2007): 447-456.

67 Grabowski, David C., Joseph J. Angelelli and Vincent Mor. "Medicaid Payment and Risk-Adjusted Nursing Home Quality Measures." *Health Affairs 23*(5) (2004): 243-252.

68 Mor et al. "Changes in the Quality of Nursing Homes in the US: A Review and Data Update."

69 *Ibid.*

ures and their ability to describe the full range of patients. In addition, quality metrics must be applied in a way that reflects the heterogeneity of nursing facilities.

Future quality improvement will depend on our ability to understand and evaluate metrics, such as staffing, in the context of understanding the underlying patient population. Quality measures similarly need to take into account diverse patient populations. As one researcher noted there is a need to, "explicitly take [nursing facilities] heterogeneity into account in describing their performance and staffing."[70]

Future Challenges for Nursing Facility Reimbursement

As the principal payer for nursing facility services, the government has a strong interest in ensuring high-quality care. In 2009, 70 percent of nursing facility residents relied on Medicare or Medicaid to fund their care.[71] Most other residents rely on out-of-pocket spending to pay for care. Medicaid payments are, on average, below cost. Facilities tend to cross-subsidize Medicaid patients with Medicare revenues. Nursing facilities' margins are expected to worsen in the near term due to Medicare regulatory adjustments and implementation of productivity adjustments mandated by the Affordable Care Act (ACA). Moreover, given state fiscal environments, Medicaid rates are not expected to improve. As a result, nursing facilities are likely to experience substantial reimbursement pressure in the near-term.

The ACA also includes broader delivery and payment system reforms that could fundamentally change relationships between providers. The bundling and accountable care organization models will vest payment responsibility with a single entity, such as a physician organization or hospital. Nursing facilities in the future, therefore, will be managing multiple relationships with providers that are now operating as payers in the ACO or bundling relationship. These evolving delivery and payment models hold promise but their longer-term implications for nursing facility reimbursement are not clear.

70 Mor et al. "Changes in the Quality of Nursing Homes in the US: A Review and Data Update."

71 American Health Care Association (AHCA). "Nursing Facility Patients by Payor - Percentage of Patients CMS OSCAR Data Current Surveys, December 2009."

Conclusion

Nursing facilities are taking care of increasingly complex patients. Short-stay post-acute patients and longer-stay residents present very different care challenges and demands that are difficult to capture with a single set of metrics. The current, available measures for evaluating the effectiveness of facilities in improving care outcomes and meeting the needs of patients show substantial improvement but the overall picture is somewhat mixed. Hospitalizations and the average number of survey deficiencies by facility, while imperfect metrics, are increasing, while the percentage of facilities cited for substandard quality of care are decreasing.

Future quality improvement will depend on our ability to understand the heterogeneity of current nursing facility patients and the specialization within specific facilities. This effort would help policymakers better understand the care provided in nursing facilities today. This understanding will foster the adoption of a more diverse set of quality metrics that are developed with the particular patient population—rather than a particular type of facility—as the focus.

Overall, the number of consumers who would recommend a long-term care facility remains high at 85% ... indicating that more providers are implementing practices recommended by national quality-improvement initiatives.

Quality: By the Numbers

REPORT CONTRIBUTORS:

Compiled by AHCA and the Alliance from publicly available data

QUALITY TRENDS: 2000-2009

The Centers for Medicare and Medicaid Services (CMS) generates a Quality Indicator (QI) Report that summarizes, by state, the average number of nursing facility residents who trigger one of 34 quality indicators during a quarter. The QIs are triggered by specific responses to data elements on the resident Minimum Data Set (MDS) 2.0 forms that are completed on a periodic basis by facility staff. Assessments for residents recently admitted to the nursing facility are excluded in the calculation of the QIs. The QIs are aggregated to generate facility and state level reports.

QIs are "pointers" that indicate potential problems that need further review and investigation. The report can be used by the facility as a tool to rate its performance compared to the state and to target areas of care for improvement. The QIs are used by state survey agencies to target survey and quality monitoring activities. The state level data is also available on the CMS website (www.medicare.gov).

The table and charts on the following pages reproduce the results published by CMS.

The data show that nursing facilities have improved in most QIs between 2000 and 2009.

FIGURE 3.1

Quality Indicator Trends

Source: CMS, MDS National Quality Indicator System, 4th Quarter of Each Year

TABLE 3.1

Nursing Facility MDS Quality Indicators

		2000	2009	% Change 2000-2009
Accidents	Incidence of new fractures	1.6%	1.5%	-0.1%
	Prevalence of falls	15.0%	13.0%	-2.0%
Behavior/ Emotional/ Cognitive Patterns	Residents who have become more anxious or depressed	13.9%	14.9%	1.0%
	Prevalence of behavioral symptoms affecting others	21.2%	17.0%	-4.2%
	Prevalence of symptoms of depression with anti-depressant therapy	7.0%	4.5%	-2.5%
	Incidence of cognitive impairment	11.3%	12.6%	1.3%
Clinical Management	Use of nine or more different medications	42.8%	70.6%	27.8%
Incontinence Care	Low-risk residents who lost control of their bowels or bladder	43.4%	50.4%	7.0%
	Residents who have/had a catheter inserted and left in their bladder	9.2%	7.1%	-2.1%
	Prevalence of occassional or frequent bladder or bowel incontinence without a toileting plan	42.0%	51.6%	9.6%
	Prevalence of fecal impaction	0.4%	0.0%	-0.4%
Infection Control	Residents with a urinary tract infection	9.8%	9.8%	0.0%
Nutrition/ Eating	Residents who lose too much weight	10.9%	8.5%	-2.4%
	Prevalence of tube feeding	8.5%	6.5%	-2.0%
	Prevalence of dehydration	0.9%	0.2%	-0.7%
Pain Management	Residents who have moderate to severe pain*	10.0%	7.5%	-2.5%
Physical Functioning	Residents whose need for help with daily activities has increased	16.2%	14.9%	-1.3%
	Residents who spend most of their time in a bed or in a chair	6.6%	4.7%	-1.9%
	Residents whose ability to move in and around their rooms got worse*	16.6%	14.7%	-1.9%
	Incidence of decline in range of motion	8.8%	6.6%	-2.2%
Psychotropic Drug Use	Prevalence of antipsychotic use, in the absence of psychotic conditions	16.1%	18.6%	2.5%
	Prevalence of antianxiety/hypnotic drug use	17.0%	23.1%	6.1%
	Prevalence of hypnotic use more than two times in the last week	3.3%	5.6%	2.3%
Quality of Life	Residents who were physically restrained	9.3%	3.1%	-6.2%
	Prevalence of little or no activity	18.9%	5.7%	-13.2%
Skin Care	Pressure ulcers	9.3%	12.3%	3.0%

Source: CMS, MDS National Quality Indicator System, 4th Quarter of Each Year
*Initial data point is from 2005

CMS Nursing Facility Average Quality Measure Scores: 2008–2009

Like the Quality Indicators, the Centers for Medicare and Medicaid Services (CMS) also requires nursing facilities to submit information from the Minimum Data Set (MDS) patient assessment instrument to produce "Quality Measures" (QMs). The data reported to CMS are used to measure aspects of the quality of care provided in each facility. Subject to a number of exclusions, the score for each facility-level QM is computed as the ratio of the sum of eligible residents in the facility with a particular condition to the sum of eligible residents in the facility. These measures, known as QMs, are computed and updated quarterly by CMS, and are publicly reported on the Nursing Home Compare website (http://www.medicare. gov/NHCompare/home.asp). The QMs can be used by facilities to identify areas for improvement in quality.

Table 3.2 represents a subset of quality measures as tracked by CMS and reflects improvements in the quality of nursing home care from 2008 to 2009.

Survey Performance Trends: 2000–2010

Every nursing facility in America is required 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 regulators relating to quality of care, quality of life, physical plant and safety. Surveyors assign "deficiencies" to nursing facilities failing to meet one or more of these regulations. All deficiencies are publicly reported in a database maintained by CMS known as the Online Survey, Certification, and Reporting System (OSCAR).

Figure 3.2 reproduces CMS nursing facility OSCAR standard health survey data for the average number of health survey deficiencies as well as the percentage of facilities cited for "substandard quality of care."

The data in the figure 3.2 show that the percentage of nursing facilities cited for substandard quality of care has decreased by 1.3 percent since 2000, while the average number of deficiencies cited has increased slightly more than 1 deficiency per nursing facility.

TABLE 3.2

CMS Nursing Facility Average Quality Measure Scores for the U.S.*

Quality Measure (QM)	2008	2009	% Difference
Activities of Daily Living (ADL)	15.4%	14.3%	-1.1%
Pain	3.9%	3.1%	-0.8%
High Pressure Ulcer	11.6%	10.9%	-0.7%
Indwelling Catheter	5.3%	5.0%	-0.3%
Mobility	11.8%	10.9%	-0.9%
Urinary Tract Infection (UTI)	9.2%	8.9%	-0.3%
Physical Restraint	3.9%	3.1%	-0.8%
PAC Delirum	1.7%	1.3%	-0.4%
PAC Pain	20.6%	19.5%	-1.1%
PAC Pressure Ulcer	14.2%	12.7%	-1.5%

Source: CMS Nursing Home Compare (4th Quarter each year) American Health Care Association, Research Department

*State specific data for this subset of QMs for the period of 2008 to 2009 is available in appendix 1 of this report.

CONSUMER AND WORKFORCE SATISFACTION

COMPILED DIRECTLY FROM THE 2009 NATIONAL SURVEY OF CONSUMER AND WORKFORCE SATISFACTION IN NURSING HOMES

Contributions to this report were made by the following members of My InnerView's research team: Leslie A. Grant, Ph.D.; Eric Lewerenz, M.S.; and John Mabry, M.P.H.

An applied research company, My InnerView has been measuring and reporting the level of consumer and workforce satisfaction in nursing homes since 2005. This multi-year series of national reports helps foster greater accountability in the use of public and private resources for long-term care services. It also offers great transparency to help consumers make informed decisions when seeking nursing home care.

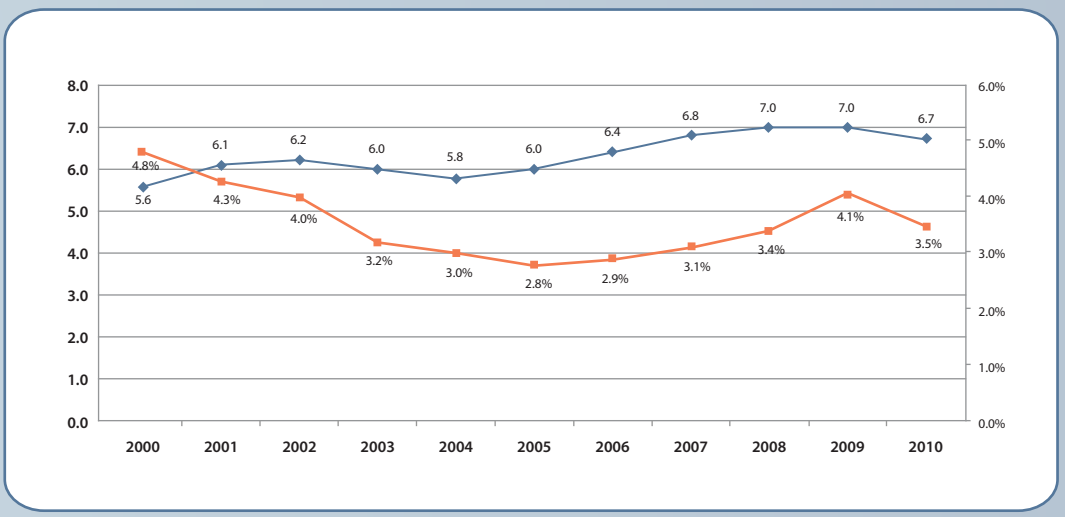
The information presented in Figure 2.3 is from the fifth and most in-depth annual report published by My InnerView. It is the most comprehensive summary ever taken of nursing home consumers (residents and families) and staff in the United States. Encompassing one in three nursing homes, the 2009 report represents the largest national database of nursing homes and the opinions of 82,473 residents, 150,829 family members and 283,404 employees.

Improvements in consumer and workforce satisfaction

Overall, the number of consumers who would recommend a long-term care facility remains high at 85 percent, four percentage points higher than in 2005. Resident satisfaction was relatively stable between 2007 and 2009, but the overall trend has been an increase in satisfaction since 2005, indicating that more providers are implementing practices recommended by national quality-improvement initiatives and accepting satisfaction metrics as important dimensions in quality.

FIGURE 3.2

Average Numbers of Health Survey Deficiencies/ Percent of Facilities Cited for Substandard Quality of Care



Source: Computed by AHCA Research Department using CMS Nursing Facility OSCAR standard health survey data. Various years. March of each year. American Health Care Association, Research Department.

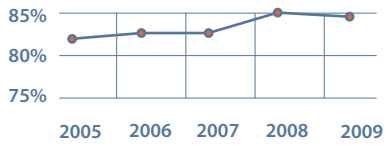
Workforce satisfaction increased in every job category between 2007 and 2009. Satisfaction among nurses and nursing assistants remains lower than the satisfaction of employees in other job categories; however, both types of workers have become more satisfied with their facilities since 2006, showing a sustained upward trend.

Workforce and consumer satisfaction are correlated positively. Facilities with higher workforce satisfaction also have higher family satisfaction. An effective strategy for quality improvement must include an intense and sustained focus on the skills, commitment and satisfaction of the workforce, particularly those staff who directly care for residents and communicate with family members.

FIGURE 3.3

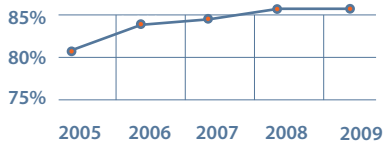
Consumer and Workforce Satisfaction

1 **Consumer: Recommendation to others**
Combined percentage "excellent" and "good" consumer recommendations of the nursing home



Source: Resident and Family Satisfaction Surveys conducted across the nation by My InnerView

2 **Residents: Recommendation to others**
Combined percentage "excellent" and "good" resident recommendations of the nursing home

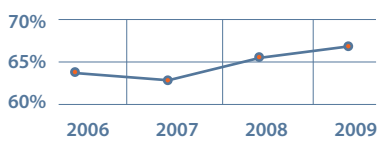


Source: Resident Satisfaction Surveys conducted across the nation by My InnerView

3 **Families: Recommendation to others**
Combined percentage "excellent" and "good" family recommendations of the nursing home

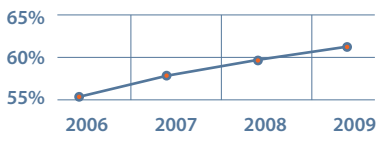
Source: Family Satisfaction Surveys conducted across the nation by My InnerView

4 **Workplace: Recommendation for job**
Combined percentage "excellent" and "good" ratings by workers of the nursing home as a place to work



Source: Employee Satisfaction Surveys conducted across the nation by My InnerView

5 **Nurses: Recommendation for job**
Combined percentage "excellent" and "good" ratings by nurses of the nursing home as a place to work



Source: Employee Satisfaction Surveys conducted across the nation by My InnerView

6 **Nursing Assistants: Recommendation for job**
Combined percentage "excellent" and "good" ratings nursing assistants of the nursing home as a place to work

Source: Employee Satisfaction Surveys conducted across the nation by My InnerView

Research suggests that person-centered care is associated with improved organizational performance including higher resident and staff satisfaction, better workforce performance and higher occupancy rates.

Improving Performance through Person-Centered Care

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INTRODUCTION

Long before the terms "culture change" or "person-centered care" entered the lexicon of long term care professionals, a small handful of independent facilities started reorganizing nursing home care in locations across the United States as early as the late 1980s. A common goal among these early culture change adopters was to transform nursing homes from medical institutions treating "patients" to homes serving "residents." The earliest proponents of culture change were frequently visionary leaders of independent facilities who began introducing a variety of environmental and/or operational innovations. Today, culture change innovations are diffusing more broadly into the mainstream as more stakeholder groups such as providers, consumers, policymakers and researchers recognize the value of person-centered care practices in long term care. An accumulating body of empirical research supports the value of person-centered care as a viable strategy to improve organizational performance across a broad set of parameters. The research summarized below suggests that person-centered care is associated with higher resident and staff satisfaction, better workforce performance and higher occupancy rates. The culture change movement has introduced many person-centered care practices to improve quality of life and care for residents, and create better work environments for staff. Large national multi-facility companies, small regional multi-facility firms and independent facilities are now implementing person-centered care under their own rubric for culture change.

Due to changing markets, nursing homes increasingly serve two distinct populations: 1) people commonly referred to as "patients" who are admitted for short-stays averaging approximately one month; and 2) people commonly referred to as "residents" who increasingly have more complex medical needs than previous cohorts, and who are admitted for longer lengths of stay that nevertheless average less than 100 days.[1] Many short-stay patients receive restorative care following a hospital stay before returning home. Long-stay residents tend to have chronic health conditions; limitations in the activities of daily living (ADLs) such as bathing, dressing, transferring and eating; and needs for medical care that make living in the community problematic. As the culture change movement has evolved over the past two decades, its central tenet to transform medical institutions to homes is aimed primarily at the long-stay resident who considers the nursing facility his or her home. Short-stay patients generally want to be discharged from the nursing facility to return home in the community.

Although the expectations of short-stay patients and long-term residents may differ on key goals for culture change, there is a high degree of concordance between these two groups and family members when it comes to identifying factors that are the most important in selecting their current provider or in judging the quality of services. Both groups and family members view having positive relationships with facility staff and the availability of staff assistance as paramount. All three groups consider the physical environment (especially its cleanliness and absence of odors), ancillary services (particularly rehabilitation services such as physical therapy and/or occupational therapy), and clinical care as being among the critical factors in evaluating quality. The quality of food (e.g., taste and overall dining experience) is a more salient factor for short-term patients than long-term residents.[2]

1 American Health Care Association and the Alliance for Quality Nursing Home Care. 2009 Annual Quality Report: A Comprehensive Report on the Quality of Care in America's Nursing and Rehabilitation Facilities.

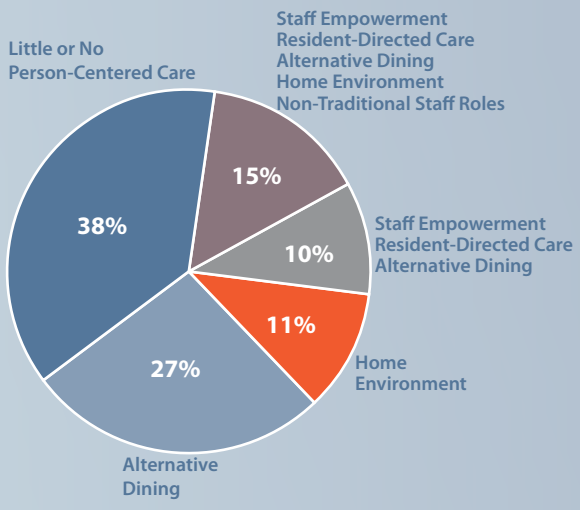
2 My InnerView (2009). What Consumers Want to Know When Selecting a Nursing Home: 2008 Study on Consumer Choice. Wausau, WI: My InnerView.

The major theme that underlies culture change across acute-care inpatient hospitals, short-stay (e.g., sub-acute, post-acute or transitional care) facilities and long-stay nursing facilities is improving the client's experiences in the healthcare setting whether the client is a family member, patient or resident. Person-centered care improves the consumer's experience around things that matter most from the client's perspective (e.g., clinical care, dining experience, positive staff relationships, physical environment and other aspects of care quality).

This paper looks mainly at culture change as it has evolved to address the needs of long-stay residents in nursing facilities—not at person-centered care within post-acute care settings. This is not to say that the core principles of person-centered care do not apply to short-stay patients. This paper underscores the fact that strategies for culture change must be designed in light of contextual factors such as the availability of human or capital resources and changing markets. Strategies used to implement person-centered care in post-acute care settings are likely to differ in emphasis from those found in settings serving long-stay residents.

FIGURE 4.1

Diffusion of Person-Centered Care Practices in 246 Nursing Homes 2007



Adopted from: Grant, L. et al. "Empirical Typology of Culture Change in Nursing Homes". Unpublished working paper. Center for Aging Services Management. University of Minnesota.

Diffusion of Culture Change Innovations

Research suggests that the adoption of culture change in nursing homes is widespread. A 2007 study surveyed a representative sample of 1,435 nursing homes nationally. Almost one in three nursing homes (31%) reported adopting culture change while one in four (25%) reported being committed to culture change adoption. The remaining 43% of nursing homes reported being uncommitted to culture change.[3] A 2007 study of 222 nursing homes in the state of Kansas found that 30% of Kansas facilities had extensive involvement in culture change; 52% had partial involvement; and 18% had limited involvement.[4] A 2007 study of 246 nursing homes in eight states developed a typology (or classification system) for culture change. The study found that 15% had a high degree of culture change adoption; 47% had a moderate degree of culture change adoption; and 38% had a low degree of culture change adoption.[5]

Although culture change innovations have diffused broadly in America's nursing homes, relatively few homes have implemented person-centered care practices comprehensively. Moreover, there is tremendous variation in the types of person-centered care practices that have been adopted. The typology study[5] found that high culture change facilities adopted person-centered care practices in five areas: 1) staff empowerment; 2) resident-directed care; 3) alternative dining; 4) home environment; and 5) non-traditional staff roles. Moderate culture change facilities adopted person-centered care practices in one to three areas, while low culture change facilities showed little or

3 Doty, M.M., Koren, M.J. and Sturla, E.L. (2008). *Culture Change in Nursing Homes: How Far Have We Come?* New York: The Commonwealth Fund.

4 Bott, M.J., Gajewski, B., Boyle, D., Lee, R. Becker, A., Coffland, V. and Dunton, N. Psychometric Testing of the Kansas Culture Change Instrument (KCCI). Paper presented at the 2009 Annual Meeting of the Gerontological Society of America.

5 Grant, L. et al. "Empirical Typology of Culture Change in Nursing Homes". (2010). Unpublished working paper. Center for Aging Services Management. University of Minnesota.

no evidence of adopting any of these person-centered care practices. Appendix 2 provides a description of the five person-centered care practices used to classify 246 homes. Figure 4.1 shows the distribution of these practices in these homes.

Culture Change and Organizational Performance

Recent years have seen a growing number of studies evaluating the effectiveness of culture change models such as Wellspring,[6] Eden Alternative,[7,8] Green Houses,[9,10] or Golden Living's Resident Centered Care.[11] Although findings are sometimes contradictory across studies, greater insight about the potential value of person-centered care is emerging. Culture change models that have been evaluated through empirical research are described below.

GREEN HOUSES typically require new construction to create freestanding homes with amenities such as private rooms with full bathrooms and shared common areas with a hearth, full kitchen and dining room. Green Houses are an example of a household model. Greenhouses typically serve 7 to 10 residents who are called "elders." Universal workers called "Shahbazin" work in self-directed work teams cooking meals, doing laundry and providing personal care.[12] A longitudinal evaluation found that resident quality of life was higher in Green Houses than in traditional nursing homes. Clinical outcomes in Green Houses were comparable to traditional nursing homes. Changes in resident functional status were better in Green Houses than in traditional nursing homes.[9] Green Houses also achieved better performance on family satisfaction and family experience.[10]

THE WELLSPRING MODEL makes improvements to clinical processes through staff training, staff empowerment, multidisciplinary care teams and geriatric nurse practitioners. Wellspring does not require major capital expenditures for new construction and/or major renovations. Nursing facilities join Wellspring alliances of 10 to 12 facilities, and as a group, alliance members get consultation and education from a geriatric nurse practitioner. Comparative performance data are shared across facilities and across alliances. Wellspring offers training covering topics such as leadership development, staff empowerment and clinical process improvement. Lower staff turnover, better compliance with state regulatory surveys, and higher quality of life for residents were found in Wellspring facilities compared to traditional nursing homes.[6]

THE EDEN ALTERNATIVE introduces plants, animals and children into the nursing home environment. A new philosophy of care and interventions aimed at reducing boredom, loneliness and lack of meaning in the residents' lives are introduced.[8, 12] Less psychological distress among Eden Alternative facility residents in terms of boredom and helplessness were found compared to a control group. However, there were no changes in levels of loneliness.[13]

THE SERVICE HOUSE replicated a Swedish model of care by retrofitting 15 private rooms into nine efficiency apartments in one wing of an existing nursing home. Congregate living space with a full kitchen, dining room, sitting room, laundry and a small work area for staff created a household within a larger nursing facility. The nursing station was eliminated. Each apartment housed one resident who had a kitchenette with a refrigerator, cook top range, microwave oven, a bedroom and full private bathroom. Residents were afforded refrigerator rights. Bathrooms were retrofitted with "Swedish-style" toilets (designed for two-person lifts) and "Swedish-style" showers (providing

6 Stone, R. I., Reinhard, S.C, Bowers, B., Zimmerman, D., Phillips, C.D., Hawes. C., Fielding, J.A., Jacobson, N. (2002). *Evaluation of the Wellspring Model for Improving Nursing Home Quality.* New York: The Commonwealth Fund.

7 Coleman, M.T., Looney, S. O'Brien, J., Ziegler, C., Pastorino, C.A., and Turner, C. (2002). The Eden Alternative: Findings after 1 year of implementation. *Journal of Gerontology, Medical Sciences,* 57A, M422-M427.

8 Thomas, W. *The Eden Alternative: Nurture, Hope, and Nursing Homes.* Sherburne, NY: Eden Alternative Foundation: 1994, 27-56.

9 Kane, R.A., Lum, T.Y., Cutler, L.J., Degenholtz, H.B. & Yu, T.C. (2007). Resident outcomes in small-house nursing homes: A longitudinal evaluation of the initial green house program. *Journal of the American Geriatrics Society,* 55, 832-839.

10 Lum, T.Y., Kane, R.A., Cutler, L.J. and Yu, T. (2008). Effects of Green House Nursing Homes on Residents' Families. *Health Care Financing Review,* 30, 35-51.

11 Grant, L.A. *Culture Change in a For-profit Nursing Home Chain: An Evaluation.* (2008). New York: The Commonwealth Fund.

12 Rabig, J., Thomas, W., Kane, R.A., Cutler, L.J. & McAlilly, S. (2006). "Radical redesign of nursing homes: Applying the Green House concept in Tupelo, Mississippi." *The Gerontologist,* 46, 533-539.

13 Bergman-Evans, B. (2004). Beyond the basics: Effects of the Eden Alternative model on quality of life issues. *Journal of Gerontological Nursing,* 30, 27-34.

more spacious unenclosed areas with a shower curtain and floor drain). Universal workers called "care assistants" were trained to work in self-directed work teams. A longitudinal 2-year evaluation found improvements in resident satisfaction and quality of life. Families were more satisfied, had higher expectations of staff and had greater trust in staff.[14]

THE RESIDENT CENTERED CARE initiative was first implemented by Golden Living (formerly known as Beverly Healthcare). This initiative represents the first publicly examined effort by a large for-profit national multi-facility company to implement culture change. This initiative was pilot tested in 10 facilities in 2002 and later expanded to 18 more facilities in 2004. Due to the high cost of physical renovations few sites were able to renovate nursing units into full-fledged neighborhoods. Less capital-intensive person-centered care practices were tested. A 12-month longitudinal evaluation comparing experimental facilities with control facilities found improvements in resident quality of life (choice, autonomy and dignity). The evaluation also found better work environments for staff in facilities with resident centered care.[15]

Designation of a nursing home as a Wellspring, Eden Alternative, Green House or other culture change model does not necessarily connote a consistent set of person-centered care practices. With the exception of the typology study[16] described earlier, there have been few efforts to compare person-centered care practices across Wellspring, Eden Alternative, Green House, Golden Living's Resident Centered Care, Service House and other culture change models. The typology study compared facilities

14 Grant, L.A. (1999). *Final Report: Evaluation of the Lyngblomsten Service House Demonstration.* Minneapolis, MN: Center for Aging Services Management, University of Minnesota.

15 Grant, L.A. *Culture Change in a For-profit Nursing Home Chain: An Evaluation.* (2008). New York: The Commonwealth Fund.

16 Grant, L. et al. "Empirical Typology of Culture Change in Nursing Homes". (2010). Unpublished working paper. Center for Aging Services Management. University of Minnesota.

with varying degrees of culture change on three performance parameters: 1) clinical outcomes; 2) workforce; and 3) state survey deficiencies. Findings suggest that facilities adopting more person-centered care practices perform better on some of these metrics, but not on others.

High culture change facilities performed statistically significantly better than moderate and low culture change facilities on three quality measures (QMs): high risk pressure ulcers; low risk pressure ulcers; and bedfast. High culture change facilities performed statistically significantly better than moderate and low culture change facilities on three quality indicators (QIs): prevalence of tube feeding; prevalence of behavior symptoms affecting others (low risk); and prevalence of hypnotic use more than two times in the last week.

The effects of culture change on workforce performance were small, but more consistent than the findings related to clinical outcomes. High culture change facilities outperformed moderate and low culture change facilities on most parameters of workforce performance (less CNA turnover, less LPN/LVN turnover, less RN turnover, higher LPN/LVN retention, and higher RN retention); however, none of these differences reached statistical significance. High culture change facilities performed statistically significantly worse than moderate and low culture change facilities on state survey deficiency scores (weighted by scope and severity).

Finally, high culture change facilities had higher occupancy rates (93.4%) than moderate culture change (89.7%) and low culture change (89.1%) facilities.[17] Although these differences in occupancy rates were not statistically significant, a four percentage point difference in occupancy is important for most operators because occupancy is a key driver of revenue. This study suggests

17 Grant, L. et al. "Empirical Typology of Culture Change in Nursing Homes". (2010). Unpublished working paper. Center for Aging Services Management. University of Minnesota.

that comprehensive implementation of person-centered care is associated with higher occupancy rates, which provides support for the business case.

There is a growing body of research showing the efficacy of person-centered care practices. Person-centered showering and bathing,[18] family-style dining, [19] flexibility in organizational practices,[20] empowered work teams, [21, 22] and consistent staff assignment [23] are among the person-centered care practices that have been studied. While most of these studies provide empirical evidence supporting the value of person-centered care, other researchers have warned that the culture change movement lacks credibility because its effectiveness has not been evaluated through rigorous empirical research.[24] Research simply has not kept pace with the rapid diffusion of culture change innovations in America's nursing homes. The research base about culture change remains weak. More rigorous evaluation research is warranted.

Implications for Practice

Strategies used to implement person-centered care differ across culture change models. The effectiveness of different strategies in improving organizational performance will likely vary depending on contextual factors such as markets and organizational resources. Providers considering adopting person-centered care should develop a strategic plan for culture change with well-articulated goals and objectives. Any creditable strategic plan for culture change must address unique organizational strengths and opportunities. Not all organizations have equal amounts of human or capital resources when it comes to making investments in person-centered care. Not all person-centered care practices require the same level of input in terms of financial, human or capital resources. Practitioners should not presume that there is a "cookie cutter" template that will lead to successful culture change in all contexts because person-centered care is not a singular organizational strategy.

Figure 5.2 depicts a systematic process that can be used to design a strategic plan for person-centered care. At the initial step leadership should develop a well-articulated business case for culture change within their organization. The business case for culture change can be based on a number of factors including short-term financial objectives (e.g., growth in profitability from boosts in revenue or reductions in cost); long-term financial objectives (e.g., gains in market share); or indirect benefits (e.g., improvements in resident satisfaction, quality of care, quality of life, employee satisfaction, and quality of the workplace). Early in the strategic planning process, organizations should

18 Sloane, P.D., Hoeffer, B., Mitchell, C.M., McKenzie, D.A., Barrick, A.L., Rader, J., Stewart, B.J., Talerico, K.A., Tasin, J.H., Zink, R.C., and Koch, G.C. (2004). "Effect of person-centered showering and the towel bath on bathing-associated aggression, agitation, and discomfort in nursing home residents with dementia: A randomized, controlled trial." *Journal of the American Geriatrics Society,* 52, 1795-1804.

19 Nijs, K.A.N.D., de Graaf, C., Siebelink, E., Blau, Y.H., Vanneste, V., Kok, F.J. & Staveren, W.A. (2006). "Effect of family-style meals on energy intake and risk of malnutrition in Dutch nursing home residents: A randomized controlled trial." *Journal of Gerontology: Medical Sciences*, 61A, 935-942.

20 Cohen-Mansfield, J., & Bester, A. (2006). "Flexibility as a management principle in dementia care: The Adards example.." *The Gerontologist,* 46, 540-544.

21 Yeatts, D.E., & Cready, C.M. (2007). "Consequences of empowered CNA teams in nursing home settings: A longitudinal assessment." *The Gerontologist,* 47 (3): 323-39.

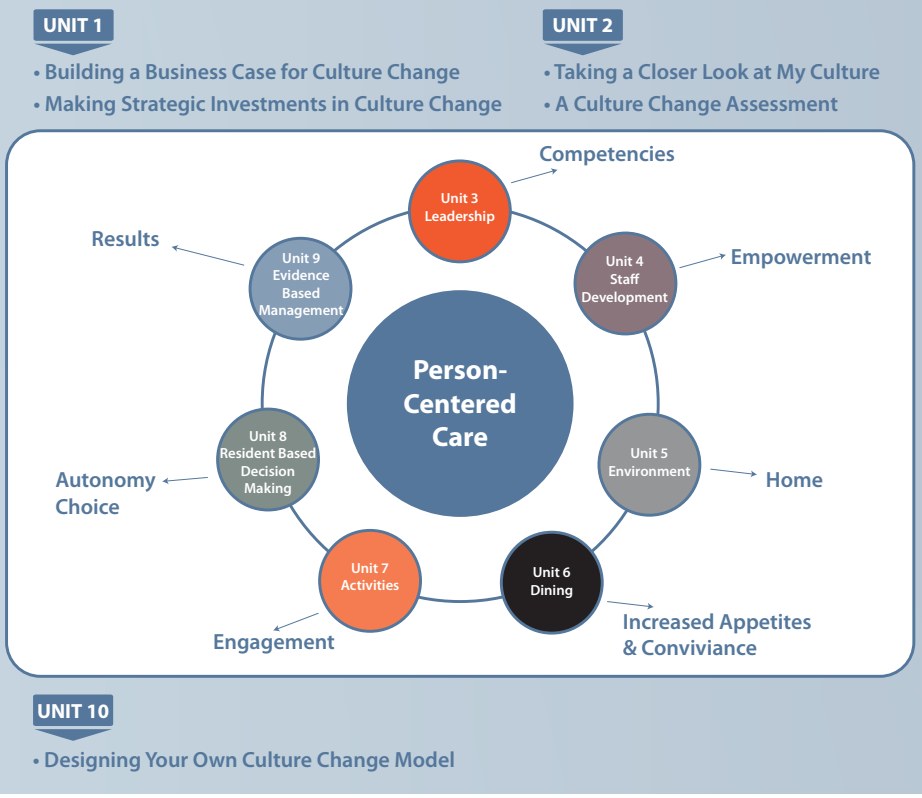
22 Cready C.M., Yeatts, D.E., Gosdin, M.M., Potts, H.F. (2008). "CNA empowerment: Effects on job performance and work attitudes." *Journal of Gerontological Nursing,* 34(3): 26-35.

23 Burgio, L.D. Fischer, S.E., Fairchild, J.K., Scilley, K., and Hardin, J.M. (2004). "Quality of Care in the Nursing Home: Effects of Staff Assignment and Work Shift." *The Gerontologist,* 44, 368-377.

24 Rahman, A.N. & Schnelle, J.F. (2008). "The nursing home culture-change movement: Recent past, present, and future directions for research." *The Gerontologist,* 48, 142-148.

FIGURE 4.2

Module One—Strategic Planning for Culture Change



conduct an assessment of their internal culture to establish a baseline. The baseline assessment can be used to benchmark culture change progress over time. Culture change progress should also be benchmarked periodically against peers. Because person-centered care involves multiple organizational systems, it is useful to explore a number of questions such as the following to identify top priorities or key focus areas for strategic planning.

LEADERSHIP: What are the core leadership competencies within my organization that will foster or impede successful culture change?

STAFF DEVELOPMENT: How empowered are my direct care staff? How feasible is it to train my staff to work in non-traditional staff roles such as cross-trained workers, blended roles or universal workers?

PHYSICAL ENVIRONMENT: Is it feasible to develop neighborhoods or households? If not, what low cost renovations can be made to support creation of a user-friendly environment?

DINING SERVICES: How can my residents be provided more choice in dining? How can the dining experience be enhanced?

RESIDENT ACTIVITIES AND THERAPY: How can my residents become more engaged in meaningful activities? How can short-stay patients become more engaged in their own rehabilitation and restorative care?

RESIDENT-BASED DECISION MAKING: How can resident or patient autonomy and choice be expanded?

EVIDENCE-BASED MANAGEMENT: How can the principles of evidence-based management be used to drive organizational performance and achieve measureable results?

Culture Change Practices in Post-Acute Care

How person-centered care will be extended into post-acute care (or other parts of the long term care continuum) is yet to be determined. Further work needs to be done to help practitioners better understand how the culture change movement can or should evolve to address the diverse needs of the changing patient population in nursing facilities. The expansion of culture change practices into post-acute care is only now beginning. For example, Planetree (an international, non-profit organization founded in 1978) works with both acute-care and long term care providers to enhance healthcare delivery from the patient's perspective. Planetree's patient-centered care units in hospitals achieved significantly more satisfied patients than patients in other medical-surgical units.[25] While Planetree's early efforts were focused exclusively on acute care hospitals, Planetree Continuing Care emerged in 2002 as a collaborative effort to introduce person-centered care across the long term care continuum. Planetree Continuing Care now works with retirement housing, independent and assisted living, and sub-acute and skilled nursing facilities. There is growing convergence in person-centered care practices across the care continuum to improve consumer experiences.

Implications for Policy

The Omnibus Budget Reconciliation Act (OBRA) 1987 introduced regulatory reforms to support resident quality of life and enhance quality of care. To help fulfill OBRA mandates, person-centered care should be supported by regulations and public policies. OBRA made nursing homes the only sector of the healthcare industry with a legislative mandate to support person-centered care.[26]

Many person-centered care practices don't generate additional costs for providers. Some of these practices may yield cost savings (e.g., from reductions in staff turnover). Nevertheless, the high cost of renovations necessary to create neighborhoods or households is a significant impediment for most provider organizations. To better align financial incentives, reimbursement systems (especially new value-based reimbursement systems) should take into account person-centered care practices and/or performance metrics that are sensitive to culture change. A more balanced set of metrics should be incorporated into value-based reimbursement systems and consumer report cards to place greater emphasis on workforce performance, resident quality of life or restorative outcomes for short-stayers. New metrics that are sensitive to culture change practices can be incorporated into value-based reimbursement systems or consumer report cards to complement basic metrics related to state surveys and clinical outcomes.

Medicaid agencies in several states (e.g., Colorado, Oklahoma and Iowa) are promoting culture change in nursing homes by adopting value-based payment systems that provide financial incentives to facilities that demonstrate progress in implementing person-centered care practices in areas such as dining, activities, resident choice, flexible bathing, creation of neighborhoods or households, consistent staff assignment, staff empowerment, and evidence-based management.[27, 28, 29] Other states (e.g., Texas,

25 Martin, D. (2009). "Randomized trial of a patient-cared hospital unit." *Patient Education and Counselling.* 34(2): 125-133

26 Koren, M.J. (2010). "Person-centered care for nursing home residents: The culture change movement." *Health Affairs,* 29 (2): 1-6.

27 Public Consulting Group. Nursing Facility Pay-for-Performance Application Review (For Applications Submitted 1/31/09). Denver, CO: State of Colorado Department of Health Care Policy and Financing. June 30, 2009.

28 The Pacific Health Policy Group. Oklahoma Focus on Excellence: Independent Evaluation. Prepared for: State of Oklahoma Health Care Authority. October 2009.

29 Iowa Reimbursement Rules, Excerpt. Pay-for-performance program. (n.d.)

Kansas, and Utah) are exploring ways in which payment incentives might be used to support person-centered care.

The Centers for Medicare and Medicaid Services (CMS), Quality Improvement Organizations (QIOs), the Pioneer Network, nursing home trade associations and other stakeholder groups are also supporting person-centered care through a variety of collaborative efforts. The Quality First Initiative, CMS' Nursing Home Quality Initiative and the Advancing Excellence in America's Nursing Home Campaign are establishing new performance benchmarks for nursing home quality. These voluntary programs encourage providers to monitor performance on a comprehensive set of parameters including metrics shown in research to be sensitive to person-centered care (e.g., resident and family satisfaction, employee satisfaction, staff turnover and retention, consistent staff assignment, and clinical outcomes).

Conclusion

Research suggests that person-centered care is associated with improved organizational performance including higher resident and staff satisfaction, better workforce performance and higher occupancy rates. How person-centered care will be extended into post-acute care (or other parts of the long term care continuum) is yet to be determined. Much more work needs to be done about how the culture change movement can or should evolve to address the diverse needs of the changing patient population in nursing facilities. The culture change movement is likely to continue its growth throughout the long term care continuum. An accumulating body of empirical research supports the value of person-centered care as a viable strategy to improve organizational performance.

Although improvement comes slowly, it can be meaningful and fostered on much larger scales through collaboratives and campaigns. These approaches can provide the focus and energy to improve both bedside processes and systems-level changes despite the increasingly difficult environment nursing homes encounter.

Large-Scale Approaches to Improving Quality Nursing Home Care

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INTRODUCTION

Continuous quality improvement has become the mantra of high-performing healthcare providers over the last two decades, elevating reactive quality assurance to a proactive approach. The Institute of Medicine reports released in 1999, "To Err is Human: Building a Safer Health System," and in 2001, "Crossing the Quality Chasm: A New Health System for the 21st Century," defined the opportunity to balance system and patient perspectives. To achieve the six aims of safe, effective, patient-centered, timely, efficient and equitable care, solutions need to involve stakeholder perspectives, move from a focus on bedside care practices to systems-level improvements, and evolve from local to regional and national efforts.

Nursing homes are the most heavily-regulated sector of health care, with regulations intended to safeguard residents' safety and well being. Effective regulations require data relevant to care outcomes and encourage providers to deploy interventions associated with improved outcomes. However, current regulations aim only at achieving minimum thresholds of quality, punishing the poorest performers to ensure that the industry, overall, meets a minimum standard. This approach can lead to an environment where providers look to state and national averages as benchmarks for quality, rather than benchmarking against their high-performing peers' achievements. Since research shows that setting high goals is associated with greater rates of improvement, this constrained view of "good" quality, however unintentional, can limit quality improvement projects' overall aims and achievements.

The Centers for Medicaid & Medicare (CMS) recognizes the need to drive quality improvement outside regulations. Over time, the agency has transformed its Minimum Data Set (MDS), a required quarterly resident assessment, from a survey-driven assessment tool to a key resource to evaluate pilot projects and quality improvement initiatives. CMS's series of pilots have substantially influenced subsequent interventions, both through its regulatory arm and its educational arm, the Quality Improvement Organization (QIO) program. By contracting locally through vendors in each state and territory, the QIO program offers a strategy in which neutral local organizations, the QIOs, who are intimately familiar with the healthcare environment, leverage knowledge and relationships to catalyze synergistic approaches among multiple stakeholders. The QIO program also uses data to provide audit and feedback to nursing homes about their performance, and encourages the implementation of data-driven approaches to setting improvement priorities and measuring efficacy over time (see chapter on "By the Numbers" for more information).

Public reporting has also increasingly added transparency, giving healthcare consumers valuable information to differentiate among providers and further encouraging provider-side performance improvement, in part by generating competition. To this end, CMS has also instituted a "five-star" rating system in an attempt to report tiered performance in an accessible way for the public.[1]

1 http://www.medicare.gov/NHCompare/Include/DataSection/Questions/SearchCriteriaNEW.asp?version=default &browser=Safari%7C4%7CMacOSX&language=English&defaultstatus=0&pagelist=Home&CookiesEnabledStatus=True accessed 19 May 2010.

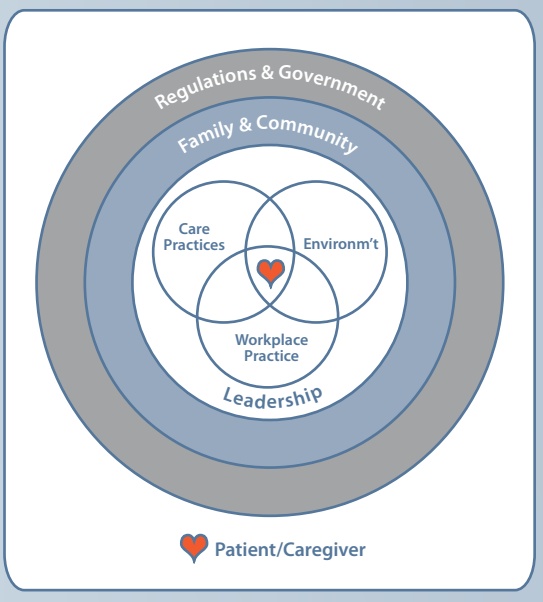
The newer approaches, although still teaching care practices, have increasingly incorporated other domains affecting patient care, as depicted in the Holistic and Transformational Change (HATCh) model (Figure 5.1).[2] With the patient and caregiver in the center, these intersecting domains include, at their core, the workplace practice and environment, surrounded and supported by facility leadership, family, and community. These operate within the regulatory and government policy realm. In other words, stakeholders influence quality of care at all levels. Successful strategies for sustainable quality improvement recognize the inter-relationship of these elements and address them at all levels, changing the "culture of care" (see chapter "Improving Performance through Person-Centered Care")—the way the care stakeholders collectively think about patient-centered, high-quality care.

As a result of these initiatives, CMS has shifted from focusing just on care practices to a broader model that progressively takes into account holistic change, using a regional collaborative approach and a national campaign. Nursing homes, likewise, have begun to broaden their quality improvement perspectives from regulation to an approach that incorporates data-driven tactics and resident-centered interventions. The following case studies describe regional and national CMS pilot projects using these approaches.

2 Quality Partners of Rhode Island [Internet]. Holistic approach to transformational change. Available: http://www.qualitypartnersri.org/cfmodules/objmgr.cfm?Obj=NursingHomeQIOSC&pmid=124&mid=124&cid=124&clear=yes&bc=HATCh%20Model%20%20%20-%20%20%20Individualized%20Care&bcl=1, accessed 25 April 2010.

FIGURE 5.1

Holistic and Transformational Change (HATCh)



Regional Quality Improvement Case Study: Pain Collaborative

From August 2000 to December 2001, Quality Partners of Rhode Island, Rhode Island's QIO, engaged local stakeholders to collaborate on improving pain management in 21 Rhode Island nursing homes.[3] By the end of the project, moderate-to-severe pain prevalence among long-stay residents decreased from 12.2% to 7.2% in the study group—a statistically-significant 41% relative improvement; the intervention also targeted short stay residents, but no reliable measure was yet available to assess the impact on this population. The measured improvement stood in stark contrast to the 72-facility control group, which experienced a non-significant 12% relative improvement. What did it take to achieve these gains and what were the principal lessons learned?

RECRUITMENT

The Pain Collaborative recruited volunteer leadership staff representing 21 nursing homes to participate. When recruiting, Quality Partners and other QIOs commonly tailor their messaging to address the following questions from facility leadership:

3 Baier, R.R., D.R. Gifford, G. Patry, S.M. Banks, T. Rochon, D. DeSilva, and J.M. Teno. 2004. "Ameliorating pain in nursing homes: a collaborative quality-improvement project". *J.Am. Geriatric Society* Soc 52(12):1988-95.

1. Why should we participate?
2. Why should we prioritize this particular effort over our other ongoing projects?
3. How can we afford to do anything more, when no additional staffing is available; who will pay for this?
4. Does failure to participate put our facility at risk in the state survey process?

Perhaps an additional and overarching question should be: can this project produce sustainable change? This last question helps facility leadership determine whether their upfront participation will have a lasting effect on patient care, and has policy and regulatory implications for stakeholders in the local community.

For the Pain Collaborative, leadership from 21 facilities volunteered to participate. The reasons they volunteered likely included:

1. Staff had a genuine desire to do better, and believed participation would improve care for their residents;
2. Staff understanding that the facility had ample room for improvement in pain management (i.e., recognition of need);
3. Work in this quality improvement effort was positioned not as additional work, but as the same work done differently and better, and could inform the quality of work in other areas;
4. The education for this effort came at no additional cost except employee time to attend the educational events;
5. Education provided would come from a neutral entity well-known and trusted by the facilities, their local QIO, so sharing their current care and quality improvement processes was not threatening to them;
6. The invitation to participate came on the state survey and certification agency letterhead, perhaps suggesting that participation might favorably position them with the state agency.

IMPROVEMENT STRATEGIES

Six core elements helped the facilities focus their efforts on this initiative. The first built a relationship between leadership and front-line staff around the intervention. Quality Partners required each nursing home to form a quality improvement team consisting of certified nursing assistants, nurses and their director of nurses. The second involved educating the teams on evidence-based approaches. The third taught staff how to systematically collect data and use it to inform a Plan-Do-Study-Act (PDSA) approach, while the fourth helped facilities to implement this audit and feedback. Fifth, Quality Partners provided structured one-on-one mentoring for staff at each facility by nursing facilitators experienced in nursing home care and quality improvement implementation and monitoring. Lastly, staff from participating facilities formed a community of practice, gathering to collaborate on ground-level improvement approaches, to share best practices, and to discuss barriers and opportunities to improve more.

LESSONS LEARNED

The collaborative meetings proved pivotal. Although staff from different facilities may connect at professional meetings, facilities often feel they are in a battle to improve care at their facility independently, without input from their peers. The collaborative and sharing events helped staff recognize the ubiquity of their front-line problems and identify many varied approaches to coping. They were no longer alone, but among brethren with shared goals, ideals and intelligence that could help them improve care. Sharing reinforced effective practices, improved efficiency of identifying novel solutions, and helped develop a community of knowledge from which to build additional support. For example, a barrier to effective pain management turned out to be an overestimation of medication side effects by prescribers or those who reported pain to the prescribers. Recognizing this as a pervasive problem through the collaborative sharing helped identify common approaches to remediation. The collaborative meetings were highly-rated by participants.

TABLE 5.1

Lessons learned from the Pain Collaborative

Volunteering to participate may be associated with improvement.
A multi-disciplinary quality improvement team with front line and leadership representation, rather than a single individual, may facilitate spread, buy-in, and sustainability.
Collaboration among facilities reinforces mission, approach, and solidarity.
Facilitation and mentoring by a trusted entity helps with buy-in, and can provide a platform for anonymous data sharing to support comparison benchmarks for local performance with other local, and potentially with state and national metrics.
Institutional knowledge on data gathering, interpreting and informing PDSA rapid cycles of change remains under-developed, and needs ongoing support to be sustained.
Measurement should initially focus on process changes.
Evidence-based guidance should focus on process change, as should PDSA interventions.
Local control and collaboration effects better communication, and can take into account local environment issues (such as culture, regulatory, and weather).

In summary, lessons learned from the Pain Collaborative included: 1) how to recruit participants, 2) whom participants could trust, 3) how to build a quality improvement team that could withstand turnover of key members, 4) what skills need the most assistance to acquire, and 5) how local collaboration contributes to local success (Table 5.1). The need to collect and use data to understand room for improvement and to assess progress over time were particularly important for both short-term and long-term success. Also essential was embracing the idea of measuring processes, given the integral relationship between changing systems (processes) and creating sustainable improvement (outcomes).

A major barrier for entering into the partnership has been the existing focus staff have had on the survey and certification process, rather than additional quality improvement projects. Additionally, staffing shortages and staff turnover not only threaten to reduce the time invested in quality improvement, but also to lose the institutional knowledge about quality improvement processes when seasoned staff members leave. That physician and nurse attitudes are a barrier comes as no surprise, but the strategies to change these attitudes differ by the groups. Physicians prefer peer input, whereas facility staff may accept peer or other professional input. Facility staff also may have difficulty in implementing PDSA and may benefit from incremental instructions from mentors to implement changes.

National Quality Improvement Case Study: The First Phase of the *Advancing Excellence* Campaign

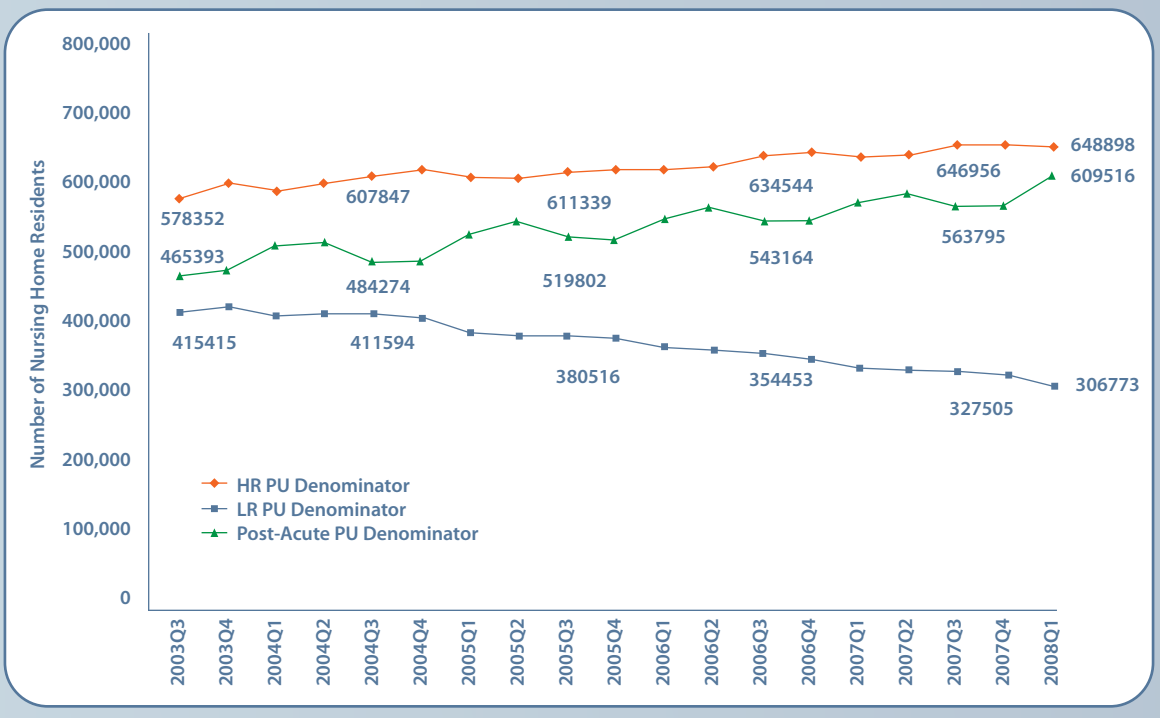
In 2005, national nursing home stakeholders gathered to formulate a strategic national approach to improvement. Unlike the Pain Collaborative, which was conducted entirely under contract to CMS, the *Advancing Excellence in America's Nursing Homes* Campaign incorporated broad stakeholder support, recognizing the important role that consensus plays in sustaining change, and necessarily broadening the campaign's focus beyond CMS's focus. Once formed, the stakeholder coalition identified the

organizational aspects of quality improvement as essential. As noted previously, the Pain Collaborative's improvement came from structure and process steps to recognizing and managing pain. In other words, organizational culture drove improvement and sustainability, **not** changes in pain medication use. The stakeholder coalition recognized this key lesson from the Pain Collaborative and other pilot projects, making organizational culture as an intervention target a cornerstone of the campaign. Even so, maintaining (let alone improving) care in nursing homes has proven difficult due to the constantly increasing acuity of the new residents entering facilities. Hospitals now discharge patients after much shorter lengths of stay. Also, the proportion of residents at high risk of developing pressure sores has coincidentally trended higher since the advent of the Pain Collaborative (Figure 5.2), a trend reflective of the increasing acuity. These additional factors, without substantive changes in staff-resident ratios, might have resulted in predictions of declining quality with more work, while pointing to the need to focus on helping nursing home staff work on maintaining and improving quality.

FIGURE 5.2

Nursing home residents with pressure ulcers, by risk for developing pressure sore

HR = high risk; LR = low risk, and Post-Acute = short stay post-hospitalization



Source: Medicare Data, compiled by Colorado Medical Foundation, 2009.

STATE AND NATIONAL INFRASTRUCTURE

The campaign's multi-stakeholder coalition[4,5] required strong project management and infrastructure to facilitate the consensus process surrounding the campaign's focus and mobilize local and national support. Recognizing this need, CMS funded infrastructure for the campaign, including administrative support, program management, and the development of an interactive website that included education, technical assistance, and a mechanism to permit target benchmarking and setting for clinical goals, data submission, tracking and reporting.

4 Founding and steering committee members of the Advancing Excellence Campaign: Alliance for Quality Nursing Home Care; American Association of Homes and Services for the Aging (AAHSA); American Association of Nurse Assessment Coordinators (AANAC); American College of Health Care Administrators (ACHCA); American Health Care Association (AHCA); American Medical Directors Association (AMDA); Centers for Medicare & Medicaid Services (CMS) and its contractors, the Quality Improvement Organizations (QIOs) and State Survey Agencies; National Association of Health Care Assistants (NAHCA); National Consumer Voice for Long Term Care (NCCNHR); The Commonwealth Fund; The Evangelical Lutheran Good Samaritan Society

5 Additional Steering Committee members: Agency for Healthcare Research and Quality (AHRQ); Alzheimer's Association; American Academy of Nursing -- Expert Panel on Aging; American Association for Long Term Care Nursing (AALTC); American Health Quality Association (AHQA); Association of Health Facility Survey Agencies (AHFSA); Centers for Disease Control and Prevention (CDC); Foundation of the National Association of Boards of Examiners of Long Term Care Administrators; Hartford Institute for Geriatric Nursing; Institute for Healthcare Improvement (IHI); National Association of Directors of Nursing Administration in Long Term Care

To agree on the campaign's focus, the Steering Committee deliberated with its founding members from 2005-2006, and agreed to focus campaign effort on four clinical goals, for which data were already available through MDS reporting and four organizational measures associated with those facilities exhibiting high quality care (Table 5.2); the campaign launched Phase 1 in September 2006. The campaign Steering Committee then developed the website, and formed workgroups to establish process frameworks for all of the quality improvement efforts (Figure 5.3).

Building on the Institute for Healthcare Improvement's (IHI's) successful "node" strategy for the *100,000 Lives* hospital campaign, the strategic coalition leveraged the CMS QIO community (primarily) to form state-level Local Areas of Excellence (LANEs). The LANEs recruited facilities to join the campaign, and also helped facility staff implement improvement strategies related to the campaign goals. Because the LANEs were mostly led by QIOs, alignment with CMS priorities came naturally, since CMS had already approved funding for Campaign-related efforts, and some of these efforts had been ongoing under other QIO contracts. The LANEs in many respects mirrored IHI's nodes, although a typical LANE would have dozens of participants, whereas node participants numbered only a handful. The organizational structure (Figure 5.3) also

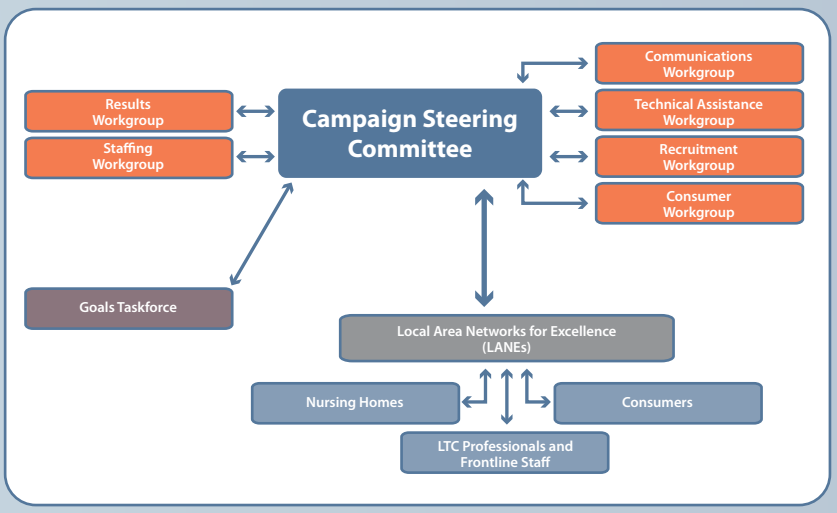
TABLE 5.2

Goals of Phase 1 of the Advancing Excellence in America's Nursing Homes Campaign.

Clinical Goals	Organizational Goals
1 Prevent and minimize pressure ulcers.	**5** Establish individual targets for improving quality.
2 Reduce the use of daily physical restraints.	**6** Assess resident and family satisfaction.
3 Reduce the prevalence of moderate to severe pain in long-stay residents.	**7** Increase staff retention and improve workforce stability.
4 Reduce the prevalence of moderate to severe pain in residents newly admitted from the hospital.	**8** Increase consistent assignment of nursing home staff, so that residents more regularly receive care from the same caregivers.

FIGURE 5.3

Organizational Structure of the Advancing Excellence Campaign



supported a flow of educational content relating to each of these goals, and kept the work product focused on the Campaign's mission.

NURSING HOME PARTICIPATION

Similar to the Pain Collaborative and other QIO initiatives, participation in the campaign was voluntary. The broad stakeholder support and endorsement of the goals and supporting tools provided consistent and uniform messaging about the importance of the topics and strategies to improve. This approach addressed the common problem, for which the many professional organizations have overlapping but slightly varying guidelines that can lead to confusion about which best practices to implement. In contrast, the campaign endorsed uniform guidelines. This was due, in part, to the national stakeholders' consensus-based workgroup process. All members were involved in decision-making at every level and stage of the effort, from selecting the goals to creating the supporting materials.

Meanwhile, the LANEs functioned much like local committees, in many ways mirroring the mix of then national steering committee, with stakeholders from local chapters of the national organizations, as well as other community representatives. At the close of phase 1 of the campaign, nearly half of the country's nursing homes had enrolled and were working on an average of 3.8 goals each.[6] Although the clinical topics trended towards improvement during this time period, facilities participating in the campaign improved at a greater rate than non-participants; this differentiation became apparent soon after the campaign launch and was sustained to the end of phase 1. Since campaign participants could choose as few as three goals to focus their campaign-related efforts on, we could compare relative progress on goals selected for focus and the remaining campaign goals. Participating facilities improved at a

6 http://www.nhqualitycampaign.org/files/reports/NHCampaignNationalEnroll.pdf, accessed 19 May 2010.

greater rate in their selected focus areas than the remaining ones, while continuing to experience improvement, albeit slower, in the remaining areas (Figure 5.4). [7,8,9,10]

7 http://www.nhqualitycampaign.org/files/reports/results/q3-2009/Goal1_ClinicalPerformanceTrends_2009Q3.pdf, accessed 19 May 2010.
8 http:/wwwnhqualitycampaign.org/files/reports/results/q3-2009/Goal2_ClinicalPerformanceTrends2009Q3.pdf, accessed 19 May 2010.
9 http:/wwwnhqualitycampaign.org/files/reports/results/q3-2009/Goal3_ClinicalPerformanceTrends2009Q3.pdf, accessed 19 May 2010.
10 http:/wwwnhqualitycampaign.org/files/reports/results/q3-2009/Goal4_ClinicalPerformanceTrends2009Q3.pdf, accessed 19 May 2010.

Despite the uniform messaging and orchestrated recruitment effort, facility staff identified several barriers to campaign participation, many of which resonate from the Pain Collaborative and other quality improvement initiatives. First, they expressed concerns about added liability, adding to existing concerns about public reporting and transparency. Second, many felt they were already working on the campaign priorities, feeling no need to

FIGURE 5.4

During phase 1 of the campaign, the clinical prevalence over time is graphed to compare those facilities who selected the given condition for focus improved fastest and then was maintained for campaign participants (green triangle) compared to those not selecting the focus (blue diamond) or not participating (red dot). A: High risk residents who have pressure ulcers (%); B: Residents who were physically restrained (%); C: Long-stay residents who have moderate to severe pain; D: Short-stay residents who have moderate to severe pain (%). The group focusing their effort on the specific topic (green triangle in each panel) improved faster, running parallel with their peers until the start of the campaign (lower numbers are better). Adapted from References 7-10.

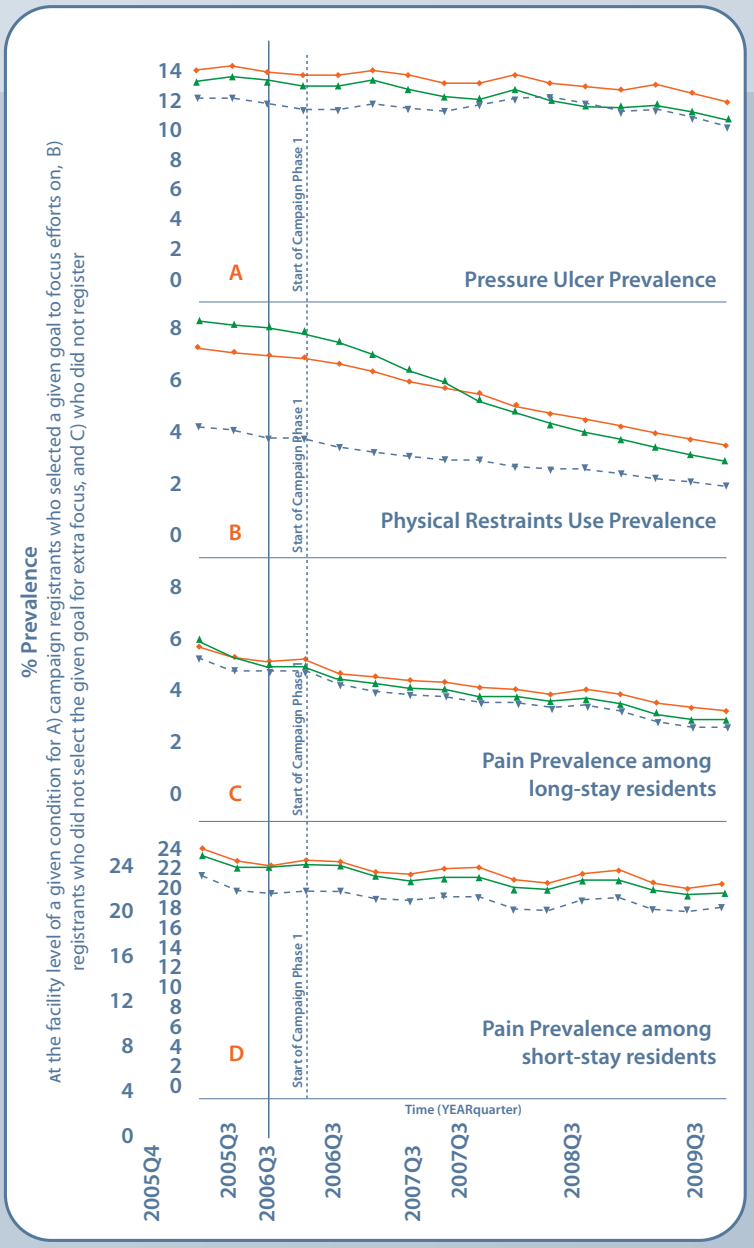


TABLE 5.3

Lessons learned from the Advancing Excellence Campaign

Voluntary participation may be a characteristic of a facility for which improvement may be likely.
Consistent messaging from the stakeholders at the national and local levels for areas of focus helps facility level efforts stay on task.
Collaboration among facilities reinforces mission, approach and solidarity.
Educational tools and resources vetted by the stakeholder professional organizations have high credibility and are valued by the participants.
Data-driven improvement is associated with faster improvement.
Ambitious target setting identifies those who realize the greatest improvement gains.
Concerns and barriers to participation mirrored those of the Pain Collaborative.
Infrastructure support for the Campaign focus instrumental to early success for the fiscally lean nursing home environment

add to (or "get credit for") their current efforts. Third, a prevailing opinion was that staff were already "tapped out" and resisted doing "just one more thing." Last, and most significant, many facilities conducted quality improvement activities in anticipation of the survey process, reacting to specific needs, rather than prospectively identifying needs as an organizational process and approach. Parenthetically, the Commonwealth Fund supported a Rhode Island partnership with the Department of Health's survey and certification team and the Rhode Island QIO, Quality Partners of Rhode Island, to teach the state's survey staff about person-centered care and promote survey activities that could serve to recognize person-centered care, innovation, and excellence rather than only acknowledging meeting minimum performance standards. As geriatrics practitioners in RI, we have witnessed a palpable change in the survey process: the customary angst and re-tasking of facility staff when surveyors arrive has lessened.

LESSONS LEARNED

From this experience, several lessons emerged (Table 5.3). As with the Pain Collaborative, several characteristics were associated with success, including trust, buy-in, inclusion, creativity, communication, sharing of resources, synergy, win-win, and satisfaction. These characteristics reflect the importance of working together on a common goal. Also, as facility leadership began receiving data and using them for quality improvement rather than to reactively prepare for the survey process, a change occurred in the culture of care, and paved a path to sustainable improvement. Leadership also helped keep focus by using consistent messaging, such as "know your number, set your target" to promote a data-driven approach to quality improvement.

Having CMS support also added value, as this provided indispensible data and web support. The web interface provided a place to disseminate tools, communicate with facilities, keep Steering Committee members connected, and

track and distinguish participating and non-participating facility progress. The data access allowed for comparative analyses of performance by various parameters. Specifically, rate of quality improvement was found to depend on voluntary participation, goal selection and aggressive target setting. In general, goals were selected in those areas where facilities had the most room for improvement. Setting targets for improvement predicted faster progress,[11] and setting aggressive targets resulted in the fastest progress.[12] At the end of the first phase of the campaign and before the beginning of phase 2, the absolute and relative improvement realized during the first phase has been sustained across all clinical measures (Figure 4.4). Noteworthy is the global seemingly slow pace of improvement. However, that improvement could be demonstrated even for the metrics that are least sensitive to improved care processes due to flaws in the metric itself, such as improved pain control in short-stay residents (Figure 4.4 D). Nevertheless, even though the improvement appears small, the number of days during which individual residents were not restrained, did not experience moderate to severe pain or did not have a pressure ulcer numbers in the millions annually. Also, the feared "backsliding" that might occur in other areas of quality measured when diverting attention to a campaign goal was not observed—quality in non-focus topics remained the same or also continued to improve, as it did for the national population as a whole. This suggests that new focus does not have to detract or shift from existing work, and may result in doing the same work better.

Due to the recognized success of the first phase of the campaign, CMS and stakeholders renewed their commitment for a second phase. Emboldened by their success, the stakeholders identified and added additional goals to those of phase 1, which were re-packaged to make room for staff satisfaction and advance care planning.[13] Also, the goals were renumbered, moving staff turnover to "Goal 1" to denote the consensus on staff stability's importance to overall quality of care.

Conclusion

Voluntary participation in collaboratives and campaigns has proven an effective strategy for improving quality of care in nursing homes. Neutral and trusted facilitators, such as QIOs, who have in-depth, long-term relationships with providers can help these voluntary efforts succeed for both short and long-term residents. Cornerstones of successful initiatives such as these include early inclusion of stakeholders to achieve buy in and solidarity of approach. Ideally, data gathered during the initiative should be fed back to participants so they can benchmark against others' performance and track their improvement over time, selecting new goals when they meet previous ones. Although improvement comes slowly, it can be meaningful and fostered on much larger scales through collaboratives and campaigns. These approaches can provide the focus and energy to improve both bedside processes and systems-level changes despite the increasingly difficult environment nursing homes encounter. In addition to directing our efforts to facility staff and systems, we need to recognize and embrace opportunities to work with our facility surveyors to better align their processes to outcomes favoring excellence over "good enough."

11 Baier RR, Butterfield K, Harris Y, Gravenstein S. Aiming for star performance: the relationship between setting targets and improved nursing home quality of care. J Am Med Dir Assoc 2008;9(8): 594-8.

12 Baier RR, Butterfield K, Patry G, Harris Y, Gravenstein S. Identifying Star Performers: The Relationship between Ambitious Targets and Nursing Home Quality Improvement. J Am Geriatr Soc 2009;57(8):1498-503.

13 http://www.nhqualitycampaign.org/star_index.aspx?controls=eightgoals accessed 20 May2010.

This 2010 Annual Quality Report highlights the need for ongoing efforts focused on ensuring that enhanced quality and increased consumer and employee satisfaction are universal throughout the nation's long term and post-acute care profession.

Appendices

APPENDIX 1

Appendix to Quality: By the Numbers

CMS Nursing Facility Average Quality Measure Scores by State

	ADL			PAIN			HIGH RISK PRESSURE ULCER			LOW RISK PRESSURE ULCER			INCONTINENCE			INDWELLING CATHETER			BEDFAST		
State	2008	2009	% Difference	2008	2009	% Difference	2008	2009	% Difference	2008	2009	% Difference	2008	2009	% Difference	2008	2009	% Difference	2008	2009	% Difference
US	15.4%	14.3%	-1.1%	3.9%	3.1%	-0.8%	11.6%	10.9%	-0.7%	1.9%	1.8%	-0.1%	50.1%	50.8%	0.7%	5.3%	5.0%	-0.3%	4.2%	4.0%	-0.2%
AK	10.8%	9.0%	-1.8%	2.6%	4.4%	1.8%	10.5%	9.6%	-0.9%	10.0%	5.5%	-4.5%	53.8%	48.4%	-5.4%	8.0%	8.4%	0.4%	5.6%	6.4%	0.8%
AL	11.8%	10.5%	-1.3%	2.9%	1.9%	-1.0%	9.4%	8.8%	-0.6%	1.3%	1.1%	-0.2%	47.2%	47.6%	0.4%	4.0%	4.0%	0.1%	7.0%	5.9%	-1.1%
AR	14.7%	13.6%	-1.1%	3.0%	2.1%	-0.9%	10.8%	10.0%	-0.9%	1.7%	1.8%	0.1%	42.7%	41.7%	-1.0%	5.1%	4.7%	-0.4%	4.1%	3.8%	-0.2%
AZ	14.3%	13.7%	-0.6%	5.6%	4.2%	-1.4%	10.9%	9.2%	-1.7%	2.0%	2.2%	0.2%	51.1%	53.1%	2.0%	6.1%	6.0%	-0.1%	4.0%	4.0%	0.1%
CA	11.2%	9.8%	-1.4%	4.2%	3.5%	-0.7%	12.8%	11.9%	-0.9%	2.1%	1.8%	-0.3%	57.1%	57.2%	0.1%	4.4%	4.3%	-0.2%	5.2%	5.2%	0.0%
CO	15.0%	14.9%	-0.2%	3.9%	2.9%	-1.0%	8.9%	8.9%	-0.1%	1.5%	1.4%	-0.0%	46.3%	46.5%	0.1%	7.0%	6.4%	-0.6%	2.0%	1.9%	-0.0%
CT	16.5%	15.2%	-1.3%	3.1%	2.1%	-0.9%	9.6%	9.1%	-0.5%	1.2%	1.6%	0.4%	49.8%	51.4%	1.5%	4.0%	3.9%	-0.1%	2.1%	2.1%	0.0%
DC	11.7%	11.9%	0.2%	1.1%	0.4%	-0.6%	16.2%	14.1%	-2.1%	1.5%	2.0%	0.5%	55.9%	56.4%	0.5%	2.9%	2.8%	-0.1%	2.1%	1.6%	-0.5%
DE	17.1%	14.0%	-3.1%	3.0%	2.0%	-1.1%	10.6%	9.9%	-0.7%	1.5%	1.6%	0.1%	48.4%	50.9%	2.5%	4.2%	3.4%	-0.9%	4.5%	3.4%	-1.2%
FL	12.9%	12.0%	-0.9%	3.6%	2.4%	-1.1%	12.3%	11.6%	-0.7%	2.2%	1.9%	-0.2%	52.3%	53.0%	0.7%	5.2%	4.8%	-0.4%	4.0%	4.1%	0.1%
GA	14.3%	12.2%	-2.0%	4.7%	3.4%	-1.3%	11.8%	10.4%	-1.4%	1.6%	1.4%	-0.2%	49.8%	51.0%	1.1%	3.8%	3.7%	-0.0%	7.0%	7.0%	-0.1%
HI	12.1%	12.0%	-0.0%	2.0%	2.0%	-0.1%	8.2%	6.3%	-1.9%	0.5%	1.3%	0.8%	63.3%	63.3%	-0.1%	3.1%	2.7%	-0.4%	7.0%	6.3%	-0.7%
IA	13.6%	12.9%	-0.7%	4.0%	3.3%	-0.8%	7.7%	8.0%	0.3%	2.5%	2.4%	-0.1%	44.0%	44.3%	0.3%	6.7%	6.3%	-0.4%	1.3%	1.2%	-0.1%
ID	14.4%	12.4%	-2.0%	4.9%	4.5%	-0.4%	8.6%	7.5%	-1.2%	1.7%	1.7%	0.0%	55.6%	56.8%	1.1%	7.5%	7.0%	-0.5%	3.1%	2.6%	-0.5%
IL	13.9%	13.7%	-0.1%	4.7%	3.7%	-1.0%	14.6%	13.4%	-1.2%	2.2%	2.0%	-0.2%	41.7%	42.5%	0.8%	5.4%	5.0%	-0.4%	2.1%	2.0%	-0.0%
IN	21.9%	21.5%	-0.5%	3.5%	2.4%	-1.1%	11.7%	10.6%	-1.1%	1.8%	1.6%	-0.1%	48.8%	49.4%	0.6%	6.2%	5.5%	-0.7%	3.4%	3.0%	-0.4%
KS	14.0%	13.8%	-0.2%	4.5%	3.8%	-0.7%	9.5%	9.1%	-0.5%	2.2%	1.8%	-0.4%	42.2%	43.3%	1.1%	5.7%	5.4%	-0.2%	1.4%	1.7%	0.3%
KY	17.8%	15.9%	-1.9%	3.8%	2.8%	-1.0%	11.5%	10.7%	-0.8%	1.4%	1.8%	0.4%	50.1%	51.7%	1.6%	6.2%	6.1%	-0.1%	8.3%	7.6%	-0.7%
LA	21.3%		-21.3%	4.0%	3.4%	-0.7%	17.2%	15.5%	-1.6%	2.2%	2.0%	-0.2%	39.4%	41.5%	2.0%	6.4%	5.4%	-1.0%	9.2%	8.2%	-1.0%
MA	13.4%	12.3%	-1.0%	2.2%	1.6%	-0.6%	10.0%	9.3%	-0.7%	1.5%	1.1%	-0.3%	62.7%	63.1%	0.5%	4.5%	4.5%	-0.0%	1.9%	2.1%	0.2%
MD	14.1%	13.9%	-0.2%	1.6%	1.3%	-0.3%	13.3%	12.4%	-0.9%	1.4%	1.8%	0.5%	56.9%	57.3%	0.4%	4.0%	3.5%	-0.4%	5.4%	5.2%	-0.2%
ME	14.7%	15.4%	0.7%	3.2%	2.9%	-0.3%	8.2%	8.9%	0.7%	3.0%		-3.0%	69.3%	70.2%	1.0%	5.8%	6.0%	0.2%	4.2%	5.2%	1.0%
MI	13.1%	12.1%	-1.0%	3.7%	3.0%	-0.7%	10.1%	9.7%	-0.5%	1.7%	1.9%	0.2%	52.1%	52.5%	0.4%	5.1%	4.7%	-0.4%	3.4%	3.4%	-0.0%
MN	15.3%	14.5%	-0.8%	3.5%	3.2%	-0.3%	6.6%	7.1%	0.5%	1.7%	1.9%	0.2%	52.4%	53.1%	0.6%	6.1%	5.9%	-0.1%	1.3%	1.3%	0.0%
MO	12.3%	11.5%	-0.8%	4.8%	3.6%	-1.2%	11.5%	10.4%	-1.0%	2.0%	1.7%	-0.4%	36.6%	37.0%	0.5%	5.0%	4.7%	-0.3%	2.1%	1.8%	-0.3%
MS	16.6%	15.6%	-1.0%	3.5%	2.9%	-0.6%	12.0%	11.8%	-0.2%	1.2%	1.4%	0.1%	47.1%	48.5%	1.4%	4.1%	4.0%	-0.1%	8.6%	8.2%	-0.5%
MT	14.4%	16.5%	2.2%	4.5%	3.7%	-0.8%	8.5%	6.6%	-1.9%	3.3%	1.3%	-2.0%	50.6%	49.4%	-1.2%	6.9%	6.6%	-0.3%	2.4%	2.1%	-0.3%
NC	22.8%	20.7%	-2.1%	3.4%	2.4%	-1.0%	11.1%	10.8%	-0.2%	2.1%	2.1%	0.0%	57.4%	58.6%	1.2%	4.3%	4.1%	-0.2%	8.3%	7.9%	-0.4%
ND	17.5%	18.8%	1.2%	3.0%	3.2%	0.2%	7.3%	6.8%	-0.6%	2.1%	1.2%	-0.9%	45.3%	46.1%	0.7%	7.6%	6.9%	-0.7%	2.2%	2.1%	-0.0%
NE	15.2%	13.5%	-1.8%	4.2%	3.4%	-0.8%	7.4%	6.7%	-0.7%	1.9%	1.7%	-0.1%	47.3%	48.7%	1.4%	7.6%	7.9%	0.3%	1.3%	1.3%	-0.0%
NH	17.1%	15.8%	-1.4%	2.9%	2.7%	-0.2%	7.1%	7.1%	0.0%	1.7%	2.0%	0.3%	51.8%	51.8%	0.0%	5.9%	6.2%	0.3%	2.3%	2.3%	0.0%
NJ	11.6%	11.1%	-0.4%	2.3%	1.9%	-0.4%	15.6%	14.9%	-0.7%	2.2%	2.2%	-0.0%	45.2%	46.5%	1.3%	4.2%	4.1%	-0.1%	3.1%	2.9%	-0.2%
NM	18.4%	16.5%	-1.9%	5.4%	4.0%	-1.4%	11.9%	9.3%	-2.6%	2.8%	2.1%	-0.7%	49.0%	54.2%	5.2%	5.1%	4.9%	-0.1%	2.9%	2.3%	-0.6%
NV	19.1%	18.3%	-0.8%	5.3%	3.7%	-1.6%	12.9%	10.9%	-2.0%	1.6%	1.5%	-0.0%	54.6%	54.4%	-0.2%	6.1%	7.0%	0.9%	8.3%	8.6%	0.3%
NY	17.3%	14.2%	-3.2%	2.6%	2.1%	-0.5%	13.3%	13.0%	-0.3%	2.0%	2.0%	-0.0%	52.2%	52.7%	0.5%	4.4%	4.3%	-0.1%	1.9%	1.8%	-0.1%
OH	13.5%	12.8%	-0.7%	6.4%	4.8%	-1.6%	11.1%	10.6%	-0.5%	1.9%	1.5%	-0.5%	46.0%	47.3%	1.3%	6.4%	6.0%	-0.4%	4.4%	4.1%	-0.3%
OK	11.3%	11.1%	-0.1%	5.5%	5.2%	-0.3%	14.6%	12.9%	-1.7%	2.2%	2.6%	0.4%	40.7%	40.7%	0.1%	5.8%	5.1%	-0.7%	6.4%	5.4%	-1.0%
OR	10.9%	10.3%	-0.6%	5.9%	4.7%	-1.2%	10.8%	10.1%	-0.6%	2.7%	2.5%	-0.2%	58.6%	59.7%	1.2%	7.5%	7.9%	0.4%	7.3%	7.3%	0.0%
PA	19.5%	18.4%	-1.1%	3.6%	2.8%	-0.7%	11.1%	10.3%	-0.8%	2.0%	1.5%	-0.5%	62.7%	62.7%	0.0%	5.7%	5.1%	-0.6%	3.4%	3.3%	-0.2%
RI	13.3%	14.8%	1.6%	2.4%	2.0%	-0.4%	10.7%	11.0%	0.2%	2.2%	2.0%	-0.3%	44.4%	46.0%	1.6%	4.1%	3.9%	-0.2%	2.0%	1.9%	-0.1%
SC	12.8%	12.0%	-0.8%	2.3%	1.7%	-0.6%	10.6%	11.0%	0.4%	2.1%	2.0%	-0.0%	60.5%	63.2%	2.7%	3.3%	3.1%	-0.1%	6.1%	5.5%	-0.6%
SD	17.6%	15.6%	-2.0%	4.3%	3.3%	-1.0%	11.2%	8.0%	-3.1%	2.4%	2.3%	-0.1%	47.5%	46.6%	-0.8%	7.2%	7.0%	-0.2%	1.6%	1.5%	-0.1%
TN	13.4%	12.3%	-1.1%	3.7%	2.4%	-1.3%	11.4%	10.6%	-0.8%	1.9%	1.6%	-0.3%	49.8%	49.3%	-0.6%	5.2%	4.9%	-0.3%	7.0%	6.5%	-0.5%
TX	20.2%	18.4%	-1.8%	3.9%	3.6%	-0.3%	11.8%	11.8%	0.0%	1.4%	1.7%	0.3%	46.5%	46.7%	0.1%	4.5%	4.4%	-0.2%	5.9%	5.4%	-0.5%
UT	13.3%	13.9%	0.6%	7.8%	8.7%	0.9%	9.4%	7.7%	-1.7%	2.9%	3.8%	0.9%	50.4%	52.9%	2.5%	6.1%	7.4%	1.3%	3.3%	3.2%	-0.1%
VA	17.9%	16.7%	-1.2%	3.1%	2.2%	-0.9%	12.8%	11.9%	-1.0%	2.3%	1.7%	-0.7%	57.9%	58.5%	0.5%	4.3%	4.1%	-0.2%	6.0%	5.5%	-0.5%
VT	19.7%	17.7%	-2.0%	3.0%	3.0%	-0.0%	10.5%	8.4%	-2.2%	3.3%	1.0%	-2.3%	57.3%	58.1%	0.9%	7.2%	7.8%	0.6%	4.6%	5.2%	0.5%
WA	12.2%	11.0%	-1.3%	5.6%	4.5%	-1.1%	11.3%	10.6%	-0.6%	2.4%	2.0%	-0.4%	58.6%	59.2%	0.6%	7.7%	7.3%	-0.5%	5.2%	5.4%	0.2%
WI	16.1%	14.7%	-1.4%	3.9%	3.3%	-0.6%	9.6%	8.6%	-1.0%	2.3%	2.1%	-0.2%	48.2%	49.1%	0.9%	6.7%	6.6%	-0.1%	1.9%	1.8%	-0.1%
WV	18.3%	17.8%	-0.4%	3.5%	2.8%	-0.8%	12.1%	11.7%	-0.4%	1.7%	2.2%	0.4%	54.4%	55.7%	1.3%	6.6%	6.0%	-0.6%	6.0%	6.6%	0.6%
WY	15.5%	12.2%	-3.3%	5.2%	4.2%	-1.0%	12.7%	9.6%	-3.1%	1.8%	2.8%	1.0%	41.9%	43.9%	2.0%	5.8%	6.2%	0.4%	1.9%	1.7%	-0.2%

	MOBILITY			UTI			DEPRESSION			PHYSICAL RESTRAINT			PAC DELIRUM			PAC PAIN			PAC PRESSURE ULCER			WEIGHT LOSS		
State	2008	2009	% Difference	2008	2009	% Difference	2008	2009	% Difference	2008	2009	% Difference	2008	2009	% Difference	2008	2009	% Difference	2008	2009	% Difference	2008	2009	% Difference
US	11.8%	10.9%	-0.9%	9.2%	8.9%	-0.3%	14.2%	14.4%	0.2%	3.9%	3.1%	-0.8%	1.7%	1.3%	-0.4%	20.6%	19.5%	-1.1%	14.2%	12.7%	-1.5%	7.9%	7.4%	-0.4%
AK	11.4%	10.2%	-1.2%	5.8%	6.6%	0.8%	10.6%	12.2%	1.6%	1.2%	0.8%	-0.4%	3.5%	2.0%	-1.5%	36.5%	34.7%	-1.8%	19.5%	15.7%	-3.8%	7.8%	10.0%	2.2%
AL	9.4%	9.0%	-0.4%	8.2%	7.0%	-1.3%	9.4%	8.4%	-1.0%	1.6%	1.7%	0.1%	1.1%	1.0%	-0.1%	15.8%	14.2%	-1.6%	13.1%	11.9%	-1.1%	8.5%	7.6%	-0.9%
AR	11.1%	9.9%	-1.3%	8.7%	7.4%	-1.3%	10.0%	9.7%	-0.3%	5.6%	4.0%	-1.5%	1.8%	1.5%	-0.4%	13.0%	12.0%	-1.0%	12.1%	11.8%	-0.3%	7.4%	6.9%	-0.4%
AZ	9.9%	10.7%	0.8%	9.5%	8.3%	-1.1%	11.1%	12.2%	1.1%	3.3%	1.9%	-1.4%	1.9%	1.2%	-0.7%	26.6%	27.1%	0.5%	13.3%	10.6%	-2.6%	6.7%	6.6%	-0.0%
CA	9.5%	8.7%	-0.8%	8.1%	7.8%	-0.4%	9.4%	9.2%	-0.2%	7.9%	6.0%	-1.9%	0.9%	0.5%	-0.4%	25.7%	24.5%	-1.2%	19.8%	18.2%	-1.5%	6.8%	6.3%	-0.5%
CO	11.1%	11.4%	0.3%	8.6%	8.6%	-0.0%	15.5%	15.7%	0.2%	4.4%	2.8%	-1.6%	1.8%	1.4%	-0.4%	24.1%	22.9%	-1.2%	10.3%	8.8%	-1.5%	8.4%	8.2%	-0.2%
CT	12.9%	12.0%	-0.9%	7.5%	7.3%	-0.2%	12.7%	12.1%	-0.6%	2.6%	2.1%	-0.5%	1.7%	1.4%	-0.3%	21.2%	18.7%	-2.5%	13.8%	12.5%	-1.3%	7.8%	7.3%	-0.6%
DC	7.0%	8.7%	1.7%	5.0%	7.8%	2.8%	7.8%	6.9%	-0.9%	1.6%	1.2%	-0.4%	2.0%	1.7%	-0.3%	13.1%	11.4%	-1.7%	17.0%	12.8%	-4.2%	8.3%	6.9%	-1.4%
DE	15.0%	11.1%	-3.9%	10.7%	10.0%	-0.8%	11.7%	11.5%	-0.2%	1.6%	1.2%	-0.4%	1.3%	0.7%	-0.6%	20.5%	20.6%	0.1%	13.2%	10.7%	-2.5%	8.2%	6.3%	-1.9%
FL	9.2%	8.7%	-0.5%	11.3%	10.4%	-0.9%	10.0%	9.7%	-0.3%	5.0%	4.0%	-1.0%	1.2%	0.9%	-0.3%	20.1%	18.5%	-1.6%	16.1%	14.9%	-1.2%	8.3%	7.6%	-0.7%
GA	10.4%	9.3%	-1.1%	9.5%	9.4%	-0.1%	17.0%	15.1%	-1.9%	4.1%	2.9%	-1.2%	2.1%	2.0%	-0.1%	17.9%	15.9%	-2.0%	14.3%	12.1%	-2.2%	8.4%	8.3%	-0.2%
HI	12.2%	14.1%	1.9%	5.8%	5.8%	0.0%	11.3%	11.5%	0.2%	2.0%	1.9%	-0.1%	1.9%	1.1%	-0.8%	20.2%	16.1%	-4.0%	13.5%	10.1%	-3.4%	8.8%	7.3%	-1.5%
IA	10.3%	9.5%	-0.8%	8.9%	9.4%	0.5%	16.3%	16.6%	0.3%	1.5%	1.4%	-0.1%	3.4%	2.8%	-0.6%	26.1%	25.8%	-0.3%	11.0%	8.9%	-2.1%	6.2%	5.9%	-0.4%
ID	10.7%	8.7%	-2.0%	9.9%	9.2%	-0.7%	17.9%	17.5%	-0.4%	3.5%	2.5%	-1.0%	3.1%	2.5%	-0.6%	29.7%	30.4%	0.6%	12.0%	10.0%	-2.0%	6.9%	8.2%	1.2%
IL	11.5%	11.2%	-0.3%	8.4%	8.3%	-0.1%	14.8%	15.4%	0.6%	3.7%	3.2%	-0.6%	2.5%	1.7%	-0.7%	21.8%	19.7%	-2.1%	14.5%	13.2%	-1.3%	9.3%	8.4%	-0.9%
IN	13.9%	13.0%	-0.9%	9.5%	8.8%	-0.7%	16.3%	15.7%	-0.6%	3.2%	2.4%	-0.8%	1.0%	0.7%	-0.3%	19.1%	18.0%	-1.1%	11.5%	9.8%	-1.8%	8.1%	7.9%	-0.2%
KS	11.0%	11.1%	0.0%	10.1%	10.3%	0.2%	16.1%	16.9%	0.8%	0.9%	0.7%	-0.2%	2.1%	2.0%	-0.1%	19.7%	18.2%	-1.5%	12.8%	11.7%	-1.1%	7.5%	7.1%	-0.3%
KY	12.7%	11.4%	-1.3%	11.8%	11.1%	-0.7%	17.8%	18.4%	0.6%	5.2%	4.8%	-0.4%	0.8%	0.7%	-0.2%	18.8%	17.6%	-1.2%	12.4%	11.3%	-1.1%	9.4%	9.1%	-0.3%
LA	10.3%	9.3%	-1.0%	9.4%	9.5%	0.1%	15.2%	15.5%	0.3%	7.5%	6.8%	-0.7%	2.9%	2.4%	-0.5%	12.9%	14.3%	1.4%	14.8%	13.8%	-1.0%	9.0%	8.0%	-1.0%
MA	12.7%	11.4%	-1.2%	9.4%	8.6%	-0.8%	14.6%	14.5%	-0.1%	4.2%	3.2%	-1.0%	1.7%	1.2%	-0.5%	20.1%	18.1%	-2.0%	13.9%	11.5%	-2.4%	6.6%	6.1%	-0.5%
MD	12.4%	10.8%	-1.6%	8.4%	8.6%	0.3%	9.3%	9.1%	-0.2%	2.8%	2.3%	-0.5%	1.1%	1.0%	-0.1%	14.1%	13.8%	-0.3%	15.2%	13.9%	-1.3%	8.0%	7.4%	-0.6%
ME	15.6%	15.5%	-0.1%	9.2%	8.9%	-0.3%	30.9%	30.9%	0.0%	1.4%	0.9%	-0.5%	1.9%	1.9%	-0.0%	22.8%	24.4%	1.5%	11.4%	10.7%	-0.7%	8.9%	9.2%	0.3%
MI	10.3%	9.7%	-0.6%	9.1%	8.6%	-0.5%	13.2%	13.1%	-0.1%	3.9%	3.5%	-0.5%	1.9%	1.6%	-0.3%	20.6%	19.9%	-0.7%	12.1%	10.5%	-1.5%	8.4%	7.9%	-0.5%
MN	11.5%	11.4%	-0.0%	7.1%	7.1%	-0.0%	22.9%	23.3%	0.4%	1.9%	1.5%	-0.4%	1.5%	1.5%	-0.0%	22.3%	23.9%	1.6%	9.0%	8.7%	-0.3%	7.2%	7.2%	-0.1%
MO	9.3%	8.3%	-0.9%	9.5%	9.0%	-0.4%	10.5%	10.5%	0.0%	4.0%	2.6%	-1.4%	2.8%	2.1%	-0.7%	21.5%	19.7%	-1.8%	11.9%	10.7%	-1.2%	7.4%	6.8%	-0.6%
MS	12.2%	10.6%	-1.6%	9.1%	8.8%	-0.2%	14.9%	13.4%	-1.5%	6.0%	5.8%	-0.2%	1.9%	1.4%	-0.5%	14.9%	13.7%	-1.3%	13.2%	11.4%	-1.8%	8.2%	7.9%	-0.3%
MT	10.6%	13.2%	2.6%	7.5%	7.8%	0.3%	17.3%	18.0%	0.7%	2.3%	2.1%	-0.3%	2.4%	2.0%	-0.4%	33.1%	34.0%	0.9%	13.0%	11.0%	-2.1%	7.8%	8.3%	0.6%
NC	13.8%	12.1%	-1.7%	11.1%	10.7%	-0.4%	15.5%	15.5%	0.0%	3.9%	3.0%	-0.9%	1.4%	1.2%	-0.2%	19.4%	16.9%	-2.5%	12.2%	10.6%	-1.5%	9.6%	9.1%	-0.5%
ND	12.9%	12.8%	-0.1%	7.7%	7.7%	0.0%	20.6%	22.7%	2.1%	1.5%	1.2%	-0.2%	3.4%	3.3%	-0.1%	24.0%	28.6%	4.6%	14.8%	10.2%	-4.7%	7.6%	7.1%	-0.5%
NE	12.0%	10.5%	-1.4%	8.5%	8.2%	-0.3%	18.9%	19.0%	0.1%	1.1%	1.1%	0.0%	3.9%	2.8%	-1.1%	23.8%	20.2%	-3.6%	10.6%	9.7%	-0.9%	7.3%	6.3%	-1.0%
NH	14.9%	13.5%	-1.4%	7.7%	8.5%	0.8%	21.3%	19.5%	-1.8%	1.4%	0.9%	-0.5%	2.1%	1.6%	-0.6%	20.5%	23.3%	2.8%	11.7%	11.6%	-0.1%	7.4%	7.3%	-0.1%
NJ	9.9%	9.2%	-0.7%	7.5%	7.3%	-0.2%	9.0%	9.0%	0.0%	3.7%	3.0%	-0.8%	0.9%	0.6%	-0.3%	16.2%	14.3%	-1.9%	19.2%	17.5%	-1.8%	8.2%	8.0%	-0.2%
NM	12.2%	13.4%	1.2%	8.0%	8.5%	0.5%	10.3%	13.3%	3.0%	5.9%	3.2%	-2.7%	1.8%	0.9%	-0.9%	24.7%	24.2%	-0.5%	12.4%	11.3%	-1.2%	8.9%	8.1%	-0.8%
NV	16.8%	16.2%	-0.7%	8.5%	8.4%	-0.2%	15.6%	12.5%	-3.1%	4.1%	2.6%	-1.4%	2.4%	1.4%	-1.0%	24.0%	20.6%	-3.5%	15.7%	14.8%	-0.8%	7.4%	7.1%	-0.3%
NY	14.3%	12.5%	-1.8%	7.9%	8.0%	0.1%	9.7%	13.2%	3.5%	3.0%	2.5%	-0.5%	1.1%	1.0%	-0.2%	15.6%	15.0%	-0.6%	17.6%	15.4%	-2.2%	7.6%	7.4%	-0.2%
OH	11.2%	10.1%	-1.1%	11.0%	10.8%	-0.3%	18.9%	18.2%	-0.7%	4.7%	4.2%	-0.5%	1.8%	1.4%	-0.4%	25.8%	24.2%	-1.5%	13.7%	12.1%	-1.6%	8.0%	7.7%	-0.3%
OK	8.3%	8.1%	-0.2%	9.6%	10.1%	0.5%	9.4%	9.9%	0.5%	5.3%	2.7%	-2.6%	1.6%	1.6%	-0.1%	22.9%	22.5%	-0.3%	15.4%	13.7%	-1.7%	8.2%	8.2%	-0.1%
OR	9.6%	10.6%	1.0%	11.1%	10.8%	-0.3%	12.7%	12.7%	0.0%	4.3%	3.4%	-0.8%	2.0%	2.1%	0.1%	34.6%	32.2%	-2.4%	12.6%	10.8%	-1.8%	8.2%	8.0%	-0.2%
PA	17.8%	16.5%	-1.3%	7.9%	7.0%	-0.8%	19.4%	18.7%	-0.7%	2.6%	2.1%	-0.4%	1.5%	1.3%	-0.2%	20.2%	20.9%	0.7%	14.3%	13.5%	-0.8%	8.0%	7.5%	-0.4%
RI	12.0%	10.2%	-1.7%	10.5%	10.0%	-0.5%	11.0%	11.3%	0.3%	1.6%	1.5%	-0.1%	2.4%	1.2%	-1.2%	21.4%	20.3%	-1.0%	15.0%	14.6%	-0.5%	6.6%	6.6%	-0.0%
SC	10.0%	9.6%	-0.4%	10.9%	10.5%	-0.5%	11.9%	11.7%	-0.2%	5.7%	5.2%	-0.6%	1.3%	1.0%	-0.3%	16.9%	14.8%	-2.2%	14.7%	14.3%	-0.4%	8.5%	7.8%	-0.6%
SD	12.7%	12.3%	-0.3%	7.4%	7.3%	-0.1%	23.7%	25.7%	2.0%	1.9%	1.4%	-0.5%	2.4%	1.3%	-1.2%	26.2%	21.2%	-5.0%	11.6%	11.0%	-0.6%	7.6%	7.2%	-0.4%
TN	9.7%	8.9%	-0.8%	11.0%	9.3%	-1.6%	11.2%	10.1%	-1.1%	6.2%	5.3%	-0.9%	2.1%	1.1%	-1.0%	18.0%	13.8%	-4.2%	15.3%	13.0%	-2.4%	9.4%	8.5%	-0.9%
TX	13.2%	12.0%	-1.2%	7.9%	8.8%	0.9%	10.7%	12.8%	2.1%	2.9%	2.3%	-0.6%	1.8%	1.7%	-0.2%	15.2%	14.6%	-0.6%	12.5%	11.3%	-1.2%	6.4%	6.0%	-0.4%
UT	9.0%	12.2%	3.2%	9.6%	10.6%	1.0%	16.4%	19.2%	2.8%	7.4%	5.0%	-2.4%	3.4%	2.0%	-1.4%	34.3%	36.4%	2.1%	11.9%	10.6%	-1.3%	6.5%	5.5%	-1.0%
VA	14.4%	12.6%	-1.7%	10.8%	9.9%	-0.8%	16.4%	16.0%	-0.4%	1.8%	1.5%	-0.3%	1.7%	1.3%	-0.4%	18.3%	16.6%	-1.7%	15.0%	11.8%	-3.2%	9.2%	8.4%	-0.8%
VT	17.8%	16.4%	-1.5%	10.1%	9.2%	-1.0%	21.0%	20.5%	-0.5%	1.8%	1.2%	-0.6%	2.8%	2.6%	-0.3%	23.2%	20.6%	-2.6%	13.8%	9.6%	-4.2%	8.5%	7.9%	-0.6%
WA	12.0%	8.9%	-3.0%	12.0%	10.3%	-1.7%	21.2%	20.8%	-0.4%	2.1%	1.5%	-0.6%	2.7%	2.0%	-0.8%	31.4%	28.5%	-2.9%	13.0%	11.0%	-2.0%	8.1%	8.2%	0.1%
WI	12.6%	11.5%	-1.1%	8.5%	8.2%	-0.2%	17.5%	18.3%	0.8%	1.5%	1.2%	-0.3%	2.1%	1.6%	-0.4%	27.0%	26.4%	-0.7%	11.4%	9.7%	-1.8%	8.0%	7.9%	-0.1%
WV	12.8%	11.9%	-0.9%	11.5%	11.0%	-0.5%	15.2%	16.3%	1.1%	3.0%	2.6%	-0.4%	1.3%	1.3%	-0.1%	20.6%	18.8%	-1.8%	18.6%	15.0%	-3.6%	9.0%	9.5%	0.5%
WY	10.9%	10.2%	-0.7%	8.3%	8.5%	0.2%	17.8%	16.5%	-1.3%	2.6%	1.9%	-0.7%	2.0%	1.8%	-0.2%	20.6%	22.5%	1.9%	14.1%	9.8%	-4.3%	10.6%	9.8%	-0.8%

APPENDIX 2

Appendix to Improving Performance through Person-Centered Care

Five Person-Centered Care Practices Used for Culture Change Typology

PRACTICE	DESCRIPTION
1 Staff Empowerment	Staff empowerment is evidenced in direct care workers such as certified nursing assistants (CNAs) having a voice in decision-making related to: • Scheduling of shifts • Staff assignment to residents • Performance evaluations • Hiring and staff selection • Planning social events • Making budget requests and resource allocations
2 Resident-Directed Care	Resident-directed care is evidenced in residents (who are physically and mentally capable) having a voice in decision-making related to: • Creating the calendar for social events, activities and outings • Planning social events, activities and outings • Planning meal times • Planning menus • Decorating communal areas • Developing their own care plans • Making decisions about personnel who are or will be working in their immediate area • Making decisions about staff who provide their hands-on care • Deciding when to bathe or shower • Choosing how to take baths or showers (e.g., shower versus bath or undressed versus partially dressed) • Deciding when to get up in the morning • Deciding when to go to bed at night • Deciding when to eat
3 Alternative Dining	Alternative dining refers to how food selections are made and how food is served to residents at breakfast, lunch and dinner. Most nursing homes rely on a tray line dining service. In other words, food, drinks and eating utensils are placed on trays using a tray line (cafeteria style). Assembled trays with pre-plated food is transported to the resident using food carts or served in a central dining room. Alternative dining services can take many different forms. In buffet style dining food is plated from steam tables located in decentralized dining rooms. In family style dining food items are placed in bulk on the dining room table. Residents can select their own portions from containers on the table with assistance from staff. In restaurant style dining multiple food choices are available to the resident at the point of service (where the meal is served). Meals cooked to order is a variation of restaurant style dining. Refrigerator rights mean that the resident keeps his or her own food in a personal refrigerator (usually located in the resident's room). One or more daily meals are prepared by the resident or by staff (or volunteers) using the resident's food.

4 Home Environment	Home environment is to the degree to which residents in a given facility live in physical environments that capture spatial (and operational) elements of "home" as opposed to an "institution". There is a continuum going from nursing units (which are the most institutional) to neighborhoods (which are an intermediate stage) to households (which are the closest to home). A nursing unit is the area served by a single nursing station. It is often defined by a wing, a floor within a multi-story building or a group of rooms adjacent to double-loaded corridors served by a single nursing station. It usually serves 30 or more residents. This is the traditional configuration of resident rooms, nursing stations and other functional areas currently found in most nursing homes. Nursing units are organized to optimize efficiency for nursing staff (e.g., by minimizing the distance from the nursing station to resident rooms). In this configuration, each resident room is served by one nursing station although smaller sub-stations (e.g., for charting resident records) may be provided. A neighborhood is a spatial configuration that breaks up a nursing unit into smaller functional areas through relatively minor renovations and/or introduction of new operational practices (such as consistent staff assignment). It is usually smaller than a nursing unit, but larger than a household (e.g., 16-29 residents). It is not fully self-contained in the sense that residents may share ancillary services such as a laundry room, living room, dining room, bathing area or other common areas with other residents who live outside the immediate neighborhood. Compared to households, neighborhoods have common areas which are shared by a larger number of residents. Compared to households, neighborhoods require less extensive renovations when retrofitting a nursing unit. A household (aka small house nursing home) is a functionally self-contained area often with private resident rooms. It provides shared living areas that come closest to living at home. Households usually serve a small number of residents (e.g., 15 or fewer). It provides a full kitchen, living room, dining room and bathing areas that serve residents on the immediate household. Compared to neighborhoods, households require far more extensive renovations when retrofitting a nursing unit.
5 Non-traditional Staff Roles	Non-traditional staff roles are reflected in staff who do not work in "silos" defined by department-specific roles. Department-specific roles are represented by staff doing job tasks associated with a single functional area or department. In the typical nursing home, staff work within a single department representing a core organizational function such as nursing, housekeeping, activities, social work, business office, maintenance or food service. The term "versatile" worker has been coined to describe staff whose routine job tasks cross-cut these departmental boundaries. Non-traditional staff roles are exemplified by cross-trained workers, blended roles and universal workers. Staff who are cross-trained workers or workers in blended roles play dual roles. For example, a housekeeper or activity aide who is also CNA-certified and routinely assists with nursing tasks is a cross-trained worker. If jobs or positions within a facility are redesigned so that job descriptions encompass two roles that cross-cut departmental functions (e.g., combining nursing with housekeeping, activities with food service, or nursing with activities) these dual roles represent blended roles. Universal workers function in roles that combine three or more departmental functions. Universal workers routinely complete job tasks related to more than two departments. For example, a universal worker is a staff member who routinely does tasks related to at least three functions such as nursing (e,g., bathing residents and providing nursing care), housekeeping (e.g., cleaning and doing laundry), food service (e.g., preparing and serving meals) or activities (e.g., engaging residents in social or recreational pursuits).

The Alliance For Quality Nursing Home Care

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