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# Nursing Home Organizational Change: The "Culture Change" Movement as Viewed by Long-Term Care Specialists

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#### **Abstract**

A decade-long grassroots movement aims to deinstitutionalize nursing home (NH) environments and individualize care. Coined "NH Culture Change" the movement is often described by its resident-centered/directed care focus. While empirical data of "culture change's" costs and benefits are limited, it is broadly viewed as beneficial and widely promoted. Still, debate abounds regarding barriers to its adoption. We used data from a Web-based survey of 1,147 long-term care specialists (including NH and other providers, consumers/advocates, state and federal government officials, university/academic, researchers/consultants, and others) to better understand factors associated with perceived barriers. Long-term care specialists view the number-one barrier to adoption differently depending on their employment, familiarity with culture change, and their underlying policy views. To promote adoption, research and broad-based educational efforts are needed to influence views and perceptions. Fundamental changes in the regulatory process together with targeted regulatory changes and payment incentives may also be needed.

#### **Keywords**

long-term care; culture change; nursing homes; innovation; resident-centered care

The United States faces dramatic increases in the size of its elderly population, and given the higher prevalence of chronic disabling conditions accompanying older age, consequent growth in the need for formal (i.e., reimbursed) and informal long-term care (LTC; Miller & Mor, 2006). Nursing homes (NHs) are integral to meeting formal LTC needs, with a significant proportion of Medicare expenditures each year devoted to NH postacute care and Medicaid dollars devoted to NH LTC. Also, while the prevalence of residents in U.S. NHs has declined from 1.6 million in 1999 to 1.5 million persons in 2004, the absolute number of

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persons using NHs (for short-term and long-term care) has grown (Decker, 2005; Miller & Mor, 2006).

The growth of the U.S. elderly population raises many profound LTC issues. Given the central role NHs play in the U.S. LTC system, quality of care in NHs has been a major concern. Indeed, there is a long history of efforts to improve quality of care and life in U.S. NHs (White et al., 2003). In 1987, the federal Omnibus Budget Reconciliation Act (OBRA) strengthened federal requirements for LTC facilities and created a minimum standard of care for persons living in certified nursing facilities. Still, while many NHs provide compassionate, competent, and coordinated care, quality concerns persist as the challenges to providing high-quality NH care heighten.

Provision of high-quality of care in NHs is jeopardized by environmental stressors including chronic staff shortages and turnover and inadequate reimbursement. Additionally, there have been dynamic changes in resident case-mix due to earlier hospital discharges (in response to Medicare's hospital prospective payment system) and to growth and promotion of community-based alternatives to NH care (particularly assisted living). Consequently, NHs now care for residents with much higher levels of disability and with more complex and diverse care needs (Feng, Grabowski, Intrator, Zinn, & Mor, 2009; Harrington, Carillo, & Wellin, 2001; Wetle, Teno, Shield, Welch, & Miller, 2004). To meet these needs almost 90% of U.S. NHs now provide both long-term supportive and short-term postacute care, ranging from rehabilitation to end-of-life care (Miller & Mor, 2006).

Given the challenging environments in which NHs operate and the complex and diverse care provided, comprehensive transformative and adaptable approaches to improving quality may have a greater likelihood of enacting fundamental change. Also, such approaches have a greater likelihood of adoption if approaches are consistent with regulations and the costs incurred are negligible and/or outweighed by savings/benefits (Rogers, 1995). According to many, a transformational movement described as "NH culture change" encompasses these attributes.

With the goal of achieving resident-directed care, NH culture change aims to transform both NH physical environments and organizational systems; it is about *deinstitutionalizing services and individualizing care*. The "NH culture-change movement" officially began in 1997, after the first meeting of the NH Pioneers, currently termed the Pioneer Network (Rahman & Schnelle, 2008). The culture-change movement advocates a less hierarchical structure, encouraging residents and frontline staff to be more involved in decisions that affect them. The movement seeks to overhaul stringent routinized work atmospheres so that workers feel more valued and residents receive more personalized care. In addition to improving medical care, efforts are aimed at improving resident and staff quality of life and in making the physical environment more homelike. Importantly, caring and listening to the voice of individual residents are considered key characteristics (Harris, Poulsen, & Vlangas, 2006; Rahman & Schnelle, 2008), with the "NH culture change" movement often described interchangeably as "person- or resident-centered care." A consensus document by a panel of NH experts identified six culture change constructs; their definitions include, (a) care and all resident-related activities are directed by residents; (b) a living environment designed to be a

home rather than an institution; (c) close relationships between residents, family members, staff and community; (d) work organized to support and empower all staff to respond to residents' needs and desires; (e) management enables collaborative and decentralized decision making; and (f) systematic processes that are comprehensive and measurement-based and that are used for continuous quality improvement (Harris et al., 2006).

While the Pioneer Network and other efforts (e.g., the "Eden Alternative" and "Green House" and "Wellspring" models; Kehoe & Van Heesch, 2003; Rabig, Thomas, Kane, Cutler, & McAlilly, 2006; Thomas, 2003) have been passionate in their efforts to change the culture of U.S. NHs, our understanding of the extent of culture-change practices adopted in U.S. NHs is only recently emerging. A 2007 Commonwealth survey of NH directors of nursing provides the first national information on the adoption of NH culture-change practices and barriers to their adoption (Doty, Koren, & Sturla, 2008). In this study, directors of nursing in 5% of the responding NHs reported culture change or resident-centered care (as described in the survey) "completely" described their facilities and 25% reported it described their facilities "for the most part." The remaining homes reporting little or no culture change were categorized by their reported leadership commitment to culture change. In 25% of the NHs, directors of nursing reported leadership as being "extremely" or "very" committed to "adopting culture change." The largest proportion of NHs (43%), however, were considered to be "traditional NHs" with little or no culture-change adoption or strong leadership commitment to culture-change adoption reported (Doty et al., 2008).

The above survey also found views on the major barriers to NH culture-change barriers varied by a NH's extent of culture-change implementation. For example, considering the top three reported challenges, directors of nursing in traditional NHs most often cited cost as being a major barrier, followed by size and regulation (56%, 36%, and 34%, respectively). In contrast, in NHs with culture change "completely" or "for the most part" cost, size, and regulation were cited less often (26%, 14%, and 22% respectively; Doty et al., 2008). The study presented here aimed to document the barriers to "NH culture change" perceived as the most important by LTC specialists and to examine the key factors associated with these perceptions. Gaining a better understanding of the factors associated with perceived barriers is an essential first step to understanding the actions needed to promote initial and sustained adoption.

#### **New Contribution**

What we know about the implementation of NH culture-change practices and the perceived barriers to their implementation comes largely from the study discussed above (Doty et al., 2008). However, a broader understanding is needed since a broader constituency influences the behavior of U.S. NHs. It is likely that the barriers perceived by this broader constituency translate into their support or promotion of NH progress toward the adoption of culture-change practices.

By using data from the first-ever national survey of a wide array of LTC specialists (including consumers/advocates, NH, and other [LTC] providers, state and federal government officials, university/academics, researchers/consultants, and others), this study

gains insight into how a broad constituency of LTC specialists views the barriers to implementing NH culture-change practices. Study findings highlight how the extent of familiarity with "NH culture change" (and perhaps exposure to it) is associated with perceived barriers and thus assists in distinguishing perceptions that may be more rather than less experientially based. Additionally, findings provide insight into how respondents' employment positions and policy predispositions (i.e., underlying beliefs) appear to be associated with perceived barriers to adoption. It is this insight that can broaden our understanding of which LTC specialists view NH culture change as more versus less feasible, and thus which specialists may be more versus less supportive of its adoption.

## Conceptual Model

Motivating this research is Roger's (1995) diffusion of innovation theory, which has previously been used to understand adoption of innovation by health care organizations (Rahimi, Timpka, Vimarlund, Uppugunduri, & Svensson, 2009). Diffusion of innovation theory posits that based on an organization's characteristics and histories (prior practices, prior innovativeness, other), it will have a differing predisposition to adoption of an innovation. Therefore, some organizations will be more likely to be innovators (the first to attempt an innovation) or early adopters while others will be more likely to be in the early majority, late majority, or to be laggards. Importantly, however, both organizations with higher and lower predispositions will need to be *persuaded* that adoption is in their best interests when they are *ready* to consider adoption.

Diffusion of innovation theorizes that communication channels provide information influencing an organization's decision to adopt an innovation as well as the organization's decision to continue adoption of an innovation—to sustain an innovation. In the case of NH culture change, for initial adoption to occur NHs will need to be persuaded (by peers/ leadership, researchers, consumers/advocates, other) that adoption results in desired outcomes, such as higher quality of resident care and life and improved satisfaction of staff and families. Additionally, NHs will want to be assured (through peers/ leadership, regulators, researchers, other) that adoption of culture change will not have unexpected consequences and/or be costly or incompatible with regulatory oversight. Furthermore, based on Roger's (1995) theory, better ongoing experiences with implementation (i.e., those with negligible unexpected consequences and with strong leadership support) are more likely to be sustained (Bradley et al., 2004; Rogers, 1995). Given that a key factor appearing to impede culture change across a range of sectors includes constraints imposed by external stakeholders and professional allegiances (Bradley et al., 2004; Scott, Mannion, Davies, & Marshall, 2003), gaining an understanding of how different LTC specialists perceive culturechange barriers is important.

## **Data and Method**

#### **Data Sources**

This study is based on the Commonwealth Fund LTC Opinion Leader Survey and its content was informed by literature review, in-depth interviews, expert advisory panel input, and cognitive interviews (Miller, Booth, & Mor, 2008; Miller & Mor, 2006; Sudman, Bradburn,

& Schwartz, 1996). The survey was administered to persons with known or demonstrable experience and expertise in at least one aspect of LTC. Potential respondents were chosen based on purposive and snowball sampling (Patton, 2002), with the former consisting of 2,071 individuals identified through Web searches, published sources, and national databases, and the latter consisting of 506 individuals recommended by our initial survey respondents.

The survey was administered electronically via the World Wide Web from September 2007 to March 2008. Each prospective respondent was e-mailed an introductory cover letter that provided information to ensure informed consent. The letter also included a Web-link to the survey along with a unique ID and password that enabled access to the survey until the time it was completed. Up to four reminder e-mails were sent over the next 35 days. The protocol was approved by Brown University's Institutional Review Board (IRB). Of 2,577 potential respondents 1,147 (44.5%) completed the entire survey. Since each potential respondent was deemed eligible for the survey, the response and completion rates are the same. Additional details about the survey can be found elsewhere (Miller, Mor, & Clark, 2010; Miller & Weissert, 2010).

Three postsurvey focus groups were conducted on May 20–21, 2008 in Washington, D.C. with representatives of three major constituency groups: consumer advocates (8 participants), provider representatives (4 participants), and current/former state and federal public officials (6 participants). Information deriving from these focus groups is used to help interpret the survey results. Prior to partaking, focus group participants reviewed and signed an informed consent document. Each focus group was asked up to 13 questions, with each question being accompanied by data drawn from the survey, presented either as part of the initial question or as part of a follow-up question once the initial question had been asked. The focus group interviews were recorded and transcribed. Analysis involved coding, categorizing, and comparing findings both within and across focus groups (Morgan, 1988). The protocol was approved by Brown University's IRB.

#### Variables of Interest

The questions used to assess respondents' knowledge of and views on NH culture change are included in Table 1. We also included in our analyses LTC specialists' responses regarding the number-one challenge facing LTC (see Table 1); this ranking served as a proxy for LTC specialists' underlying health policy beliefs (referred to here as "policy predisposition").

In addition to the above, we examined culture-change responses by employment positions. We categorized the groups as follows: NH providers, other providers, consumers/ advocates, state and federal government officials, university/academics, and others (combining researchers/consultants and others in this category). In some cases, respondents identified with more than one occupational category; for example, a primary care physician on the faculty of a university medical school may have specified both "university/academic" and "NH provider." In these instances, respondents' answers were reported under all relevant constituency groups. For multivariate analyses, we additionally included the key

demographic variables of gender (female vs. male) and age, categorized as <45, 45 to 54, 55 to 64, and 65 years or older.

#### **Analysis**

Descriptive statistics were used to report culture-change responses and to contrast responses by the aforementioned factors. To understand the independent associations between the top-ranked perceived barrier to culture change and the factors of interest, we ran three multivariate logistic regression models. The outcome for each model was whether the respondent ranked the barrier of cost, senior leadership resistance, or regulation as the number-one barrier to NH culture change (yes/no).

#### **Results**

Table 2 reports on respondents' familiarity with resident-centered care/culture change in NHs (subsequently referred to as "NH culture change") and the perceived barriers to adopting NH culture change. In all, 66% of LTC specialists reported being either familiar or extremely familiar with NH culture change, and only 7% (6.9%) reported being "not at all familiar" with it. NH provider representatives and consumer advocates appeared to be the most knowledgeable about NH culture change, with 90.5% and 76.1%, respectively, being "familiar" or "extremely familiar" with it. Those employed in university/academic settings were least familiar with only 58% being "familiar" or "extremely familiar" with the culture-change ethos.

Overall, senior leadership resistance (35.4%) was most often ranked as the number one "most significant barrier" to NH culture change; this was followed by cost (28.7%) and regulation (21.8%; Table 2). However, among provider representatives, those representing NHs ranked regulation (at 37.7%) as being the number-one barrier and those representing other LTC providers ranked cost (at 39.0%) as number one.

Rankings of the number-one perceived barrier to NH culture change also varied in relation to respondents' familiarity with culture change. For example, respondents "extremely familiar" with NH culture change most often ranked senior leadership (47%) as the number-one barrier and less often ranked cost (17.3%). On the other hand, respondents "not at all familiar" most often ranked cost (49%) as number one and less often ranked senior leadership resistance (11%; data not shown).

Last, respondents' rankings of the number-one barrier to NH culture change varied by their policy predisposition, represented by respondents' number-one reported challenge facing LTC. For example, respondents ranking "regulation/enforcement" as the top LTC challenge more often ranked regulation (35.5%) as the most significant barrier to culture change and those ranking "financing" as the top LTC challenge more often ranked cost (35.8%; data not shown).

Table 3 reports multivariate logistic regression results on the factors associated with a LTC specialist's ranking of cost, senior leadership resistance, or regulation as the number-one barrier to NH culture change. Controlling for NH provider status, respondents extremely

familiar with culture change had a significantly lower likelihood of ranking cost as the number-one barrier to NH culture change (odds ratio [OR] = 0.3; 95% confidence interval [CI] = 0.18–0.39), and a significantly greater likelihood of ranking senior leadership resistance as number one (OR = 5.0; 95% CI = 3.26–7.69). There was no significant association between culture-change familiarity and the ranking of regulation as the number-one barrier. Also, controlling for familiarity with NH culture change, LTC specialists who were NH providers had a significantly greater likelihood compared with other specialists of reporting regulation as the number-one barrier to culture change (OR = 2.8; 95% CI = 1.77–4.27) and a significantly lower likelihood of reporting senior leadership resistance as the top barrier (OR = 0.4; 95% CI = 0.22–0.56).

Specialists' beliefs about the number-one challenge facing LTC were significantly associated with their perceived barriers to culture change. Cost was more likely (p = .06) to be rated as a top barrier among specialists believing "finance" to be the number-one LTC challenge (OR = 1.3; 95% CI = 0.99–1.82). Similarly, LTC specialists who cited "regulation/enforcement" to be the number-one LTC challenge were significantly more likely to cite regulation as the number one (OR = 1.9; 95% CI = 1.01–3.42). Finally, the perception of "achieving quality" as being the number-one LTC challenge was significantly associated with a greater likelihood of ranking senior leadership resistance as the more significant barrier (OR = 1.5; CI = 1.03–2.17).

## **Discussion**

This first-ever national survey of a diverse array of LTC specialists found almost all respondents (93%) to be at least slightly familiar with resident-centered care/culture change in NHs, and two thirds to be familiar or extremely familiar. As would be expected, NH provider representatives had the most familiarity, with almost three quarter indicating being extremely familiar with the culture-change movement. This is important because the survey found LTC specialists more familiar with culture change are significantly more likely to report senior readership resistance as the number-one barrier. In contrast, those with less familiarity more often cite cost as number one. These findings are similar to prior research that found reported barriers differed by the amount of a NH's culture-change adoption (Doty et al., 2008). Unlike cost and senior leadership resistance, findings failed to reveal a significant association between familiarity and regulation as the number-one barrier to culture change. Instead, factors significantly associated with its selection were being a NH provider representative and having a policy predisposition to "regulation" (measured by respondents' beliefs about the number-one challenge facing LTC). Respondents' policy predisposition was also associated in a predictable manner with selecting cost or senior leadership resistance as the number-one barrier.

Findings from this survey further our understanding of the factors associated with perceived culture-change barriers and thus help to inform our thinking on the origin of these perceptions. To the extent that perceptions of barriers reflect reality and perhaps are based on known experiences (i.e., problems with state surveys or increased costs association with adoption), policy initiatives (e.g., changes in regulatory oversight, payments that incentivize adoption, other) can promote adoption. On the other hand, to the extent perceived barriers

are influenced by nonexperiential factors, such as respondents' underlying health policy views or misinformation, evidence is needed to influence these perceptions (e.g., costbenefit analyses, clarification of regulations, peer reports of regulator support and/or benefits, other).

LTC specialists having greater familiarity with culture change more often cited senior leadership resistance as the number-one barrier, thereby emphasizing the perceived importance of leadership to culture-change adoption. Both high-caliber leaders and leadership support are known to be critical to successful implementation of NH innovation/ culture change (Bradley et al., 2004; Deutschman, 2005; Scalzi, Evans, Barstow, & Hostvedt, 2006; Stone et al., 2002). As surmised by Deutschman (2005), innovative and assertive leadership is essential if the challenges inherent with the prevailing bureaucracy in U.S. NHs are to be overcome. It is also critical for leaders to provide support for the systems and resources needed for innovation, while also promoting and modeling the values consistent with it (Bradley et al., 2004; Deutschman, 2005). Additionally, while the assumption was that "senior leadership resistance" referred to NH administers or nurse managers, consumer advocate focus-group participants noted that corporate leadership support is also a critical consideration in NHs. Advocates cited instances where corporate leadership opposed culture-change efforts promoted by NH administrators and/or by families, and this in part was believed to be driven by leaders' concerns about reduced profit margins. Consumer advocates stated that perhaps the only way to convince (largely forprofit) corporate leadership of the merits of culture change is on economic grounds.

These survey findings and others (Doty et al., 2008) reveal a negative association between greater familiarity with culture change and the likelihood of citing cost as a major barrier, providing some circumstantial support for the economic argument that NH culture-change initiatives are not necessarily accompanied by increased costs. However, resistance to culture change on the basis of cost is likely to continue without a well-documented "business case" (to persuade organizational leaders; Bradley et al., 2004; Rogers, 1995) and well-designed comparative cost studies/cost–benefit analyses (to influence policy makers and experts). For while culture-change management cannot compensate for lack of resources in the NH industry (Lopez, 2006), its adoption is more likely if its benefits are evident and its cost are negligible.

Related to costs, provider representatives participating in this study's focus group registered surprise at the high proportion of respondents viewing cost as a barrier. However, they acknowledged "costs" are dependent on the specifics of the initiative and speculated for instance that the establishment of a "Green House" model (given the infrastructure investment) may be more costly than implementation of many NH culture-change practices. This input highlights the fact that reports of culture-change barriers in this survey are dependent on LTC specialists point of reference; it may be that those more familiar with NH culture change viewed culture change as the incremental process it is in many NHs while others viewed it in terms of more well-known models, such as "The Eden Alternative" or "Green House" (which often require infrastructure investments for creation of private rooms or small homes).

When considering regulation, survey findings showed the NH provider group, who are arguably the respondent group most acutely aware of NH concerns, were almost three times as likely (compared with all others) to believe regulation was the number-one barrier to culture change. This high ranking of regulation as a barrier is consistent with previous research showing NH adoption of innovation (i.e., special care units) was lower in states with regulatory constraints (i.e., active certificate of needs and new construction moratoria; Banaszak-Holl, Zinn, & Mor, 1996). Beyond NH providers, respondents with a "regulation/ enforcement" health policy predisposition were twice as likely to view regulation as a top culture-change barrier. It is possible that respondents' beliefs regarding the importance of regulation/enforcement to LTC drove their rankings more than actual knowledge of Medicare/Medicaid regulatory barriers. This possibility was raised by consumer and public official focus-group participants who believed that viewing regulation as a barrier could be due to lack of (accurate) regulatory knowledge. Nonetheless, provider focus-group participants in this study portrayed the regulatory environment as posing significant impediments since its framework is "organized largely around identifying deficiencies that just about everybody agrees has very little correlation to quality, whatever you define quality to be."

Providers' beliefs concerning regulatory barriers probably reflect tensions with federal regulations. For example, fire safety regulations that promote uncluttered spaces may also counter efforts to create a more homelike environment. Providers' concerns may also reflect Medicaid rules that limit the use of private rooms by Medicaid residents as well as the amount of social space available. However, despite these concerns, government reimbursement has generally supported cost growth in excess of inflation and would likely support more social space should administrators choose to allocate resources for that purpose. Furthermore, the NH reform laws that, for example, require government regulators to account for "the costs of services required to attain or maintain the highest practicable physical, mental and psychosocial well-being of each resident" can be interpreted as being consistent with the culture change ethos (U.S. Congress, 1990 [4008(h)(2)(A)(ii) of OBRA 1990 (Public Law 101-508]). Even given this, however, we do anticipate the need for the modification of building codes and Medicaid reimbursement policies to promote the construction of more homelike facilities for maximizing resident quality of life.

The Centers for Medicare & Medicaid Services (CMS) has established procedures that allow interested parties to request review of regulations that are thought to pose an impediment to culture change. Thus, for example, although there is some question about whether small-group homes (e.g., as promoted in the Green House model) may operate throughout several neighborhoods under a single NH license, CMS has at least been willing to talk about this possibility. Additionally, CMS has also demonstrated support for NH culture change through its NH Quality Initiative (NHQI), a broad-based program intended to improve NH quality, in part, through involvement in quality improvement programs (CMS, 2008). Given this prevailing federal government support, we suspect that provider perceptions about regulation impeding NH culture change stem from how existing regulations are implemented by state surveyors at the front line. These surveyors' views may differ from what CMS, and perhaps even the leadership at the state survey agencies, intend. Indeed, the most disconcerting

aspect of the current regulatory regime is its inconsistent application both within and across states/regions over time (Miller & Mor, 2008).

Several important perceived barriers to NH culture change have been articulated in this research. Still, that about a third of NHs have adopted some practices compatible with culture-change constructs (Doty et al., 2008) speaks to an openness to change and an existing persuasive argument for adoption. Even greater openness to NH change may occur as early adopters share their successes with their peers (Rogers, 1995). However, peer reports do not alleviate the need for empirical research on the costs and benefits of culture-change practices and models (Rahman & Schnelle, 2008; Weiner, Freiman, & Brown, 2007; Zimmerman, 2003) and of the circumstances under which practices are beneficial and/or less costly.

Without empirical support, the momentum of the NH culture-change movement could halt. However, even without a body of scientific evidence to support adoption, there is currently broad-based support for the merits of resident-center care/culture-change practices in NHs, including support by public officials/policy makers. For example, several states (Georgia, Colorado, Minnesota, and Ohio) have Medicaid pay-for-performance legislation/programs promoting outcomes compatible with NH culture change, such as resident quality of life. In new pay-for-performance legislation in Colorado, NHs can be reimbursed as much as \$4 more a day for achieving desired performance (with a 70% weight on quality of life outcomes; Farrell & Elliot, 2008). Such financial incentive programs are believed to be necessary to both persuade reluctant NH and corporate leaders to adopt culture change and to provide financial support for the infrastructure improvements needed to change NH environments. Success of such incentive programs (measured by both adoption and quality outcomes) will likely influence the extent to which similar programs will be enacted.

Perceived and real regulatory barriers to resident-centered care/culture change in NHs can be addressed through educational efforts as well as through changes in the design of state survey processes. Desired is a survey process that promotes consistent support for culture-change practices and resident-centered care across and within state survey agencies. An example of such a survey process was designed and enacted by a CMS-sponsored and Commonwealth-funded project in Rhode Island (Rhode Island Department of Health, 2008). It encompassed surveyor and provider educational efforts in addition to expanded on-site surveys aimed at understanding whether NHs provided individualized, resident-centered care. The project resulted in a call for state survey agencies and NH coalition groups to work together to change LTC regulations found to be *real* barriers to resident-centered care, promulgating new regulations and licensing requirements as needed.

#### Limitations

Although this is the first survey to ask LTC specialists about culture change, there are several limitations worth noting. First, there may have been bias inherent in the purposive sampling approach used. Since there was no sampling frame, individuals potentially knowledgeable in LTC policy development and planning may have been excluded. Second, there may have been bias inherent in the snowball supplement. It is likely that there were commonalities between the initial respondents and those they referred. This increases the

chance that there may have been correlation in the responses that do not apply to the generalized population. Third, we could not determine whether there were any biases between those who responded to the survey and those who did not. Because we did not have an already constructed sampling frame, we collected respondent information using the survey instrument itself, and therefore lacked the data necessary to compare characteristics of respondents versus nonrespondents. Fourth, although we achieved a favorable response rate for a Web-based survey, there is room for improvement if response bias is to be minimized. Although we sent up to four reminder e-mails, additional reminders might have yielded more responses; so too might have follow-up phone or fax administration, though this information was lacking for most potential respondents. Fifth, we did not recruit individual providers, consumers, or members of the general public but instead members of the organizations that represent them in higher level discussions about LTC policy and planning. It would be useful, therefore, to administer the survey to individual providers and consumers, to gauge the extent to which the views of those who grapple with LTC on the front lines coincide with the views of those who help to formulate and implement policy in this area.

A limitation related in particular to these analyses and our interpretations is that we do not know the meaning(s) respondents attributed to the barriers of "cost" and "senior leadership resistance." As discussed above, respondents who ranked cost as the top barrier may have been considering the infrastructure changes needed for well-known culture-change models (such as the "Green House" model) rather than other costs that may not be as substantial (e.g., employee training, other). Similarly, for those ranking "senior leadership resistance" as number one we do not know whether this ranking was reflective of resistance from NH administrators, nurse managers, and/or corporate leadership.

#### Conclusion

This study furthers our understanding of perceived barriers to resident-centered care/culture change in NHs. It also highlights the need for research that demonstrates the costs and benefits of NH culture change and for broad-based educational efforts to support and promote adoption of NH culture change. Wider adoption of culture change will require recognition by providers themselves that organizations that adopt innovative caregiving practices and technologies perform better than those who do not (Zinn, Mor, Feng, & Intrator, 2007). However, for NHs to move beyond *readiness* to *adoption*, persuasive *information* by diverse LTC constituencies is needed. Of particular importance will be demonstrated support from nursing and LTC leadership.

Barriers highlighted by respondents imply that a multifaceted strategy will be necessary to overcome prevailing financial, managerial, and regulatory impediments. This should include procedures promoting more consistent support for culture change and resident-centered care across state regulatory agencies. In this regard, study findings highlight the need for surveyor and provider educational efforts to promote a better understanding of state and federal regulations, since their interpretation and application appear to impede the adoption of culture-change practices. With such knowledge, providers, consumers and regulators could come together to question federal and state regulatory practices that act as a barrier to

culture change, possibly eliminating some regulation or shaping it so it no longer impedes their efforts in this area. Also needed is modification of the requisite building codes and reimbursement policies to promote the construction of more resident-friendly facilities designed for maximizing resident quality of life. Medicaid reimbursement policies that incentivize the adoption of culture-change practices are likely to speed its adoption as well.

Finally, in addition to persuasive communication and a solid body of research to persuade providers, improving education and certification requirements for administrators may prove helpful in this regard. Indeed, managerial improvements are particularly important because doing so may further the adoption of caregiving processes that value and respect worker contributions, which, together with increased compensation and career opportunities, can better enable facilities to recruit and retain the staff necessary to effectively implement resident-centered care/culture change in NHs.

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## Table 1

# Survey Questions of Interest

Survey Questions	Response Categories
How familiar are you with the resident-centered or culture-change movement in nursing homes?	5-point scale ranging from 1 to 5 with: 1= not at all familiar, 2 = slightly familiar, 3 = moderately familiar, 4 = familiar, 5 = extremely familiar
Which of the following are the most significant barriers to resident-centered care or culture change in nursing homes? Rank your top three options, with 1 being the most significant.	Factors for ranking included regulation, cost, senior leadership resistance, care staff resistance, family resistance, and size of the facility.
In your opinion, what are the top three challenges facing long-term care? Rank your options, with 1 being the most challenging.	Factors for ranking included workforce, regulation/enforcement, supply of home and community-based services, achieving quality, acceleration demand, financing, information for consumers/families, and other.

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Table 2

Long-Term Care Specialists' Familiarity With and Views of Barriers Associated With Nursing Home (NH) Culture Change by Employment Group

Questions and Response Categories	NH Providers $(N = 127)$	Other Providers $(N = 151)$	Consumers/ Advocates (N = 88)	State and Federal Government Officials (N = 358)	University/ Academic $(N = 243)$	Other Employment $(N = 337)$	Total Sample <sup>a</sup> $(N = 1,147)$
Familiarity with resident-centered care/culture change in NHs	ered care/culture ch	ange in NHs					
Not at all familiar	1.6	9.9	2.3	9.4	5.8	8.9	6.9
Slightly familiar	2.4	11.9	8.0	10.8	11.5	10.4	10.6
Moderately familiar	5.5	15.9	13.6	18.8	24.7	14.5	16.9
Familiar	16.5	27.2	31.8	29.9	28.8	23.4	26.4
Extremely familiar	74.0	38.4	44.3	31.0	29.2	44.8	39.2
The most significant barriers to culture change or resident-centered care in NHs	to culture change or	resident-cent	ered care in NH	S			
Cost	23.6	39.0	13.6	27.1	36.2	24.9	28.7
Senior leadership resistance	23.6	23.1	52.2	37.1	31.6	41.2	35.4
Regulation	37.7	24.5	15.9	17.4	23.4	22.2	21.8
Care staff resistance	6.2	9.9	6.0	6.6	4.5	8.9	7.5
Size of the facility	7.0	5.9	7.9	8.0	4.1	4.1	6.1
Family resistance	1.5	9.0	1.1	0.2	0.0	0.5	0.5

Note: All figures are in percentages.

 $<sup>\</sup>ensuremath{^{R}}\xspace$  Respondents could respond to more than one employment group.

Table 3

Factors Associated With Long-Term Care Specialists' Number-One Ranked Barrier to Nursing Home Culture Change: Multivariate Logistic Regressions

	The Number-One Ranked Barrier to Nursing Home Culture Change; AOR (95% CI)		
Factors of Interest	Cost	Senior Leadership Resistance	Regulation
Gender (female)	0.9 (0.66–1.13)	1.5 (1.15–1.98)**	0.9 (0.64–1.18)
Age group <sup>a</sup> (years)			
45–54	0.8 (0.55–1.19)	1.0 (0.67–1.42)	1.2 (0.78–1.91)
55–64	0.8 (0.52-1.09)	0.8 (0.59–1.22)	1.3 (0.82–1.98)
65+	1.1 (0.66–1.94)	0.5 (0.30-0.99)*	0.9 (0.44–1.74)
Familiarity with nursing home culture change $b$			
Moderately familiar	0.7 (0.44–0.99)*	1.7 (1.04–2.80)*	1.4 (0.84–2.27)
Familiar	0.5 (0.37–0.78)***	2.7 (1.73–4.21)***	1.1 (0.68–1.71)
Extremely familiar	0.3 (0.18–0.39)***	5.0 (3.26–7.69) ***	0.8 (0.52–1.28)
Top-ranked challenge facing long-term care $^{\mathcal{C}}$			
Finance	1.3 (0.99–1.82) †	0.7 (0.50–0.95)*	1.0 (0.67–1.36)
Regulation/enforcement	1.1 (0.59–2.12)	0.6 (0.33–1.15)	1.9 (1.01–3.42)*
Achieving quality	0.9 (0.57–1.32)	1.5 (1.03–2.17)*	0.7 (0.41–1.07)
Nursing home provider representative (yes vs. no)	1.1 (0.71–1.80)	0.4 (0.22–0.56)***	2.8 (1.77–4.27) ***

Note: AOR = adjusted odds ratio; 95% CI = 95% confidence interval.

<sup>&</sup>lt;sup>a</sup>Reference group: age <45 years.

 $b_{\mbox{Reference}}$  group: not at all familiar and slightly familiar.

 $<sup>^{\</sup>it C}$ Reference group: workforce, supply of home- and community-based services, accelerating demand, information for consumers/families, and other.

p = .06.

<sup>\*</sup> p < .05.

<sup>\*\*</sup> p < .01.

<sup>\*\*\*</sup> p .001.