

# **KANSAS NURSING FACILITY PROJECT EVALUATION YEAR 3**

**For the Kansas Department on Aging**

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## Preface

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This report was prepared under contract for the Kansas Department on Aging. The investigators want to thank the Department on Aging for the substantial assistance provided to the study by many state staff. In particular, Mr. Bob Parker, our contract manager, gave us access to several data sets maintained by the state and coordinated comments and advice from state program managers and policy staff. We would also like to thank Bill McDaniel and George Dugger for their assistance in providing data, documentation, and background information on state data sets.

We also wish to thank our project consultants, Marilyn Rantz, RN, PhD and Greg Petroski, MS from the University of Missouri, School of Nursing, who provided guidance, advice, and data.

We also thank the nursing homes that participated in our on-site data collection and in the falls consortium.

Under subcontract, Myers & Stauffer, provided the project with extracts from the Minimum Data Set, including quality indicator and case mix adjustment files.

For any questions or comments concerning this report, please contact the Principal Investigator, Sarah Thompson, at (913) 588-1624 or at **sthompson2@kumc.edu**.

## **Falls Improvement Consortium**

# Falls Improvement Consortium

## Executive Summary

**Objectives:** The *purpose* of the falls quality improvement consortium was twofold:

- To explore the facilitators and barriers to implementing Quality Practice Guidelines for Fall Prevention encountered by nursing homes.
- To explore the feasibility of a quality improvement collaborative related to falls prevention and management in nursing homes.

**Methods:** Fall rate and resident census data were collected from twenty Kansas nursing homes over a six month period. In addition, ten of the nursing homes participated in scheduled conference calls and face to face meetings wherein they discussed the KDOA Quality Practice Guidelines and other fall prevention strategies and shared an appraisal of the interventions tested within their homes.

**Results:** Participants were generally enthusiastic about the Quality Practice Guidelines for Fall Prevention and their involvement in the Consortium.

**Discussion:** This study has shown that the quality improvement consortium is a feasible tool for use within the nursing home industry. Nursing home leaders certainly had enough interest and enthusiasm to embrace change ideas, but not all demonstrated expertise in implementing change. In addition, several ideas for improvement emerged from this trial including the need to place greater emphasis on the implementation of change to care processes, explore communication options, and a commit to a longer time period for the group.

### **Implications:**

- Nursing facility participants expressed enthusiasm about the consortium and the quality practice guidelines. Participants believed that with more time, more effective change could have been realized. Ideally, future consortia would involve more frequent, regional face to face meetings to ensure consistent communication of ideas over a longer period of time.
- Quality guidelines and improvement consortia, if implemented over a longer period of time, may very well improve resident care, thereby reducing quality of care issues and potentially reduce some Medicaid costs. Certainly, similar efforts have proven to be successful for hospitals.
- In order for consortia members to bring about and maintain positive change in the rate of falls, sustainability must be a goal from the outset. Further, a champion at each participating nursing facility with the power to actually change policy must be committed to initiating and sustaining the change effort.

## Introduction

The prevalence of falls in nursing homes is high, with estimates reaching 1.5 falls per bed per year. (American Geriatrics Society et al, 2001; Vu et al, 2005). Furthermore, the injury rate for elders who fall in the nursing home setting has been calculated at 10-25% and these falls may result in cuts, broken bones, hospitalization or even death (American Geriatrics Society et al, 2001; Vu et al, 2005). Because of the high risk of injury to residents who fall and the potential regulatory or legal problems associated with high fall rates, nursing home staff have a vested interest in the identification of effective strategies for fall reduction.

An innovative strategy for improving quality of care that has been utilized with success for a number of years in the healthcare industry is the quality collaborative or consortium group. This type of quality improvement consortium has been described as:

***“a collaborative (that) brings together groups of practitioners from different healthcare organizations to work in a structured way to improve one aspect of the quality of their service. It involves them in a series of meetings to learn about best practice in the area chosen, about quality methods and change ideas and to share their experiences of making changes in their own local setting”*** (Ovretveit et al, 2002).

To date, these types of groups have been gathering in hospital settings for a number of years and have addressed such issues as medication errors, access to primary health care, treatment of HIV/AIDS and complications of hip replacement surgery (Ovretveit et al, 2002). Despite reported successes from the hospital industry, the quality collaborative methodology has not yet been fully tested for its usefulness within the nursing home industry (Ovretveit et al, 2002; Baier et al, 2004).

## Purpose

The *purpose* of this project, the falls quality improvement consortium was twofold:

- To explore the facilitators and barriers to implementing falls quality practice guidelines encountered by nursing homes.
- To explore the feasibility of a quality improvement collaborative related to falls prevention and management in nursing homes.

## Methods

There were several steps involved in the development of the Quality Practice Guidelines for Fall Prevention as well as the development and testing of a quality improvement collaborative. These are outlined below.

## **Development of the Quality Practice Guidelines**

|             |  |
|-------------|--|
| Fall 2004   | KDOA Quality Practice Workgroup convened.  |
| Spring 2005 | Quality Practice Guidelines for Fall Prevention developed. Quality improvement consortium pilot project outlined.      |
| Summer 2005 | KDOA released quality practice guidelines related to falls prevention and management to provider groups and surveyors. |

## **Development and Implementation of Falls Quality Improvement Consortium**

|                              |   |
|------------------------------|---|
| July 2005                    | <p>Email sent to all free-standing nursing home administrators inviting participation in quality improvement collaborative. Requirements of participation included:</p> <ul style="list-style-type: none"><li>• Comfort with email communications</li><li>• Attend two in-person meetings over 6 months</li><li>• Participate in biweekly or monthly teleconferences</li><li>• Submit falls data on a monthly basis</li><li>• Willing to be in either intervention or control groups</li></ul> <p>46 homes responded with interest. 10 were randomly selected and assigned to intervention group and 10 to control group.</p> |
| August 2005                  | <p>Face-to-face meeting of intervention group. 10 homes attended, although 2 participants from one home left at noon and never participated again. Practice guidelines were presented in the AM and Rapid Cycle Improvement, as a method of quality improvement, was presented in PM session.</p> <p>Participants from each facility were asked to identify one process to change and be ready to report at first conference call.</p>  |
| August 2005 to February 2006 | Participants engaged in biweekly and monthly teleconferences. At each meeting participants were encouraged to identify, evaluate, and share on the implementation of a change in care process related to falls.   |
| November 2005                | Second face-to-face conference. Progress shared.  |

## Results

### Successes.

Nursing home leaders were enthusiastic about participating in the Consortium. As stated previously, more than twice as many leaders sought to join the Consortium than could be accommodated within the parameters of the current project. Such enthusiasm suggests a clear desire by Kansas nursing home administrators for help and guidance when it comes to effective fall prevention strategies. Similarly, the comments of the Consortium participants indicated that they were eager to get and share information about falls with staff from other nursing homes. Indeed, the opportunity to share stories and brainstorm ideas together was judged to be very beneficial by those involved. Selected examples of evaluative comments include the following:

- Participation in the consortium was beneficial to this home as it allowed for focused effort on an ongoing problem and produced positive results for both residents and staff.
- Sharing of ideas and receiving input from other facilities was of great help in problem solving.
- This group has been a great tool to help me develop “workgroups” and keep frontline staff focused.
- This is a wonderful learning experience with peers. Thank you for the opportunity to be part of this process.

Participants were generally enthusiastic about the Quality Practice Guidelines for Fall Prevention. However, a few nursing facilities reported that, as part of a chain, they were required to use corporate forms. The intervention group reviewed the guidelines and found the following to most useful:

- Assessing fall risk.
- Creating thorough, timely and multidisciplinary fall incident reports.
- Developing resident specific, multidisciplinary intervention strategies.

Several homes developed new risk assessment forms and incident report forms based on the Quality Practice Guidelines as a part of their participation in the Consortium.

The Consortium participants identified a number of innovative strategies for reducing falls. We will highlight two below: the Falls Work Group and the Falls Investigation Team. Consortium participants generally agreed that *communication* about who was at highest risk for falling, what should be done about it, what action was taken, and whether the action was effective or not was difficult to manage in their nursing homes. In fact, the breakdown of communication is often cited as a cause for error in the nursing home setting (Yates et al, 2005).

### **FALLS INVESTIGATION TEAM**

Through the sharing of interventions in the teleconference meetings, staff participants could adopt similar ideas and interventions for use in their own home. One innovative intervention that was adopted by a participating home was the **Falls Investigation Team**. A Falls Investigation Team was an interdisciplinary group that was dispatched to the site of a fall within a very short time of its occurrence. The team included the DON, charge nurse where the fall occurred, CNA, PT, housekeeping, and maintenance. Once at the site of the fall, team members question each other, additional staff, and residents about the fall and try to identify its fundamental causes. These teams were able to identify problem areas right away and then address unsafe environmental situations or update care plans in short order.

The Falls Investigation Team incorporates two fundamental principles of quality improvement: “go and see for yourself” and “ask why five times.” Going in person helps uncover problems that might well be overlooked in reviewing a paper report filled out by a single person. Asking why five times helps uncover root causes of problems, helps identify countermeasures, and helps focus on solving problems rather than assigning blame. The Falls Investigation Team represents an important extension of the Quality Practice Guidelines for Fall Prevention of the Kansas Department on Aging.

These interdisciplinary teams fostered communication regarding resident care within and across disciplines. CNAs, because they have direct contact with residents, were an extremely important part of the team. Empowerment of CNAs was an indirect result of these teams. The teams also provided an opportunity for management and direct care staff to communicate at multiple levels.

An example of the power of this technique comes from the case of a resident who fell out of bed. The initial report indicated that the resident was reaching for a remote control. The Falls Investigation Team confirmed this, but also found that the resident fell when an inflatable bolster suddenly deflated as she leaned on it. On further review it became apparent that these bolsters represented a fall risk. The final conclusion was much different from the initial report.

The facility that developed the Fall Investigation Team plans to continue it. Furthermore, several homes in the Consortium have indicated that they plan to develop similar Fall Investigation Teams in the future.

## FALLS WORK GROUP

Another home implemented a **Falls Work Group**. This group consisted of the DON and several CNAs, who met every two weeks over lunch to focus on “frequent fallers” that the CNAs had identified in their neighborhood. (This facility had instituted a program of culture change, but the idea could be applied in other settings.)

The Falls Work Group identified interventions that might work for a particular resident, and the CNAs tried to implement them. During the lunch meeting members of the Falls Work Group wrote down what was to be tried on a flip chart. When the Falls Work Group reassembled it reviewed what was done and how well it worked. If an idea was not working, the CNA was free to stop doing it. If an idea was working, other members of the Falls Work Group could try it as well.

The Falls Work Group also drew on fundamental principles of quality improvement. Its one CNA to one resident approach typifies “rapid cycle change,” a key feature of most modern quality improvement systems. Quickly learning that something does or does not work is extremely valuable. The Falls Work Group also included direct care staff as full members. They were thinkers as well as doers, and the enthusiasm of the CNAs who were in the Falls Work Group was apparent.

The Falls Work Group emphasized communication at several levels. Communication about what was going to be tried is self-evident; the message that preventing falls is important was sent at the same time.

The facility that started the Falls Work Group plans to keep it going. Another home planned to start one soon, and the KUMC team encouraged others to try it as well.

Besides innovative strategies, a number of interventions were tried as well. Table 1 provides a summary.

**Table 1: Interventions and Barriers**

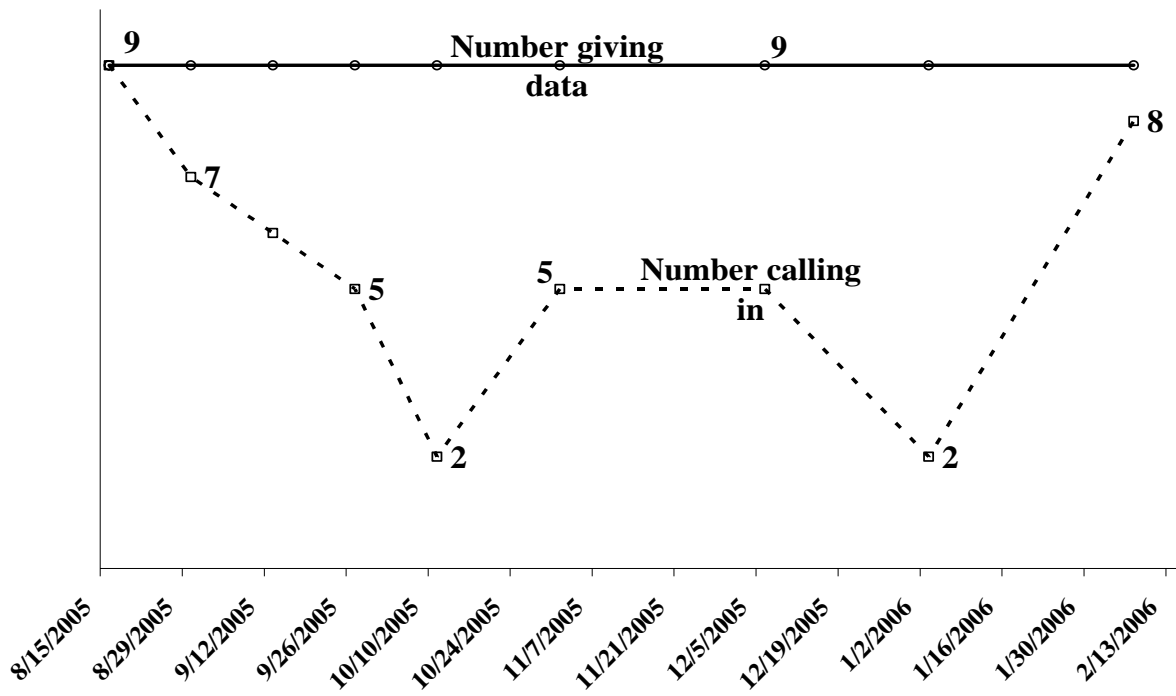
| Interventions   | Barriers   |
|---|--|
| <ul style="list-style-type: none"> <li>• Maintaining a clutter-free environment</li> <li>• In-services to remind direct care staff of policy and procedures</li> <li>• Getting more input from direct care staff</li> <li>• An aide straightening resident and activity rooms daily</li> <li>• Create an interdisciplinary team to respond to &amp; evaluate falls immediately</li> <li>• Installing slip mats in bathrooms</li> <li>• CNA education meetings</li> <li>• Working directly with frequent fallers</li> <li>• Hourly resident checks</li> <li>• Taking the door off of the bathroom</li> <li>• Removing a throw rug from room</li> <li>• Alarm mat that sounds at the nurses' desk</li> <li>• Involving the CNAs in developing interventions</li> <li>• Adding a CNA to the QA meeting</li> <li>• Swapped staff from East to West Hall and vice versa</li> <li>• Moving resident to a smaller room with less obstacles</li> <li>• Biweekly meetings to keep all staff focused on high risk residents and tailoring interventions for them</li> <li>• Favorite team member to discuss options with resident</li> <li>• Fall rounds as a team</li> <li>• Daily alarm checks to ensure they are in working order</li> <li>• Utilizing a new Incident Form that elicits more information</li> <li>• Reorganizing staff meetings to include "break-out" sessions for direct care staff</li> <li>• Placing personal alarms on new admits for the first 72 hours</li> <li>• All staff writing a brief report following a fall on their unit</li> <li>• Soliciting ideas and brainstorming from direct care workers</li> </ul> | <ul style="list-style-type: none"> <li>• Have become somewhat lax in their fall prevention programs</li> <li>• Don't have enough people involved nor does the administrator feel the falls reporting process is completed in a timely fashion</li> <li>• Direct care staff may not feel empowered or knowledgeable enough to put interventions in place on their own</li> <li>• Number of steps in the process of evaluating falls and implementing interventions allows for opportunities to make mistakes</li> <li>• Incident report questions are incomplete</li> <li>• Toileting issues</li> <li>• Lack of requests for help by some residents</li> <li>• Current Fall Incident Report lacks some questions</li> <li>• Added a CNA to their weekly QA team, although finding time for them to attend has been somewhat difficult</li> <li>• Staff turnover – education starts over with each new staff member</li> <li>• Lack of consistent person involved in and held accountable for quality improvement collaborative</li> <li>• Corporations or chains have own guidelines – mandated to use them</li> <li>• Reluctance to change "traditional ways of doing" to adopting guidelines</li> </ul> |

## Barriers to Improvement.

### *Participation in meetings*

Although the evaluation feedback from participants in the Consortium was very positive, participation in the teleconference meetings was not consistent. Figure 1 illustrates this point.

**Figure 1. Falls Consortium Participation**



Several hypotheses can explain this pattern. First, at the beginning of the consortium process KUMC failed to generate a clear understanding of the need for a consistent, committed champion within each home. Several homes implicitly understood this; however, there were times when conference call participants were new to the group and had not been briefed about the goals of the Consortium prior to the call, thereby reducing the effectiveness of their participation and creating a lack of continuity. Second, participants suggested that phone interaction was less than satisfying but also stated that face-to-face meetings were not practical. And lastly, the press of other issues such as turnover, call-ins, and surveys were problematic as well. Even participants who were deeply committed to reducing falls found it difficult at times to participate in phone calls or follow up on the ideas generated by the Consortium.

### *Time to focus*

Time to focus on improvement was scarce. The first drop out from the Consortium occurred during the first meeting of the intervention group, when two staffers from one nursing home left to manage an influx of new residents. That home did not meaningfully participate in the Consortium from that point forward despite repeated attempts to engage them in the process.

### *Improvement skills*

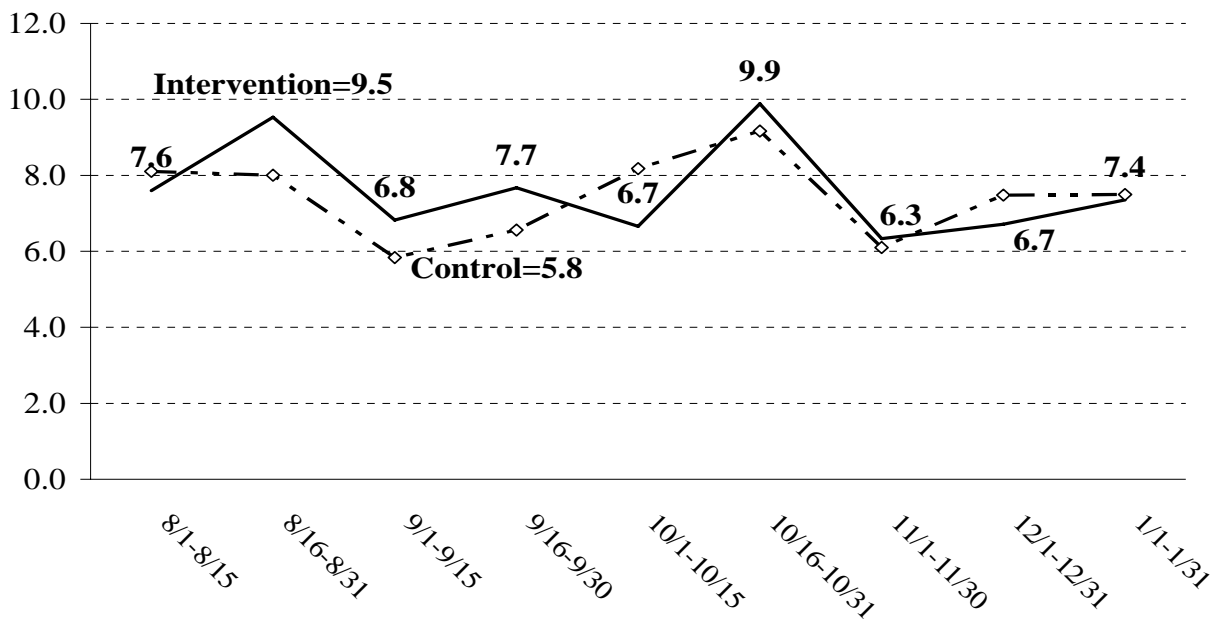
Performance improvement skills and knowledge varied considerably across the Consortium group. A few of the participants appeared to be very well versed in performance improvement, while others were not. Organizational change, the likes of which is required to implement new interventions of the sort attempted here, can be difficult for anyone. It is especially difficult for a leader who is not familiar with performance improvement techniques and tools. This failure to try new ideas does not seem to have been rooted in opposition to the ideas. We noted, for example, that many of the participants voiced interest in involving direct care staff in the falls reduction effort. Yet only a few tried a change that directly involved CNAs, even though we encouraged all to try this or a similar initiative.

### *Number of falls*

Routine fluctuations in falls were discouraging. Fall rates exhibited variations between reporting periods that appear to be due to chance. In addition, changes in the resident population can also cause changes in fall rates for the nursing home. Participants appeared to be discouraged when fall rates rose sharply midway through the Consortium. Staff turnover was another variable that appeared to set back improvement efforts. At least one facility experienced CNA turnover that hampered efforts to reduce falls and all participants cited staff turnover as a problem.

Figure 2 illustrates two major points. First, there was no apparent reduction in the fall rate for the intervention or control groups. A linear trend line hints at a downward trend for the intervention group, but the effect is very small. It is possible that we may have seen a continued reduction in the fall rate for the intervention group if we were to track their progress for a longer period, but this is not guaranteed. Secondly, the fall rates for the intervention and control groups varied in similar ways, which is consistent with the observation that many in the intervention group had not yet *fundamentally changed* processes of care, like those used by the Falls Investigation Team and the Falls Work Group. The Consortium was scheduled to wrap up in six months. Our participants were concerned whether they could make real change so fast. Given that real changes in processes were not widespread; this seems to have been a valid concern. Perhaps given more time these homes would have continued to try new interventions until they identified one or more to meet their needs and produce lasting effects.

**Figure 2. Falls per 1,000 Resident Days**



### Conclusions

A quality improvement consortium is a feasible tool for use within the nursing home industry. Nursing home leaders certainly had enough interest and enthusiasm to embrace change ideas, but not all demonstrated expertise in implementing change. Time may have been a factor. The consortium generated a number of very good ideas, but only a few were fully implemented. As is often the case, better execution of the ideas generated by the consortium was needed.

In order for a quality improvement consortium to be a successful tool to be used in the nursing home industry some important obstacles will need to be addressed. Leadership teams in nursing homes are usually small and very busy. Getting and keeping the attention of a busy Administrator or Director of Nursing is not an easy task. Clearly a "change champion," a person who had the knowledge, authority, and enthusiasm to facilitate change was needed. Moreover, changing relationships with direct care staff is important, but old patterns appeared to be hard to change. Staff turnover affected several participants, and the improvement skills of consortium members varied a good deal.

Several ideas for improvement emerged from this trial. First, a consortium needs to last longer. Six months was not long enough. Second, better communication options need to be considered. Telephone conferencing was difficult to maintain. Third, greater emphasis on implementing change is needed. Sharing ideas is enjoyable, but changes in resident outcomes are unlikely if changes in care processes do not result. Empirical evidence has demonstrated that education, alone, is not enough to change processes of care within organizations.

## Implications

- Nursing facility participants expressed enthusiasm about the consortium and the quality practice guidelines. Participants believed that with more time, more effective change could have been realized. Ideally, future consortia would involve more frequent, regional face to face meetings to ensure consistent communication of ideas over a longer period of time.
- Quality guidelines and improvement consortia, if implemented over a longer period of time, may very well improve resident care, thereby reducing quality of care issues and potentially reduce some Medicaid costs. Certainly, similar efforts have proven to be successful for hospitals.
- In order for consortia members to bring about and maintain positive change in the rate of falls, sustainability must be a goal from the outset. Further, a champion at each participating nursing facility with the power to actually change policy must be committed to initiating and sustaining the change effort.

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