

# Examining Strategies for Implementing Best Practices in Home Healthcare

Stephanie A.K. Stock

**Abstract:** Home healthcare agencies frequently strive to improve quality of care through the use of guidelines to promote best practices. A significant challenge is implementing new practices once they have been identified. Drawing on literature and interviews, this article reviews the effectiveness and feasibility of strategies used to disseminate evidence and how these interact with characteristics of the desired change and characteristics of the organization seeking to implement the change. Based on this review, suggestions are made about how agencies can promote the implementation of guidelines and how the use of best practices can be supported throughout the industry.

## Keywords

best practices  
guidelines  
home care  
practice change

The need to deliver effective, high-quality care has put increasing pressure on health systems to invest in the provision of high-quality healthcare (Chassin & Galvin, 1998). Additionally, the growing climate of accountability and patient safety has led to tighter regulatory scrutiny and public reporting systems (Institute of Medicine [IOM], 2001; Kohn, 2000; Lomas, 1997; Mitton, Adair, McKenzie, Patten, & Wayne Perry, 2007). These measures together with reimbursement through “pay for performance” and a growing awareness that the delivery of optimal care is essential to fostering public trust have led to a quest for strategies that can help to reduce the quality gap between every day care as it is currently provided and high-quality care as defined by research evidence (Peterson, 2004).

Home healthcare is not unique in its need to bridge this gap, yet it seems to have made slower progress in developing discipline-specific guidelines compared with other care sectors (Davies, Edwards, Ploeg, & Virani, 2008). Guidelines are among the most important tools to support the translation of research findings into practice. Yet, the National Guideline Clearinghouse, for example, which is sponsored by the Agency for Healthcare Research and Quality (AHRQ), contains 105 nursing guidelines of which none is specific to geriatric long-term care in the community (AHRQ, 2008; Coopey, Nix, & Clancy, 2006).

While barriers to research utilization such as lack of time and awareness of research findings, lack of skills and training to critically appraise the evidence, and insufficient leadership support and authority to implement research findings have been confirmed by numerous studies, few have addressed the barriers associated with the current state of practice guidelines (Bryar et al., 2003; Hutchinson & Johnston, 2004). These barriers include: (a) most guidelines are driven by a single disease and do not address multiple chronic conditions (Boyd et al., 2005) nor do they reflect the focus of home healthcare on functional outcomes and keeping the patient at home; (b) few guidelines specifically include recommendations for older people (Messinger-Rapport, 2004); (c) most research regarding the effectiveness of guideline implementation has focused on physicians while there is limited evidence with respect to the effectiveness of guideline implementation in “professions allied to medicine” (Thomas et al., 2000). These facts suggest that guideline development and adaptation needs to be a priority area for home healthcare.

At the same time, experience in other settings has demonstrated that the existence of guidelines is not sufficient to promote quality care. Guidelines need to be used in order for care to improve. While this may seem self-evident, the challenges in implementing guidelines remain a significant barrier to high-quality care. This paper focuses on guideline implementation issues in order to identify strategies or principles that home healthcare agencies and clinicians could use to promote the acceleration of improvements in the quality of care they provide. It identifies approaches to guideline implementation that have been used in other settings, reviews the evidence available on their effectiveness (Kane & Huck, 2000; Lowe, Lucas, Castle, Robinson, & Crystal, 2003; Titler, 2007), examines their feasibility for home healthcare, and provides insights to inform future efforts to promote evidence-based geriatric home healthcare practice.

## Methods

### Definitions

Throughout this paper the term guideline is used to mean “systematically developed statements that assist practitioner and patient decisions about healthcare for specific clinical circumstances” (U.S. Department of Health and Human Services, 1995, p.11). Strategies for guideline implementation are activities that have been shown in physician-oriented and multidisciplinary research to be effective as active and planned efforts to mainstream the practice changes advocated by the guideline (Greenhalgh, Robert, Macfarlane, Bate, Kyriakidou, 2004).

For the implementation of the best practice as detailed in the guideline to occur at least three components are required: (1) evidence that clearly identifies the clinical practices leading to better care, (2) the knowledge of how to translate evidence into routine care (Shortell, Rundall, & Hsu, 2007), and (3) the organizational capacity to do so. Best practices are implemented when available evidence, clinicians’ skills, and patient preferences are successfully integrated into action-oriented processes in individual organizations (Kitson, Harvey, & McCormack, 1998; Solberg, 2000; Wagner et al., 2001). The nature of the practice change required by the evidence—e.g., its compatibility with organizational objectives and operations—significantly influences this process (Rogers, 2003). Additional influences are policies, regulations, and initiatives at the larger community, state, and national environment levels, which create a care context that can either facilitate or impede positive change (Davis & Taylor-Vaisey, 1997; Kitson et al., 1998; Wagner et al., 2001). These prerequisites have guided the literature review, expert interviews, and analysis discussed in this paper and inform practical recommendations for evidence-based quality improvement.

### Data Collection and Analysis

Evidence of effective strategies for guideline implementation was elicited from a systematic literature review, using PubMed as the primary database. Hand searching of reference lists was carried out in the identified articles. Search terms were “guideline,” “practice guideline,” “clinical practice guideline,” “implementation,” “quality improvement,” “best practice,” “innovation,” “adoption,” “home healthcare,”

“home health,” and “knowledge translation;” terms were combined as appropriate. All references were screened by title and abstract, and relevant articles retrieved, with special attention to current available meta-analyses and systematic reviews. Based on the review of this literature an interview guide was developed for semi-structured, 60-minute interviews with home healthcare expert informants. Because of its use, the instrument was pretested regarding the relevance and wording of the questions. The first part of the interview guide consisted of descriptions of six strategies for guideline implementation which proved to be effective in physician and multidiscipline guideline implementation research. Experts were asked if they deemed the strategy feasible in home healthcare and what support and resources would be necessary for implementation. The second part of the interview elicited perceived barriers and facilitators to guideline implementation from a home healthcare perspective. The third part asked experts to rate 13 items such as “leadership support” in terms of their utility in promoting the implementation of guidelines in home healthcare on a 5-point Likert-type scale from “least helpful” to “most helpful.”

The interview was sent to a convenience sample of informants from home healthcare agencies, academia, government, and national professional organizations identified through the recommendations of the National Advisory Council of the Establishing a National Framework for Geriatric Home Care project funded by the John A. Hartford Foundation. Interviews were obtained from 10 experts and analyzed to extract key themes. Findings from the literature review and interviews are organized by major themes and presented below.

## Results

### Strategies for Disseminating Evidence

A large body of research has shown that “passive diffusion” of information in the form of journal articles and traditional educational lectures, meetings, and conferences are insufficient to move evidence into practice (Lomas, 1993; Thomson O’Brien et al., 2001). Recognizing practitioner time constraints and inadequate training on how to extract and synthesize evidence from the literature, evidence-based practice change proponents increasingly have emphasized the need to make evidence “pre-packaged” and “ready to go” through

the use of systematic reviews and practice guidelines geared towards providers (Scott, 2007). However, without a systematic approach to implementation, this approach, too, has generally been insufficient to improve either physician or nurse practice (Ervin, Scrivener, & Simons, 2004).

Practice change strategies using reminders, educational outreach, and/or feedback targeted to individual clinicians or groups of clinicians with specific practice change prompts or recommendations have been more successful (Evidence-Based Medicine Working Group, 1992; Parkes, Hyde, Deeks, & Milne, 2001). A number of systematic reviews have analyzed the effectiveness of these strategies; the most comprehensive review screened over 150,000 citations and eventually included 235 studies (Grimshaw et al., 2004, 2006). Table 1 describes six practice change strategies extensively reviewed in the literature (Grimshaw et al., 2006).

The majority (86.6%) of studies that compare one or more practice change strategies

to a control group have found modest to moderate practice improvements regardless of strategy type studied (Grimshaw et al., 2006). Furthermore, the research confirms that the distribution of educational materials alone, without complementing strategies, has essentially no effect on practice, while reminders and educational outreach generally have been found to be effective when each is offered individually. The evidence in the literature is mixed concerning multifaceted interventions that use more than one approach. Some reviews have found multifaceted interventions to be more effective than single interventions, while Grimshaw et al. (2006) more recently found no correlation between effect size and the number of interventions implemented.

The key informant interviews with home healthcare experts confirmed that all six strategies described in Table 1 are currently used in one way or another by home healthcare agencies. Experts did not agree on a single strategy as more or less feasible, nor did they uniformly recommend a combination of strat-

**Table 1. Selected Evidence-Dissemination Strategies**

Practice Change Strategy	Description
Distribution of educational materials	Spreading of recommendations for clinical practice through publications, mass mailings, etc. Materials include practice guidelines, audiovisual materials, and leaflets
Educational meetings	Evidence and guidelines disseminated through professional conferences, lectures, workshops, traineeships, clubs, committees, etc., outside the clinician's practice setting
Educational outreach visits	A trained expert meets with a single clinician or group of clinicians in their practice setting to observe, give information, and discuss practice with the intent to change specific practices. Information given may include feedback on "before and after" clinician practice patterns
(Local) opinion leaders	Choosing experts who are recognized as influential professional or organizational opinion leaders to be change champions. These persons engage in activities to promote practice change by writing cover letters for mailings, giving lectures, chairing task forces, etc.
Audit and feedback	Audits provide a summary of clinical performance to individuals or groups of clinicians and may include recommendations for practice change. Data may come from record reviews, electronic patient records, or other patient/provider-specific databases. Feedback summarizes and provides clinical performance information in various areas on various levels (individual, group, institution, regional, national) over time, allowing individuals and groups to assess progress towards practice change
Reminders	Reminders give clinicians specific information to prompt or to avoid a specific action for a specific patient at a specific time point. Reminders can be electronic messages, paper reminders, or stickers posted on charts

*Note.* Grimshaw et al. (2006)

egies as being more valuable than the others. For all strategies, they reported implementation barriers related to: lack of consensus on how guidelines are best implemented in home healthcare, lack of available expertise to educate staff or help them design and implement effective quality improvement projects, lack of time and loss of productivity involved in educational and practice improvement activities, information overload, and burden of addressing immediate financial and regulatory pressures. Underdeveloped electronic information systems also were identified as a barrier. When queried about facilitators, the informants cited the value of creating a “culture of learning” within an agency, mobilizing leaders committed to the process of improvement, and putting “change agents” in pivotal places. Tangible incentives (e.g., credits, bonuses, promotions) were viewed as effective in motivating staff to partake of educational opportunities, while collaborations with Quality Improvement Organizations (QIOs) and/or local academic institutions were judged to be valuable in obtaining access to outside experts, albeit experts with sometimes limited homecare knowledge.

To support a culture of change and implementation informants described the need for tools to assess an agency’s readiness for change, tools to evaluate the fit between an agency’s structure and the chosen strategy, communication and management support during the

implementation process, and counseling on human and financial resource allocation during the change process. However, they reported that none of these is currently available on an industry-wide basis. Rather, each agency is required to seek its own practice tools and to “reinvent the wheel.”

### **Characteristics of the Desired Change**

Implicit in the key informant interview responses was concern about the time and human resources required to successfully implement practice improvement recommendations entailing significant changes in organizational processes or procedures. Abundant literature on the diffusion of innovation in a broad range of settings underscores this problem, showing that key characteristics of a desired practice change significantly influence its adoption (Burgers et al., 2003; Rogers, 2003). The literature suggests that for optimal diffusion a new practice should have a clear advantage over the current practice, be consistent with an organization’s values and norms, and be readily amenable to local conditions (Table 2). Research on clinical practice changes, in particular, has shown that inexpensive, easy to implement practices are more “saleable” than more complex and costly ones, as are new technologies requiring relatively little behavior change (e.g., exchanging one drug for another). Conversely, complex guidelines,

**Table 2. Characteristics of New Practices that Facilitate Practice Change**

<b>Characteristic of New Practice</b>	<b>Description</b>
Relative advantage	Practice should have a clear advantage over the current way of care delivery
Compatibility	Practice should be compatible with providers’ values, norms, and standard operating procedures
Complexity	Practice should be perceived as relatively simple to implement
Trialability	It should be possible to experiment with the practice in a “secure space” before spreading throughout the organization
Observability	Benefit of the practice should be clearly visible
Reinvention	Practice should be adaptable to particular needs and structure of the organization and amenable to customization for individual clinicians
Risk and relevance	Practice should be relevant to care delivery and not carry a high personal or organizational risk
Knowledge and support	Knowledge for using the practice should be easily transferable from other tasks and appropriate change supports should be provided

*Note.* Greenhalgh et al. (2004) and Rogers (2003)

**Table 3. Organization Characteristics that Facilitate Practice Change**

Agency Characteristics	Description
Culture	Organizational culture (i.e., shared values, assumptions, and norms) that encourages, facilitates, and rewards learning, shared knowledge, receptivity to change, and effective teamwork; and that tolerates calculated risk taking
Leadership	Proactive, transformational leadership with clear goals, strategic vision, and ability to articulate the vision and motivate staff
Absorptive capacity	Preexisting knowledge and skills related to managing change, particularly change of the type at hand, and a systematic approach to identify, interpret, and link new knowledge with existing knowledge
Dedicated resources for managing and implementing change	Sufficient time and skilled human resources to manage practice change efforts and institutionalize changes through redesign of policies, procedures, incentives, etc.
Information	A high-performance data-capturing system with multiple ways to provide feedback on all levels
Structure	Larger size, functional differentiation, specialization, decentralized decision-making processes

even those calling for low-tech, behavioral interventions (e.g., toileting assistance programs to improve continence), are more difficult to implement and therefore to sell because they may require time-consuming changes in usual care processes (Feldman & Kane, 2003).

The strategies an agency adopts to facilitate practice change should help the staff understand and appreciate those characteristics that are favorable (Burgers et al., 2003). Further, if the new practice is to be described in a clinical practice guideline, the guideline should include clear wording, specific recommendations, and information on adaptation to the local environment (Yana & Jo, 2004).

### **Organizational Characteristics**

The research literature suggests that critical features of the organizational context facilitate (or hinder) best practice implementation through factors related to structure, culture, and capacity (Table 3). Similarly, the key informant interviews revealed a keen awareness of variation in home healthcare agencies' willingness and capacity to embrace and absorb practice change.

Organizations that value professional development, treat change as an opportunity rather than a threat, and encourage risk-taking are more likely to embrace practice improvement

efforts. Guideline implementation for practice improvements are likely to be more pervasive and longer lasting where there are committed organizational leaders who establish clear expectations and align internal strategy, systems, and incentives in support of quality care (Shortell, Bennett, & Byck, 1998; Shortell et al., 2007). Effective leaders provide strong and continuing support throughout all implementation phases; allow staff training and release time as necessary; and invest in clinical data, tracking, and monitoring systems to measure and reinforce performance over time. The most important structural characteristic associated with successful change seems to be organizational size, as most other beneficial characteristics such as effective data tracking and monitoring systems, staff trained in quality management and data analysis, availability of scarce resources, functional differentiation, and sophisticated information system are correlated with size (Greenhalgh, Robert, Bate, Macfarlane, Kyriakidou, Donaldson, 2005; Titter, 2007). Consequently, organizations that succeed in improving practice generally share at least one of two major characteristics: (1) they partner with an academic institution or quality improvement organization to provide ongoing support and expertise, or (2) they are large enough to afford a well-trained, in-house

quality improvement staff and to support a learning environment that provides a range of professional and financial quality improvement incentives well beyond employee training (Shortell et al., 2007; Stinson, Pearson, & Lucas, 2006). The conclusion is that guideline implementation strategies and quality improvement processes are deeply affected by overarching organizational and sociopolitical frameworks (Beck et al., 2005; McCarthy & Blumenthal, 2006).

### Implications and Recommendations for Home Healthcare

Our findings from both the literature review and key informant interviews suggest the following steps for individual agencies to successfully implement evidence-based practice change:

1. *Evaluate your agency's readiness for change.* In the absence of a formal tool to assess agency capacity, an approximation can be derived by considering the organizational factors positively associated with practice change in Table 3. These include: organizational history and culture, leadership commitment, resource availability, preexisting structures for designing and implementing change, underlying information systems, and experience in using data for performance monitoring.
2. *Identify a clear advantage of the practice change for your agency and individual staff.* The advantage may be in terms of efficiency (e.g., more standardized practice), effectiveness (e.g. avoided hospitalizations), client satisfaction (e.g. improved wound care with better healing), or clinician satisfaction (e.g., professional development). The advantage/s should be clearly communicated in team meetings, quality circles, and/or other agency venues.
3. *Assess the likely resource use of the implementation strategy and the practice change.* These include: costs related to training; short/long-run changes in productivity, time, and effort devoted to process redesign; and new investments in data and monitoring, as well as ongoing efforts to spread and sustain the desired practices. If adequate resources are not available, consider less resource-intensive strategies or modi-

fying a strategy rather than implementing a strategy that cannot be sustained.

4. *"Fit" the new practice to your agency.* Make a clear connection between the anticipated practice change and the values and beliefs of your organization. Select a proven implementation strategy and tailor it to available resources, anticipated costs, and benefits. Use implementation strategies that allow staff to transfer knowledge and skills from other tasks. Allow agency staff to experiment on a small scale with the practice change and adapt it to local circumstances.
5. *Support/sustain practice change.* Allow for adequate personal and temporal resources to implement and sustain practice change. Provide strong, proactive leadership throughout the process. Draw on inter- and intra-organizational networks and relationships with other institutions. Aim to "hardwire" and reinforce change through automatic reminders, ongoing measurement, performance monitoring, feedback and positive reinforcement.

In brief, agency decision-makers must determine how to match the demands of evidence-based practice improvement with organizational exigencies and environmental stresses. In this regard, probably the most important lesson from guideline effectiveness research is that "one size *does not* fit all." In practice, if the most effective intervention is too expensive for an organization, it may be more efficient to use a cheaper, more feasible approach even if it is less effective (Grimshaw et al., 2006).

### Conclusions

Although all 10 experts agreed that the six identified guideline implementation strategies are both feasible and currently used in home healthcare, evidence from the literature is very limited regarding their effectiveness. Furthermore, the views expressed in the interviews can only be interpreted as preliminary insights into opinions and trends in home healthcare. However, both the literature and the key informant interviews suggest that successful industry-wide implementation of guidelines will require moving beyond the individual and even the organizational level to align incentives on a national healthcare policy level and create an environment that allows care providers to render evidence-based care. An integrated organizational and sociopolitical approach has

multiple components. As identified by leaders in home healthcare, these include the identification of best practices through a national consensus process, setting national quality goals, creating an industry-wide culture of learning and improvement, and creating financial, regulatory and moral incentives on a national level to attain those goals. Absent progress on these fronts, the current situation where many home healthcare agencies engage in isolated practice improvement efforts may persist, and effective, evidence-based strategies will not be communicated or replicated throughout the home care industry (Chassin & Galvin, 1998). Initial steps in this direction could include an industry-led effort to promote home healthcare specific evidence-based guidelines. Other steps could be facilitated by establishing academic—home healthcare industry partnerships. Through these partnerships implementation strategies could be tailored to the industry and home care specific supports and tools could be developed, such as checklists for practice change implementation in home health and assessments of home care agencies' readiness for change.

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