CIVIL MONEY PENALTY (CMP) FUNDED PROJECT

FINAL REPORT

Grantee

Wisconsin Department of Health Services

Division of Long Term Care

Project Title

Nursing Home Falls Prevention Initiative

Award Amount

$60,000

Grant Period

March 1, 2012 through June 30, 2013

Additional Information and Resources

Department of Health Services / Division of Quality Assurance
Quality Assurance and Improvement Committee

This project report has been prepared by the author under a research grant from the Department of Health Services (DHS) Quality Assurance and Improvement Committee. The views expressed in the report/training are personal to the author and do not necessarily reflect the view of the Department of Health Services or any of its staff and do not bind the Department in any manner.

F-01593 (08/2015)

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November 14, 2014

To: Stakeholders in the Falls Prevention Initiative

From: Brian Shoup, Administrator, Division of Long Term Care

Otis Woods, Administrator, Division of Quality Assurance

Subject: Nursing Home Falls Prevention Initiative, Final Report

The Department of Health Services is pleased to provide you with the Nursing Home Falls Prevention Initiative Final Report, assembled by Sarita Karon, Phd, Brenda Ryther, RN, MSN, and James Robinson, PhD, of the Center for Health Systems Research & Analysis (CHSRA) with the University of Wisconsin – Madison.

A few of the report highlights are:

- **All** of the statistical goals for falls and falls with injury were exceeded;
- During the project, protégé facilities decreased falls by 15.7% as compared to all nursing home decrease of 6.8%;
- During the project, protégé facilities decreased falls with injury by 12.9% as compared to the all nursing home decrease of 2.8%; and,
- While one single approach to fall and injury prevention wasn't identified through visits with mentor facilities, common factors were determined such as: strong leadership in the area of fall-related initiatives, established Falls Committees, and thorough assessments to identify fall risks for individuals were being completed.

We are eager to continue the momentum generated by this pilot and report. In early 2015, the Department will hold an informational webinar, with an open invitation to all Wisconsin Nursing Homes to participate. The webinar will be focused on an overview of the project, summary of findings, and asking for interested facilities to participate in a second phase of Mentors and Protégés. More information will be provided as we finalize the details.

We want to thank you for your continued quality improvement efforts to reduce falls and fall related injuries among your residents and we look forward to partnering with you to lead the nation in the reduction of falls and fall related injuries in Nursing Homes.

NURSING HOME FALLS PREVENTION INITIATIVE

Of the Wisconsin Department of Health Services, Division of Long Term Care

Prepared by

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Center for Health Systems Research & Analysis
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Final Report

July 2014

(Revised January 23, 2015)

CHSRA
CENTER FOR HEALTH SYSTEMS RESEARCH & ANALYSIS

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Executive Summary

In 2011, the State of Wisconsin identified falls as a serious concern throughout the state, resulting in significant costs associated with emergency room and hospital costs, and serving as a frequent catalyst for nursing home entry by elder. Falls and related injuries among nursing home residents also were identified as a concern. The rates of these occurrences were greater than the national average, and nursing home surveyors frequently issued quality citations related to poor practices related to fall prevention. These concerns gave rise to the Wisconsin Fall Prevention Initiative, which was designed to address four goals, one of which was to "improve fall prevention in healthcare settings."

In 2011-2012, key stakeholders undertook a series of discussions to identify an approach to be used to address this goal within nursing homes. Stakeholders included representatives from the Wisconsin Department of Health Services' Division of Long-Term Care and Division of Public Health; representatives of the nursing home associations, LeadingAge Wisconsin and Wisconsin Health Care Association (WHCA/WiCAL); staff of the state's Quality Improvement Organization, MetaStar; and researchers from the University of Wisconsin's Center for Health Systems Research and Analysis (CHSRA). These individuals were joined, on occasion, by individuals taking part in other Fall Prevention Initiatives.

The result of these discussions was an initiative to pair nursing homes that were performing well with regard to falls and related injuries (mentors) with nursing homes that had relatively high rates of falls and falls with related injuries (protégés), to encourage peer-to-peer learning and support. Potential mentors and protégés were identified through analysis of MDS data and other information, from the fourth quarter of 2010 through the second quarter of 2012. Mentor pairs were identified with the participation of LeadingAge Wisconsin and Wisconsin Health Care Association (WHCA/WiCAL). Six pairs of facilities were identified. Mentor facilities tended to serve fewer Medicaid residents and be somewhat smaller than were protégé facilities. Staffing levels were comparable in the two groups of facilities.

An evaluation of this pilot program was conducted to gain understanding of key features of mentors and their approaches to fall prevention; strategies adopted by protégés and the challenges they faced; and to monitor the impact on rates of falls and falls with injuries among protégé facilities. Site visits were conducted with all facilities, during which interviews were conducted with a variety of staff representing different disciplines and roles in the facility. A focus group style discussion also was conducted with residents in each facility.

Visits with the mentor facilities found that there was no single approach to fall and injury prevention used across facilities. However, the mentors did have some underlying factors in common.

- Staff at mentor facilities, across departments and disciplines, articulated a common philosophy of care with respect to falls. In some cases, the philosophy emphasized preventing injuries; in others, it emphasized the distinction between avoidable and unavoidable falls.
- Facilities used equipment, staff awareness of residents, and staff awareness of environmental risks to help prevent falls and related injuries. Psychosocial issues and medications also were addressed as part of fall prevention. One facility described a particularly unique approach to addressing some of these issues, through regularly scheduled rounds, in which each resident is checked on every 90 minutes and a range of needs addressed.
- Most of the mentors had an established Falls Committee that met regularly to review and discuss all falls, and strategize about how to prevent future falls. Some Falls Committees also reviewed facility-wide data to try to identify patterns of falls that could be addressed through systemic approaches, such as altered staffing patterns.
- Mentor facilities had strong leadership of fall-related initiatives, and the leadership was known throughout the facility. While senior management staff generally led the initiatives, in some cases

floor staff acted as initiative "champions," highlighting the importance of the efforts and providing a readily available resource.

- Depending on the facility, fall prevention was either viewed as the responsibility of clinical staff, primarily certified nursing assistants (CNAs) and registered and licensed nurses (RNs/LPNs). In others, fall prevention was viewed as the responsibility of all staff, including dietary, environmental, social services, activities, therapy, and all others, including clinical staff.
- Staff at mentor facilities understood the critical role of communication to successful fall reduction, assuring that all staff throughout the facility understand the approaches to fall and injury prevention, and are aware of their role in those efforts. Clinical staff must be informed promptly of changes in resident status, of any falls that have occurred, and of any changes to care plans.
- Multiple approaches were used to facilitate post-fall communication. In several mentor facilities, a post-fall "huddle" provided an opportunity for staff to discuss the circumstances surrounding a fall, likely causes, and recommended interventions. Depending on the facility, these post-fall conversations could include all staff who witnessed the fall, all staff who are responsible for the resident (i.e., RN, assigned CNA for the shift), or other combinations of staff.
- Careful, thorough assessments were described as key to identifying fall risks for individuals, and developing prevention plans. Mentor facilities discussed two types of assessments: fall risk assessments, and post-fall assessments. Post-fall assessments collected information describing both the resident and the environment at the time of the fall. In some cases, post-fall assessments required staff to diagram the situation at the time of the fall, or to re-enact the fall so that they could better understand the situation. Both approaches were described as very helpful.
- Mentor facilities identified specific groups of residents as being at heightened risk of falls and associated injuries. Post-acute residents were found to be at increased risk due to over-confidence in their abilities. Residents with dementia were described as being at increased risk, as they may not remember their limitations or how to move about safely. Different strategies were developed for each of these groups.
- Mentor facilities also discussed the importance of balancing an individual's right to take risks with the desire to prevent falls. Several mentor facilities discussed this with residents and families at the time of admission. Different facilities emphasized a different balance.
- Several mentor facilities described electronic data systems that they use to track and monitor falls. Some of these systems were used to alert senior staff to any occurrence of a fall. Other systems provide reports that falls committees review to identify patterns of falls.
- Staff at mentor facilities were aware of the ways in which their physical plant worked to help or hinder efforts at fall prevention. While physical plant cannot be readily changed, staff awareness led to strategies designed to overcome some of the barriers.
- When falls and related injuries do occur, the post-fall response also is an essential piece of managing falls and preventing future falls. Staff at mentor facilities described the time immediately following a fall as a key time to determine the cause of the fall. While all facilities do an immediate assessment of a resident who has fallen, treat any injury, and increase the frequency of checks over the next 24-48 hours, they differ in the methods used to understand what occurred and develop interventions. All of the mentor facilities described an approach to root cause analysis, in which they seek to discover why each fall occurred. Facilities varied in who participated in the root cause analysis process, and in how quickly it occurred following each fall.

Site visits with the protégé nursing homes were designed to learn the approaches to fall and injury prevention that these facilities were using, identify new approaches being adopted through the course of this pilot project, discover how well the mentoring process worked for the facilities, and obtain recommendations for future efforts to support facilities in their quality improvement efforts. The protégé facilities addressed many of the same issues as did the mentor facilities, but with varying levels of emphasis, consistency and success.

- Staff at protégé facilities were not as likely as those at mentors to identify their underlying philosophy of fall prevention. When a philosophy was identified, it was mentioned by senior staff, but not by others.

- Protégé facilities identified a range of fall prevention strategies similar to those used by the mentors: awareness of residents and of environmental risks, psychosocial approaches, and attention to medications. None of the facilities was using a rounding approach at this time, but at least one was actively engaged in learning more about it. Staff at one facility noted that some of the prevention efforts were dependent on a single staff member promoting them. When that person was unavailable, efforts were not sustained.
- Falls committees were not universally used by protégé facilities. One facility reported having had a falls committee in previous years, but having discontinued it. Another reported having recently instituted a falls committee, with support from their mentor.
- Protégé facilities varied in how fall prevention activities were lead. Leadership generally came from Administrators and Directors of Nursing. Involvement of other staff varied. Some facilities did not actively seek to engage CNAs or non-clinical staff. Others described the challenges of involving CNAs.
- Communication of information about falls was important to the protégés. One facility posted a 3-month calendar to show the days on which residents had fallen and to motivate staff to achieve longer periods without falls.
- Several of the protégé facilities reported an increased focus on the admission assessment process to learn about residents' routines and fall histories, and take a proactive approach to fall prevention.
- Staff in protégé facilities used data in a variety of ways. In several cases, a single person was responsible for reviewing and interpreting data to identify key issues.
- Several protégés described an increased emphasis on documentation as part of fall prevention. Documentation included the use of "Fall Down Reports," some of which included diagrams; policies and procedures; and a Fall Folder. Lists of potential interventions also were used to generate ideas for post-fall interventions.
- Nearly all of the protégé facilities discussed efforts related to root cause analysis, used to understand why a fall occurred and to generate more successful interventions to prevent future falls for an individual. In some cases, these efforts were supported by post-fall huddles or completion of Fall Down reports. The protégés differed in their approach to who conducted the root cause analysis and in their efforts to educate and strength staff skills in this area.

The protégé facilities described the challenges that they faced in seeking to reduce falls and related injuries, and to participating in this initiative.

- Given the many demands on their time, it was often described as difficult to engage staff in new initiatives and gain buy-in. A variety of means were used to do this, including testing initiatives on a single unit or shift before implementing it throughout a facility; building trust among staff; and offering a variety of approaches to education.
- Lack of proper equipment and challenges posed by the physical plant, such as "blind corners" presented challenges to staff that could not be immediately overcome.
- Key staff reported feeling overwhelmed by the variety of quality improvement initiatives taking place at any one time, and the variety of sources of information available to them. At the same time, they reported being pleased to have a variety of sources of information. This allowed them to identify options that they felt would be most useful in their situation.
- Facilities described the challenge of respecting residents' rights to take risks with the possibility that taking those risks could mean falling. A variety of approaches were discussed to help balance these issues, by helping to strengthen residents and also to help remind residents of how to be careful. Discussions that included family members also were helpful to help determine the level of risk for each resident.

A key question was understanding not only what protégé facilities did, but how their activities and decisions were affected by participation in this pilot program.

- Protégé facilities used the opportunity provided by this pilot project to seek information from a variety of sources including professional meetings, Web-based trainings, and others. Only three of the facilities reported that materials they adopted they used came directly from their mentor.

- In several cases, the protégés felt that the strategies employed successfully by their mentors would not be as successful in their own facilities, due to differences in size, type of resident served (acuity, turnover, and focus on post-acute vs. long-stay), and staffing practices (including unionization). These differences were often cited as reasons why protégés looked to other sources.
- Protégé facilities were appreciative of the opportunity to talk with and learn from their peers, and would encourage future opportunities to do so.
- Staff at protégé facilities also believed it would be helpful to find ways for CNAs to learn from their peers and from short trainings designed specifically for them.

Groups of residents in each facility were interviewed to obtain their views on falls and fall prevention.

- Residents were very aware of the risk of falls, and of actions they could take to help prevent them.
- Key preventive actions included proper use of equipment, and asking for help
- Residents discussed ways that they helped each other, and advocate for themselves as well.
- Residents generally were unaware of facility actions to reduce falls, with the exception being the rounding program, which actively encourage resident awareness.

MDS data indicated that there was a decrease in falls and in falls with injuries throughout the state during the two year period from baseline to pilot project completion. Protégé facilities experienced a much greater rate of reduction in falls and falls with injuries. Compared to their peers, other facilities that were identified as potential protégés, the six protégé facilities experienced a greater improvement in the rate of falls, but a similar rate of improvement in the rates of falls with injuries. Given the small number of protégés in this pilot project, and the small numbers of residents in some of them, it is difficult to draw firm conclusions based on the statistical data.

Despite these limitations, the qualitative and quantitative data from this study suggest opportunities for future fall reduction strategies. Peer-to-peer learning appears to be a valued approach. Commonalities found among the mentor facilities – e.g., philosophy, leadership, data, communication, engagement – can serve as the basis for future trainings and for support many facilities in developing a structure that will enable them to improve the quality of resident care.

A. Introduction and Project Overview

In 2011, the State of Wisconsin undertook a set of initiatives to reduce the rate of falls among its citizens. This initiative was undertaken in response to concerns about the high rate of falls in Wisconsin, both in the community and in health care settings including nursing homes. The importance of falls as a concern was highlighted through a number of findings.

- Hospitalizations and emergency department visits due to falls result in $800 million in hospital charges each year.
- Over 70% of the hospital related charges related to falls (from hospitalizations and emergency department visits) are paid by government insurance programs such as Medicare and Medicaid.
- A large majority of fall-related deaths (87%) and inpatient hospitalizations (70%) involve people age 65 or older.
- Approximately 40% of those admitted to a nursing home had a fall in the 30 days prior to admission[1].

In addition to falls in the community, which may result in a nursing home admission, data indicated that falls among Wisconsin nursing homes also were a concern. Of note, Wisconsin ranked 10th nationally for F-tag 323, a citation issued by quality reviewers who identify a quality deficit during routine nursing home inspections. F-tag 323 is used when a facility is found to have problems related to a lack of supervision and prevention of avoidable accidents. Falls are one of the most frequent reasons that F-tag 323 is cited. For several years (2008 – 2010), F-tag 323 was the most cited frequently deficiency tag in Wisconsin (2008-2010), suggesting that falls were a pervasive problem in nursing homes. Compared to other states nationwide, Wisconsin was rated in the fourth quintile (between 60th and 80th percentile) of states with regard to falls and injurious falls among nursing home residents in 2011[2].

The Wisconsin Fall Prevention Initiative was designed to address four goals:

1. Shape systems and policies to support fall prevention
2. Increase public awareness about fall prevention
3. Improve fall prevention where people live
4. Improve fall prevention in healthcare settings

In 2011-2012, key stakeholders undertook a series of discussions to identify an approach to be used to the fourth goal, specifically to improve fall prevention in nursing homes. Stakeholders included representatives from the Wisconsin Department of Health Services' Division of Long-Term Care and Division of Public Health; representatives of the nursing home associations, LeadingAge Wisconsin and Wisconsin Health Care Association (WHCA/WiCAL); staff of the state's Quality Improvement Organization, MetaStar; and researchers from the University of Wisconsin's Center for Health Systems Research and Analysis (CHSRA). These individuals were joined, on occasion, by individuals taking part in other Fall Prevention Initiatives.

During those discussions, it was noted that nursing home staff were believed to be more receptive to learning from their peers than from a state agency. As a result of these discussions, the Nursing Home Falls Prevention Initiative was developed with the aim of using peer-to-peer learning to help nursing facilities improve their care processes to reduce falls. A mentor process was developed, in which facilities with the some of the lowest rates of falls with injuries (mentor facilities) were matched with facilities with some of the highest rates falls with injuries (protégé facilities). Staff from mentor and protégé nursing homes visited each other's facilities, shared materials, and discussed challenges and strategies. Additional resources were available to facilities through the web-based Wisconsin Clinical Resource

[1] Kopp, B. and C. Ofstead, Wisconsin Department of Health Services, 2010. *The Burden of Falls in Wisconsin*.

[2] Centers for Medicare and Medicaid Services, 2013. *Nursing Home Data Compendium 2013 Edition*,

Center, the Advancing Excellence program, and from professional associations, corporations, or other sources identified by the participating facilities.

Staff from the CHSRA conducted an evaluation of this pilot project. Site visits to the mentor and protégé facilities provided detail about the strategies used, challenges to implementation, and impacts on staff and residents. Data from the nursing home Minimum Data Set (MDS) were used to quantify changes in rates of falls and rates of falls with injuries. This report summarizes all of these activities and key findings. It concludes with recommendations for how best to support nursing facilities in their efforts to reduce the rates of injurious falls.

B. Methods

B.1. Selection of Participating Facilities

Six mentorship pairs (12 total facilities) were selected for inclusion in this initiative. An initial set of potential participants, both mentors and protégés, was identified using available data from the Minimum Data Set (MDS) and the Center for Medicare and Medicaid Services (CMS) 5-Star nursing home rating scale. The criteria used to identify these potential participants were developed in early 2012 through discussions among staff from the Wisconsin Department of Health Services, leaders of the nursing home associations (LeadingAge Wisconsin and Wisconsin Health Care Association, WHCA/WiCAL), and senior CHSRA staff. MDS data for all nursing facility residents, other than those with a diagnosis of intellectual/developmental disability, were used to create quarterly measures of the percent of residents who fell, and the percent of residents who fell and had an injury. Additional data from quarterly MDS files identified the number of beds in the facility and the number of residents who were physically restrained during the quarter. Other sources of data provided information about each facility's rating on the CMS 5-Star rating scale. Data from the six quarters for Q4 2010 through Q1 2012 were used to identify facilities meeting the criteria (Table 1).

Table 1. Criteria for Site Selection

Criteria	Mentor Facilities	Protégé Facilities
Quality Measures	(1) Consistently performs in the best quartile over the last 6 quarters (Q4 2010 – Q1 2012), defined as average falls with injuries in last 6 quarters is in best quartile AND maximum rate of falls with injuries is in the lowest quartile OR (2) Has improved to be a top performer, operationalized as rate of falls with injuries is declining and the rate in most recent quarter (1st quarter 2012) is in the best quartile	(1) Consistently performs in the poorest quartile over the last 6 quarters (Q4 2010 – Q1 2012), defined as average falls with injuries in last 6 quarters is in worst quartile AND minimum rate of falls with injuries is in the highest quartile
Restraint Use	Average daily restraints in most recent quarter =0	N/A
5-Star Rating	>=3 stars	N/A
Bed size	Beds >=25	Beds >=25

Nursing facilities were identified as potential mentors if they were consistently among the top performing quartile of nursing facilities in the state with regard to falls with injuries throughout the six quarter period, or if they had shown improvement over time to the point that they were among the best performing quartile of facilities in the most recent time period. The list of potential mentors was limited to facilities that met these criteria, and had not used any daily physical restraints in the most recent quarter, had at least a 3 star rating on the Centers for Medicare and Medicaid Services (CMS) 5-Star rating system, and had 25 or more beds.

Nursing facilities were identified as potential protégés if they consistently were among the poorest performing quartile of facilities with regard to falls with injuries. This was defined as facilities for which the average 6-quarter rate of falls with injuries was among the highest rate quartile in the state, and that the minimum rate of falls with injuries during those six quarters also was among the poorest performing quartile. This second criterion assured that facilities were consistently in the poorest performing quartile, by assuring that there was no quarter in which they were not among that group. Selection of protégés facilities was limited to those with 25 beds or more.

Application of these criteria resulted in the identification of 52 potential mentors and 65 potential protégés. Potential mentors had fewer Medicaid residents, were more likely to be for profit, and were somewhat smaller than were potential protégés. Potential mentors also were more highly rated on the CMS 5-Star rating system. Potential mentors and protégés had similar nurse staffing levels overall. (See Table 2)

Table 2. Comparison of Potential Mentors and Protégés

	Potential Mentors	**Potential Protégés**
Number of Facilities	52	65
Percent of Residents who are on Medicaid (average)	53%	63%
Ownership (Number of facilities)		
- Tax-Exempt	31%	38%
- For-Profit	60%	32%
- County	8%	20%
- Other Government	2%	6%
-State	0%	3%
No. of Beds (avg.)	87	109
5-Star Rating (avg.)	4.1	3.4
Nurse Staffing (hours per resident per day)		
- Total (avg.)	3.98	3.96
- RN (avg.)	0.94	0.86
- LPN (avg.)	0.53	0.52
- NA (avg.)	2.52	2.57
Residents who fell (average percent, last 6 quarters)	17.1%	26.4%
Residents who fell and were injured (average percent, last 6 quarters)	4.3%	11.8%

Note: Potential mentors/protégés include all facilities that were or could have been selected for participation.

Leaders at each of the two nursing home associations, LeadingAge Wisconsin and WHCA/WiCAL, were provided with lists of the potential protégé and mentor facilities that were members of their associations. These lists included the facility names, as well as key variables that were believed to be useful in facilitating appropriate matches: county in which the facility was located, labor region, whether the facility was participating in the Advancing Excellence initiative, and the facility's rating on the CMS 5-Star rating scale. The association leaders identified potential mentorship pairs of facilities, using the data provided. They contacted the facilities and invited them to participate in this initiative. Each association identified three pairs of facilities, so that a total of 12 facilities took part in the initiative (6 as protégé and 6 as mentor facilities). Compared to the protégé nursing homes, mentor facilities served fewer Medicaid residents and were smaller. Mentors and protégés had similar staffing levels and ratings on the CMS 5-Star rating system (Table 3).

Table 3. Characteristics of Participating Facilities

	Selected Mentors	Selected Protégés
No. of Facilities	6	6
Percent of Residents who are on Medicaid (average)	53%	60%
No. of Beds (avg.)	98	121
5-Star Rating (avg.)	4	4
Nurse Staffing		
- Total (avg.)	4.34	4.35
- RN (avg.)	1.08	0.94
- LPN (avg.)	0.39	0.57
- CNA (avg.)	2.87	2.87
Residents who fell (average percent, last 6 quarters)	14.9%	27.4%
Residents who fell and were injured (average percent, last 6 quarters)	3.6%	10.8%

B.2. Participating Facilities' Activities

Participating facilities were provided with a statement of obligations and benefits (Attachment A). Obligations included participating in a one-day training in Fall 2012, interacting with their partner facility throughout the project period, submitting monthly reports to document related activities throughout the project period, and taking part in a one-day site visit from the project evaluator (CHSRA).

The training in November 2012 was provided to all 12 facilities involved in this fall prevention initiative, and also was open to other nursing homes that were part of the Advancing Excellence initiative in Wisconsin. The day-long collaborative learning session included: an overview of the statewide fall prevention initiative; presentation of falls data for the state; presentations on building knowledge management, best practices and how to use available resources (such as the Wisconsin Clinical Resource Center and Advancing Excellence); and presentation from a nursing home provider about their own journey to reduce falls, through a rounding program. The Initiative's action plan and next steps were discussed with participants and their respective long term care associations.

The partnering activities officially began on December 1, 2012. Each set of paired facilities (mentor and protégé) were required to meet face-to-face at least twice, one at each of the partner facilities. The purpose of these meetings was to facilitate knowledge transfer and to share experience and best practices to support the protégé facility in identifying and implementing new strategies for fall prevention.

The importance of regular communication between the participant pairs was highlighted as a key component. This included communication (scheduled or as needed) via email, telephone, and/or in-person. Communication could be initiated by either partner. The mentor facility was responsible for sharing information about their own practices with their protégé, answering questions, and recommending strategies. All participants were expected to maintain a log to document communication with their partner and any related activities undertaken each month. The completed logs were submitted to the evaluator at the end of each month. These logs were used as a tool to assure that facilities were actively engaged in the program, and to provide the evaluator with baseline information to help structure the site visits.

Each participating facility also took part in a one-day site visit by the evaluator. A designated contact person from each site assisted with scheduling the visit and ensuring that all necessary parties were available on that day. This included identifying key personnel with responsibility for planning and oversight of fall-related activities, and people responsible for implementation of those activities. The contact person also arranged for the evaluators to meet and talk with residents.

B.3. Evaluation Approach

Researchers at the Center for Health Systems Research and Analysis (CHSRA), of the University of Wisconsin – Madison, evaluated the Nursing Home Falls Prevention Initiative. Both qualitative and quantitative methods were used to address the two key evaluation questions:

(1) Does participation in a peer-to-peer mentor process reduce the rates of falls and falls with injuries?
(2) What strategies for fall prevention in nursing homes appear to be most successful?

Qualitative methods. Site visits were conducted with both mentor and protégé nursing facilities. Site visits with mentor nursing facilities were conducted in the first few months of the project (January – March 2013). The purpose of these visits was to gather information about the approaches being used by facilities deemed to be particularly successful at preventing falls and associated injuries. Site visits were conducted with protégé nursing facilities approximately 9-10 months after the project began. Visits with protégés were designed to learn about the new strategies that facilities adopted, and the challenges faced and strategies adopted to most successfully implement those strategies. Additionally, these site visits sought to understand the protégés'' experiences of being mentored and recommendations for future efforts to support quality improvement.

Site visits to each protégé and mentor facility were conducted during a single day, and took approximately 5-6 hours at each site. Interviews were conducted with key individuals, including nursing home administrators, directors of nursing, nurse managers, and certified nursing assistants (CNAs). Depending on the nursing facility and its fall prevention strategy, interviews also were conducted with dietary staff, environmental/housekeeping staff, physical and occupational therapists, and social workers. Evaluators observed meetings of formal Fall Teams or other relevant staff meetings when such existed and could be scheduled to coincide with the site visit. Focus groups were conducted with residents, most often individuals who participated in the facility's resident council. When there was no resident council or when the council was not scheduled to meet, evaluators met with small, informal groups of residents.

Quantitative methods. Data from the Minimum Data Set (MDS) were used to report on the prevalence of falls and the prevalence of falls with associated injuries. Data came from all facilities in Wisconsin, and were reported quarterly for calendar years from the fourth quarter of 2010 through the end of 2013. Data were monitored for the six protégé facilities. Data from other facilities that were identified as potential protégés, i.e., those facilities identified during the initial selection phase but that did not participate in the pilot project, and all facilities state wide provided comparative data. Trends in the rates of falls and of falls with injuries are reported for three time periods: a baseline period (FFY2011), and two subsequent

periods (CY2012 and CY2013). The latter period, CY2013, is the time during which the mentoring initiative was active.

C. Findings

C.1. Lessons from Mentor Facilities

Site visits with mentor facilities were conducted in the first quarter of 2013. The focus of these visits was on understanding the practices of these facilities, which had been selected on the basis of strong performance in the area of fall prevention. Site visits revealed that facilities used a range of approaches; there was no single, common approach to fall prevention. Some approaches were "home-grown" and some were provided by corporate leadership (when the facility was part of a chain). Facility staff often referenced the guidelines and information available from professional organizations, such as the AMDA Clinical Practice Guideline on Falls & Fall Risk, National Gerontological Nursing Association, and Arthritis Foundation. The Guidance to Surveyors was also referenced as a source of information. In some cases, these guidelines and practices were incorporated as they exist, while in other cases they were used as the foundation for developing approaches tailored to the facility.

Although mentor facilities used a variety of approaches to minimize falls and related injuries, a number of common themes emerged from the site visits. These themes suggest a structure by which other facilities may improve fall-related quality. The key themes are shown in Figure 1, and discussed below.

Figure 1. Common Themes from Mentor Facilities

- Philosophy
- Fall prevention strategies
- Falls Committee
- Leadership and responsible staff
- Communication among staff
- Assessment
- Physical plant
- Risk
- Use of data

Philosophy. Although staff were not asked specifically about their overarching approach to falls and related injuries, these philosophies emerged as a natural part of their discussion about fall prevention. It was significant that all staff -- administrators, directors of nursing, CNAs, housekeepers, etc. – were aware of and naturally mentioned the driving philosophy as part of the conversation. Although philosophy was an important underpinning of the activities at each of the mentor facilities, the nature of their philosophies varied. Depending on their philosophy, facilities emphasized different aspects of fall prevention.

Fall prevention vs. injury prevention. Some facilities recognized that not all falls could be prevented, and focused on the importance of preventing related injuries. These facilities included a focus on strategies such as using equipment (e.g., height-adjustable beds, often used in conjunction with mats on the floor) to reduce injuries.

Avoidable vs. unavoidable falls. Other facilities also recognized that not all falls could be avoided, and focused on preventing those that could be. These facilities assessed each fall after it occurred to determine whether it could have been avoided. Falls that occurred because a care process was not

properly followed were determined to have been avoidable, while those that occurred despite following the care plan, with appropriate interventions, were determined to have been unavoidable. This philosophy led to an emphasis on assuring care plans addressed the person's known risks, that staff were aware of the risks and appropriate care plan, and that the plan was followed.

Person-centered interventions. Some facilities emphasized the importance of person-centered interventions. These facilities tried to be creative and highly individualized in the types of interventions used. They also recognized the right of individuals to take risks, and sought to balance respect for those rights with methods to mitigate associated risks. For example, residents who wanted to walk, despite poor balance or unsteady gait, were encouraged to do so. Staff were aware of these residents and sought to be nearby, if not actually accompanying them on their walks.

Fall Prevention Strategies. Mentor facilities used a variety of methods to help prevent falls and related injuries from occurring.

Equipment. Various types of equipment were reported to help reduce the risk of falls, or to reduce injuries from falls. Adjustable (high/low) beds were frequently mentioned, in conjunction with mats on the floor beside the bed. Assorted types of equipment were used to help in lifting and transferring residents. Wheelchairs and related seating equipment were mentioned, to help prevent people from leaning too far forward, and to prevent rolling. Alarm systems were mentioned, but with mixed views. Several facilities tried to avoid alarms, and stated a belief that alarms were ineffective, and could cause as many problems as they solved because of increased agitation among residents. Staff members at several facilities stated the belief that, by the time the alarm sounded, it was too late to be helpful. Another mentor facility, however, incorporated the use of alarms, when appropriate. Many of the alarms used were not audible, but simply sent a signal to a pager, thereby reducing the agitation that can be caused by an alarm sounding.

Staff awareness of residents. Several facilities reported that a key preventive factor was increasing staff awareness of residents. Several different methods were used to increase staff awareness of residents. Some facilities emphasized being aware specifically of residents who were believed to be at high risk for falls. Two of the mentors used graphics (a falling leaf or falling star) placed on the door of the residents' room and/or on a resident's wheelchair. This graphic alerted staff that the resident was considered at high risk of falls. Several of the mentor facilities encouraged all staff to look in all residents' rooms, whether or not they were identified as high risk, as they passed by, and to respond to any observed needs or requests for help.

Staff awareness of environmental risks. Several facilities also reported that staff were continually monitoring environmental risks. This included being aware of/addressing wet floors; location of water glasses, placement of call buttons, or other items that were just out of reach; unlocked wheelchairs; and other environmental factors that could increase risk of a fall. Facilities that emphasized awareness of environmental risks encouraged that among all staff. Housekeeping staff, dietary staff, and others, as well as clinical staff, were encouraged to be aware of residents and of environmental risks. Non-clinical staff were encouraged to take appropriate steps to address the environmental risks or other resident needs as they observed them, either by direct action, when appropriate, or by seeking assistance from a clinical staff member.

Rounding. The Rounding model is a particularly unique approach to increasing staff awareness of both residents and environmental risks. The rounding approach was presented by one of the mentor facilities at the November 2012 training that all of the facilities in this initiative attended. Under a rounding approach, staff check with each resident on a regular basis, typically every 90 minutes, and address a range of resident needs at that time. Needs addressed during the round include assuring comfort; repositioning as needed; toileting; assuring that the phone, TV remote control, tissues, and other desired objects are within comfortable reach; offering water; and assuring that the floor in the room is dry and free of obstacles. These routine checks with the

resident help to anticipate needs and, in turn, contributes to a decrease in falls, pressure ulcers and incontinence.

A rounding clock, such as a cardboard clock face with hands that can be manually moved, is one approach for keeping track of the rounding schedule. It is placed where both residents and staff can see it in the room. This allows everyone to know when the next round will take place. It can help decrease resident anxiety to know that someone will check with them on a regular basis. All staff are aware when the next round is scheduled and, if the CNA who typically would work with the resident is busy at that time, other staff can take the lead to assure that the round happens on time. While non-clinical staff cannot assist with toileting and some other rounding needs, they can check with the resident, offer water, and do other tasks. One goal of the rounding approach is to reduce the use of call lights by residents, and create a culture in which use of a call light indicates an urgent need. One of the facilities that adopted the rounding approach spent time educating residents about this approach through the Resident Council. Residents were very aware of the rounding approach and its goals, were appreciative of it, and took time educating each other about it. In addition to its benefits for residents, rounding contributes to structuring the CNAs' workflow, and improves communication, autonomy and control. Scheduled monthly meetings of the QA Rounding Committee monitor the impact of the program.

Psychosocial focus. Psychosocial approaches were described to help prevent people from becoming agitated, and staff were encouraged to respond appropriately when signs of agitation or distress were observed. Such approaches included a range of person-centered activities, as well as group-focused activities. Music, puzzles, arts that engage hand and mind, and other activities were described. In several cases, activities were highly individualized, drawing upon the person's history to find activities that were most meaningful. For example, one facility described a resident with dementia who had worked as an electrician. The facility built a board with assorted wires and plugs and other electrical paraphernalia for the resident to work with safely. Another facility described extensive time spent with residents and their families both prior to and after admission, to learn the person's hobbies and interests and how best to support them. When residents have a hard time expressing themselves, as when cognition, dementia, or communication problems exist, recognizing and addressing changes in behavior is important.

Medications focus. Some facilities mentioned medications management as an approach to fall reduction. Medications of greatest concern were psychotropics, hypnotics, and anxiolytics, which may be related to an increased risk of falls. Facilities with a medication focus included review of medication use as part of the investigation into each fall, and considered medication changes, as appropriate, as an approach to reducing falls. In a few of the facilities, the medical director was leading efforts to reduce the use of these medications proactively throughout the nursing home, rather than addressing them only after the fact with residents who fell.

Falls Committee*.* Four of the six mentor facilities reported having an established group that met on a regular basis (monthly or more often) to discuss falls. In one case, the Falls Committee was a relatively new part of their strategy. Some of the Falls Committees met as often as weekly; others met as needed, to respond to falls as they occurred. These committees generally were multi-disciplinary. In addition to senior staff (e.g., the director of nursing and nursing home administrator), the fall committees typically included CNAs, and non-clinical staff as well. The committees reviewed all falls since the last meeting; discussed the circumstances of each particular fall; discussed the resident in general, including any changes observed and the resident's known preferences; and strategized about how to prevent future falls. Some Falls Committees also reviewed nursing home data to try to identify patterns of falls such as time of day, days of the week, or units on which falls were more common, and to address those concerns through strategies such as altering staffing patterns.

Leadership and Responsible Staff. The mentor facilities had strong leadership of fall-related initiatives, and that leadership was known throughout the facility. Generally, senior staff (DON and NHA) were involved in these roles. Depending on the facility, leadership also was taken by CNAs and other staff. Leaders were responsible for promoting the fall related prevention and response activities, assuring that

all staff were aware of any facility-wide initiatives as well as of activities specific to individual residents, and promoting staff buy-in to the plan. Two facilities emphasized the value of having staff on the floor who acted as "champions" of the fall prevention initiatives. Having a champion is a way to highlight the importance of the efforts, and to provide a resource person for other staff.

In addition to the leaders of fall prevention initiatives, mentor facilities clearly identified the staff that were responsible for implementing the initiatives. As with the leadership, the responsible parties were known throughout the facility. That is, staff knew who the leaders and responsible parties were, and were able to call upon them for help and guidance. Facilities tended to have one of two views of responsible staff.

> *Clinical staff.* In some facilities, fall prevention was thought of primarily the responsibility of clinical staff, primarily certified nursing assistants (CNAs), and registered and licensed nurses (RNs/LPNs). In some cases, physical and occupational therapists also shared responsibility.
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> *All staff.* Some facilities had a philosophy and active practice of engaging all staff in fall and injury prevention. This included dietary, environmental, social services, activities, and all other staff, as well as clinical staff. Non-clinical staff were aware of this responsibility and were observed to be actively engaged in fall prevention throughout the course of their day. Non-clinical staff could help by watching for risks, getting help when needed, providing simple supports to residents (e.g., getting water), or engaging residents in conversation to prevent agitation. In some cases, non-clinical staff also were engaged as active and creative problem solvers. For example, in one facility the leader of the environmental staff was particularly creative in modifying wheelchairs and other equipment to help prevent falls.

Communication. Communication was noted to be essential to successful fall reduction, to assure that all staff throughout the facility understand approaches to fall and injury prevention, and to be aware of their role in those efforts. Additionally, direct care staff and, depending on the facility's approach, all other staff as well, need to know the specific care plans for individual residents. Changes to the care plan, which occur as needed to address changes in condition or recent falls, must be communicated clearly and efficiently to the necessary staff. Mentor facilities had clear lines of communication, and expectations about how and when communication would happen, including at change of shift and whenever there was a fall.

Post-falls communication can be as simple as letting the next shift know when a fall has happened and the fall response plan. In mentor facilities, however, post-fall communication was often much more detailed. In several of the mentor facilities, this communication happened immediately after the fall, with several staff coming together in a post-fall "huddle." The huddle provides an opportunity for staff to discuss the circumstances surrounding a fall, likely causes, and recommended interventions. Depending on the facility, these post-fall conversations could include all staff who witnessed the fall, all staff who are responsible for the resident (i.e., RN, assigned CNA for the shift), or other combinations of staff.

Another mentor facility implemented a variety of types of rounding to increase communication among staff. This mentor used rounds by department leaders to walk through each unit to talk with staff and residents, learn about how things are going, identify any supports needed or any problems to be addressed, and to provide on-the-spot praise to staff. Communication among CNAs was supported through rounds on all residents at the change of shift hand-off. The facility also was testing a similar approach to change of shift hand-off among the RNs. Further, the facility was supporting communication among RNs and CNAs through a combined change of shift report.

Assessments. Thorough assessments were described as key to identifying fall risks for individuals, and developing prevention plans. Mentor facilities noted two types of assessments in particular: fall risk assessments, and post-fall assessments. Fall risk assessments generally were done at the time of admission and routinely thereafter, as part of the standard MDS assessment. In addition to the standard MDS-based risk assessment, some mentor facilities discussed additional fall risk assessments that they conducted. In some cases, these assessments were specific to residents in given care situations. For example, some were designed specifically for residents receiving post-acute, rehabilitative care, while

others were designed for use with residents with dementia. In some cases, the assessments emphasized residents' views of their own fall risks and their right to be informed of and accept some risk.

While most mentor facilities commented on the importance of gathering information at the time of admission, some of the mentor facilities emphasized the value of collecting information *prior to* admission, beyond what was routinely collected on the MDS. For example, one mentor facility conducts an onsite visit with the person in the location (e.g., hospital, home, etc.) from which they are being admitted. The focus of these visits is on gaining a deeper understanding of the individual, and also of the approaches being used to reduce fall risk, so that useful practices could be continued after admission. These activities were said to be helpful in understanding the person's level of function, and in assisting staff in preparing for the person's admission to their facility. Knowing what practices have already been found to be helpful provides the facility with a ready-to-implement approach with known utility, and can guide the facility in doing such things as preparing the resident's room for occupancy, alerting staff to resident preferences, and other useful interventions.

In addition to assessment prior to any falls, mentor facilities also discussed post-fall assessments. Although there was no single post-fall assessment form used by all mentor facilities, the types of information each collected after a fall was generally consistent. Basic post-falls assessment collected information describing both the resident and the environment at the time of the fall. Particular attention was given to any observed changes in the resident prior to the fall (e.g., fever, agitation, anything that might suggest a change in clinical condition), what the resident was doing at the time of the fall (e.g., reaching for water, trying to stand), and how recently the resident had toileted. Environmental information collected by facilities included such things as obvious fall hazards (e.g., wet floors, obstacles on the floor), but also issues such as how close water pitchers were to a resident, types of wheelchair or other seating, or location of the call button. In some cases, post-fall assessments required staff to diagram the situation at the time of the fall. Diagrams were often described as particularly helpful in guiding discussions of risks and potential interventions to prevent future falls. In other cases, the facility staff described re-enacting the fall so that they could better understand the situation. Both diagrams and re-enactments can provide facility staff with a more sensory approach to understanding falls than a simple paper form, and can stimulate creative thinking about preventive strategies.

Risk. Assessments done prior to or at the time of admission may identify some individuals as being at risk of falls. The concept of risk is an important part of care planning. The mentor facilities each noted an awareness of risk, and approached it from a variety of perspectives. In addition to specific risks identified on assessment, mentor facilities described various groups of residents that they consider high risk. Several of the mentors defined all people who were newly admitted as being at high risk, for at least the first 48 hours. In some cases, this was understood to be a high risk period because staff are unfamiliar with the resident, and in other cases it was described as a high risk period because residents are unfamiliar with the facility and may not be clear about their own capabilities.

Two other groups of residents also were identified by several mentors as being at high risk: post-acute care residents and residents with dementia. Post-acute care residents were described by staff at several mentor facilities as being at high risk because they may be over-confident in their abilities. As one staff member described it, "they slow down after they fall once." The challenge in working with people in a post-acute care situation is to help them to understand any current limits and take it slowly, but also encourage them to work hard to regain strength.

Residents with dementia also were described as being at high risk for falls, as they may not remember any functional limitations or how to move about safely. Mentors suggested that checking on the resident frequently – as often as every 15 minutes, if needed – including prompted toileting, and strategies to reducing agitation can be helpful when working with people with dementia.

When different groups of residents, as well as individuals, are identified as having an increased risk for falls, the facility staff may respond on at least two levels. One level of response is the identification of fall prevention strategies, several of which have been described previously. The other level of response is to

determine the balance between fall prevention and an individual's right to take risks. Several mentors described talking about this balance with residents and their families at the time of admission. There was significant variation in how mentors approach this concept. One mentor emphasized involving residents in care planning, to engage them actively in determining which risks were acceptable and how to address them. Another mentor recognized that people may wish to continue doing things as they were used to doing them at home, which may include doing them in ways that may be considered risky. For post-acute care residents, active engagement in planning for risks can be an important part of returning home. Other facilities tended to discourage risk taking. One mentor facility described attempting a way to temper risk-taking without discouraging the resident, emphasizing that "a decision for now is not a decision forever."

Use of data. Several of the mentor facilities described electronic data systems used to track and monitor falls. These data are monitored with varying frequency, and for various purposes. Some facilities had data systems that alerted them to any new falls on a daily basis. These daily alerts generally are reviewed with the entire management team, often at the daily "stand-up" or morning meeting. This assures that all managers are aware of any recent falls, and allows everyone at the meeting to actively participate in the discussion. These discussions often are very helpful, as staff from different divisions and who know the resident in various ways have the opportunity to ask questions, suggest strategies, and generate options beyond what a smaller group of people can do.

Some mentors use their electronic data systems to generate facility-level reports that are reviewed on a regular basis, but less than daily, to identify any patterns of falls that might suggest systems-level preventive strategies. These facilities view data over time to identify trends in falls, and to determine if there are patterns such as more frequent falls on specific care units, at specific times of day, or on certain days of the week. Facilities that conducted these types of reviews varied by whether data were reviewed by senior staff or by a broader committee, to identify patterns and concerns. Once patterns were identified, facilities developed strategies such as allocating additional staff or volunteers to particular units or shifts, and then used data to monitor the effectiveness of the intervention.

Physical Plant. Staff at several of the mentors discussed ways in which physical plant can help or hinder fall prevention activities. Physical plant is not something that can be readily or frequently modified, but being aware of the strengths and limitations of the physical plant can help staff to plan appropriately. Staff at several mentor nursing homes discussed the ways that physical plant affected the ability to be aware of residents. Older facilities with long hallways with a central nurses' station can make it more challenging for nurses to see residents and be aware of their needs. Useful approaches in this situation included making sure staff spend less time at the desk and more time on the floor and encouraging all staff to be aware of residents.

Post-Fall Response. While preventing falls and related injuries is key, the post-fall response also is an essential piece of managing falls and preventing future falls. The time immediately following a fall was identified by mentor facilities as a key time to determine the cause of the fall. While all facilities do an immediate assessment of a resident who has fallen, treat any injury, and increase the frequency of checks over the next 24-48 hours, they differ in the methods used to understand what occurred and develop interventions.

The mentors discussed the importance of collecting and reviewing information about each fall in a timely manner. In one facility, collecting information meant calling a post-fall huddle of all staff who were present at the time of the fall to "tell the story of what happened." In another facility, this was done through a CNA-completed "Found Down" Sheet. In both cases, the information addressed such issues as when the resident last ate, when the resident last toileted, the physical environment, and resident's mental state. In a third facility, similar information was provided to the RN on duty immediately after the fall, regardless of the time of day or night. Two facilities reported entering information into their electronic records system, which would provide information to the DON and other key staff on a daily basis.

All of the mentor facilities described a process for discussing each fall to try to learn why it occurred. Several of the facilities described this as "root cause analysis." Regardless of the term used, each facility had a process for trying to determine the cause of the fall. Two of the mentors discussed each fall at the

morning meeting the day after it occurred. In other facilities, falls were discussed anywhere within 2 days to 2 weeks of their occurrence. The focus in each facility was on determining the cause of each fall, and generating suggestions for intervention. Each of the mentors involved a variety of staff in the process, including some combination of CNAs, social workers, therapists, housekeeping, activities staff, and dietary staff, in addition to RNs and administrators.

C.2. Approaches Used by Protégé Facilities

The approaches used by protégé nursing homes to prevent falls and related injuries varied greatly, as was the case with the mentor facilities. In this section, we describe the approaches identified, piloted, or implemented by protégé facilities in each of the areas discussed for the mentor facilities. We then discuss additional approaches that were unique to the protégé facilities, and conclude this section by discussing challenges and strategies discussed by the protégé facilities.

Philosophy. Staff at three of the protégé facilities mentioned their care philosophies related to fall prevention. Staff at two of the protégé facilities described a philosophy of letting people be as independent as possible. One of these facilities also described a focus on preventing avoidable falls. This was a new focus for them, and was one shared by their mentor. Staff at a third facility described working with families to develop anticipatory, rather than reactive, practices. In each of these facilities, the philosophy was mentioned by a few senior staff, but not by other staff.

Fall Prevention Strategies. Many different intervention strategies were identified, piloted and/or implemented by protégé facilities during the course of this pilot project.

> *Equipment.* Several strategies were mentioned that involved the use of equipment to reduce falls and related injuries. Height adjustable beds were often mentioned, as were efforts to assure that wheelchairs were properly fitting and in good condition, and using proper lift equipment, in good repair, and technique. Two of the protégé facilities indicated that they had eliminated the use of alarms, while another two reported that they used alarms, as appropriate. Each of these latter two reported past efforts to reduce reliance on alarms were unsuccessful. Three of the protégé facilities mentioned the importance of call lights, with one of the facilities emphasizing the importance of finding the optimal type of call mechanism for each resident, depending on grip strength and fine motor skills. One facility also placed an emphasis on assuring that residents had proper footwear.
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> *Staff awareness of residents.* Three of the protégé facilities discussed the importance of knowing residents well. In one of these facilities, this was described as a new area of focus, with increasing emphasis on knowing each resident in order to develop proactive strategies to prevent falls. Several facilities also mentioned the importance of glancing into residents' rooms when passing by, as a quick visual check. One of the facilities used a symbol, placed on the door to a resident's room and/or on a wheelchair or walker, to indicate that the resident was at high risk of falling. This was a long–standing practice; but the facility had begun discussing policies for determining when this symbol could be removed.
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> *Staff awareness of environmental risks.* A CNA at one facility described the importance of always scanning the environment to make sure that the floor is dry, safe, and uncluttered. This same facility reported new focus on assessing environmental factors when documenting a fall. It is likely that this emphasis at the time of falls may translate into increased environmental awareness as a matter of falls prevention, as was described by the CNA.
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> *Rounding.* During the visits, none of the protégé facilities reported using a rounding approach at this time. One of the facilities had taken time to learn more about rounding, but had not decided whether or not to attempt it. Another reported that they were unable to implement that type of approach due to union constraints.

Psychosocial focus. One facility described trying to keep residents engaged as a strategy to keep them from trying to get up and risking a fall. This facility discussed the difficulty of maintaining this strategy. The effort was led by one staff member; when he was not present, these recreational activities were described as "fall[ing] by the wayside." Staff in another facility also described the value of keeping residents busy, and engaging them in activities that are of interest. For residents with dementia, one-on-one activities such as walking or viewing family pictures were reported as being particularly useful. None of these activities were described as new.

Medications focus. Directors of nursing were most likely to mention the importance of reviewing medications as part of reviewing any fall, but none of the protégé facilities identified medication management as a specific approach to fall reduction.

Strengthening. One protégé facility emphasized physical fitness activities, including a variety of exercise and dance. They noted that such activities might have the undesirable effect of increasing falls, by keeping people more active, but are committed to the benefits of physical activity.

Falls Committee. The use of falls committees varied across the protégé facilities. Two of the facilities did not have a falls committee. A third facility reported that they had a falls committee in previous years, but had discontinued it. Another reported that there was no formal falls committee, but that falls were reviewed each morning as part of the "stand-up" meeting. Yet another facility reported having a falls committee that met semi-regularly, about once every two weeks. The committee reviews recent falls or individual residents identified as frequent fallers, but does not necessarily discuss each incident of a fall. Membership includes senior staff, plus CNAs who participate on a rotating basis. The director of nursing reviews data in advance and presents a summary of key data; data are not reviewed by the committee members. Finally, one of the protégés implemented a falls team as part of their efforts to reduce falls. Staff at this facility reported that having a regular falls team had been a goal. This initiative and support from their mentor helped to launch the new initiative. They plan to meet once per month to review all falls and to identify residents at risk of falling. The falls team includes CNAs from each shift and representation from the housekeeping staff, as well as senior clinical staff and administrators.

Leadership and Responsible Staff. . The protégé facilities varied in how fall prevention activities were led. In most cases, leadership of the overall approach to fall reduction came from the Director of Nursing and/or Administrator. In other cases, another person (e.g., assistant director of nursing) was designated as the leader. Unit nurse managers also provided important leadership, especially when implementing changes in practice.

Depending on the facility, other staff were involved in varying levels. Some facilities actively worked to engage all staff (e.g., dietary, environmental) in fall prevention, by encouraging staff to know the residents, to be aware of and recognize risks, and to respond appropriately. CNA involvement varied also. While CNAs were universally recognized as the staff who know the residents best, facilities varied in the extent to which they involved CNAs in strategizing for fall prevention or in educational activities related to fall prevention.

Some facilities described difficulty getting CNA buy-in to new initiatives, such as a walk-to-dine program. Others mentioned the challenge of involving CNAs in activities that take them away from direct care. One facility was actively engaged in training CNAs in use of the new post-falls huddle process and documentation. Training was being tested on specific units and shifts, through a gradual roll-out process. CNAs who had been through the training were enthusiastic, and those who had not yet been through the training were eager for the opportunity.

Communication. Communication of information, including changes in practice and updates on care plans to respond to falls, was identified as a crucial component of fall prevention activities, but facilities differed in the approach to sharing information. Shift-to-shift reporting was done in all facilities. In most cases, this was done by similar staff reporting to their replacements (e.g., CNAs to CNAs, RNs to RNs).

Reporting offered a time to describe any recent falls and related changes to care plans. This information also was contained in written care plans, maintained in various places on the care unit, and through other means of transmission such as log books, binders, and electronic messaging functions.

Information was communicated to all staff in other ways, using visual displays. Boards in nursing stations were used to show falls for specific residents. In other facilities, a falling leaf or other graphic symbol was posted to a residents' door or on a wheelchair to indicate someone at high risk of falls, including people with a history of falls. One facility described a 3-month calendar posted in the nursing station that showed each day on which one or more residents had fallen. This communicated information, and served as motivation to increase the number of days without a fall.

Assessments. Several protégé facilities indicated a greater focus on new admissions during the project, including learning more about the resident's routines, fall history, medical status, and thinking more proactively about how to prevent falls.

Risk. One of the protégé facilities reported efforts to improve assessment at the time of admission to learn more about the individual's routines and fall history, in order to better assess and respond to the risk of falls. Another facility described a recent series of in-service trainings for the RNs and CNAs on each unit, which included a discussion of understanding risks and implementation of fall prevention strategies. These trainings emphasized the importance of understanding the cause of the fall (and risk of future falls) before choosing an intervention. That same facility also noted the importance of discussing fall risks with family members, including "the right to fall."

Use of Data. Protégé facilities discussed ways in which they used data. Some facilities reviewed data specific to individual falls, while others looked at facility-wide data to try to identify trends or other descriptive information, such as location of falls, time of day, or whether or not the CNA working was one who knew the resident well. In some cases, individual resident data was reviewed and included additional pieces of information related to medications, diagnoses, change in condition, etc. Review of facility wide totals helped to identify systems concerns, as well. Facilities differed in the individual(s) responsible for reviewing data. In several cases, a single person (e.g., Director of Nursing, Administrator) was responsible for reviewing the data and identifying key issues. Some facilities had electronic data systems that alerted to individual falls or had the capability to generate reports.

Physical Plant. One of the protégé facilities mentioned a problem of being unable to see the areas where residents congregate from the nursing station. Another mentioned having received advice from their mentor about things to consider when planning an upcoming renovation.

Documentation. Many of the protégé facilities discussed the importance of documentation, and improved documentation as a support to their fall prevention activities. In addition to the Fall Down Reports and diagrams described previously, documentation included policies and procedures, and development of a Fall Folder (which included a checklist of all necessary steps after a fall has occurred). Several facilities also described having lists of potential interventions. These lists ranged from 36 to over 100 potential interventions. The lists were used to generate ideas for new interventions following a fall.

Post-Fall Response. Several of the protégé facilities reported that they were taking steps to improve their post-fall response. In some cases, protégé facilities implemented a "huddle" approach in which many staff gather together immediately after the fall (after assuring the resident is safe) to discuss the likely cause of the fall, and actions that could prevent the resident from experiencing a similar fall in the future. The huddle generally involved a mix of staff on the unit, or others who had observed the fall. Facilities varied in whether CNAs were involved. Some facilities involved all CNAs on the unit, some involved the CNA who was working with the resident at the time of the fall, and some did not involved CNAs. In some cases, it was reported that it was difficult to get CNAs to take part in the huddle, as they were needed to provide resident care and could not spare the time.

A variety of forms were used to document the fall. These forms were a frequent source of attention and revision. Forms were used to describe the circumstances surrounding the fall, e.g., time of day, location in the facility, recency of toileting, any observed change in resident prior to the fall that may indicate an acute condition, and resident's activities prior to the fall. In some cases, these reports also asked staff to draw a diagram of the environment and how the resident was found. This requirement was difficult for some staff to adapt to, as some felt awkward about their "artistic" skills. Over time, however, staff reported that they found it valuable. Some of the reports were completed during the "huddle," and others were completed by an individual staff member, usually a nurse.

Several of the protégé facilities reported trying to improve skills in root cause analysis. Facilities varied in the extent to which root cause analysis was applied. Some described actively working to educate key staff on root cause analysis skills. Facilities also differed in whether they believed such analysis was best done by a designated individual, or as a team with input from many people. In some cases, root cause analysis was done as part of the huddle.

C.3. Strategies and Challenges for Protégé Facilities

As part of site visits, protégé facilities were asked to describe some of the strategies they used and challenges they encountered in the course of trying to reduce falls. These tended to address four broad categories: staff, physical plant and equipment, overload, and residents' rights.

Staff. Staff were both the source and solution of many challenges. A significant challenge reported was obtaining staff "buy-in" to new initiatives. There was recognition that any new approach requires time before it is understood, accepted, valued, and supported by staff. Staff who are already busy may find it easier to continue doing things in familiar ways, rather than learning a new approach. A variety of methods were used to help encourage buy-in and overcome resistance.

> *Education.* Educational initiatives varied in intensity and expectations of staff. Newsletters were one option for educating staff about new approaches to fall prevention, but depend on staff to read, understand, and adopt new approaches without any oversight or guidance. One facility took an approach of educating new staff first, by integrating information into orientation materials. This created an expectation of staff adoption of the approaches, but did not assure that they would have necessary supports from other staff on the units, who had not yet been through that training. Staff meetings were an approach to conveying information to current staff. However, not all staff attend all meetings, either because they are needed to provide resident care or because meetings are held on shifts when they are not working.
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> One protégé facility conducted in-service trainings of CNAs on their units. At the time of the site visit, trainings had not yet been done on all units and shifts. CNAs who had been through the trainings were very excited by them, and found them valuable. CNAs who had not yet participated in an in-service training were eagerly awaiting the opportunity.
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> Nursing staff, and especially the directors of nursing, valued the opportunities for learning that occurred outside of the facilities, as part of state DON meetings, other professional conferences, FOCUS conference and on-line trainings (webinars). These educational opportunities were not always specific to the approaches being tested within the facilities, but offered opportunity for broader learning and the possibility of identifying new strategies to be tested within their own facilities.
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> *Testing.* One approach used by some protégé facilities was to test or pilot a new approach before implementing it facility-wide. Generally, this meant that an approach was introduced on a single unit or shift and used there for some period of time. Information was gathered on the impact of the approach. If it was judged to be successful, it was then introduced to another unit or shift, and so on until it was in use throughout the facility. This type of pilot test was not only useful to assure that an approach was successful, but was a powerful means of encouraging staff buy-in.

Demonstrating that a new approach was successful in one unit could result in staff on other units becoming eager for the opportunity to use it.

Trust. Several facilities reported that it was difficult to get CNAs to take part in a post-fall huddle, because of competing demands for their attention and time. Similarly, it was difficult to get the nurses and CNAs to strategize together about how to prevent falls, because of the demands on their time. An approach that was often successful in overcoming this challenge was to assure that staff were familiar with all residents on their unit, and that staff were familiar with each other as well by virtue of scheduling that enables staff to build connections with each other. When this occurred, CNAs described being more comfortable taking part in post-fall huddles and conversations, because they trusted that the other staff working could do a good job of providing coverage.

Physical Plant and Equipment. Senior staff, especially DONs and administrators, were acutely aware of the challenges presented by their physical plants and equipment. Some facilities were designed in such a way that it was difficult for staff to visually see all residents at all times. For example, facilities with long hallways or with "blind" corners posed challenges that were not easily overcome. These are not challenges that can be readily modified. The key was to be aware of them, and to train staff to accommodate them.

Equipment. Having the proper equipment was identified as a challenge, and also as a strategy to reduce falls. Staff were especially aware of the ways in which proper seating (e.g., height and angle of wheelchair seats, proper footplates), beds (height adjustable, type of mattress), and call lights (appropriate for resident's grip strength and dexterity) could help to reduce falls. Determining and acquiring the proper equipment for an individual presented a challenge, and often was done reactively after a fall.

Overload. The concept of overload was described by staff in several facilities. Overload referred, in part, to having too little time to do all that was required. Taking on an additional task, such as supervising a new falls prevention program, was difficult to do. Beyond the challenge of time, however, staff described information overload. They described challenges of perceived competing initiatives being promoted by the state, Advancing Excellence, the QIO, and professional associations. They were challenged to determine which initiative to address first and then, having chosen an area for focused improvement efforts, they worked to determine which source of information or suggested method would be most useful. While this initiative offered facilities resources through their paired mentor facility, they also described getting information from other sources, including Advancing Excellence, Wisconsin Clinical Resource Center, the annual FOCUS conference, DON Council meetings and leadership training opportunities.

Participants did not offer specific suggestions for how to best cope with the overwhelming amount of information. While the amount of information was overwhelming, they were clear that it was beneficial to have multiple sources of information. This allowed them to identify options that they felt would be most useful in each situation, given the type of residents served and resources available.

Residents Rights. A final source of challenge was the desire to respect residents' wishes and rights, and the need to conduct a (informal) risk-benefit analysis between independence and risk. Residents who believed they were stronger and more stable than they were – especially residents who were receiving post-acute, rehabilitative care --- and residents who had difficulty remembering their current limitations – especially residents with dementia – were described as being at particular risk. Several different strategies were described. For residents who had difficulty remembering current limitations, some facilities posted signs in resident rooms: "Remember to call for help" or similar reminders were used. Facilities also worked with residents to increase strength and balance. Some facilities had a "walk to dine" program, to encourage mobility. Others had a variety of exercise programs, including one facility that had a dance program. Addressing these rights and risks frequently involved working with residents' families, educating them about the trade-offs and the reality that it is not possible to prevent all falls, and coming to an understanding about the acceptable level of risk for each resident and family.

C.4. Mentorship Experience

As described in the sections above, the protégé facilities were found to use many of the same approaches used by mentors. In some cases, these approaches had been used for many years. In other cases, the approaches to fall and injury prevention were new. Some of the new approaches came from the mentor partners, while some approaches were identified from other sources. In order to determine recommended approaches to supporting facilities in the future, we address three questions.

1. What were the sources of information for the changes protégés made to their practice?
2. How do protégés describe their mentorship experience?
3. What recommendations do protégés make for future initiatives?

Source of information. The protégé facilities took the opportunity provided by this pilot project to address fall and related injury prevention in a variety of ways. They did not limit themselves to support from their assigned mentors, but sought out other sources of information and strategies as well. These other sources included the DON Council meetings, training session in Fall 2012, Wisconsin Clinical Resource Center, corporate initiatives (for those facilities that were part of a multi-facility chain), other facilities to which protégés reached out, Advancing Excellence, and other resources found through Web-based searches and professional organizations. Materials that were mentioned included the AMDA Clinical Practice Guideline on Falls & Fall Risk, VHA National Center for Patient Safety Falls Toolkit, National Gerontological Nursing Association, Arthritis Foundation, and Falls Management Program: A Quality Improvement Initiative for Nursing Facilities. The Guidance to Surveyors was also referenced. Only three of the six protégés reported directly using materials received from their mentors.

Mentorship experience. In several cases, the protégés felt that the strategies employed successfully by their mentors would not be as successful in their own facilities, due to differences in size, type of resident served (acuity, turnover, and focus on post-acute vs. long-stay), and staffing practices (including unionization). These differences were often cited as reasons why protégés looked to other sources for ideas about reducing rates of falls and related. Despite these differences, protégés were appreciative of the opportunity to talk with their peers and learn more about approaches that were new to them.

Recommendations for future initiatives*.* Overall, the protégés were encouraging of the opportunity to learn from their peers, but believed that the use of additional methods that expanded the learning beyond just the one-to-one mentoring would be helpful. State and regional DON meetings were described as particularly helpful because of the opportunities to learn from one's peers, both from structured meetings and also from time spent talking with peers informally. Individuals at several of the protégé facilities said they would like a chance to talk with others, both protégés and mentors, perhaps through a teleconference. Such an approach would give them more frequent support, and would not require the time and other resources that are committed when attending a conference.

There was recognition that CNAs would benefit from more opportunities to learn from their peers. Several people suggested short teleconferences or webinars targeted to CNAs. To help address the concern of taking CNAs away from direct resident care, short, 15-minute sessions were thought to be feasible. The use of short recorded webinars was also suggested.

C.5. Resident Voice

Groups of residents in both mentor and protégé facilities were interviewed. These residents were most often members of resident councils. A summary of information from all resident discussions is provided, as there were no apparent differences between residents in mentor and protégé facilities.

Residents reported that they generally were not aware of specific facility activities related to fall prevention. The one exception to this was the use of scheduled rounding programs. Part of that approach involves making residents aware that they can expect to be checked on and have their needs attended to on a regular basis. In facilities that were using a rounding program, residents understood the practice. While they generally were pleased with the practice, one resident noted that she would prefer not to have rounds done at night, so that her rest would not be interrupted.

Residents were very much aware of falls as a concern. Several talked about the risks of falling, with bathrooms often identified as an especially risky place. Residents were aware of actions they could take to help prevent falls, such as using equipment (e.g., grab bars, walkers, wheelchairs) and asking for help. Residents also discussed the importance of their own strengths and preferences, and how they impact the potential for falls and injuries. Several residents described the importance of being strong advocates for themselves, whether that was a matter of making sure staff understood their preferences (e.g., how they liked to transfer) or negotiating with facility management about particular risk-related policies (e.g., restraint free policies vs. choice to use side rails for bed mobility).

Residents also discussed the ways in which they helped each other. Sometimes, this involved reminding others to be safe, for example by getting up slowly from the bed or asking for help. In other cases, helping others meant advocating for them with staff. Long-term residents, especially in small facilities and in small communities, often knew each other's histories well and could draw upon that knowledge to help each other.

C.6. Data Trends

The mentoring project was situated in a context of a variety of state-wide efforts to reduce falls. Within this context, it was anticipated that falls would decrease among all nursing homes, but that the added resources of the mentoring project would result in a larger decrease among the protégé facilities than others. Based on this assumption, the state Department of Health Services set the following goals:

- The rates of falls among all facilities would decrease by 2% from FFY2011 to CY2012
- The rates of falls among protégé facilities would decrease by 10% from CY2011 to CY2013
- The rates of falls among all other facilities would decrease by 5% from CY2011 to CY2013

Rates of falls over time are shown in Table 4 for the six protégé facilities ("actual protégés"), and for two comparison groups: all facilities in the state and facilities that were identified as potential protégés but were not selected for inclusion in this pilot project ("potential protégés"). Data from the potential protégés offer an important basis for comparison. By showing change in performance in the absence of the mentoring support, they help control for other environmental changes in the state. Data are shown for three time periods: baseline rate (FFY2011), rates in CY2012 (prior to the start of the pilot project), and in CY2013, at the completion of the pilot project. For CY2012 and CY2013, the table also shows the goal rate, based on the rates of improvement set by the state[3].

The average annual percent of residents who fell improved (i.e., decreased) among facilities serving as protégés in this pilot study by 15.7% from the baseline period (FFY2011) through the end of CY2013. This more than 50% greater than the targeted rate of improvement of 10%. The average annual rate of falls for all nursing homes in the state improved by 6.8% during this same time, and the rate of improvement among potential protégés improved by 8.1%. Again, these rates of improvement exceeded the target of 5% for facilities that were not participating in the pilot project.

The average annual percent of residents who fell and had an injury also showed improvement during this time. The rate of falls with injuries throughout the state as a whole improved by 2.8%. While an improvement, this was somewhat less than the targeted reduction of 5%. The actual and potential protégés showed much stronger rates of improvement. Among actual protégé facilities, the rate improved by 12.9% and among the comparison group of potential protégés the rates of falls with injuries improved by 13.8%. It is unknown why the potential protégés had improvement as strong as those facilities that took part in the pilot project. It is important to keep in mind that the average rates for the actual protégés are based on only six facilities, and are, therefore, statistically unreliable.

[3] Rates of improvement are expressed as a percent of the baseline rate. For example, a 2% improvement means that the actual rate in time 2 is 98% of what the rate was in time 1.

While statewide average fall rates decreased by 6.8% and 2.8%, respectively, for all falls and for falls with injury, the rate changes for individual facilities varied significantly. See Attachment B for additional details on the distribution of facility results about the statewide averages.

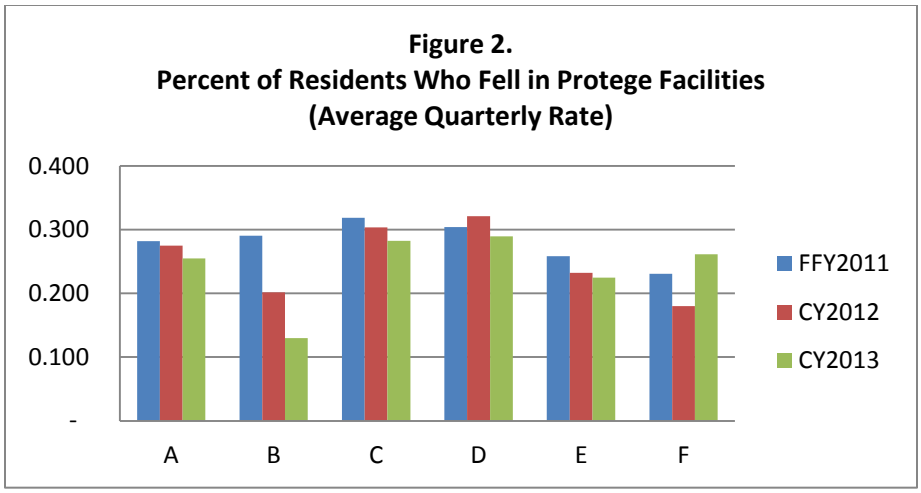
In order to better understand the experiences of the six protégé facilities, Figures 2 and 3 show the rates of falls and of falls with injuries, respectively, over time for each of the protégé facilities. Each of the

Table 4. Rates of Falls and Falls with Injuries, Baseline – CY2013

		Baseline Rate **(FFY2011)**	CY2012	CY2013	Percentage Change from Baseline to CY2013
Average Annual Rate: Percent of Residents who Fell					
All Nursing Facilities	**Actual**	20.7%	19.7%	**19.3**%	**-6.8%**
	Goal	---	**20.3%**	**19.7%**	
Actual Protégé**s**	**Actual**	**28.6**%	25.2%	**24.1**%	**-15.7%**
	Goal	---	**28.0%**	**27.2%**	
Potential Protégés	**Actual**	25.9%	24.9%	23.8%	**-8.1%**
	Goal	---	**25.4%**	**24.6%**	
Average Annual Rate: Percent of Residents who Fell **and Had an Injury**					
All Nursing Facilities	**Actual**	**7.1%**	**7.2%**	**6.9%**	**-2.8%**
	Goal	---	**7.0%**	**6.7%**	
Actual Protégés	**Actual**	**11.6%**	**10.3%**	**10.1%**	**-12.9%**
	Goal	---	**11.4%**	**11.0%**	
Potential Protégés	**Actual**	**11.6%**	**11.0%**	**10.0%**	**-13.8%**
	Goal	---	**11.4%**	**11.0%**	

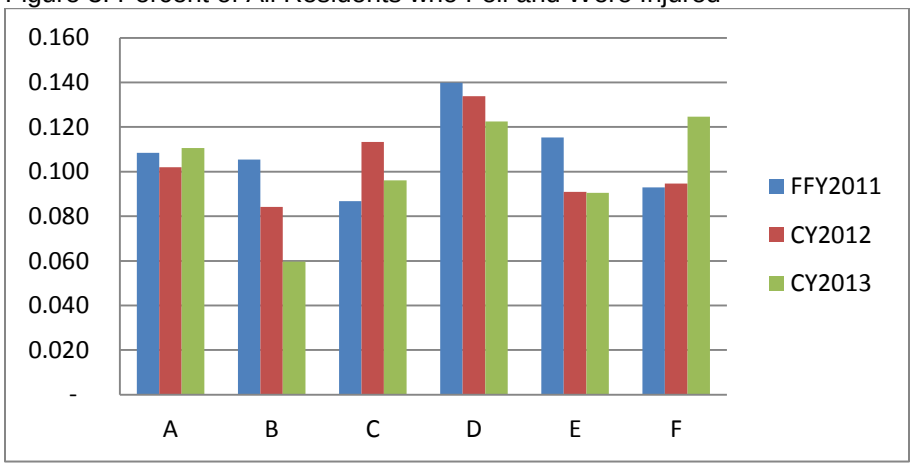
Notes: Annual rates are unweighted averages of quarterly rates.
Goal for CY2012 was a 2% decrease from baseline (FFY2011)
Goal for CY2013 was a 10% decrease from baseline for the actual protégé facilities, and a 5% decrease overall and for potential protégés.

facilities, except one, showed an improvement in the rates of falls over the two year time span. Two of the facilities showed an increase in the rates of injurious falls over this time period, though in the case of Facility A the increase was so small as to perhaps be better understood as no change. It should be noted that the number of residents in the denominator for some of these facilities may be quite small, such that the numbers do not meet standards of reliability and must be interpreted with caution.



Note: The number of residents in facilities B and E are small enough that the rates shown should be considered statistically unreliable.

Figure 3. Percent of All Residents who Fell and Were Injured



Note: The number of residents in facilities B and E are small enough that the rates shown should be considered statistically unreliable.

D. Discussion and Recommendations

As part of a statewide initiative to reduce falls and related injuries among elders, the Department of Health Services undertook a Fall Prevention Initiative among nursing homes. The initiative paired nursing homes that were performing well (mentors) with nursing homes that had relatively high rates of falls with injuries (protégés), to encourage peer-to-peer learning and support. An evaluation of this pilot program was conducted to gain understanding of key features of mentors and their approaches to fall prevention; strategies adopted by protégés and the challenges they faced; and to monitor the impact on rates of falls among protégé facilities. The evaluation addressed two key questions:

(1) What approaches to fall prevention in nursing home appear to be most successful?
(2) Does participation in a peer-to-peer mentoring process reduce the rates of falls and falls with injuries among protégés?

Site visits were conducted with both mentor and protégé nursing facilities. Site visits with mentor nursing facilities were conducted in the first few months of the project (January – March 2013). The purpose of these visits was to understand the fall prevention methods being used by facilities deemed to be

particularly successful at preventing falls. Site visits were conducted with protégé nursing facilities approximately 9-10 months after the project began. Visits with protégés were designed to learn about the new strategies that facilities adopted, and the challenges faced and strategies adopted to most successfully implement those strategies. Additionally, these site visits sought to understand the protégés'' experiences of being mentored and recommendations for future strategies.

Successful approaches. Mentor facilities described a deliberate, conscious process of addressing falls. Although the details of the approaches used varied, following appear to be common aspects of success.

- Mentor facilities generally could articulate a specific philosophy with which they approached falls. Whether they were focused on preventing injuries or eliminating avoidable falls, staff throughout the facility were aware of the focus and had incorporated it into their understanding of their work.
- Mentor facilities had strong and identifiable leaders of fall prevention initiatives. These leaders or "champions" were known to staff throughout the facility, and could be approached by other staff seeking guidance.
- A broad range of staff from various disciplines were involved in fall prevention activities. Fall and injury prevention were understood to be everyone's responsibility.
- Data were used effectively to monitor trends.
- Lines of communication were clear and were multiple, to assure that staff were aware of care plan changes for individuals and of expectations with regard to any new initiatives.

Protégé facilities identified several of the same areas as being important, but sometimes struggled to manage them. They described the challenges of information overload and competing demands. At times, this made it difficult to get staff buy-in to new initiatives. Some protégé facilities were more proactive in efforts to engage staff, using in-service trainings and other approaches to share information with CNAs. These efforts were appreciated and fruitful.

Value of the mentoring process. When asked about their experiences in this pilot project, protégé facilities appreciated the opportunity to learn from their peers. Some reported that the matching process could be improved to enable more interaction with a nursing home more similar to their own. Whether or not their mentor was considered a "good" match, protégés often sought out quality improvement strategies from a number of sources in addition to their assigned mentor, making it difficult to attribute improvement specifically to the mentoring process. The protégé facilities offered two key suggestions of alternative methods of supporting improvement in the future.

- Staff at several protégé facilities emphasized the benefits of being able to engage with multiple peers at once, as they do, for example, at state and regional DON meetings or other professional gatherings. They suggested that teleconference conference calls to discuss falls prevention might be beneficial. In describing these opportunities, staff indicated that they value both structured educational presentations and the chance to talk more informally with their peers.
- Protégé facilities recognized the importance of supporting the educational opportunities for CNAs. To help address the concern of taking CNAs away from direct resident care, short, 15-minute sessions were thought to be feasible. The use of short recorded webinars was also suggested.

If a one-to-one mentoring approach is continued, it was suggested that the following changes be made.

- Allow protégés to choose their own mentors, to assure that the partners are comparable in ways that protégés believe are most important.
- Have regularly-scheduled conference calls for all participants, during which protégés could learn from facilities other than their matched partner.

Data trends. Data on falls and falls with injuries showed a significant improvement among protégés over the two year period. The rate of improvement in both falls and falls with injuries exceeded the goal. The rates of falls and falls with injuries improved within the state as a whole during this same time period, but

by a much smaller amount. When compared with a peer group of "potential protégés," those facilities that took part in the pilot project had a greater rate of improvement in falls overall, and a comparable rate of improvement in falls with injuries. These data suggest that participation in this pilot had a beneficial impact on these facilities, although the small number of protégé facilities in this pilot project, and the small numbers of residents in some of them, make it difficult to draw firm conclusions based on the statistical data.

Recommendations. Despite these limitations, the qualitative and quantitative data from this study suggest opportunities for future fall reduction strategies. Peer-to-peer learning appears to be a valued approach. Several methods exist for building on the foundation of this pilot project.

- Support future mentorship opportunities in which protégés have the opportunity to choose their own mentors
- Provide regularly scheduled teleconferences with unstructured time during which facilities may discuss challenging situations with their peers and obtain advice from multiple facilities at once.
- Support regularly scheduled teleconferences or other learning opportunities with specific agendas, in which facilities that are being successful present the strategies they have used to achieve low rates of falls and related injuries.
- Provide learning opportunities for CNAs, using teleconferences or recorded webinars. Presentations should be short, to accommodate the demands on CNA time.
- Build upon the findings from this pilot project to assist facilities in understanding key components of success, such as leadership, data use, staff engagement, communication, and a clearly articulated care philosophy.

ATTACHMENT A

EXPECTATIONS OF AND BENEFITS FOR PARTICIPATING FACILITIES

	Mentors	Protégés
OBLIGATIONS		
Training	1. Attend training on November 8 in Wisconsin Dells. Send at least 2 people with some role/responsibility in falls prevention. 2. Be matched with another facility to serve as a mentor, if willing. This decision must be made at the day of the training, or within 5 days following the training.	1. Attend training on November 8 in Wisconsin Dells. Send at least 2 people with some role/responsibility in falls prevention. 2. Be matched with another facility that will serve as a mentor to help guide your facility through quality improvement activities related to falls reduction. This decision must be made at the day of the training, or within 5 days following the training.
On-going Activities	1. Be available to the matched "protégé" to provide information about falls prevention strategies used, answer questions, recommend strategies. 2. May meet face-to-face at the protégé facility, and also may meet face-to-face at the mentor facility. 3. Maintain HIPAA standards when sharing information. 4. Mentor partnership will take place from 12/1/2012 until 12/31/2013. Must participate throughout this time period.	1. Take part in knowledge transfer from the mentor facility, to learn about their fall prevention strategies. 2. Actively seek advice from the mentor facility, as needed, to assist with learning and problem solving related to falls prevention. 3. May meet face-to-face at the protégé facility, and also may meet face-to-face at the mentor facility. 4. Maintain HIPAA standards when sharing information. 5. Mentor partnership will take place from 12/1/2012 until 12/31/2013. Must participate throughout this time period.
Evaluation	1. Participate in a one-day site visit from the evaluator. 2. Provide copies of all written documentation about any falls prevention program or activities. 3. Provide access to evaluation staff for one-on-one interviews with key participants in falls reduction activities: DON, administrator, CNAs, PTs, OTs, dietary, whoever is involved. 4. Help schedule/coordinate a focus group with any resident or family council. This should be done at the same time as the one-day site visit from the evaluator. 5. Maintain a log of interactions with the protégé partner. 6. Participate in a mid-course phone conference with the evaluator.	1. Participate in a one-day site visit from the evaluator. 2. Provide copies of all written documentation about any falls prevention program or activities. 3. Provide access to evaluation staff for one-on-one interviews with key participants in falls reduction activities: DON, administrator, CNAs, PTs, OTs, dietary, whoever is involved. 4. Help schedule/coordinate a focus group with any resident or family council. This should be done at the same time as the one-day site visit from the evaluator. 5. Maintain a log of interactions with the mentor partner. 6. Participate in a mid-course phone conference with the evaluator.

	Mentors	Protégés
BENEFITS		
Training	1. Receive information about knowledge transfer – how to improve communication within your facility, and with others outside of your facility, to improve quality of care. 2. Receive information about resources for best practices related to falls prevention. 3. Have an opportunity to network with your peers.	1. Receive information about knowledge transfer – how to improve communication within your facility, and with others outside of your facility, to improve quality of care. 2. Receive information about resources for best practices related to falls prevention. 3. Have an opportunity to network with your peers.
On-going Activities	1. Have an opportunity to improve understanding of your own processes and practices as you share them with others. 2. Receive recognition from the Secretary's office for your leadership and performance. 3. Placeholder for the possibility of a financial stipend	1. Have an opportunity to learn from your peers about quality improvement strategies that work "on the ground," and how to overcome barriers to improvement. 2. Reduce rates of falls in your facility. 3. Improve quality of care and quality of life for your residents.
Evaluation	1. Learn about how your falls prevention practices compare with your peers. 2. Learn about other approaches to falls prevention that might be useful to you. 3. Learn which practices are most useful to falls reduction, based on statistical analysis.	1. Learn about how your falls prevention practices compare with your peers. 2. Learn about how changes you made affected the rates of falls and related injuries. 3. Learn which practices are most useful to falls reduction, based on statistical analysis.

ATTACHMENT B

WISCONSIN NURSING HOME CHANGES IN RESIDENT FALL RATES FROM FFY 2011 TO CY 2013

The following analysis shows the distribution of changes in fall rates observed for Wisconsin nursing homes over the 2.25-year study period of the pilot mentoring program from Federal Fiscal Year 2011 through calendar year 2013.

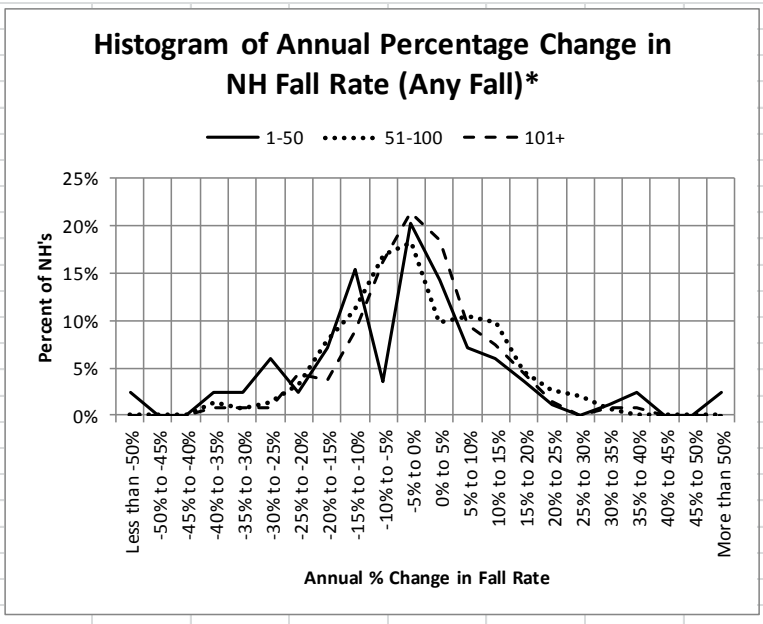
Fall rates are based on MDS 3.0 Item J1900 for the most recent assessment on or prior to the last day in each calendar quarter for each resident on that day. Two fall rates are calculated for each facility – one for all falls (with or without injury) and another for falls with injury (mild or severe). The average of the facility's four quarterly values for FFY 2011 are compared to the average of the values from the four quarters of CY 2013. The annual percent increase in the fall rate from FFY11 to CY13 is computed using the formula "annual percent change" = $[CY13/FFY11]^{1/2.25} - 1$. Facilities are grouped into 5%-tile ranges and by size (i.e., those with 50 beds or less, those with 51 to 100 beds, and those with 101 or more beds).

For each of the three size groups, the percentage of facilities in each 5%-tile range for the all-falls rate is shown in the table below. The values for each size group are graphed in the histogram to the right of the table. Note that negative changes in the fall rate (the top half of the table and the left side of the graph) represent improvements in the fall rate.

As expected, the distribution of changes in the fall rates are more spread out for small facilities than for larger facilities. A few falls can dramatically change the fall rate for a small facility.

These results may be helpful to facilities in setting attainable targets for their fall prevention efforts. For example, a goal to improve the all-falls rate by 10% is not unreasonable. The table (for 51 to 100 beds) shows that 25% of facilities were able to reduce their fall rate by 10% per annum or more.

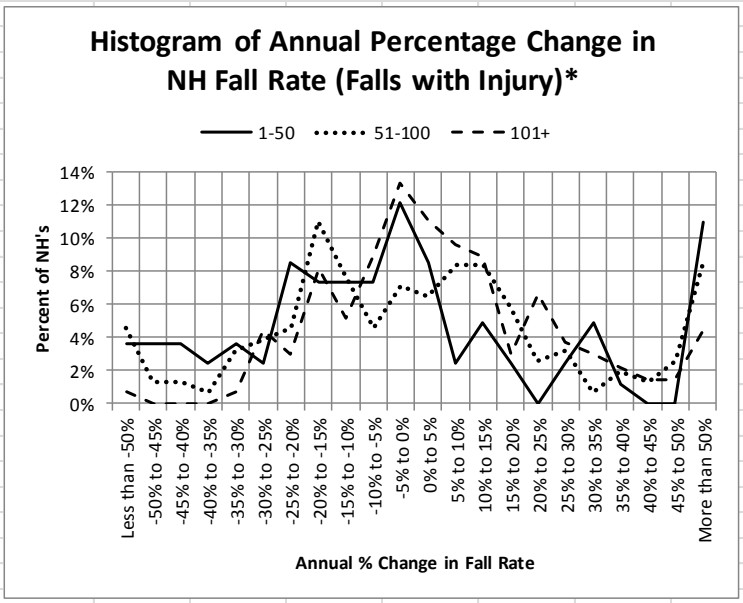
Annual Change	Beds		
in Fall Rate	1-50	51-100	101+
Less than -50%	2.4%	0.0%	0.0%
-50% to -45%	0.0%	0.0%	0.0%
-45% to -40%	0.0%	0.0%	0.0%
-40% to -35%	2.4%	1.3%	0.7%
-35% to -30%	2.4%	0.6%	0.7%
-30% to -25%	6.0%	1.3%	0.7%
-25% to -20%	2.4%	3.2%	4.4%
-20% to -15%	7.1%	7.8%	3.7%
-15% to -10%	15.5%	11.0%	8.9%
-10% to -5%	3.6%	16.9%	16.3%
-5% to 0%	20.2%	18.2%	21.5%
0% to 5%	14.3%	9.7%	18.5%
5% to 10%	7.1%	10.4%	9.6%
10% to 15%	6.0%	9.7%	7.4%
15% to 20%	3.6%	4.5%	4.4%
20% to 25%	1.2%	2.6%	1.5%
25% to 30%	0.0%	1.9%	0.0%
30% to 35%	1.2%	0.6%	0.7%
35% to 40%	2.4%	0.0%	0.7%
40% to 45%	0.0%	0.0%	0.0%
45% to 50%	0.0%	0.0%	0.0%
More than 50%	2.4%	0.0%	0.0%
NH Count	84	154	135



** Annual percentage change in rate of fall (with or without injury) from FFY11 to CY13*

The next table shows the results for the falls-with-injury rate. Even for the larger facilities, the distribution of changes in falls-with-injury is wide-ranging. We see that it is not unusual for the rate to increase or decrease by 30% per annum or more.

Annual Change in	Beds		
Fall with Injury Rate	1-50	51-100	101+
Less than -50%	3.7%	4.5%	0.7%
-50% to -45%	3.7%	1.3%	0.0%
-45% to -40%	3.7%	1.3%	0.0%
-40% to -35%	2.4%	0.6%	0.0%
-35% to -30%	3.7%	3.2%	0.7%
-30% to -25%	2.4%	3.9%	4.4%
-25% to -20%	8.5%	4.5%	3.0%
-20% to -15%	7.3%	11.0%	8.1%
-15% to -10%	7.3%	7.8%	5.2%
-10% to -5%	7.3%	4.5%	8.9%
-5% to 0%	12.2%	7.1%	13.3%
0% to 5%	8.5%	6.5%	11.1%
5% to 10%	2.4%	8.4%	9.6%
10% to 15%	4.9%	8.4%	8.9%
15% to 20%	2.4%	5.8%	3.0%
20% to 25%	0.0%	2.6%	6.7%
25% to 30%	2.4%	3.2%	3.7%
30% to 35%	4.9%	0.6%	3.0%
35% to 40%	1.2%	1.9%	2.2%
40% to 45%	0.0%	1.3%	1.5%
45% to 50%	0.0%	2.6%	1.5%
More than 50%	11.0%	8.4%	4.4%
NH Count	82	154	135



** Annual percentage change in rate of fall (with injury) from FFY11 to CY13*

Wisconsin Fall Prevention Initiative – A Mentor Program

Webinar

January 22, 2015

Agenda

- Poll Question – Participants fill out as they log in: *How satisfied are you with your current fall prevention program?*
- Overview of the project: Kevin Coughlin & Anne Hvizdak, DHS – 5 minutes
- Summary of the findings: Brenda Ryther/Jim Robinson, CHSRA – 20 minutes
- Next Steps: Jody Rothe, MetaStar and the role of WiQC to expand the project – 10 minutes
- Resources: Anne Hvizdak, DHS – 5 minutes
- Question & Answer – 5 minutes
- Poll Question – *If MetaStar (through the WiQC) were to expand on the DHS Falls Initiative, incorporating lessons learned from the pilot, would your facility be interested in being a mentor or protégé?*

Collaboration

State of Wisconsin:
Division of Long Term Care
Division of Quality Assurance
Division of Public Health

CHSRA
Center for Health Systems Research & Analysis

Wisconsin Board on
Aging and Long Term Care

LeadingAge™
Wisconsin
formerly WAHSA

WHCA / WiCAL
Wisconsin Health Care Association
Wisconsin Center for Assisted Living

The Burden of Falls

How Big is the Problem in Wisconsin?

- In 2013, about 1 out of every 50 Wisconsin residents aged 65 and older were hospitalized for a fall-related injury.
- In 2013, about 1 out of every 25 Wisconsin residents aged 65 and older visited the emergency room for a fall-related injury.

How Costly are these Falls?

- The total charges associated with these hospital visits in 2013 were at least $674 million, equivalent to about $118 per each man, woman and child in Wisconsin.

The Burden of Falls

How Big is the Problem Nationally?

- In 2010, the total direct medical costs of fall injuries for people 65 and older, adjusted for inflation, was $30 billion.

- By 2020, the annual direct and indirect cost of fall injuries is expected to reach $67.7 billion (in 2012 dollars).

- Among community-dwelling older adults, fall-related injury is one of the 20 most expensive medical conditions.

Source: http://www.cdc.gov/HomeandRecreationalSafety/Falls/fallcost.html

The Burden of Falls in Wisconsin

Place of Injury for Falls-related death in persons 65+, Wisconsin, 2008

- **Home** **55.2%**
- **Residential/Institution** **25.6%**
- School, Institution or other public area 3.4%
- Trade and Service Area 3.1%
- Street or highway 2.1%
- Other 10.6%

Place of Death for Falls-related death in persons 65+, Wisconsin, 2008

- **Hospital** **50.3%**
- **Nursing Home** **25.0%**
- **Facility-based hospice** **15.0%**
- Home 5.8%
- CBRF 2.5%
- Other 1.9%

The Burden of Falls in Wisconsin

Discharge status of fall-related inpatient hospitalizations for persons 65+, 2008:

All discharges: 18,432

• Transferred to a nursing home	58.0%
• Home	22.6%
• Home with home health service	6.9%
• Transferred to rehab or outpatient services	4.4%
• Expired	3.2%
• Transferred to another hospital	2.5%
• Discharged to hospice	2.1%
• Left against medical advice	0.2%

Source: https://www.dhs.wisconsin.gov/sites/default/files/legacy/Health/InjuryPrevention/pdffiles/bof-2010.pdf

Wisconsin Fall Prevention Initiative – A Mentor Program

Jim Robinson, PhD
Brenda Ryther, RN, MS
Center for Health Systems Research & Analysis
University of Wisconsin - Madison

Webinar

January 22, 2015

Objectives

- Discuss overview of the nursing home falls prevention initiative

- Review key findings and recommendations from the evaluation

NH Falls Prevention Initiative Overview

- Identify potential mentors and protégés, based on falls and injurious falls over a 6-quarter period
- Associations create mentoring pairs
- Participating facilities took part in learning session on fall prevention
- Partners met in person, and communicate as desired throughout 2013
- Evaluation conducted by CHSRA

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Characteristics of Selected Mentor and Protégé Facilities

	Selected Mentors	Selected Protégés
No. of Facilities	6	6
Percent of Residents who are on Medicaid (average)	53%	60%
No. of Beds (avg.)	98	121
5-Star Rating (avg.)	4	4
Nurse Staffing		
- Total (avg.)	4.34	4.35
- RN (avg.)	1.08	0.94
- LPN (avg.)	0.39	0.57
- CNA (avg.)	2.87	2.87
Residents who fell (average percent, last 6 quarters)	14.9%	27.4%
Residents who fell and were injured (average percent, last 6 quarters)	3.6%	10.8%

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Average Annual Rate of Falls

		Baseline Rate (FFY2011)	CY2012	CY2013	Percentage Change from Baseline to CY2013
Average Annual Rate: Percent of Residents who Fell					
All Nursing Facilities	Actual	20.7%	19.7%	19.3%	-6.8%
	Goal	---	20.3%	19.7%	
Actual Protégés	Actual	28.6%	25.2%	24.1%	-15.7%
	Goal	---	28.0%	27.2%	
Potential Protégés	Actual	25.9%	24.9%	23.8%	-8.1%
	Goal	---	25.4%	24.6%	
Notes: Annual rates are unweighted averages of quarterly rates.					
Goal for CY2012 was a 2% decrease from baseline (FFY2011) Goal for CY2013 was a 10% decrease from baseline for the actual protégé facilities, and a 5% decrease overall and for potential protégés.					

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Average Annual Rate of Falls with Injuries

		Baseline Rate (FFY2011)	CY2012	CY2013	Percentage Change from Baseline to CY2013
All Nursing Facilities	Actual	7.1%	7.2%	6.9%	-2.8%
	Goal	---	7.0%	6.7%	
Actual Protégés	Actual	11.6%	10.3%	10.1%	-12.9%
	Goal	---	11.4%	11.0%	
Potential Protégés	Actual	11.6%	11.0%	10.0%	-13.8%
	Goal	---	11.4%	11.0%	
Notes: Annual rates are unweighted averages of quarterly rates.					
Goal for CY2012 was a 2% decrease from baseline (FFY2011) Goal for CY2013 was a 10% decrease from baseline for the actual protégé facilities, and a 5% decrease overall and for potential protégés.					

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Evaluation

- Methods:
  - Site visits with all mentors and protégés
  - Interview key informants: administrators, DONs, RNs, CNAs, other staff involved in fall prevention (e.g., dietary, social services, life enrichment, environmental services, housekeeping), and residents
  - Identify key approaches to fall prevention, challenges and strategies, and recommendations for future initiatives
  - Quantitative analyses of MDS data

Site Visits With Mentors

- Visited mentor facilities, 1st quarter 2013
- Focus on understanding fall related activities in those facilities, from a variety of perspectives
- Interviewed multiple staff and residents
- Attended meetings, where possible
- Collected written documentation

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Successful Approaches of Mentors

- Philosophy
- Leadership
- Shared responsibility
- Data
- Communication

Clear Philosophy

- Clearly stated goals
- Recognized and shared by staff throughout the facility

Strong Leaders

- Leaders are known and approachable
- “Champions” help to promote the initiative throughout the facility

Share Responsibility

- Fall prevention is everyone's job
- Staff from multiple departments are engaged
- All staff are encouraged to share ideas, to help individual residents and to improve fall prevention for all (evidence-based)

Use of Data

- Electronic data systems
- Review data regularly
  - Discuss data with a leadership team (e.g., falls committee members)
- Try to identify patterns
- Monitor trends and impacts of initiatives

Good Communication

- Communicate across units and across shifts
  - Care plan changes for individual residents
  - Expectations with regard to new initiatives

Site Visits to Protégés

- Visited protégé facilities Fall 2013
- Focus on understanding what strategies protégé facilities have used to try to reduce falls and related injuries, what is successful, and what challenges they face
- Interviewed multiple staff and residents
- Attended meetings, where possible
- Collected written documentation

Philosophy

- Examples:
  - Support residents to be as independent as possible
  - Prevent falls (with a new focus towards avoidable; shared by mentor)
  - Work with families to develop anticipatory, not reactive, practices

Fall Prevention Strategies

- Equipment
  - Range of approaches related to use of alarms
  - Call lights; appropriate mechanism for resident
  - Proper footwear

Fall Prevention Strategies

- Awareness of Residents and of Environment
  - Know the residents well (person-centered)
  - Visual check of residents' rooms
  - Symbol to indicate people at high risk of fall
  - Awareness of environmental risks

Fall Prevention Strategies

- Psychosocial
  - Engage residents with meaningful activities
- Medications
  - Review as part of post-fall activities
- Strengthening and physical activity
  - Possible effects

Use of Falls Committees & Other Meetings

- Several reported they did not have a formal falls committee
- Falls reviewed at morning stand-up
- Semi-regular meeting (about 2x/month)
  - Senior staff, rotating CNAs
  - Focus on frequent or recent falls, but not all incidents
  - Data reviewed and presented by DON
- Falls team
  - Meet regularly (1x/month)
  - Includes CNAs from each shift, housekeeping
  - Review all falls and identify at-risk residents
  - This had been a goal; mentor helped to achieve it

Post-Fall Responses

- A focus of improvement for several protégés
  - Huddle approach
    - Challenge of involving CNAs
  - Documentation examples
    - Circumstances of the fall
    - Diagram
  - Root cause analysis
    - Focus on improving skills
    - Vary in which staff do this: individual or team
    - Vary in when it is done: huddle or later

Leadership and Responsible Staff

- Leadership from senior staff (DON or NHA)
- Unit nurse managers help lead implementation
- Varying levels of involvement by CNAs, other staff
  - Reported challenge to get CNA buy-in to some initiatives
  - Hard to take CNAs away from other activities
  - Active training on post-falls huddles and documentation, gradual roll-out resulted in CNA enthusiasm

Use of Assessments

- Several increased focus on new admissions
  - Understand person's previous routines, fall history, medical status
  - Proactive approach to fall prevention
- Risk assessment
  - At admission
  - Post-fall
- Talk with residents & families about risk

Documentation and Data Use

- Improved documentation was a significant focus for several facilities
  - Fall Down Reports
  - Diagrams
  - Intervention lists
- Incident-specific data vs. Facility-wide data (trends)
- Responsible party for data review

Recommendations

- Would welcome opportunities beyond one-to-one mentoring, continue learning/sharing with peers
- Include both structured and unstructured learning
- Opportunities to talk with peers, at lower cost and greater frequency (e.g., teleconferences)
- CNA training (e.g., short webinars)
- Build on the key elements identified in this project, to help structure future trainings

***Final Report is available on WCRC*

https://wcrc.chsra.wisc.edu

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Quality Improvement Organizations
Sharing Knowledge. Improving Health Care.
CENTERS FOR MEDICARE & MEDICAID SERVICES

Lake Superior Quality Innovation Network
MICHIGAN | MINNESOTA | WISCONSIN

WI Nursing Home Fall Prevention Mentoring Program

WiQC Next Steps

Jody Rothe

1/22/15

Thank You

- Commitment to safety
- Interest in continuous quality improvement

What is the WiQC?

- State-wide coalition to reduce health care acquired conditions
- Local presence of national CMS initiative
- Facilitated by MetaStar as part of Lake Superior Quality Innovation Network
- Follows QI methodology
- All share all learn

WiQC

- Fall prevention a priority
- Facilitating regional networking meetings
  - Falls and pain
  - Best practice sharing
- Considering expansion of mentoring program

WiQC Enrollment

http://www.metastar.com/web/Default.aspx?tabid=323

Free and open enrollment for all nursing homes

Quality Improvement Organizations
Sharing Knowledge. Improving Health Care.
CENTERS FOR MEDICARE & MEDICAID SERVICES

Lake Superior Quality Innovation Network
MICHIGAN | MINNESOTA | WISCONSIN

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Quality Improvement Organizations

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Wisconsin Injury Prevention Programs

- Wisconsin Injury Prevention Program

  Find resources that can be helpful in your prevention month planning.

- Wisconsin Burden of Falls *(pdf)*

  Find out more about the consequences of fall-related injuries in Wisconsin

- Wisconsin Fall Prevention Action Plan

  Read about Wisconsin's plan for preventing falls

Falls Prevention Initiative

State Falls Coalition that meets every other month addressing falls in Wisconsin. For more information please contact RTurpin@UWHealth.org

Wisconsin Institute for Healthy Aging

- www.wihealthyaging.org
- Stepping On
- Sure Step
- Resources for leaders
- Statewide workshop list
- Statewide Program Coordinator List

Wisconsin Community Falls Prevention Coalition Websites

- Kenosha County Falls Prevention Coalition
  https://sites.google.com/site/strongandsteadykenosha/home
- La Crosse County Falls Prevention Coalition
  http://www.lacrossestopfalls.org/preventionCoalition.asp
- Safe Communities of Madison – Dane County
  http://www.safercommunity.net/
- Winnebago County Fall Prevention Coalition
  http://www.co.winnebago.wi.us/health/units/general-public-health/facts-about-falls

Other Falls Health Promotion Programs in Wisconsin

- A Matter of Balance (Douglas County)
- Arthritis Foundation Exercise Program (Coordinated through Arthritis Foundation-Wisconsin Chapter)
- Arthritis Foundation Tai Chi Program
- Falls Free (Dane County)
- Otago Exercise Programme
- Stay Active and Independent for Life (SAIL) (Brown County)
- Strong Bones (coordinated through UW Extension)
- Tai Chi: Moving for Better Balance (various YMCA locations)
- Title III-D Highest Tier Evidence Based Health Promotion Programs List: http://www.ncoa.org/improve-health/center-for-healthy-aging/content-library/Title-IIID-Highest-Tier-Evidence-FINAL.pdf

Centers for Disease Control

- Centers for Disease Control and Prevention (CDC): Falls Prevention *(website)*
- CDC: Falls Facts *(pdf)*
  Falls Among Older Adults; Cost of Falls Among Older Adults; Hip Fractures Among Older Adults; Falls in Nursing Homes
- CDC: Falls Reports *(pdf)*
  Morbidity and Mortality Weekly Report, March 7, 2008; Self-Reported Falls and Fall-Related Injuries Among Persons Aged ≥65 Years - U.S., 2006.
- Preventing Falls: What Works - A CDC Compendium of Effective Community-Based Interventions from Around the World *(pdf)*
- Preventing Falls: How to Develop Community-Based Fall Prevention Programs for Older Adult *(pdf)*
- CDC **STEADI** toolkit: Stopping Elderly Accidents, Deaths and Injuries
  www.cdc.gov/injury/STEADI

Best Practice Guideline Examples

- Resource from Agency for Healthcare Research and Quality (AHRQ): www.ahrq.gov

- Resource from US Dept. of Veterans Affairs: http://www.patientsafety.va.gov/professionals/onthejob/falls.asp

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