EVALUATION OF THE WELLSPRING MODEL FOR IMPROVING NURSING HOME QUALITY

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EXECUTIVE SUMMARY

The purpose of this project was to evaluate the Wellspring model of nursing home quality improvement. The study, based on a 15-month evaluation utilizing qualitative and quantitative methods, and conducted by a team of researchers led by Dr. Robyn Stone of the Institute for the Future of Aging Services, sought to show the outcomes associated with the model's adoption. In addition, through a process evaluation, it attempted to provide a better understanding of the model's theoretical underpinnings and key constructs.

OVERVIEW

Wellspring Innovative Solutions, Inc. (Wellspring), is a confederation of 11 freestanding, not-for-profit nursing homes (NHs) in eastern Wisconsin called The Wellspring Alliance. It was founded in 1994 and became fully operational in 1998. Originally begun as a bootstrapping effort by otherwise unaffiliated not-for-profit nursing homes to enable them to compete successfully in a managed care environment and to decrease staff turnover, it has a twofold purpose:

> to make the nursing home a better place for people to live by improving the clinical care provided to residents, and
>
> to create a better working environment by giving employees the skills they need to do their jobs, giving them a voice in how their work should be performed, and enabling them to work as a team toward common goals.

The Wellspring model includes clinical consultation and education by a geriatric nurse practitioner hired by the Alliance, a shared program of staff training using modules developed by the nurse practitioner, the sharing of comparative data on resident outcomes, and a structure of multidisciplinary care resource teams who are empowered to develop and implement interventions that they believe will improve the care of residents. The study tracked specific employee and resident outcomes, drew cost implications, and sought to identify essential elements of the model.

SUMMARY OF FINDINGS

The evaluation found that, generally, Wellspring successfully and intentionally meshes clinical and culture change together to meet its goals. Thus, in a very real sense it is not only a model, or "technology," that can be used to improve quality of care but also a process of organizational change, a phased and deliberate effort by the nursing home's leadership to rethink how care is provided and how staff relate to each other. Because

each facility approached these dual undertakings within the context of its own organizational history and behavior, the study found that there was nonhomogeneous adoption of the different components of Wellspring across facilities.

Nevertheless, quite a few positive outcomes were found:

Rates of staff turnover were lower and increased more slowly than in comparable nursing homes in Wisconsin within the same time period.

Wellspring facilities improved their performance on the federal survey.

No additional increases in net resources were required for implementation and, generally, Wellspring facilities had lower costs than the comparison group.

There is evidence that staff were more vigilant in assessing problems and took a more proactive approach to resident care, although clear evidence of improvement in clinical outcome, using Minimum Data Set (MDS) quality indicators, could not be documented.

Observational evidence and interview results indicated a better quality of life for residents and an improved quality of interaction between residents and staff.

IMPLICATIONS

Wellspring was found to have pioneered many innovations that have broad and significant implications for improving nursing home care. First, and most interestingly, it is a powerful example of what can be accomplished at a grassroots level through collaboration and sharing of resources: monetary, intellectual, and experiential. Typically, it is rare for clinical staff, especially for those below the senior management level, to have the opportunity to meet their peers and form the types of professional relationships that promote an exchange of information and know-how garnered from hard-earned, hands-on experience. Wellspring has tapped into an invaluable mechanism for dissemination of best practices and peer mentoring at both the individual and the facility level.

Wellspring also represents a significant advancement in the design of staff training. Because it is centralized, it is efficient. Cross-disciplinary clinical training to teams representing all levels of staff has largely replaced the more traditional model of training compartmentalized by discipline. This has advantages at the practice level and at the organizational level. Team members learn collaborative problem solving and share responsibility, as well as accountability, for resident outcomes. From the perspective of

changing the organizational culture, Wellspring uses team training as a way to decrease the typically hierarchical relationships that are the norm in nursing homes and that can obstruct the adoption of a more participative style of management. Certainly, in several of the facilities, self-managed work teams appear to be functioning.

Other components of Wellspring's training program have implications for improving quality of care in NHs. They include the expectation that the team attending the program will be the disseminators of information within the facility, which helps to empower staff. Also, use of the geriatric nurse practitioner (GNP) as an external expert who travels to member facilities reinforces the adoption of the clinical modules and identifies organizational barriers to culture change. Both of these innovations effectively support clinical and cultural practices. By design then, cross-level education is coupled with these and similar efforts to create an empowered workforce, providing staff, especially the certified nurses aides, with new skills, and according them the respect and recognition their efforts deserve.

LESSONS LEARNED

There are a number of important lessons to be drawn from the qualitative component of the study, which was oriented to examine the process components of the model. They are particularly instructive when considering the feasibility of replicating the Wellspring model.

The most critical single finding was that, to be successful, an intervention of this magnitude and complexity requires careful alignment of Wellspring's philosophy and structure with the administrative, operational, and management structures of the participant facilities.

One of the most important determinants of success in implementing and sustaining Wellspring is the commitment of staff nurses to work with and mentor nursing assistants, helping them apply their new knowledge and supporting them in their decision-making.

One of the distinguishing characteristics of Wellspring is the presence of an organizing superstructure (the Alliance). Having this superstructure helps facilities stay the course and is a key mechanism for improving quality within and across facilities. A stronger centralized management role might help strengthen the accountability of facilities in ensuring adherence to the tenets of the model.

Culture change must have the full commitment of top administrative staff. Enabling front-line staff to participate in decision-making and making the concept of staff empowerment operational are challenging reforms and very easily disrupted. Use of the training modules is not sufficient to change a nursing home's culture.

CONCLUSION

The Wellspring model has withstood the most intensive and rigorous evaluation of any of the various methods currently trying to create culture change in nursing homes. It has come through with high marks. Further work will improve the model, enabling it to more fully realize its potential and making it easier for other nursing homes to form similar alliances.

EVALUATION OF THE WELLSPRING MODEL FOR IMPROVING NURSING HOME QUALITY

INTRODUCTION

Wellspring Innovative Solutions, Inc. (Wellspring), an alliance of 11 freestanding nursing homes (NHs) in eastern Wisconsin, was founded in 1994 and became fully operational in 1998. Wellspring seeks to change the clinical quality of care and the organizational culture in its member facilities. Based on a planning analysis conducted for The Commonwealth Fund (December 1999 to May 2000), preliminary evidence suggested that Wellspring is a promising approach to improving the well-being of nursing home residents by improving care and reducing staff turnover.[1] As initially defined in that planning activity, the core elements of this model include: an alliance of nursing homes with top management committed to the Wellspring quality improvement approach, a shared program of staff training, clinical consultation, and education from a geriatric nurse practitioner, comparative data on resident outcomes, and a structure of multidisciplinary care resource teams empowered to develop and implement interventions that their members believe will improve the quality of care for residents.

The Evaluation Objectives

The Commonwealth Fund supported a 15-month evaluation of Wellspring conducted by a team of researchers from the Institute for the Future of Aging Services, the University of Wisconsin-Madison, and Texas A&M University. The researchers used a multifaceted methodology: site visits; interviews and focus groups with staff, residents, and families; participant observation; and analyses of secondary data from diverse sources. This report summarizes the evaluation's qualitative and quantitative findings.[2]

The evaluation was guided by four research objectives. The first was to describe the various components of the Wellspring model and to identify those elements that differentiate it from the *status quo* in nursing homes. The second was to examine how the elements of the model are being implemented at the Alliance, facility, and unit levels, and how that implementation process differs across the 11 Wellspring facilities. The third objective was to evaluate the impact of the Wellspring model on residents, families, and staff, focusing on whether the program made a difference in nursing staff turnover and retention rates, quality of care, and the organizational culture of the member facilities. The fourth objective was to assess the impact of the Wellspring model on costs, including the

[1] The technical report is available for free download from the Institute for the Future for Aging Services' website (www.futureofaging.org).

[2] The full technical report is available from The Commonwealth Fund at http://www.cmwf.org.

direct costs of the program, the implementation costs, and the net costs to the Wellspring Alliance members.

Study Limitations

This is an evaluation of an ongoing provider-based program of nursing home quality improvement, not a prospective, controlled study of a single intervention. This assessment, furthermore, began when the Wellspring model implementation had been under way for several years. Although the researchers had access to some historical information from Alliance board minutes, summaries of previous director of nursing/nurse coordinator meetings with the geriatric nurse practitioner, and interviews with the founders of the program, their ability to evaluate the model's impact was somewhat confounded by the fact that Wellspring is a real-world, dynamic intervention, which was changing during the evaluation period. Study findings, therefore, must be understood and interpreted within this context.

Three examples illustrate this limitation. First, the researchers were forced to make somewhat subjective decisions about pre- and post-intervention periods because precise information was not available on the timing of clinical training and implementation of the clinical interventions in the early years of Wellspring. Second, the role of the Alliance has changed since the inception of this model. Only a prospective seven-year study would have permitted a thorough analysis of the evolution of this structure. Finally, the researchers did not have the resources to collect primary data, particularly on quality of life changes for residents and quality of work changes for staff. Reliance on extant data is subject to the usual vagaries related to secondary data analyses.

Despite these limitations, the study's multi-method approach provides a systematic analysis of an innovative program that combines both clinical and organizational culture change. It uses state and national databases that are standardized and normative for this field of inquiry. Comparative data are used, and longitudinal data permit an examination of change with each nursing home acting as a control for itself. The qualitative data analysis informs the conceptual underpinnings of this quality improvement model and provides a formative context for the summative quantitative findings.

WELLSPRING EVALUATION: QUALITATIVE ANALYSES

Findings from the qualitative evaluation of the Wellspring model are summarized below. The analysis is divided into two main sections: one describing what Wellspring is, and the other describing how effectively Wellspring's elements have been implemented within the Alliance and across all member facilities. (For a detailed discussion of the various phases of Wellspring implementation, see Appendix A in this report.)

Methodology

To describe the Wellspring model and the extent to which it was being implemented within and across the member homes and facility units, the researchers conducted site visits in each of the 11 facilities from November 2000 through May 2001. Each site visit lasted approximately two days and encompassed "shadowing" certified nursing assistants (CNAs); observations of unit operations (staff interactions, documentation systems, direct care); and informal conversations with a range of individuals including unit nurses, coordinators, aides, dietary staff, directors of nursing, rehab and dietary aides, maintenance workers, administrators, and residents. In addition, semi-structured interviews were conducted with Wellspring coordinators, directors of nursing (DONs), facility administrators, and with CNAs and other line staff. The researchers interviewed 87 CNAs and other line staff (including activities, dietary, and maintenance workers, staff nurses, social workers, and facility managers), six DONs, eight Wellspring coordinators, and nine administrators. At several of the sites, interviews also were conducted with residents and with family members.[3]

Participant observation was also conducted at a number of modules training sessions, monthly Wellspring board meetings, and DON/coordinator quarterly meetings. In addition, all CEOs/nursing home administrators were interviewed about the importance of Wellspring, problems with implementation, and the role of the Alliance. Along with a review of Wellspring's archived documents (including board meeting minutes, DON/coordinator meeting minutes, written materials developed for modules, and marketing materials), these observations enhanced the researchers' understanding of the historical background and contemporary context within which the Wellspring model is being implemented. These activities also helped the researchers develop the sensitizing categories that structured data-gathering during site visits.

What Is Wellspring?

The researchers began by describing the conceptual underpinnings and identifying the key elements of the Wellspring model.

Conceptual Underpinnings

Wellspring claims that it will improve the quality of clinical care for residents and prompt culture change in the facilities that implement the program. It can be argued that what distinguishes Wellspring from other quality improvement models is its explicit, strongly emphasized approach of focusing on both clinical quality and environmental culture simultaneously, and in a highly interactive way.

[3] See Technical Report, Sections E and F.

Clinical care quality. Clinical care quality means quality improvement interventions that should result in better performance on a variety of outcome measures, such as improved survey results, improved resident outcomes (such as bladder and bowel control and reduced falls), and improved quality of life for residents. The Wellspring model is designed to improve clinical care through the provision of an ongoing series of training modules, and the systematic transfer of this knowledge to each facility and unit within the nursing home. Information transfer is accomplished through clinical care resource teams that impart the knowledge to the floor staff and sustain the knowledge through regularly scheduled care resource team meetings in the facility.

Culture change. Culture change is shorthand for two main changes in organizational style, one within the facility and one across facilities. At the facility (and unit) level, Wellspring calls for an increased recognition of the importance of the contributions and input of floor staff, particularly those with direct resident contact, such as CNAs, therapy aides, dietary staff, and maintenance workers. This model also requires a shift from a hierarchical to a more lateral management structure in which decision-making authority is distributed throughout all levels of the organization. This twofold shift in the environment fosters staff empowerment.

The second cultural shift is the development of a collaborative (rather than competitive) stance toward other member facilities of the Wellspring alliance. Member nursing homes are required to periodically share outcomes data and to identify specific clinical and organizational problems within their respective facilities. They are also strongly encouraged to seek advice and counsel from each other.

Elements of Wellspring

To achieve the dual objectives of improving care and changing the culture of the caregiving environment, Wellspring has developed a model that includes the following elements:

The Alliance. The Alliance is the joint body composed of each of the member facilities. It is portrayed both as serving practical functions associated with cost savings and greater efficiencies (e.g., joint purchasing) and as providing a forum for the open and honest discussion of quality improvement in the individual facilities. The Alliance is described as functioning on many levels: among the CEOs and administrators; among the DONs and Wellspring coordinators; and among the line staff who are members of their facilities' care resource team. Wellspring provides opportunities for individuals at these various levels to meet and interact at quarterly meetings and at the module training. In principle, the Alliance occupies a very important role in the Wellspring model. As will be

demonstrated in the next section, covering the phases of implementation, the evaluation found that the Alliance has evolved into a confederacy, with individual facilities retaining a considerable amount of hegemony and decision-making authority.[4]

Clinical training modules. The modules are portrayed as vehicles for the acquisition of the most up-to-date clinical knowledge (best practices). Each facility is expected to send several staff members—including CNAs and non-nursing staff—to the training to learn about best practices and new developments in clinical practice across a variety of care areas, such as physical assessment, nutrition, incontinence care, skin care, injury prevention, restraint reduction, restorative care, and behavior management. The teams attending the training sessions are expected to return to the facility and lead the effort to incorporate the practices into the normal care routine.[5]

Geriatric nurse practitioner (GNP). The GNP is portrayed as the primary source of knowledge and advice about best practices and adherence to regulatory requirements. The GNP is also described as a resource that the coordinator and the Care Resource Teams (CRTs) may draw upon to facilitate problem solving in their individual facilities. The GNP: (1) makes quarterly visits to each member facility, checking on the status of Wellspring implementation in the facility and providing feedback to the facility's administrator and Wellspring coordinator; (2) facilitates the quarterly meetings of the DONs and coordinators; and (3) is available to each of the member facilities' coordinators and administrators for consultation by telephone or e-mail.[6]

Wellspring coordinator. The coordinator is portrayed as the hub that links all the components of the Wellspring program. This individual: (1) attends all modules, (2) recruits members for the CRTs, (3) facilitates the work of the teams within the facility, (4) serves as a conduit between the Alliance and the facility, (5) represents the facility at Wellspring's quarterly meetings, and 6) is accountable for the timely and accurate collection and reporting of the facility's data. The coordinator serves as an educator and facilitates communication within the facility. Because of the range of clinical issues with which he or she is involved, Wellspring requires that the coordinator be a registered nurse.[7]

Care resource teams. The CRTs are portrayed as the main engine of quality improvement within the facilities. Teams are: (1) interdisciplinary, (2) anti-hierarchical (i.e., CNAs may lead teams, with RNs as rank and file members), (3) voluntary, and (4)

[4] Ibid., Appendix, Section C.
[5] Ibid., "Qualitative Analysis," pp. 7; 19–22.
[6] Ibid., pp. 8; 17–18.
[7] Ibid., pp. 9; 22–23.

self-directing. Teams are created to fulfill several functions including: (1) planning for implementation, (2) disseminating implementation strategies, (3) monitoring the success of implementation, and (4) problem solving when implementation is thwarted. In addition, team members are seen as change agents and as experts, or knowledge resources, for other facility staff. Along with the Wellspring coordinator, they are the glue that holds the model together as the modules are implemented in the facilities and mature into routine care protocols.[8]

Data collection and analysis. The processes of collecting, analyzing, and sharing data, and then using the data to inform practice, are portrayed as the tangible enactment of the abstraction known as "quality." Individual facilities are expected to enter their data (encompassing prevalence and trends in clinical areas such as number of incontinent episodes, number of falls, and weight loss) into the program. Facilities submit data on a quarterly basis to a data analyst, who in turn aggregates the information, prepares analytical reports, and presents these reports at the quarterly DON/coordinator meetings. Data are portrayed as tools for clinical problem solving, as a way to judge the effectiveness of interventions, and as a marketing tool.[9]

Management philosophy. The Wellspring model calls for the administrative staff of each nursing home to create a receptive environment by empowering the front-line staff to gain clinical skills, collaborative skills, and authority for decision-making that generally resides in managers. Managers must learn new ways of interacting with their staff and new strategies for ensuring accountability.

Implementation of Wellspring's Core Elements

Clinical Training Modules

One of our primary conclusions is that, on some dimensions, the training modules were one of the most stable elements of the Wellspring model. They were held on a regular basis, maintained their prominence as a foundation of the Wellspring model, and enjoyed full and robust support from the participating facilities. Accounts by virtually all respondents, at both the Alliance and facility levels, documented the important role of the modules in terms of both clinical training and cultural change. Beyond this, it is useful to discuss the modules in terms of several criteria on which their implementation can be judged.[10]

[8] Ibid., pp. 9; 24–27.
[9] Ibid., p. 10.
[10] Ibid., p. 38.

Content and substance. A team of clinical consultants were responsible for reviewing best practices and formulating the materials that constituted the care of the modules. For the most part, the modules were well prepared, up-to-date in terms of their clinical content, and perceived by the participants as very useful in upgrading the skills of the participants. While the respondents and observations found some variability in content across the specific clinical areas, the general sense is that the modules are an essential investment and part of the Wellspring model. The lone exception to this positive finding is the Management module, which appeared to be disorganized, vague in its role or process, and in need of major overhauling. This view is shared by Alliance members, facility staff, and the researchers.

Process. There was considerable variation in the views on the effectiveness of the process of training in the module. Many respondents felt that the process was very effective, but there were also detractors who felt that the process was sometimes too didactic, and in a few cases somewhat demeaning. Some suggested that the training should be more participative, with more examples and case studies.

Attendance. Attendance at the modules was generally very good, with most facilities represented with multiple participants. Facilities placed a high priority on module attendance, and in most cases there was an effort to send several staff members, representing various levels of the organization. This attempt was not always realized, however; facilities sometimes did not send individuals representing all levels and on other occasions failed to send individuals who would be the most successful implementers of the training ideas back in the facility.

Cultural impact. There is general agreement that the modules had an important impact on the cultural changes that are key to the success of the Wellspring model. Respondents from all levels of the facilities—including CNAs, nurses, and other professional staff—consistently remarked that the module sessions were an important part of building the camaraderie of the staff, both within and across facilities. Some of the activities took on legendary status among Wellspring facility executives and staff members. A prime example is the "pajama party" concept, in which nursing and non-nursing staff from all levels participating in the two-day module trainings developed an informal camaraderie in the evening following the first day of training. This kind of bonding is viewed as a major contributor to culture change.

Geriatric Nurse Practitioner

The geriatric nurse practitioner (GNP) plays several important roles in implementing and sustaining the Wellspring model, both as an educator in the modules and as a conduit

between the Alliance and the facilities in transferring and maintaining the content of the modules. As someone with clinical expertise, the GNP understands the common clinical problems experienced by nursing home residents and has both knowledge of and experience with clinical interventions related to these problems. For the most part, the information we gathered in the course of our qualitative analysis suggests that there was general satisfaction with the efforts of the GNP in this educator role. There was widespread agreement that the material assembled and presented was useful.

The GNP also assists each facility with the implementation of the Wellspring model. There were varied opinions from facility staff and administration about the involvement of the GNP in troubleshooting and providing ongoing support to the facilities.[11] Some facilities reported extensive use of the GNP, while others were more reserved and qualified in their assessment of the GNP's role in this function, noting that other resources, such as cross-communication among coordinators in other facilities, were more frequently used.

The GNP role in data collection and use should also be emphasized. As Wellspring is currently organized, data are collected from each facility and assembled in a database by a subcontractor. The data are then analyzed and shared at the periodic meetings of the DONs and other nursing staff as part of the general Alliance meetings. It is difficult to assess the extent to which the many problems with data collection and use, documented below, is attributable to the geriatric nurse practitioner.

Wellspring Coordinator

The Wellspring coordinator is arguably the single most important contributor to the successful implementation and ongoing operation of the model, playing a pivotal role in the relationship between the facility and other Wellspring facilities, both as a formal linkage to the Alliance and an informal conduit of information among facilities.

On the whole, the Wellspring coordinators approached their jobs with a serious and strong commitment to the model and its successful implementation and continuation.[12] In most of the facilities, the coordinators were knowledgeable about what needed to be done, albeit it in some cases frustrated by the barriers that emerged to block their ability to succeed. They were loyal adherents to the model, cheerleaders and leaders for its implementation, and innovative in solving problems that arose. While this was not true in every case, it was clearly the dominant pattern.

[11] Ibid., pp. 39–41.
[12] Ibid., pp. 41–42.

In some facilities, however, the coordinator function came up short in one or more respects. Where this happened it was often because the supportive environment left something to be desired, difficult barriers emerged, and other exogenous factors played an important role. In other cases, it was because the coordinator was not able to perform the ambitious set of diverse tasks required, particularly those requiring organizational skills. These findings suggest that the Alliance should develop mechanisms to more effectively support the coordinator, both within the facility and across the Alliance itself, including the provision of more training in organizational and leadership skills.

Care Resource Teams

The care resource teams have a role that approaches that of the coordinator in their importance to the successful translation of the module content to the facility. The researchers found as much or more variation in how the CRTs functioned, and how well they functioned, than for any of the other Wellspring elements examined in the qualitative analysis.[13]

Some of the CRTs were well organized, diverse across levels and disciplines and types of staff in their membership, and effective in maintaining an active schedule of meetings and data collection activities, but it was rare to see all these characteristics present in all the CRTs in a facility. There were several facilities where the CRTs were barely functional, and other facilities where some were functioning and effective and others were not. For the most part, the greatest difficulty seemed to be to keep up the initial momentum generated by the module training; scheduled meetings and attendance at them often would fall off after a period of time. Respondents consistently emphasized the importance of the CRTs, and participant respondents for the most part felt that the teams were committed to improving care. The researchers found very little (but some) evidence of disinterest. But the positive perception of team members, as often as not, did not lead to sustained commitment in the form of regularly scheduled activities, with full attendance, over time across all the CRTs in a facility.

The Alliance

The impact of the Alliance on the success of Wellspring cannot be overemphasized. It plays a crucial role at multiple levels, affecting planning, implementation, problem solving, and accountability and evaluation.

In terms of its supportive role, there is general agreement among the respondents and researchers that the Alliance has served with distinction and success.[14] The fact that 11

[13] Ibid., p. 42.
[14] Ibid., pp. 43–44.

very diverse facilities have stayed united and committed to the principles of Wellspring, with remarkably little evidence of disagreement, divergence, or even rancor, is strong testimony to its efficacy as a leader of this movement. The Alliance has repeatedly come to the aid of facilities, either through overall lobbying efforts or to solve individual problems. This accomplishment is even more impressive in light of the complexity and ambitious goals of the model, the extent of which was most likely not completely understood by the Alliance members at the inception of the Wellspring model.

As impressive as this performance has been, the daunting fact is that an even greater effort will be needed as Wellspring moves into the next stages of its evolution. The researchers observed that despite the strong supportive role of the Alliance, the problems that arose at some points required a stronger management and accountability function than the Alliance was able to muster. Its governance structure resembles a confederacy more than a strong management body. This is probably natural and to be expected, given the circumstances under which the Alliance partnership was formed, with each member clearly an independent entity. That said, it is sometimes necessary to rely on a strong central management function, with a governance structure that supports this strength.

Data Collection

Of all the elements in the Wellspring model, the data collection function was found to be the least well implemented and most problematic.[15] The Alliance members place considerable importance on the collection of data and the maintenance and use of the Wellspring database. Considerable resources have been invested in developing and maintaining the database, including time at each facility to record the information, discussions at Alliance functions on how to record it, and subcontracts with other organizations to maintain the data. However, the researchers found almost universal confusion in the facilities about the purpose, meaning, and structure of the data, and in most facilities data collection was sporadic, at best. Moreover, it was rare that a facility made substantial use of the data internally. Considerable discussion took place at Alliance DON/coordinator meetings on the correct method for collecting data, but there did not appear to be any continuity to the data use at either the facility or Alliance level. Some facilities attempted to maintain all or partial data, but others virtually gave up in the attempt to do so. Even in facilities where data were collected on a more regular basis, this effort was frequently disconnected from the other elements of the Wellspring activities. Data collection can be a valuable way of providing needed reinforcement in the form of validation of the success of interventions and monitoring to identify problems in care. However, the data collection function needs to be systematized and more fully integrated into the other Wellspring elements and functions. Interviews with front-line staff and

[15] Ibid., p. 45.

participation in several quarterly meetings also indicated that more formal training on the purpose of collecting data and how to interpret information at the aggregate as well as the individual resident level is needed.

Administration

Perhaps the most underappreciated ingredient in Wellspring implementation is the administrative structure in each facility. While the Wellspring philosophy that "each facility must find its own unique way to implement" acknowledges the diversity and independence of each facility, it does not provide the guide to implementation that is clearly needed. Specifically, one of the greatest obstacles to Wellspring implementation is its nonalignment of the decision-making processes related to Wellspring activities with pathways of authority and decision-making in the facility.[16]

For example, decisions made by the CRT about unit-level implementation were not necessarily integrated into the unit decision-making structures. Such situations were always problematic. The administration also plays an important role in creating a structure of accountability for implementation. In some facilities the attempt to empower front-line staff makes administrators reluctant to participate in Wellspring decision-making or to hold staff accountable for implementation. The Wellspring philosophy was sometimes translated into a disconnect between managers and front-line staff. This tended to undermine implementation and frustrate front-line staff.

IMPACT ANALYSIS ON FACILITIES, EMPLOYEES, AND RESIDENTS

The researchers conducted a series of secondary data analyses to assess the impact of the Wellspring model on the facilities, employees, and residents. This report summarizes the study findings in three areas: (1) facility quality outcomes as measured by survey deficiencies; (2) employee-related outcomes, as measured by retention and turnover rates; and (3) resident outcomes, as measured by status variables captured in the Minimum Data Set (MDS) Quality Indicators. (Detailed information on all of the analyses is available in the full Technical Report, available through IFAS.)

Methodology

The researchers compared trends in survey deficiencies for Wellspring and non-Wellspring facilities in Wisconsin from the pre-Wellspring period (1994–95) through the module implementation period (1996–98) to the post-implementation period (1999–2000). The data on three deficiency measures—average number of deficiencies, percentage of facilities with zero deficiencies, and percentage of facilities with one or more severe health deficiencies—are from the On-line Survey and Certification Automated Reporting

[16] Ibid., p. 46.

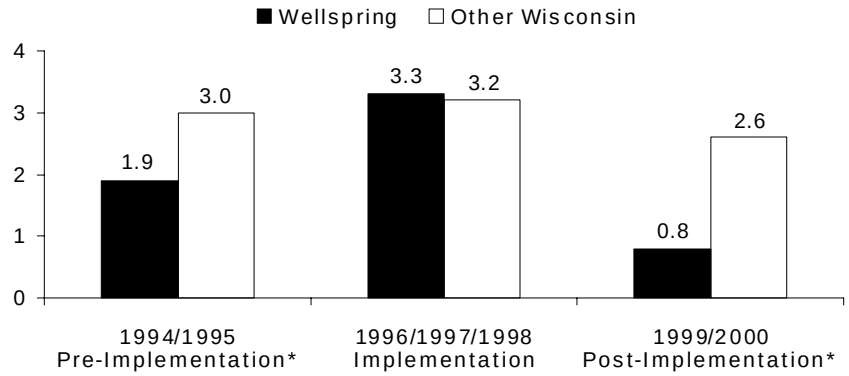
(OSCAR) system of the Centers for Medicare and Medicaid Services (CMS), which contains information on the deficiency and severity grid values for all nursing home surveys conducted in the United States. The researchers examined each measure for the pre-, during, and post-implementation periods by year, and then averaged them over the three points in time. The analysts conducted difference in mean tests between Wellspring and comparison facilities on the measures over the pre- and post-implementation periods, and also examined the net change in these measures from pre- to post-implementation for the Wellspring and comparison facilities.

Average Number of Deficiencies

Wellspring facilities exhibited significantly fewer deficiencies in the pre-implementation period, while, during the actual period of module implementation, the Wellspring and comparison average deficiency figures were virtually the same: 3.2 and 3.3, respectively. However, in the post-implementation period, the Wellspring facilities also had significantly fewer deficiencies, less than one-third the average deficiencies of the comparison facilities (Exhibit 1).[17]

Exhibit 1. Comparison of Average Number of Deficiencies

Wellspring vs. Other Wisconsin Facilities



* p < .05

Source: Robyn I. Stone and Susan C. Reinhard, *Evaluating the Wellspring Program as a Model for Promoting Quality of Care in Nursing Homes,* Institute for the Future of Aging Services/American Association of Homes and Services for the Aging, 2001.

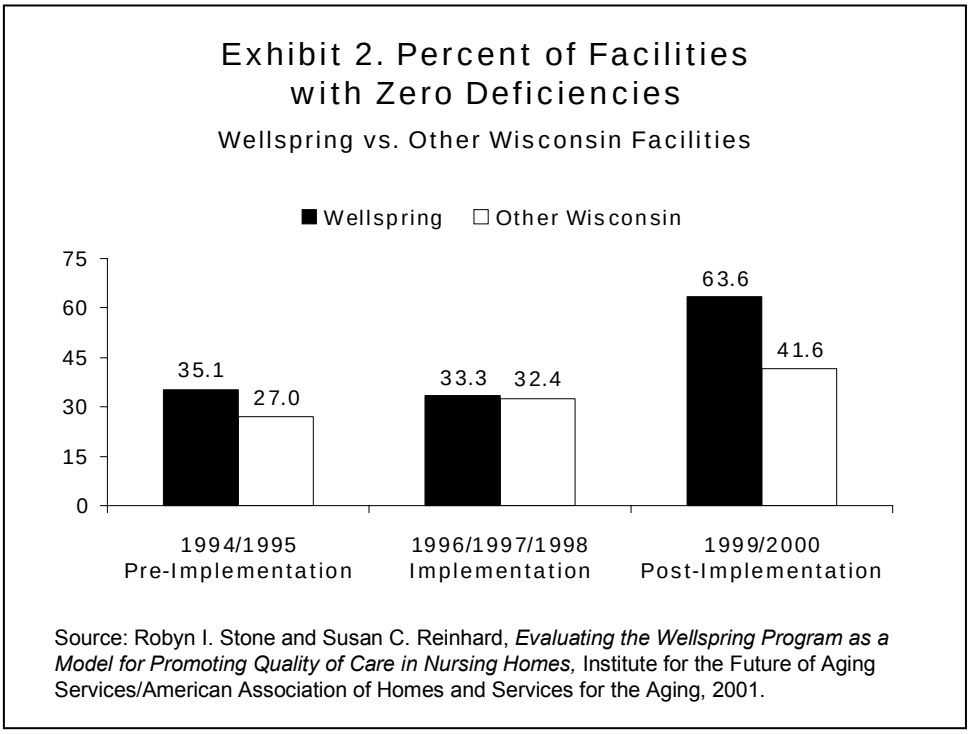
Wellspring facilities experienced a much larger decline in average deficiencies over the period, reducing this figure by 1.09, or more than one deficiency. In comparison, the other Wisconsin facilities showed a decline of 0.43 in average deficiencies over the period. Thus, Wellspring facilities experienced a decline about 2.5 times greater than the

[17] Ibid., "Quantitative Analysis," p. 3.

comparison group facilities. This difference, while large in real terms, was not statistically significant because of the large standard deviation around both means.[18]

Facilities with Zero Deficiencies

Wellspring had a higher percentage of zero-deficiency facilities in the pre-period, virtually the same percentage in the period during which the modules were being implemented, and a 50 percent higher percentage in perfect surveys during the period following module implementation (Exhibit 2).[19]



Source: Robyn I. Stone and Susan C. Reinhard, *Evaluating the Wellspring Program as a Model for Promoting Quality of Care in Nursing Homes,* Institute for the Future of Aging Services/American Association of Homes and Services for the Aging, 2001.

Facilities with Severe Deficiencies

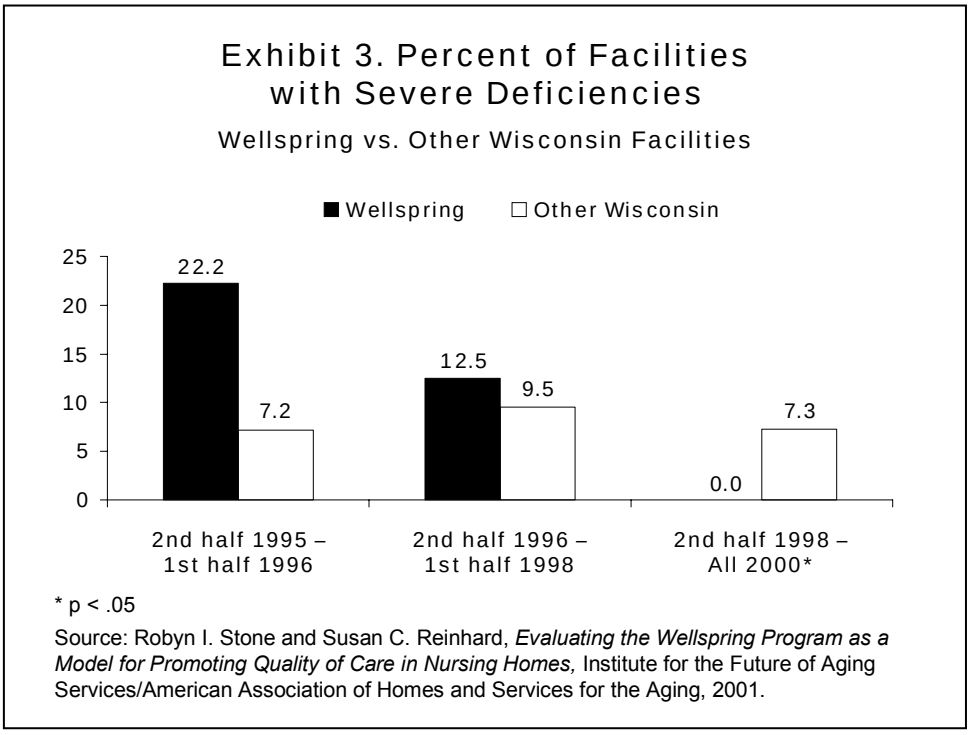
The researchers compared the percentage of Wellspring and non-Wellspring facilities that reported at least one severe health deficiency during the pre-, during, and post-implementation periods. For purposes of this analysis, a deficiency was considered severe if the value assigned to it by surveyors was "F" or higher (excluding "G") on the severity grid. Deficiencies assigned a severity value of "F" or above are those that either were at a severity level of "actual harm" or "immediate jeopardy," or were at a scope level of "pattern" or "widespread."[20]

The federal government's practice of assigning a severity weight to deficiencies started in mid-1995. Consequently, the researchers defined the period inclusive of the

[18] Ibid., Exhibit 1, p. 2.
[19] Ibid., "Quantitative Analysis," Exhibit 4, p. 3.
[20] Ibid., p. 5.

second half of 1995 through the first half of 1996 as pre-implementation, the period inclusive of the second half of 1996 through the first half of 1998 as the period of module implementation, and the period inclusive of the second half of 1998 through the entire calendar year 2000 as post-implementation.

The study results reveal a stunning reversal of position from the pre-implementation to post-implementation periods. Prior to implementation, Wellspring facilities were three times more likely than comparison group facilities to have had a severe deficiency: 22 percent vs. 7 percent. This trend evened out during the period of Wellspring implementation, with the percentage of Wellspring facilities being reduced to about one in eight, but still 25 percent higher than the comparison facility percentage, which remained under 10 percent. During the post-implementation period, however, no Wellspring facility had a severe deficiency, while the comparison group percentage showed a modest reduction to about 7 percent, a significant difference. Thus, over the course of the observation period, the comparison facilities stayed about the same, while the Wellspring facilities reduced their risk of a severe deficiency, posting a perfect record in the post-implementation period (Exhibit 3).[21]



Summary of Deficiency Findings

The Wellspring facilities revealed an impressive improvement on all three deficiency measures over the observation period, both in their own trends and in comparison with

[21] Ibid., Exhibit 5.

other Wisconsin facilities. Most important, following the implementation of the modules, they had substantially fewer deficiencies than their own record prior to implementation, and they had significantly fewer deficiencies than their Wisconsin peers, whose performance stayed about the same over that period. Similar improvement was seen in terms of facilities with perfect surveys: over the observation period the percentage of Wellspring facilities with no deficiencies almost doubled, from one-third to nearly two-thirds, while their Wisconsin peers improved as well, but more modestly, by about 50 percent. The largest turnaround was seen at the other end of the quality spectrum, in terms of severe deficiencies, where, following the implementation of the modules, Wellspring homes had no severe deficiencies, while their Wisconsin peers stayed at about 7 percent over that same time period.[22]

Employee Outcomes: Retention and Turnover

To assess the impact of Wellspring on employees, the researchers examined and compared staff retention and turnover rates for all nursing staff categories for Wellspring and non-Wellspring facilities. Data were drawn from the Consumer Information Report, produced annually by the Wisconsin Bureau of Quality Assurance from information provided by each nursing home in the state. The methodology used for determining these rates is discussed in the full Technical Report. Retention and turnover rates were assessed at two points: the pre-Wellspring (1995) and post-Wellspring (1999) implementation periods.

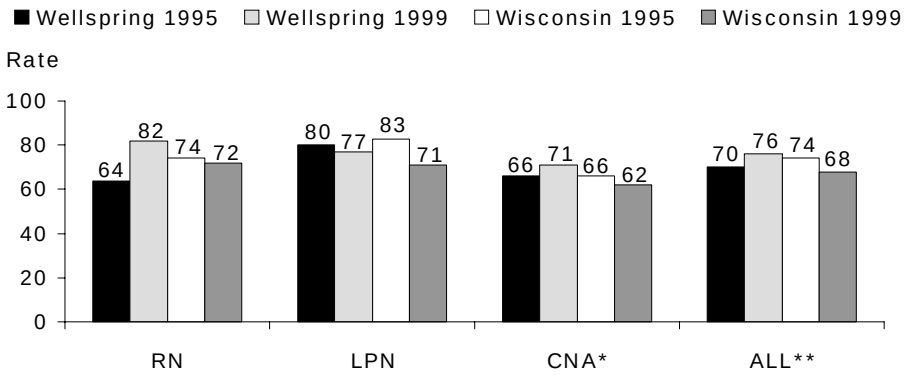
Retention Rates

Among the study results, several findings of particular importance are highlighted in this report. First, Wellspring facilities experienced a large increase in registered nurse (RN) retention rates from 1995 to 1999 (from 64% to 82%) relative to a slight decrease experienced by non-Wellspring facilities during that same time period (74% to 72%). In addition, the study found that Wellspring RNs were considerably more likely to stay in their positions than they had been prior to implementation, and more likely to do so than the comparison group (Exhibit 4).[23]

[22] Ibid., p. 5.
[23] Ibid., Exhibit 6, p. 7.

Exhibit 4. Comparison of Nursing Retention Rates Before and After Wellspring Implementation

Wellspring Facilities vs. All Wisconsin Facilities
1995 vs. 1999



* p < .05
** p < .1

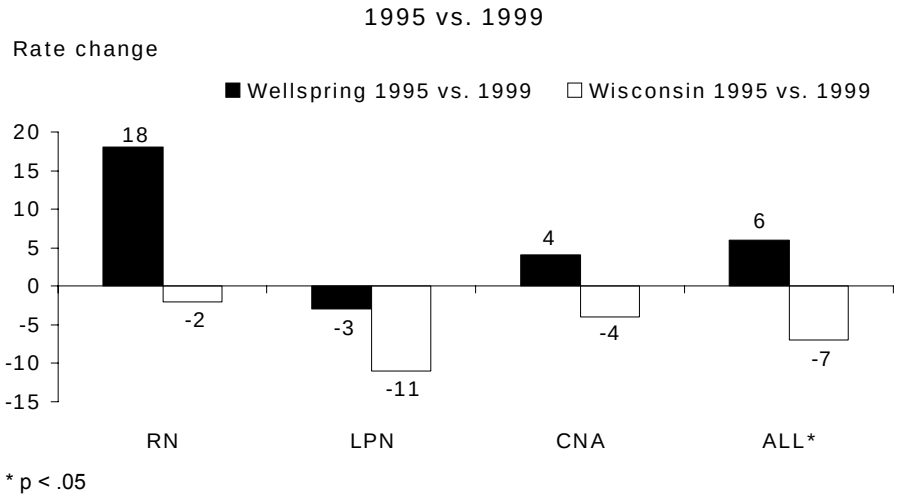
Source: Robyn I. Stone and Susan C. Reinhard, *Evaluating the Wellspring Program as a Model for Promoting Quality of Care in Nursing Homes,* Institute for the Future of Aging Services/American Association of Homes and Services for the Aging, 2001.

Both Wellspring and comparison facilities experienced a decline in licensed practical nurse (LPN) retention rates from 1995 to 1999, although the rate of decline for Wellspring (80% to 77%) was considerably less than the comparable rate in other facilities, which fell 12 points from 83 percent to 71 percent. The retention rate for all Wellspring nursing staff increased over the time period (70% to 76%), compared with a decrease in the rate (74% to 68%) at other Wisconsin facilities.

A summary of the percentage change in retention rates indicates that the retention rate for all nursing categories in Wisconsin declined from 1995 to 1999, but in Wellspring facilities, the rate actually increased in all categories except LPNs. The largest increase was in Wellspring RNs, whose retention rates were 18 percentage points higher in 1999 than in pre-Wellspring 1995. Overall, the team found that Wellspring facilities exhibited improved retention rates, relative to other Wisconsin facilities, although the difference was statistically significant only in the all nursing aggregate category (Exhibit 5).[24]

[24] Ibid., Exhibit 7, p. 8.

Exhibit 5. Comparison of Change in Retention Rates Between Wellspring and All Wisconsin Facilities



* p < .05

Source: Robyn I. Stone and Susan C. Reinhard, *Evaluating the Wellspring Program as a Model for Promoting Quality of Care in Nursing Homes,* Institute for the Future of Aging Services/American Association of Homes and Services for the Aging, 2001.

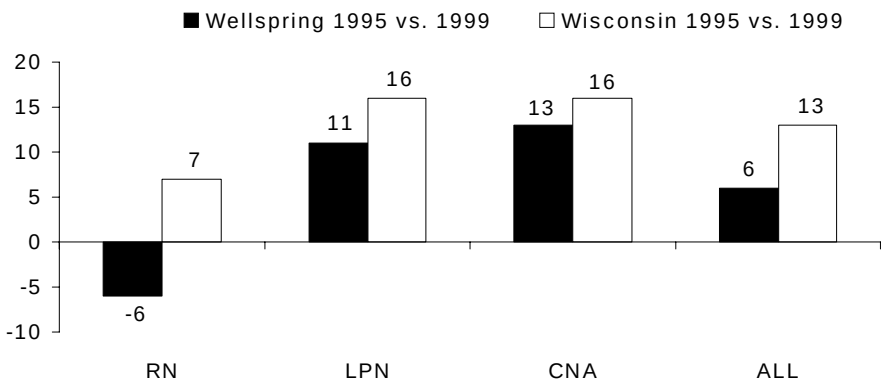
Turnover Rates

The turnover rates for the aggregate nursing staff category increased between 1995 and 1999 in both Wellspring and the comparison group of Wisconsin facilities. The degree of increase, however, was substantially less for the Wellspring members (6 percentage points and 13 percentage points, respectively). In fact, the turnover rate for Wellspring RNs decreased over the period by 6 percentage points, while the rate increased for RNs in the comparison group by 7 percentage points (Exhibit 6).[25]

[25] Ibid., Exhibit 9, p. 9.

Exhibit 6. Comparison of Change in Turnover Rates Between Wellspring and All Wisconsin Facilities

1995 vs. 1999



Source: Robyn I. Stone and Susan C. Reinhard, *Evaluating the Wellspring Program as a Model for Promoting Quality of Care in Nursing Homes,* Institute for the Future of Aging Services/American Association of Homes and Services for the Aging, 2001.

Summary of Employee Stability Outcomes

Wellspring facilities were able to improve their retention of nursing staff following the implementation of the program with greater success than their other Wisconsin counterparts over the same period. Similarly, the Wellspring facilities, while sharing the experience of higher nursing turnover, nevertheless had lower increases than did Wisconsin nursing homes in general. The consistency of the findings across nursing categories suggests greater success for facilities using the Wellspring model in retaining nursing staff and limiting the general increase in turnover rates following implementation. The limited number of Wellspring observations is expected to result in few statistically significant differences between Wellspring and non-Wellspring facilities. Nevertheless, the evaluators discerned a consistent pattern of differences, which, while not statistically significant on an individual basis, formed a convincing indication of the composite difference between Wellspring and non-Wellspring facilities.

Analysis of Changes in Resident Status

The researchers conducted a series of analyses of resident status and change in status using measures that would be most likely to capture the impact of the Wellspring clinical module training and implementation (incontinence, falls, behavior, physical functioning, nutritional status, restraints, and skin care). Data came from two sources. The evaluators judged the quality of the resident status data reported through the federally mandated Minimum Data Set (MDS) to be superior to data reported on the OSCAR. Unfortunately, MDS data were only available to the team for a subset of Wisconsin

facilities: nursing homes that were participating in the Provider Initiative Project (PIP), which was conducted by one of the research team members. PIP includes longitudinal MDS data on residents from approximately 100 Wisconsin homes (the vast majority of which are not-for-profit) from 1996 through mid-2000. In order to both take advantage of the superior MDS data and conduct the broadest possible comparison between Wellspring and its peer group, the researchers used the OSCAR data for all Wisconsin facilities and the MDS data for the PIP not-for-profit facilities in the comparative analyses.

The team examined resident status in Wellspring and comparison facilities prior to, during, and after the period of Wellspring module implementation. They assessed both the average proportion of residents with the condition of interest during the aforementioned periods and the "difference in the change" between Wellspring and non-Wellspring homes (i.e., comparing the change in Wellspring facilities to that in the comparison facilities).

Summary of Findings on Resident Outcomes

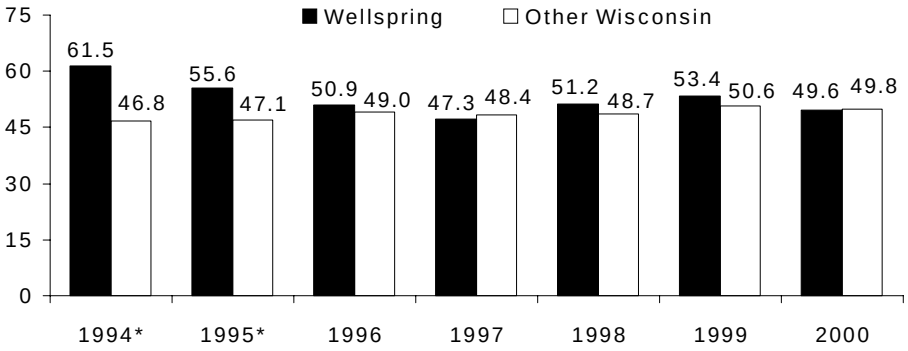
The researchers observed few differences between Wellspring and the comparison groups in resident status changes during the four-year implementation period.[26]

There are some exceptions, such as incontinence, where, according to OSCAR data, the Wellspring facilities improved incontinence rates to match those of the non-Wellspring facilities in the post-implementation period. The researchers, however, could make no causal inferences without controlling for other factors contributing to incontinence (Exhibit 7).[27]

[26] Ibid., "Quantitative Analysis," pp. 10–27.
[27] Ibid., Exhibit 10, p. 13.

Exhibit 7. Comparison of Percent of Residents Who Are Occasionally or Frequently Incontinent of Bladder by Year

Wellspring vs. Other Wisconsin Facilities 1994–2000



* p < .05

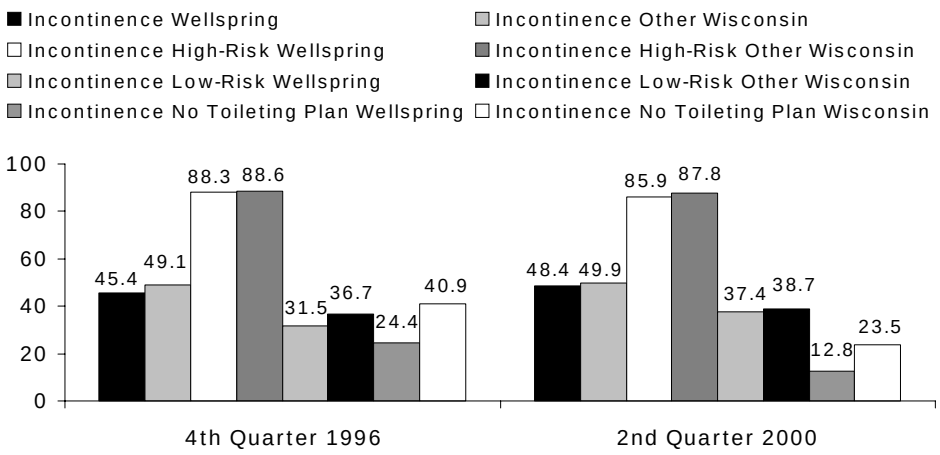
Source: Robyn I. Stone and Susan C. Reinhard, *Evaluating the Wellspring Program as a Model for Promoting Quality of Care in Nursing Homes,* Institute for the Future of Aging Services/American Association of Homes and Services for the Aging, 2001.

Unlike the OSCAR measure, the MDS Quality Indicators pertaining to incontinence capture incontinence of either bowel or bladder and distinguish between residents at high and low risk for bowel or bladder incontinence. The researchers found little difference in either the proportions or change in the proportions of incontinent residents living in Wellspring and non-Wellspring PIP facilities between 1996 and 2000. They observed a slight increase in the percentage of low-risk residents with incontinence among the Wellspring members, a finding that could be attributed to more aggressive assessment of this condition following the implementation of the clinical module. They also found that the Wellspring facilities reported a smaller proportion of incontinent residents without a toileting program than did the other PIP facilities. Both Wellspring and non-Wellspring homes, however, experienced a similar drop in the proportion lacking a toileting program over the period of analysis, suggesting that this change was not associated specifically with the Wellspring implementation (Exhibit 8).[28]

[28] Ibid., Exhibit 12, p. 14.

Exhibit 8. Comparison of Incontinence-Related QIs

Wellspring Facilities vs. Other Wisconsin Facilities
4th Quarter 1996 and 2nd Quarter 2000



Source: Robyn I. Stone and Susan C. Reinhard, *Evaluating the Wellspring Program as a Model for Promoting Quality of Care in Nursing Homes,* Institute for the Future of Aging Services/American Association of Homes and Services for the Aging, 2001.

The researchers also found that, while all Wisconsin facilities followed the national pattern of reducing their restraint use over the last half of the decade, Wellspring facilities outdistanced their counterparts in this regard, exhibiting larger declines during this period. The data also suggest that Wellspring may be tracking early pressure sore development (i.e., stage-one pressure sores) more carefully, as evidenced by the reduced prevalence of more serious pressures sores, defined as stage two and above.

Limitations of the Secondary Data on Resident Outcomes

It is important to note that all of the above findings relate to the clinical interventions, one of the two primary elements of the Wellspring model. The other primary element is the cultural change that is inherent in the Wellspring approach to care. Unfortunately, the researchers were not able to quantitatively measure the impact of this cultural component of Wellspring because they did not have systematic data on the types of resident outcomes that would most likely be influenced by this dimension of the model (e.g., dignity, respect, privacy). The evaluation team conducting the qualitative analysis of Wellspring implementation provided considerable anecdotal information to suggest that Wellspring facilities scored very high on this set of measures. Several team members with previous on-site experience in non-Wellspring homes in Wisconsin also felt that the Wellspring facilities would likely have scored higher than the comparison group on these measures if such a comparison could have been conducted.[29]

[29] Ibid., "Quantitative Analysis," p. 27.

The study was limited by the absence of a true quasi-experimental design to assess the impact of the Wellspring intervention. Analysis of existing longitudinal secondary data provided important insights into the impact of Wellspring on employees and residents, but it was difficult to establish with any degree of precision the timing of the Wellspring implementation, since it is composed of a series of interventions over time.

IMPACT OF WELLSPRING ON COSTS

Direct Costs

A facility's decision to participate in the Wellspring model involved much more than a verbal commitment to the Wellspring idea. Each of the founding facilities, and each subsequent participant, made a fundamental commitment to invest considerable organizational resources in the implementation and ongoing activities of the Wellspring model.

Discussions with facility administrators and financial officers resulted in the development of a general list of expenditures incurred by facilities involved in the Wellspring model. Some of these expenses, such as the purchase of a bladder scanner, were one-time outlays. Most, however, were recurring investments in the operation of the model. The vast majority of these costs involved the investment of staff time in coordinating the initiative, attending the module training, and participating in the ongoing CRT activities (Exhibit 9).[30]

Exhibit 9. Individual Facility Investments in the Wellspring Initiative

Type of Cost/Resource	Estimated Amount
Bladder scanner	$4,000–$5,000
Administrator effort	1 day per month
Wellspring coordinator	0.6 to 0.2 FTEs for RN, ADON, or DON—varies over time
Monthly dues	$1,000 per month
Module training for staff	Wellspring coordinator; 2–4 staff for each module, usually only CNAs replaced
In-house training	In-service training for facility staff

Some of these investments of staff effort, however, changed over the course of the implementation. For example, most facilities had a registered nurse committed as the Wellspring coordinator from 40 percent to 60 percent of their time at the beginning of the implementation. After that initial period, the coordinator's time commitment usually was reduced to 25 percent to 30 percent. While the module training is basically on a two-year cycle, the initial training usually involved more staff than subsequent training. Facility

[30] Ibid., "Quantitative Cost Analysis," Exhibit X, p. 1.

staff were provided training on the various modules, but this training was usually considered a complement to, or substitute for, normal facility training activities.

Facility staff also expressed their belief that they reaped savings as a result of the implementation of Wellspring in a variety of areas including: reduced laundry costs and continence supplies due to more scheduled toileting and reduced wound care costs due to better skin care. Some administrators indicated that they felt that they had achieved savings due to reduced turnover, a belief supported by findings reported in the previous section.

Medicaid Cost Report Analyses

The researchers, unfortunately, lacked the data to confirm most of the qualitative responses from the interviewees and to assess adequately the direct costs attributed to Wellspring and the savings accrued. Furthermore, without an intensive prospective research design, it was difficult to assess the extent to which time spent on Wellspring activities (particularly training activities) truly represented an additional expense to a facility over and above what it would have spent otherwise. The researchers, therefore, decided to examine the general patterns of expenditures by Wellspring facilities before and during the implementation of the model and to compare them with the same general patterns of expenditures for non-Wellspring facilities in Wisconsin. Using multiple years of Medicaid cost report data, the researchers assessed how the costs of facilities that implemented the Wellspring model changed over time in comparison with other Wisconsin facilities over the same time period.

Medicaid Cost Report Analysis Methodology

Medicaid cost report data characterizing Wisconsin nursing facilities' expenditures were analyzed to investigate differences in costs between the Wellspring group and the comparison group composed of all Wisconsin nursing facilities not participating in the Wellspring model. The working database consisted of 1,965 annual cost reports from study and comparison facilities over a five-year period (1993–1998). Data were retrieved from 11 Wellspring facilities, for a total of 54 cost reports. Cost reports for 1993 through 1996 represent the pre-intervention period and those from 1997 through 1998 (the last year that data were available) represent the implementation period.[31]

The dependent variables used in the study's primary cost analyses were: (1) total expenditures per resident day, (2) adjusted total cost per resident day (defined as total cost-capital costs), and (3) direct care cost per patient day. Mean values for the dependent variables were calculated for the study and comparison group from 1993–1998 and for each individual study facility by individual years within the same time frame. Independent

[31] Ibid., "Quantitative Cost Analysis," Exhibit X, p. 2.

and dependent variables were investigated for normality, with some being logged to achieve normality.

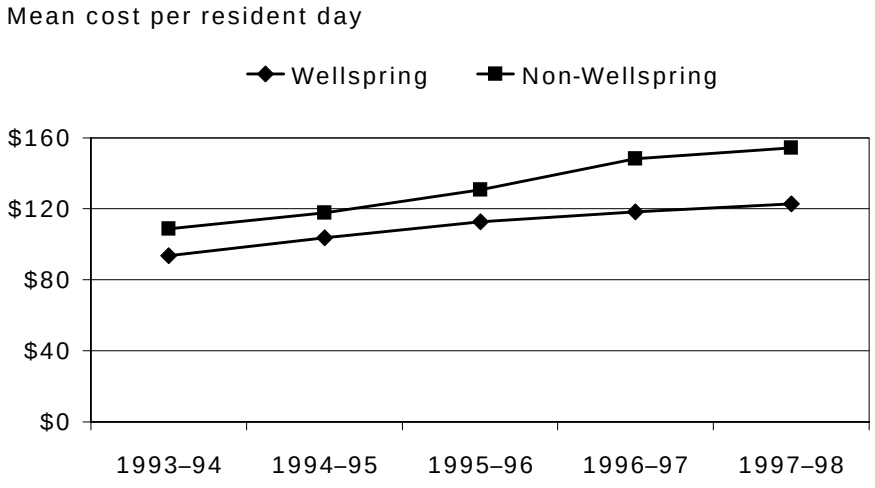
The variables in the multivariate analyses included facility case-mix, beds, occupancy, percent of patient days paid by Medicare, and percent of patient days paid by Medicaid. Other independent variables included as binary variables were self-funding of insurance, the presence of union contracts, ownership type (for-profit, not-for-profit, and government), and whether the nursing home shared any services with a hospital. The most important independent variable was a binary variable identifying whether the cost data came from a Wellspring or comparison facility. The cost models were estimated separately for each year of data using ordinary least squares (OLS) techniques. A zero-order correlation matrix was generated to determine if findings were affected by multicollinearity.

Key Findings

In analyzing total per resident day expenditures, mean values were graphed across time. Total costs were higher in comparison facilities throughout the period of observation. No significant change, however, was observed in either group of facilities during the implementation period. Data on the individual Wellspring facilities were also evaluated to determine if the overall results reflected the experience of each facility. Four of the 11 Wellspring facilities experienced a slight decrease in total cost expenses upon implementation of the interventions. Overall, however, the researchers found no real differences between facilities, and concluded that individual facility outliers did not bias group mean values (Exhibit 10).[32]

[32] Ibid., p. 5; Exhibit 2, p. 6.

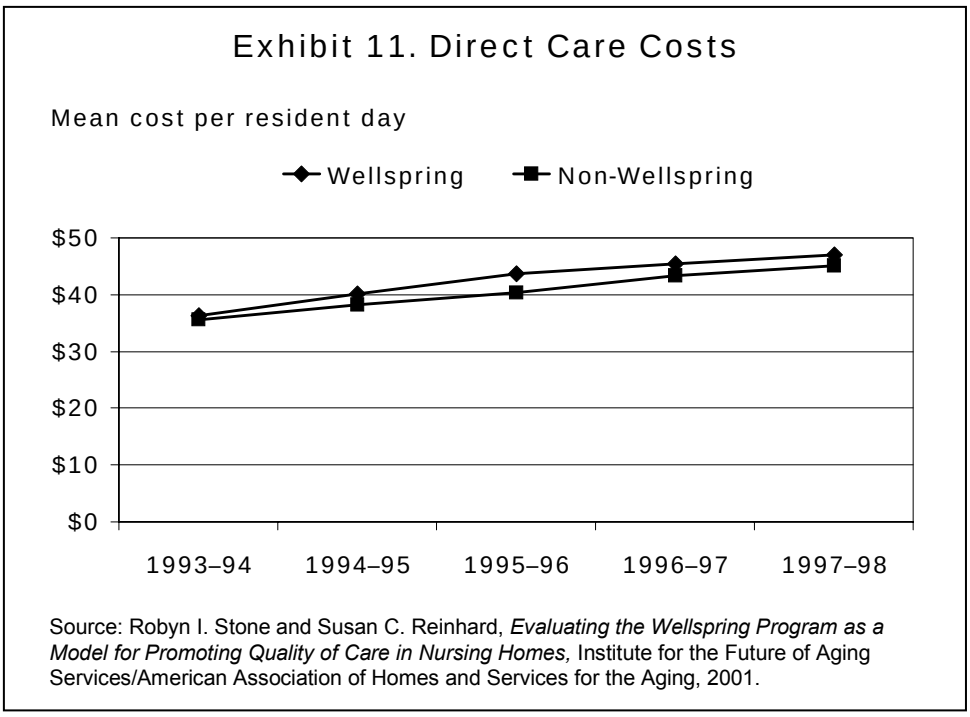
Exhibit 10. Total Cost



Source: Robyn I. Stone and Susan C. Reinhard, *Evaluating the Wellspring Program as a Model for Promoting Quality of Care in Nursing Homes,* Institute for the Future of Aging Services/American Association of Homes and Services for the Aging, 2001.

The researchers also looked at the expenditures related to direct care, the expenditures that should be most affected by the Wellspring model. Wellspring facilities mildly exceeded comparison facilities in direct care costs per resident day. However, differences over time nearly paralleled those for the comparison group. Further analysis by individual Wellspring facility found no clear pattern of changes in costs that might be attributable to the model (Exhibit 11).[33]

[33] Ibid., Exhibit 4, p. 7.



To adjust for differences between the Wellspring and the comparison facilities, the researchers conducted multivariate analyses that included nine co-variates: ownership, case-mix, occupancy, percent Medicaid, percent Medicare, size, self-insured, unionized, and hospital-based. Findings from the multivariate analysis mirrored the non-adjusted analyses reported above.

Limitations of the Data

A potentially troublesome aspect of this data set is that most of the available data reflect facility behavior in the pre-intervention period. Only part of one year and all of another year reflect the implementation period. The post-implementation period is not included in our analysis. However, one can reasonably argue that the period most likely to show the greatest change in cost is during the early implementation phase, which was observed. The lack of cost data for the later intervention period, therefore, may not be too problematic.

Summary

Facilities always face a variety of disincentives for implementing interventions aimed at enhancing quality of care, particularly those as multifaceted as the Wellspring model. One of those major disincentives is the fear that the cost of the intervention will be unbearable. Interviews with administrative staff indicate that facilities did incur additional costs due to Wellspring. However, the analyses of Medicare cost report data imply that the facilities were able to absorb these costs or find compensating economies without increasing their

total *per diem* expenditures or their *per diem* direct care costs. These findings should be somewhat heartening to those facilities considering adoption of the Wellspring model. While Wellspring did not seem to reduce costs, neither did it increase them.

CONCLUSION

The researchers took advantage of Wellspring's "natural laboratory" to assess the impact of the Alliance's quality improvement model on the 11 member facilities, employees, and residents. The study found that, in general, the Wellspring model successfully meshed clinical and cultural change in an intentional model of quality improvement in nursing homes. Its positive impact was demonstrated in improved quality outcomes, better retention rates, and reduced turnover rates among the Wellspring facilities relative to their peers in Wisconsin. Data also suggest that staff in Wellspring facilities may be more vigilant in detecting early signs of clinical problems that can be assertively managed (e.g., stage one pressure ulcers and the need for bladder training).

This evaluation also underscored how difficult it is to systematically implement and sustain a complex quality improvement activity across multiple organizations. The observed variation in implementation, particularly at the unit level, suggests the need for more inter- and intra-facility accountability mechanisms and feedback loops to enhance the transfer of knowledge and skills gained in the module training. The Wellspring Alliance and its individual members need to improve the alignment of their organizational structures with the Wellspring philosophy and goals of clinical excellence, staff empowerment, and joint decision-making. The Alliance needs to take a stronger leadership and management role, beginning with a serious examination of data collection and analysis procedures, the assessment of facilities' readiness for change, and the development of strategies for more systematically integrating clinical and culture change. With these refinements, the adoption of a model such as Wellspring by other provider groups could significantly advance the delivery of long-term care.

APPENDIX A. THE FOUR PHASES OF WELLSPRING IMPLEMENTATION

The implementation of the Wellspring model in 11 Wellspring facilities includes the following four phases: (1) learning Wellspring, (2) planning implementation at the facility and unit levels, (3) implementing Wellspring, and (4) sustaining Wellspring. Findings from the in-depth site visits, interviews, and focus groups conducted by the researchers indicate that in order to implement and sustain Wellspring successfully, the four phases are not sequential; they must be ongoing and engaged in simultaneously. The researchers found that the most successful Wellspring implementers were able to maintain a balance across all phases. Those that were less successful often focused on one or two phases at a time, paying much less attention to the others. In these facilities, as problems occurred with implementation in one phase, the staff tended to shift focus to that phase, letting other phases lapse.

PHASE I: LEARNING WELLSPRING

The learning phase of the model occurs primarily at the Alliance level and involves three key elements: (1) the Alliance board and top management of each of the facilities, (2) the geriatric nurse practitioner (GNP), and (3) the module training. The Alliance has created a superstructure that provides a forum for management staff in each of the facilities to collaborate on Wellspring implementation, to share resources, to create a friendly competition among network facilities regarding the achievement of resident outcomes, and to hold each other accountable for enhancing the quality of care and the quality of work. The Alliance board hires the GNP and makes all major decisions about the structure of the program, including the nature and scope of the module training. The Alliance is intended to operate at multiple levels: from administrators, through department and unit level managers, to front-line staff.[34]

After attending multiple board and DON/coordinator meetings over the evaluation period, the researchers confirmed the importance of the Alliance as the focal point for administrators and nurse managers to examine data relating to the achievement of specific resident outcomes at the facility level, to discuss ways to achieve better outcomes, and to engage in planning and evaluating cross-facility projects. They also found that the Alliance has been instrumental in creating collaborations between and among individual managers, directors of nursing, and Wellspring coordinators. Much of the collaboration occurs outside the Alliance meetings, particularly among Wellspring coordinators, and, to a somewhat lesser extent, among DONs. This collaboration has led to many joint efforts, such as the creation of a cross-facility pool of front-line workers to

[34] Ibid., "Qualitative Analysis," pp. 15–24.

draw from during staffing shortages, the pilot testing of a particular technology in a few facilities to assess its utility for the entire Alliance, and collaborative training efforts beyond the two-day module training sessions.

During the learning phase, the GNP plays an important role in maintaining enthusiasm and commitment for Wellspring among administrative staff members who participate in the Alliance. The researchers found that the GNP strongly encourages active staff participation in the training modules. When the GNP determines that implementation in a particular facility is threatened by inadequate administrative support for staff attendance at modules, she addresses the problem directly with administrative staff from that facility. While the GNP has no formal authority over the administrative staff of the separate facilities, the GNP's position as overall coordinator of Alliance activities affords significant informal authority to hold individual facility administrators accountable for implementation. The GNP frequently brings internal implementation problems to the attention of administrative staff within each facility. Interviews with managerial and line staff indicate significant variation in the extent to which administrators respond to these signals. Some administrators respond by increasing support for staff to attend module training and increasing the number of people who attend on a regular basis; others are less responsive. The GNP also brings Wellspring implementation problems experienced by several of the Alliance facilities to the attention of administrators at Alliance meetings, using this forum to increase overall support for training activities.

The researchers found that the GNP role requires an understanding of clinical practice, data collection, and organizational behavior, though a need for these skills was not explicitly articulated in the Wellspring model. Successful problem solving around Wellspring implementation, furthermore, depends on an understanding of how organizational processes are related to clinical practices in general and to specific implementation issues. The GNP has first access to data from each of the facilities, organizes and implements the training program, and consults with nursing home staff on implementation strategies. Based on interviews with nursing staff at all levels and participant observation at several two-day training sessions, the researchers concluded that the GNP working with the Wellspring group had strong clinical skills and understanding of practice issues, but was weak in the areas of data collection/analysis and organizational behavior. These weaknesses impeded the systematic implementation of the Wellspring program across all facilities.

While the Alliance is designed to assist staff at unit and departmental levels, in practice, there is considerably less involvement of staff at this level. With the exception of the Wellspring coordinator, very few mid-level managers described ongoing involvement

in Alliance activities beyond attending module sessions. Wellspring has not established regular communication channels and accountability mechanisms (e.g., quarterly meetings) for middle managers comparable to those for top managers. Not surprisingly, the evaluators found less visible support for Wellspring from mid-level managers and more opportunities for staff to sabotage the program implementation.

The Alliance structure is also intended to facilitate inter-facility collaboration among front-line staff, particularly among nurse aides, and to increase joint problem solving and the development of collaborative strategies for implementing best practices. The researchers found several examples of the Alliance operating at this level, including reported visits to one Wellspring facility that was well known for having an effective incontinence program. Participating CNAs described these visits as both inspiring and educational, and brought this practice back to their own facilities.

Such collaboration occurs primarily at only a few of the Wellspring facilities, however, and most sharing at this level is done on an *ad hoc* basis. While the Alliance structure supports these exchanges in principal, there are no formal mechanisms in place to encourage and facilitate them. Because the Alliance lacks a clear plan for fostering ongoing cross-facility problem sharing and solving at the front-line level, CNAs reported being unsure about how to use what they learned during visits to an exemplary facility. Several interviewees identified this lack of support and guidance as a significant source of frustration rather than an opportunity to enhance quality improvement.

The training modules, the most visible element of the Wellspring model, are an important part of Phase I. They have an explicit goal: to enhance the knowledge and skills of all staff members, and an implicit goal: to facilitate the culture change needed to use their newly acquired skills. Attendees listen to presentations (usually from the GNP) about a particular clinical area, and jointly review specific clinical problems related to the module content, including examples from their own experience in their facilities. These interactive training sessions provide opportunities for groups of staff to present case scenarios and to discuss strategies for addressing problem areas. Several attendees indicated that the modules often created a new awareness in staff participants, including more seasoned staff, about their own knowledge deficits in a particular clinical area. The sessions also increased their understanding of how important that knowledge was to the quality of care they provided.

Wellspring's commitment to bring staff from all departments and all positions together is strikingly different from most other clinical training programs in nursing homes. The Wellspring model brings all these groups together to make explicit the role of

each staff member and department in implementing a clinical practice. The modules acknowledge the necessity for each staff member to work to his or her capacity, and most important, the need for all departments and workers to align their work with each other. The training sessions are designed to help staff explore how to do this in their respective facilities at the direct care level.

The Wellspring model encourages staff from several departments and levels within each facility to learn together, examining their work in relation to other workers and other departments. Several interviewees noted that in many cases they began to examine care practices where department policies and practices were not well coordinated. The researchers found instances where module attendees were subsequently able to redesign work practices to better coordinate their efforts in their facilities. For example, following the module training on falls, nursing staff in several facilities began to formally include maintenance workers in efforts to reduce falls among residents. Posting signs indicating "high risk of falls" outside residents' rooms is a common practice in many nursing homes. Unlike most other facilities, however, maintenance workers in these Wellspring homes were specifically apprised of the meaning of the "high risk" sign and have now been formally included in the clinical team. As they perform their daily maintenance chores, these workers observe such residents, help them stand, and signal direct care staff to assist the resident as needed.

Many staff, CNAs in particular, describe the training as an inspiring and pivotal experience. These sessions, including the overnight stay, provide opportunities to become more involved in decision-making about the care they provide, to be much better informed about the care, and to feel much more appreciated for the work they do. The shared learning experience, where administrative staff, nurse managers, and line staff are peers, reinforces for the workers the view that they work *with* rather than *for* the professional staff. Many CNAs and other front-line staff interviewees reported that being recognized by higher level staff and the instructor as needing sophisticated knowledge, and being capable of using it, contributed significantly to their job satisfaction and feelings of self-worth.

One of the negative findings from the qualitative assessment was the limited participation of non-nursing staff in module training sessions. The majority of participants observed by the researchers were CNAs and nurse managers. The inclusion of more activity and dietary staff, for example, may have led to better integration of practices related to quality of care and life in the facilities.

Another problem identified by some of the CNAs participating in the training was that they did not have the background to understand some, or in several cases, most of the information imparted during the two-day sessions. This was frustrating, confusing, and demoralizing for these individuals. In several instances, where CNAs attended the module training with nurses from their facility, the nurses would clarify issues for them during break periods. This informal process actually enhanced the CNAs' learning and helped strengthen the relationships between managers and line staff.

In two of the nursing homes, the Wellspring coordinator convened pre-module meetings to ensure that CNAs and staff from non-nursing departments had at least a basic understanding of the clinical area that the module would address. CNAs who attended these pre-module training sessions generally reported having a more positive experience during the module training. Several facilities also held post-module debriefings. CNAs reporting the best experiences were those who had attended both pre- and post-module meetings. Direct care workers who had not understood much of the module material but who were, nevertheless, expected to share this new information with staff back at the facility, and to engage in planning and implementation immediately, tended to express the most frustration.

The Wellspring coordinator's role during Phase I is pivotal. The coordinator selects and encourages participants to attend the training, lobbies the administration to support staff attendance, and, in at least two facilities, organizes the pre- and post-module sessions. Many CNAs described how they had been interested in attending a module or joining a CRT but probably would not have done so without the strong encouragement and support from the coordinator.

In addition to understanding clinical content, the coordinator role requires an ability to: (1) organize and develop effective training programs, (2) identify staff who will be able to provide leadership in the Wellspring model, (3) provide an effective link between the staff and the administration, and (4) work with unit nurses to facilitate implementation of Wellspring. Most of the Wellspring coordinators had clinical and, to a greater or lesser extent, teaching skills. Many, however, lacked administrative experience and organizational development skills. Several reportedly sided with either the administrative or front-line staff, thereby limiting their effectiveness as the link between the two groups and significantly impeding Wellspring implementation.

PHASE II: PLANNING IMPLEMENTATION IN FACILITIES AND UNITS

The researchers observed that the locus of responsibility shifts somewhat during Phase II of the Wellspring model. During this phase, the care resource team (CRT), Wellspring

coordinator, data collected from the Wellspring database, and the administration at each individual facility are the central elements.[35]

The Wellspring model requires a CRT for each clinical module (e.g., incontinence module attendees from each facility comprise the incontinence CRT). Following the module, it is the responsibility of that team to identify a clinical outcome to either achieve or strengthen, and then to develop a facility-wide plan to meet the goal. Examples of goals include decreasing falls occurring after meals, increasing the length of time residents remain continent, and increasing the mobility status of residents. The CRT develops a plan to achieve each of these outcomes and determines the best strategies for implementation.

Ideally, the CRT includes staff who cross departments, shifts, and levels, and who represent several units in the facility. The team composition varies from one facility to another, with some being more representative than others. Including staff members who represent several departments has been useful in redesigning activities and care practices that intersect the work of other departments. Many of the problems identified by the teams involve policies and practices of the housekeeping, dietary, and activity departments. Meal placement, timing, supplements, and choice were commonly tied to problems identified by the CRTs. The timing and location of activities as well as the residents selected to participate in these activities were also relevant to outcomes targeted by the CRTs.

On several occasions, policies or practices of departments that appeared to be immutable were altered to facilitate the achievement of the team's goal. For example, while trying to figure out how to work around meal supplement policies, a dietary worker suggested a creative way to approach the problem. Several such examples were provided, mostly about dietary and activities department policies.

There were several challenges to the effectiveness of the CRT's planning efforts. First, it was unusual to have a significant representation on the team from staff working the evening or night shifts. Therefore, the CRT's implementation plan could not include those individuals' perceptions of the problem being addressed. Implementation was further undermined when staff on other shifts did not understand what the CRT was trying to accomplish.

[35] Ibid., pp. 24–29.

Another challenge to effective planning by the CRT is the inability, in some facilities, of CRT members to leave their work to attend meetings. Nonattendance is a particular problem when the staffing is down, but it is also a factor on units where the charge nurse is not supportive of, or does not understand, Wellspring. In some facilities, the coordinator is instrumental in convincing the unit charge nurse that attendance is important and in assisting the charge nurse in covering the unit adequately. In the facilities where a supportive relationship between the coordinator and the charge nurse does not exist, there seem to be many more staff who do not attend CRT meetings on a regular basis.

CRTs seem to operate differently at each of the Wellspring facilities. Some meet monthly while others meet much less frequently. Some use data from the Wellspring database as well as other internal data sources; others reported that they never used Wellspring or other data to plan, implement, or evaluate implementation. In some cases the CRT members, primarily CNAs, reportedly attended regular team meetings but did not feel they were sufficiently involved in planning. Some could not articulate their roles as team members; others said their role was to "take the plan back to the units," but lacked a clear understanding of what that responsibility entailed. Not surprisingly, these individuals were only marginally committed to the plan.

The administration in each facility plays a very important role, directly and indirectly, in Phase II. First, administrative staff can help ensure that staff members at all levels, from each department and each shift, attend the CRT meetings. Administrative support is also critical in helping the CRTs obtain resources and sponsor necessary training. In addition, positive feedback from administrators raises morale and encourages CRTs to explore alternative solutions. In the cases where CRT members were simply told that their plan was not workable and that it would not be supported, team members became quickly discouraged, lost their enthusiasm, and often stopped attending team meetings. Administrators who guide rather than instruct seemed to be more successful in helping CRTs move to the implementation phase.

The Wellspring database is also important during Phase II. Ideally, the CRTs use data from it to plan and evaluate their interventions. These data, when used properly, identify resident care areas that need attention. Data are used for initial planning in a particular clinical area, but become even more important as the CRTs explore new strategies to further improve care practices.

The planning phase is where the interaction between clinical change and culture change becomes apparent. The researchers observed that for clinical intervention plans to be successfully developed, the work culture must support and nurture these activities. For

example, the increased voice and authority of the CNAs on the care teams, including their participation in decisions that affect the entire facility, both reflect and create changes in the culture of the nursing homes. This involvement in turn leads to greater understanding, greater commitment, increased excitement, and job satisfaction among front-line staff as well as management staff. This clinical/work culture interface increases the likelihood of follow-through, and, ultimately, increased quality of care.

PHASE III: IMPLEMENTING WELLSPRING

During Phase III, the coordinator, the care resource team, and the administration continue to be central to the success of implementation. Other elements, while still important, are less central.[36]

The Wellspring coordinator is key to taking the implementation plan from the CRT to the units throughout the facility. There are several dimensions to this role. First, the coordinator is the most important link between the CRT and the units, between the CRT and the administration, and between the Alliance and the CRT. The coordinator must explain the plan to charge nurses and other unit nurses who are not members of the CRT in order to gain the support of nurses who could easily undermine the plan either directly or unintentionally. In many cases where the implementation plans require a change in the way the unit work is being done, nursing staff support is crucial. The coordinator must be a good negotiator, explaining the plan and its rationale to skeptical unit nurses and encouraging a pilot test.

The coordinator also maintains links with the administration of the nursing home so that implementation plans are not undermined by facility policies or practices or by *ad hoc* decision-making. In one case reported to the researchers, a team planned a particular intervention for a unit and a family member objected to the nursing director. Without consulting the CRT, the director changed the plan for the resident. This action caused frustration for the front-line team participants who felt that their plan had been undermined and that they were not supported by the nursing administration. Such a problem could have been averted if the coordinator had kept both the CRT members and the administration informed and had involved both groups in the decision.

The care resource team also plays a crucial role in Phase III. Dissemination of the plan throughout the facility is primarily accomplished through the work of the CRT members on their own units, on their own shift, and in their own departments. Successful implementation of the plan at the unit level, including full integration of the objectives and activities, will not occur without wide representation on the CRT. Many

[36] Ibid., pp. 30–33.

coordinators discussed how important it was to have CRT participation from people with leadership skills and individuals who were respected by their peers. In many facilities, CRT membership is also integral to advancement within their nursing home, providing evidence that staff warrant a higher level position.

The second major role for the care resource team in the implementation process is the integration of the plan at the level of the charge nurse on the unit. The researchers found that having the charge nurse on the CRT is ideal. When both the nurse and a respected CNA are members of the same CRT, implementation appears to encounter fewer obstacles and is more likely to succeed on that unit.

Phase III also requires significant support from the administration. In particular, the researchers found that implementation was more successful in facilities where the administrative staff had instructed the unit nurses to participate in the CRTs, to discuss plans created by other CRTs, to support their staff in participating, and to make it clear to unit staff who were not CRT members that they were also expected to participate in the implementation. While all of the nursing home administrators espoused support for Wellspring, many did not follow through with making their expectations clear to unit nurses. Furthermore, unsupportive nurses, for the most part, did not bear any negative consequences for their inaction.

The researchers also interviewed nurses who were philosophically supportive of Wellspring but did not have the leadership skills to turn their commitment into unit practices. Many nurses were unsure how to collaborate with the CNAs, how to nurture leadership skills in the CRT members on their unit, or how to respond to staff members who did not cooperate with the plan.

The absence of unit level monitoring of CRT plan implementation impeded the researchers' ability to identify problem units within a facility. They found only one facility that kept unit- and shift-level data on implementation. In that case, staff were able to identify implementation problems very quickly and correct them. In most facilities, however, data were collected less than monthly and only at the facility level. Consequently, interviewees reported difficulties in identifying the source of the problem, and unit staff did not take seriously feedback that tended to be several months old.

PHASE IV: SUSTAINING WELLSPRING IMPLEMENTATION

During Phase IV, the coordinator, the care resource team, and the administration remain central to the success of the program. In addition, the modules and the data are important supporting elements. For most facilities, sustaining Wellspring implementation within the

nursing home was extremely challenging, and probably accounted for much of the unevenness of implementation within many Wellspring nursing homes.[37]

The coordinator's role in sustaining Wellspring includes organizing effective continuing education within the nursing home to help staff understand the implementation plan. The nurturing role is particularly critical, and includes building confidence among front-line staff, easing them into a more active decision-making role, and encouraging them to engage in activities that will promote successful implementation. The coordinator, who has the most immediate access to Wellspring data, ideally helps the CRT, the staff, and the administration in interpreting the information, and uses the data to demonstrate implementation success to the staff. This process, particularly linking positive resident outcomes to the implementation plan, heightens staff morale and maintains enthusiasm for Wellspring.

The coordinator is also instrumental in maintaining the spirits of the team members and assisting with implementation problems on the unit. This latter role requires that the coordinator work closely with the nurses, CNAs, and the other staff on each unit, maintaining a positive working relationship with staff at all levels, repeatedly identifying small successes in both culture change and clinical outcomes.

The care resource team also plays a crucial role in sustaining the implementation plans through its review of implementation data, assessment of the implementation plan, and plan redesign where necessary. When CRTs are able to sustain their cycle of assessing, redesigning, consulting, teaching, and reassessing, they are likely to sustain the implementation. When the CRT is disorganized, lacks sufficient access to data, especially at the unit level, and represents only a small number of units, success is much less likely.

Sustaining Wellspring also depends on the presence of adequate numbers of staff and of a stable staff of direct care workers. Even in units where many of the implementation strategies are done well, the researchers found that short staffing leads to a quick retreat to former practice patterns. Frequent turnover also leads to the loss of staff who have been engaged in the practices designed by the CRT. Those remaining are working with staff members who have little understanding of the implementation processes. This, in turn, leads to high levels of frustration among remaining staff who are committed to the Wellspring model.

[37] Ibid., pp. 33–37.

One of the most important determinants of Wellspring success is the relationship between the staff nurses and the CNAs. Successful sustenance of the model occurs when staff nurses are committed to working with and mentoring CNAs, helping them learn how to apply their new knowledge and continue to learn. When nurses respond to CNAs that "their questions are more appropriate for the nurses and not something the CNAs need to worry about," continued learning for CNAs and collaboration between the CNA and the nurse are effectively blocked.

The administration of each facility is also essential to sustaining Wellspring. In some facilities, the administration is not well informed about the CRT's plans and how they are being carried out on the units. In these instances, managers can easily undermine the implementation plan or unwittingly co-opt the authority of the CRT. The researchers found this was most likely to occur when the unit nurse was not engaged in the Wellspring process and was making decisions that were counter to the CRT plan.

In some Wellspring facilities, the Wellspring structure, including decision authority, is inconsistent with the organizational structure. When managers do not recognize the CRT plans, they may develop conflicting strategies. This causes friction between the CNAs and the unit nurses that makes implementation very difficult.

The researchers found that, in several facilities, the intent to empower the front-line staff is translated by the administration as a hands-off policy, carried out by letting the CRTs and the front-line staff make their own decisions without involving the administration. The belief is that involvement of managers is tantamount to relinquishing decision-making to managers. The reality, however, is that excluding managers from CRT planning often undermines implementation efforts since managers continue to make and implement decisions that do not take into account, and often contradict, the teams' decisions. More successful implementation occurs when the administration and staff collaborate, each listening to the other, making decisions that work for both. The coordinator can be quite instrumental in creating such a forum, working with managers to shift from being in charge of decisions to collaborating.

Finally, the administration can facilitate success of Wellspring implementation by creating an internal structure for accountability. The most successful implementation and the most sustained implementation occur when the administration creates or supports unit level accountability. Simply expressing support for the program and an expectation to "do" Wellspring does not appear to be adequate management involvement. A much more effective strategy involves the identification of indicators of successful implementation at the unit level, and the requirement that all units provide evidence of implementation on an ongoing basis.

APPENDIX B. ROSTER OF WELLSPRING CHARTER MEMBERS

Facility Name	Name	Title	E-Mail
Wellspring Innovative Solutions			wellspring@goodshepherdservices.org
607 Bronson Rd.	Mary Ann Kehoe	Executive Director	mak@goodshepherdservices.org
Seymour, WI 54165	Dawn Gilliam	Wellspring Finance Coordinator	dgilliam@goodshepherdservices.org
Phone: 920-833-1833	Kris Stahl	Wellspring Model Coordinator	kstahl@goodshepherdservices.org
Fax: 920-833-1846			
Mobile: 920-217-1262			
	Brenda Bartels	Wellspring Charter GNP	reggie@LSOL.net
	1601 Atlanta Ct.	Phone: 920-833-6856 ext. 162	
	Manitowoc, WI 54220	Fax: 920-652-9464	
		Home: 920-683-1416 (the office)	
		Mobile: 920-655-2415	
Cedar Community—283 beds			
5595 Highway Z	Steve Jaberg	CEO	sjaberg@cedarcommunity.org
West Bend, WI 53095	Mary Kay Strachota	Administrator	mkstrachota@cedarcampuses.org
Phone: 262-334-9487	Sandy Stearns	Director of Nursing	sstearns@cedarcommunity.org
Fax: 262-306-2101	Dottie Klemp	RN Coordinator/Wellspring Coordinator	Dklemp@cedarcampuses.org
Mobile: 262-751-1177			
Christian Home, Inc.—80 beds			
331 Bly St.	Nancy Steinke	CEO	No e-mail
Waupun, WI. 53963	Donna Graff	Director of Nursing	donna@christian-home.org
Phone: 920-324-9051	Nancy Henderson	Wellspring Coordinator	nancy@christian-home.org
Fax: 920-324-4724			
Evergreen Retirement Community—108 beds			
P.O. Box 1720	David Green ext. 362	President	dgreen@evergreenoshkosh.com
Oshkosh, WI 54902-1720	Peggy Bellin ext. 384	Creekview Manager/Director of Nursing	Pbellin@evergreenoshkosh.com
Phone: 920-233-2340	Renee Desilet ext. 382	Wellspring Coordinator	R.desilet@evergreenoshkosh.com
Fax: 920-233-4347	Darlene Johnson	Wellspring Coordinator	No e-mail
(Located at: 1130 N. Westfield Ave.)			
Fond du Lac Lutheran Home, Inc.—150 beds			
244 North Macy	Mari Beth Borek	Executive Director	mborek@fdllutheranhome.org
Fond du Lac, WI 54935	Deanna Tapplin	Director of Nursing Services	dtapplin@fdllutheranhome.org
Phone: 920-921-9520	Kim Mueller	Wellspring Coordinator	kmueller@fdllutheranhome.org
Fax: 920-921-0819			
Good Shepherd Services, Ltd.—96 beds			
607 Bronson Rd.	Mary Ann Kehoe	Executive Director	mak@goodshepherdservices.org
Seymour, WI 54165	Tom Lohuis	Administrator	tlohuis@goodshepherdservices.org
Phone: 920-833-6856	Judy Bullock	Director of Nursing	jbullock@goodshepherdservices.org
Fax: 920-833-1846	Kim Benotch	Wellspring Coordinator	kbenotch@goodshepherdservices.org

Facility Name	Name	Title	E-Mail
Iola Nursing Home—63 beds			
P.O. Box 237	Greg Loeser	Administrator	gregl54945@yahoo.com
Iola, WI 54945	Linda Smith	Director of Nursing	use: gregl54945@yahoo.com
Phone: 715-445-2412	Alice Peterson	Wellspring Coordinator	use: gregl54945@yahoo.com
Fax: 715-445-4487			
Lutheran Homes of Oconomowoc—242 beds			
1306 W. Wisconsin Ave.	Tim Thiele	Executive Director	tthiele@lho.org
Oconomowoc, WI 53066	Lorna Gartzke	Administrator	lgartzke@lho.org
Phone: 262-567-8341	Debbie Phelps	Director of Nursing	dphelps@lho.org
Fax: 262-567-0273	Amy Thunder	Wellspring Coordinator	athunder@lho.org.
Northland Lutheran Retirement Community—161 beds			
925 Pine Beach Rd.	Rev. Ken Michaelis	CEO/President	lutherhome@webcntrl.com
Marinette, WI 54143	Francis Havelka	Director of Nursing/Wellspring Coordinator	Use: lutherhome@webcntrl.com
Phone: 715-732-0155	Ann Heider	Assistant Director of Nursing	Use: lutherhome@webcntrl.com
Fax: 715-732-5899			
Odd Fellow–Rebekah Home Association, Inc.—82 beds			
1229 S. Jackson St.	Trudey Peterson	Executive Director	tpeterson@ofrha.org
Green Bay, WI 54301	Mary Osmond	Administrator	maryosmond@oddfellowhome.org
Phone: 920-437-6523	Patricia Roland	Director of Nursing	proland@oddfellowhome.org
Fax: 920-437-9896	Debz Parrott	Wellspring Coordinator	debz@oddfellowhome.org
Sheboygan Retirement Home & Beach Health Care Center—84 beds			
930 N. 6th St.	Mike Basch	Executive Director	mbasch@excel.net
Sheboygan, WI 53081	Sue McCabe	Director of Nursing	smccabe@excel.net
Phone: 920-458-2137	Carol Madson	Wellspring Coordinator	cmadson@excel.net
Fax: 920-458-5922			
St. Paul Elder Services, Inc.—129 beds			
316 E. 14th St.	Jim Fett	Administrator	JimF@stpaulelders.org
Kaukauna, WI 54130	Dawn Holsen	Director of Nursing	dawnh@stpaulelders.org
Phone: 920-766-6020	Sr. Sarah Bertler	Wellspring Coordinator	SarahB@stpaulelders.org
Fax: 920-766-9161			

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Hospice Use Prior to Death: Variability Across Cancer Diagnoses (January 2002). Beth A. Virnig, A. Marshall McBean, Sara Kind, and Rishi Dholakia. *Medical Care,* vol. 40, no. 1. Copies are available from Beth Virnig, Div. of Health Services Research and Policy, University of Minnesota School of Public Health, 420 Delaware Street, SE, MMC 729, Minneapolis, MN 55455, E-mail: virni001@tc.umn.edu.

Hospice Use in Medicare Managed Care and Fee-for-Service Systems (August 2001). Beth A. Virnig, Elliott S. Fisher, A. Marshall McBean, and Sara Kind. *American Journal of Managed Care,* vol. 7, no. 8. Copies are available from Beth Virnig, Div. of Health Services Research and Policy, University of Minnesota School of Public Health, 420 Delaware Street, SE, MMC 729, Minneapolis, MN 55455, E-mail: virni001@tc.umn.edu.

Providing Care at the End of Life: Do Medicare Rules Impede Good Care? (May/June 2001). Haiden A. Huskamp, Melinda Beeuwkes Buntin, Virginia Wang, and Joseph P. Newhouse. *Health Affairs,* vol. 20, no. 3. Copies are available from *Health Affairs,* 7500 Old Georgetown Road, Suite 600, Bethesda, MD 20814-6133, Tel: 301-656-7401 ext. 200, Fax: 301-654-2845, www.healthaffairs.org.

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#499 *The Hospital Elder Life Program: A Model of Care to Prevent Cognitive and Functional Decline in Older Hospitalized Patients* (December 2000). Sharon K. Inouye et al. *Journal of the American Geriatrics Society,* vol. 48, no. 12. The authors report on experience with the Hospital Elder Life Program, a hospital-wide approach that works primarily with nursing staff and volunteers.

Attitudes and Desires Related to Euthanasia and Physician-Assisted Suicide Among Terminally Ill Patients and Their Caregivers (November 15, 2000). Ezekiel J. Emanuel, Diane L. Fairclough, and Linda L. Emanuel. *Journal of the American Medical Association,* vol. 284, no. 19. Copies are available from Genuine Article/Institute for Scientific Information, 3501 Market Street, Philadelphia, PA 19104, Phone: 1-800-336-4474 option 5, Fax: 215-386-4343, E-mail: ids@ininet.com.

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Caring for the Frail Elderly: An International Review (May/June 2000). Mark Merlis. *Health Affairs,* vol. 19, no. 3. Copies are available from *Health Affairs,* 7500 Old Georgetown Road, Suite 600, Bethesda, MD 20814-6133, Tel: 301-656-7401 ext. 200, Fax: 301-654-2845, www.healthaffairs.org.

#376 *Health and Aging in the 21st Century* (March 2000). Karen Davis. In this essay—a reprint of the president's message from the Fund's *1999 Annual Report*—the author looks forward to see what the United States will have to do to sustain the health and economic security of older Americans as the baby boom generation reaches retirement after 2010.

#383 *Understanding Economic and Other Burdens of Terminal Illness: The Experience of Patients and Their Caregivers* (March 21, 2000). Ezekiel Emanuel, Diane L. Fairclough, Julia Slutsman, and Linda L. Emanuel. *Annals of Internal Medicine,* vol. 132, no. 6. This article shows that people who care for dying patients are better able to cope with their lives if they have an opportunity to discuss their concerns about their loved ones and their own problems with a sympathetic doctor.

#350 *Meeting Future Health and Long-Term Care Needs for Elderly Populations* (December 1999). Karen Davis and Susan Raetzman. In this issue brief, the authors discuss how to ensure access to health care for elderly people in the twenty-first century. During this time the baby boom generation will age and retire, Medicare spending will become an ever-larger proportion of the gross domestic product, and the Medicare program itself will be restructured to ensure its continued existence and more beneficiaries will be enrolled in Medicare managed care programs.

#348 *Long-Term Care in New York: Innovation in Care for Elderly and Disabled People* (September 1999). Susan Raetzman and Susan Joseph. This issue brief reviews the programs New York has established to improve the delivery and effectiveness of care to New Yorkers with long-term care needs.

#343 *Financing Long-Term Care in the Twenty-First Century: The Public and Private Roles* (September 1999). Mark Merlis, Institute for Health Policy Solutions. In anticipation of the retirement of the baby boom generation, the author examines the advantages and disadvantages of improving public long-term care coverage versus relying more on private coverage for seniors.

#357 *Assistance from Family Members, Friends, Paid Care Givers, and Volunteers in the Care of Terminally Ill Patients* (September 23, 1999). Ezekiel J. Emanuel, Diane L. Fairclough, Julia

Slutsman, Hillel Alpert, DeWitt Baldwin, and Linda L. Emanuel. *New England Journal of Medicine,* vol. 341, no 13. In their study of nearly 1,000 terminally ill patients and their primary caregivers, the authors find that virtually all primary at-home assistance is provided by family members. The study also reveals a widespread need for help with homemaking, transportation, nursing, and personal care.

#331 *The President's Proposed Long-Term Care Initiative: Background and Issues* (August 1999). Harriet L. Komisar and Judith Feder, Institute for Health Care Research and Policy, Georgetown University. In this policy brief, the authors examine the Administration's proposed Health Protection and Assistance Act of 1999, especially the effect a proposed tax credit would have on the 13.4 million Americans with long-term care needs.

#341 *Where Are the Missing Elders? The Decline in Nursing Home Use, 1985 and 1995* (July/August 1999). Christine E. Bishop. *Health Affairs,* vol. 18, no. 4. Reporting that the proportion of people age 65 and older staying overnight in nursing homes declined 8 percent from 1985 to 1995, the author points to the need for better data to determine whether the elderly who are not in nursing homes are receiving adequate support and needed services.

#336 *A Multicomponent Intervention to Prevent Delirium in Hospitalized Older Patients* (March 4, 1999). Sharon K. Inouye, Sidney T. Bogardus, Jr., Peter A. Charpentier, Linda Leo-Summers, Denise Acampora, Theodore R. Holford, and Leo M. Cooney, Jr. *The New England Journal of Medicine*, vol. 340, no. 9. A risk-factor intervention strategy studied by the authors of this article resulted in significant reductions in the number and duration of episodes of delirium in hospitalized older patients. Delirium, also known as acute confusional state, is a common, serious, and potentially preventable source of morbidity and mortality among hospitalized older patients.

Demography Is Not Destiny (January 1999). Robert B. Friedland and Laura Summer, National Academy on an Aging Society. In this report, the authors examine the sensitivity of future projections of government expenditures on Social Security, Medicare, and Medicaid to economic and demographic assumptions. Copies are available from the National Academy on an Aging Society, Gerontological Society of America, 1030 15th Street, NW, Suite 250, Washington DC 20005-1503, Tel: 202-408-3375.