Malatest International

Evaluation Report:

Reducing Harm from Falls - Evaluation of the Mini-Collaborative Aged Residential Care Programme in the Wellington Region

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Executive Summary

The Health Quality & Safety Commission (HQSC) in conjunction with the Accident Compensation Corporation (ACC) and three Wellington-based District Health Boards (DHBs), established a mini-collaborative to coordinate a 10-month collaboration to reduce harm from falls in age-related residential care (ARRC).

The agencies commissioned an evaluation to learn from the mini-collaborative on falls prevention with a view to extending the programme to other regions and topics. The programme was evaluated using information from participant feedback forms, interviews and case studies of the achievements of participating facilities.

The mini-collaborative

Overall, all the agency representatives interviewed were very positive about the opportunity the mini-collaborative provided for working together. The interagency collaboration brought different perspectives and skills to the project as well as building relationships between the agencies.

The ARRC facilities participating in the falls prevention programme recognised the value of interagency involvement as bringing a national perspective, access to information from the different agencies and helping them to understand the roles of the different agencies.

The mini-collaborative had a charter but many of the specific activities of the programme were developed as the programme was rolled out. Consequently, the main areas of improvement relate to more extensive planning and in particular setting specific goals, reviewing these as the project progressed and planning for sustainability.

The falls prevention learning programme

The agencies involved in the mini-collaborative worked together to develop a learning programme that consisted of three one-day learning sets, visits to facilities by the quality improvement advisor and discussion of initiatives in cluster groups. The collaborative taught quality improvement skills using the Institute for Healthcare Improvement (IHI) Model for Improvement.[1] The aim was that those who attended the learning sets would learn about and apply quality improvement tools' learn from each other and review the latest evidence-based interventions to reduce harm from falls, and apply the learning by undertaking small tests of change back in their own workplace.

More facilities than expected attended at least one of the learning sets. Although the programme was set up as a series of three learning sets, attendance was inconsistent and many attended one or two of the sessions rather than all three. Staff who attended represented all of the different roles within an ARRC facility.

Inconsistent attendance reflected competing demands rather than dissatisfaction. Almost all participants who completed feedback forms after the sessions strongly agreed or agreed that the overall quality of the event was excellent.

Feedback about the value of different aspects of the learning sets varied, reflecting the different roles and responsibilities of the participants. The most often mentioned value of the learning sets was the opportunity to network and share ideas and experiences with staff from other facilities. Some participants found the first session very focussed on data and hard to understand or not relevant to their roles. Generally, the registered nurses and health care assistants found the sessions on sharing information and practical things to put in place more valuable.

The quality improvement model was easily understood. Some facilities have used it to document changes they have put in place. In the post-session feedback forms, all but one participant reported learning new ideas and most planned to test the ideas in the next month. In the case study interviews, facilities

[1] http://www.ihi.org/resources/Pages/HowtoImprove/default.aspx

demonstrated the changes they had made and the initiatives that had put in place and assessed using the PDSA cycle.

The aspect of the learning programme the case study facilities most often raised as the most useful was the visit to the facility by the quality improvement advisor.

Cluster groups were planned as an aspect of the learning programme that would provide facilities with further opportunities to share ideas. Cluster groups were generally considered by the case study facilities as useful as an opportunity for sharing but only if everyone made the effort to come and to share experiences and ideas. Facility ownership of cluster groups was the aim but it is unlikely that this will occur. Messages from facilities were uniformly that they need an external person to take the lead.

Suggestions for improving the learning sets included:

- Targeting the learning sets to the different learning needs of different staff within the facilities.
- Preparation - Providing information prior to the course that sets expectations of what will be covered and who in the facility it is targeted at.
- Course content - More practical information on care planning and review of care plans.
- Sharing ideas - More time to share experiences and ideas. Incorporating a way to challenge their ideas such as a panel to discuss ideas was suggested by a stakeholder as a way to ensure that new initiatives were based on evidence about what works.
- Sustainability - Including more information about next steps in the final falls prevention programme.

ARRC facility achievements in reducing harm from falls

The falls prevention learning programme was considered as a success by all but one of the case study facilities. The programme had been used by facilities to different extents:

- Some had sent individual staff members as a professional development opportunity to reinforce the staff member's knowledge of falls prevention
- Some had worked on putting in place a falls prevention programme as a team by changing their data collection processes and taking a quality improvement perspective to analysing the data
- The case study facilities were all using at least some elements of the PDSA improvement model.

The value of the falls prevention initiative was demonstrated through facilities reports that the programme had provided them with a new way of looking at data. The programme had been successful in at least some facilities in bridging the gap between collecting data for audit and using data as a foundation for quality improvement. The falls prevention learning programme had engaged with staff at all levels in ARRC organisations and as a result increased awareness of falls, the focus on falls and personal responsibility of staff to put changes in place.

While the aim of the mini-collaborative was to reduce harm from falls, the wider purpose was to build capability for quality improvement in the ARRC sector. Some of the case study facilities described how they had extended their approach to falls prevention to other topics such as medication errors and pressure injuries.

The extent to which the learning programme resulted in changes in falls rates was difficult to demonstrate. Some facilities were able to demonstrate falls reductions across their facility against the targets they had set and falls reductions for individual residents in response to falls prevention initiatives they had put in place. Interpreting regional data collection and benchmarking was more challenging because of the limited numbers of facilities submitting data and variations in data as a result of small numbers of falls.

Looking ahead

The falls prevention mini-collaborative changed the approach to quality improvement in at least some of the participating facilities. In these facilities the programme linked data to improvement activities and made the connection that collecting data was not just an audit activity but an activity that provided information that could be used to make changes. The learning sets and visits by the quality improvement advisor helped facilities to understand how to use the data and make changes. Staff movement between facilities is helping to disseminate information.

There is increased awareness of what quality improvement is and that facility staff can make a difference. The tools and training reached down into the facilities and developed the skills of people in the different roles in facilities.

To sustain the momentum generated by the falls prevention programme additional external support will be required. Mainly to keep teams motivated and to facilitate the sharing of evidence based solutions. The most effective way of providing that ongoing support seems to be the continuation of a quality improvement advisor role.

Further conversations are needed at senior management level to look at consistent use of tools and interventions across the region to be able to benchmark and track falls rates and an agreed structure to support facilities with ongoing quality improvement.

1. Background

A fall is defined as 'an unexpected event in which the person comes to rest on the ground, floor, or lower level'.[2] Falls are a major public health problem and the rates of falls and injury from falls rises with increasing age.

The rates of falls of older people in age-related residential care (ARRC) are a particular problem with potential long-term impacts on those who fall. Anecdotal information provided by facility staff and information reported by the Health Quality & Safety Commission (HQSC) about changes in recent years in the profile of residents suggest that residents are now more frail, more likely to have dementia and be of an older age on admission to ARRC than in past decades. Over the same time period there has been an increased focus on independence and minimisation of restraint practices meaning residents are more mobile.

Some facility staff consider that falls are inevitable and increased falling signals a move into the final stages of life. However, there is strong evidence that falls in older people can be prevented.

In late 2011, a project was set up to map the activity in the health sector on falls and pressure injury prevention in New Zealand by the DHB Shared Services (DHBSS) Hospital Quality and Productivity Programme, with support from the HQSC among other partnering organisations.

As part of that programme and a commitment to the aged-residential care sector, the HQSC in conjunction with the Accident Compensation Corporation (ACC) and three Wellington-based District Health Boards (DHBs), established a mini-collaborative to coordinate a 10-month collaboration to reduce harm from falls in ARRC.[3] The mini-collaborative has support from major ARRC providers, the New Zealand Aged Care Association and facilities in the greater Wellington region that have chosen to take part.

While the aim of the mini-collaborative is to reduce harm from falls, the wider purpose is to build capability for quality improvement in the ARRC sector.[4]

An evaluation was commissioned to review the activities of the ARRC mini-collaborative. The objective of the evaluation is to learn from the ARRC initiative about how to support future quality improvement initiatives. The evaluation encompassed:

- The mini-collaborative – What has been learnt about the role and effectiveness of a collaborative approach to developing and implementing quality improvement initiatives.
- Achievements in reducing harm from falls – To determine if ARRC has improved the participating facilities' falls prevention programmes.
- How to sustain and build on the achievements in the facilities that participated.
- Quality improvement initiatives – To provide the DHBs and participating facilities with tools to further embed what has been learnt to date, and to assist with putting in place future quality improvement initiatives.

[2] This consensus definition, along with the suggested plain language question (in the box above) is given in Hauer K, Lamb S E, Jorstad E C, Todd C, & Becker C (2006) Systematic review of definitions and methods of measuring falls in randomised controlled fall prevention trials. *Age and Ageing* 35(1):5-10.
[3] http://www.hqsc.govt.nz/our-programmes/reducing-harm-from-falls/news-and-events/news/1397/
[4] http://www.hqsc.govt.nz/our-programmes/reducing-harm-from-falls/news-and-events/news/1397/

2. Evaluation Methods

Information for the evaluation was collected through:

- Observation of the final learning set and review of information covered in the other learning sets
- Learning set feedback forms developed by the quality improvement advisors With response rates of 75%; 56%; and 81% respectively)
- Analysis of falls data from 14 facilities provided by the quality improvement advisor
- Interviews with nine key stakeholders involved in the mini-collaboration to explore:
    - The role of a collaborative in facilitating quality improvement
    - How the agencies found working together and plans for future collaboration
    - The initiative's strengths and challenges, how to sustain ARRC activities and approaches each agency will undertake to disseminate information
- Case studies of eight facilities that took part in the initiative that included visits to the facility, interviews with the manager and discussion with the team to explore:
    - The learning sets - the learning value of the learning sets and support from the programme, what was learnt about falls prevention and quality improvement and the value of the initiative in extending networks
    - What happened as a result of participating in the falls prevention programme - about any initiatives they were involved in, what worked well, what challenges they encountered and how they overcame them
    - How the initiative could be sustained.
- Interviews with managers of facilities that did not take part in the initiative to explore their awareness of the initiative, their reasons for not participating and what initiatives the facility supports to minimise harm from falls.

2.1 Strengths and limitations of the methods

The evaluation used a combination of qualitative and quantitative data (a mixed methods approach). Qualitative data were obtained from interviews with a cross-section of participants. The number who declined to take part was low (one key informant and one case study facility). The case study facilities differed in their engagement with the falls prevention learning programme and the initiatives they put in place as a result. While saturation of information was reached it is possible that facilities not invited to take part in the case studies may hold different views.

Data about falls rates was limited by the relatively small number of facilities that provided data.

3. The Mini-Collaborative

What has been learnt about the role and effectiveness of a collaborative approach to developing and implementing quality improvement initiatives?

3.1 The aims of the mini-collaborative

The mini-collaborative is one project within a national programme to reduce harm from falls in care settings. The mini-collaborative is led by the HQSC and includes ACC and three DHBs. The HQSC saw themselves as *"a connector and integrator"* between the organisations. A formal letter of agreement was exchanged between HQSC and ACC which outlined support arrangements to the project through the secondment of a Project Manager. In addition a formal contract was entered into between HQSC and Capital & Coast DHB through the "three DHB" funding and planning arm – the Service Integration Development Unit (SIDU). The agreements between DHBs, ACC and HQSC set out the roles and responsibilities of the participating agencies.

Agencies took part in the mini-collaborative with the aim of reducing harm from falls but also to improve relationships and collaboration between the agencies and learn from the Wellington-based initiative to inform further quality improvement work. While the project was facilitated by HQSC, the HQSC's expectation was that the project would be driven by the DHBs, taking this opportunity to further strengthen relationships with their respective facilities in quality improvement approaches.

> *We wanted to start with falls and leave behind transferable skills (Agency)*

The appended logic model summarises the activities, outputs and outcomes of the mini-collaborative programme (Appendix One).

3.2 Structure of the mini-collaborative

Day to day management of the collaborative was informal. The development of the ARRC falls prevention programme was seen as *"organic"* and *"opportunistic"*. A structured charter and a project plan were developed. Senior staff from each organisation worked together with the autonomy to pull the programme together and deliver the programme. A project manager and quality improvement advisor were seconded to the project and carried out a large part of the falls prevention activities.

Funding and resourcing including the quality improvement advisor's time was considered adequate although if there had been more funding available it would likely have been spent on more quality improvement advisor time to visit the facilities. Some time constraints were reported by the quality improvement advisor who had competing demands resulting from a part-time role.

3.3 Achievements of forming a mini-collaborative

Overall, the agency staff involved in the mini-collaborative were positive about the project and its achievements.

> *It's been a great project (Agency)*

Links between organisations were strengthened and are *"all very important for integrated care".*

> *The agencies established relationships over a meaningful piece of work and showed [the collaborative] could work (Agency)*
>
> *Time and effort were required to build trust and confidence but it resulted in good relationships, free and frank advice….we absolutely got out of it what was needed (Agency)*

The team felt they worked well together.

> *We felt welcomed in as part of SIDU (Agency)*

The agency teams had positive attitudes to continuing to work together on future projects.

> *This is a process. Falls is the first issue and the process can be adapted to other things (Agency)*

3.4 Working with the aged care sector

The interface of any quality improvement initiative with the elder care organisations and facility chains is important. The falls prevention initiative engaged with the New Zealand Aged Care Association and with facility chains at both general manager level and with individual facilities. The need to take both a 'top down' and 'bottom up' approach was recognised.

Although the need to prevent falls was a priority for the general managers of facility organisations, there was some reservation about the extent to which the falls prevention learning programme would provide additional value on top of the falls prevention strategies each organisation already had in place. As the cost of sending one person from each facility in a facility organisation was quite substantial, representatives from some facilities went with the intention that they would share their experiences.

Participating facilities and some of the agency team noted the advantages of leadership by HQSC as providing a more neutral ground and enabling a focus on quality improvement rather than what they saw as contract management, audit or compliance activities.

> *There is a guarded involvement by facilities sometimes. Because this was framed as a HQSC initiative it was seen as neutral ground. Facilities can be nervous about sharing data. (Agency)*

Having three agencies involved was seen as:

> *Giving weight to [falls prevention] and showing it was important (Agency)*
>
> *[The mini-collaborative] gave added value. Good to meet people from the HQSC and work out how their roles and work could influence and improve our work here in aged residential care. (Facility)*
>
> *HQSC and ACC involvement gave it neutral ground (Facility)*

Facility staff noted that to have the agencies involved provided them with a national perspective and access to speakers and a breadth of information.

> *Having their presence there was quite good. You felt these people care and other people are trying to look at and prevent falls. It allowed me to think about things that are out there that we don't know about e.g. the worksheets. (Facility)*

3.5 Challenges and lessons learned

Interviewed agency staff identified a number of potential improvements that could be made prior to a similar initiative being rolled out in another locality but stressed that these improvements were in the context of what was overall a positive experience. Suggestions included:

- Leadership – Although ARRC was a mini-collaborative some felt there was a need for clearer leadership and accountability. While the project was facilitated by the HQSC, HQSC did not intend that they lead the project. The rational was that the lead agency should be derived from where the benefit of the improvements would be lie. The structure of the governance may not have been sufficiently articulated.

  [The lead agency] may have been HQSC but they didn't take that position (Agency)

- Aims - Clarity about aims at the beginning and a vision of what success would look like was raised as an issue both for the learning programme but also for each agency with respect to what they expected from each other and from their involvement. Although the charted did specify expected outcomes they were not linked to targets or a measurement framework.

  The process evolved but we had no clear idea of what we planned (Agency)

The project charter didn't have targets and things that were too challenging just dropped off. We should have put more time into establishing targets with the steering group about what they wanted to achieve (Agency)

- Project management
  - Greater clarity about meeting times and planning as a group from three organisations

    You need set times to sit down and evaluate where you are at – at least monthly. We went too long without this. We all need to take responsibility for that…I could have been more active. (Agency)

  - Clarity about budget or parameters for team members would have been helpful for planning.
- Timing – The start of the learning programmes was fixed to coincide with the availability of a speaker. However, initial recruitment was more difficult than expected partly due to there being no up to date list of facilities and contact people and the need to follow-up an initial invitation letter with personal contact. As a result agencies generally felt that more time before the learning part of the programme commenced would have resulted in more planning and more time to engage with managers and clinical leads at facilities.

  It would have been good to the have a bit more time to develop plans (Agency)

  However, one agency did comment that *"it's good not to over plan"* and another that *"maybe we didn't know enough to plan at the beginning".*
- The topic – some saw falls as *"an easy topic with potentially a big impact and simple interventions. There are proven interventions"*

  Others saw falls as a difficult topic as some falls were inevitable in an aged residential care environment.
- Sustainability – There were no clear plans about sustaining the initiative. The two seconded staff, who were on secondment for the falls prevention initiative, returned to their substantive positions. Starting planning earlier about what would happen after the learning programme was over was noted by several as a learning for planning future initiatives.

  We left it too late to start forming local collaborations…if we'd thought that through we would have done more with consistent results for the region (Agency)

  In the future we need to have a clear idea of how the ongoing support might happen (Agency)

3.6 Overview

Overall, all agency representatives interviewed were very positive about the opportunity the mini-collaborative provided for working together. The interagency collaboration brought different perspectives and skills to the project as well as building relationships between the agencies.

It was really good to work together. No complaints. Just suggestions of things you could think about if you were doing it again (Agency)

The ARRC facilities participating in the falls prevention programme recognised the value of interagency involvement as bringing a national perspective, access to information from the different agencies and helping them to understand the roles of the different agencies.

The mini-collaborative had a charter but many of the specific activities of the programme were developed as the programme was rolled out. Consequently, the main areas of improvement relate to more extensive planning and in particular setting specific goals, reviewing these as the project progressed and planning for sustainability.

4. The Falls Prevention Learning Programme

The agencies involved in the mini-collaborative worked together to develop a learning programme that aimed to reduce the harm that people can suffer if they fall and hurt themselves.

The learning programme consisted of three one-day learning sets, visits to facilities by the quality improvement advisor and discussion of initiatives in cluster groups. The collaborative taught quality improvement skills using the Institute for Healthcare Improvement (IHI) Model for Improvement.[5] The aim was that those who attended the learning sets would learn about and apply quality improvement tools' learn from each other and review the latest evidence-based interventions to reduce harm from falls, and apply the learning by undertaking small tests of change back in their own workplace.

4.1 The model for improvement

The model for improvement used in the learning programme focussed on the PDSA model and posed the following question:

- What are we trying to accomplish?
- How will we know that a change is an improvement?
- What change will we make that will result in improvement?

PDSA Cycle[6]	
	**Plan:** • State the objective of the cycle • Make predications • Develop a plan to carry out the cycle
	Do: • Carry out the test • Document problems and unexpected observations • Begin analysis of the data
	Study: • Complete analysis of the data • Compare data to predictions • Summarise what was learned
	Act: • What changes are made? • What will be the next cycle?

[5] http://www.ihi.org/resources/Pages/HowtoImprove/default.aspx
[6] http://www.iso9001consultant.com.au/PDCA.html

4.2 The learning sets

The three learning sets comprised three one-day sessions and allowed time for networking and sharing of experiences. The programme is summarised in table 1 below.

Table 1: Summary of the learning sets

Session and Presenter Learning set 0/1: 16 September 2013	Content
Introduction about the collaborative Brandon Bennett	IHI Breakthrough collaborative model
Falls – what does the evidence tell us? Sandy Blake	Information about falls and consequences for residents and costs of falls
A real journey – using the Model for Improvement to reduce falls Helen Delmonte	An example of experience based on the PDSA model in Mercy Parklands
Discussion of work currently underway	Sandy Blake
How to use our data Brandon Bennett	Introduction to run charts, Shewart Control charts and how to use them
Plan-Do-Study-Act cycle of learning Brandon Bennett	Models for improvement and theory of change
Logistics of improvement – Ideas for managing the programme in your own environment Brandon Bennett, Lee Henley	
Model for Improvement – What is it? Sarah Harris	A more detailed discussion of the PDSA model
Clarify definitions, targets, next steps and wrap up Sarah Harris, Lee Henley	

Session and Presenter Learning set 2: 11 February 2014	Content
Discussion – sharing of changes tested in facilities Lee Henley	
Inter-RAI data – How can it help in falls? Sally Heppenstall	Discussion of falls data an underlying risk factors
How can the model for improvement assist us in this work? Sarah Harris	Revisiting models for improvement, discussing aims, measurement and change ideas
Care Plans Sandy Blake	What is important in care planning
First, Do No Harm collaborative – successes and learning Peter Leong	Update on progress of the First Do no Harm collaborative, discussion of SAC ratings, examples of incident reporting forms

Cluster groups – what are they and what value can they add? **Sarah Harris, Lee Henley**	
Data, reporting and the spread sheet **Sarah Harris**	Discussed examples of measurement including falls maps, run charts, falls clock, falls cross. Provided definitions and data examples.
Action period: next steps, commitment from facilities. **Sarah Harris , Lee Henley**	

Session and Presenter **Learning set 3: 17 June 2014**	**Content**
Discussion – sharing of changes tested in facilities **Lee Henley**	
Inter-RAI data **Richard Allen**	Discussion of what Inter-RAI is and what analytics it offers and how it can be used.
PDSA Interactive period **Sarah Harris**	
Care planning exercise **Sandy Blake**	Refresher on care plans, care plan discussion and reflective exercise about how Inter-RAI can inform care planning. Discussion of the difference between falls risk assessment and falls care planning.
Human factors of change **Sarah Harris**	Recap on the model for improvement and understanding the differences between change and improvement
PDSA Interactive period **Sarah Harris**	
How to maintain a cluster group **Peter Leong**	A review of the experiences of the *first do no harm* initiative
Evaluation	

Supporting information was available on the HQSC website, along with copies of the presentations from the learning set days. Supporting information included the 'Ten topics in reducing harm from falls' series.

Ten topics in reducing harm from falls[7]

Topic 1 is an overview useful to anyone involved in the care of older people, as it explains why the national programme, Reducing Harm from Falls, is focussing on falls in older people, and covers the causes and impact of falls in this age group. Topics 2, 3, and 4 are particularly relevant to those in care settings (whether hospital, age-related residential care or care at home) and primary care. These topics review screening, assessment and interventions for falls risk, including essential elements for safe environments and safe care that apply universally for all in our care, regardless of their falls risk.

Topics 6, 7, 8 focus on issues relevant to care of older people in any setting (and especially frailer older people) – hip fracture, vitamin D deficiency and the interaction between medicines and falls risk. Topic 9 examines exercise programmes for improving balance and strength to prevent falls, and Topic 10 reviews approaches to preventing falls and reducing harm from falls in relation to setting priorities and practical action.

The 10 Topics follow on from the first national annual April Falls Quiz run in 2013. Nationally, the results showed that we have a great base of knowledge and commitment to build on: 96 percent agree (62 percent strongly agree; 34 percent agree) that a significant proportion of falls in older people can be prevented, and over 90 percent understand what a fall can mean for an older person and think it's true that older people are more likely to fall and come to harm when they fall.

4.3 Attendance at the learning sets

The mini-collaborative anticipated that between 20 and 30 facilities would be an optimal number to sign up to the learning programme. The learning sets were well attended by facility staff from 42 of 61 different facilities: 69% of facilities in the region.[8] The number of staff attending from each facility ranged from one to as many as six. Staff who attended the learning sets included facility managers and clinical leads, registered and enrolled nurses, allied health professionals and healthcare assistants. In some cases managers or clinical leads attended the first learning sets with staff and then staff attended the remaining learning sets by themselves.

> *There's real value on having care staff there – embedded in the process. Increased job satisfaction and moulded the team together to work as a team (Facility)*

The format of one-day sessions with a gap between sessions worked for most. Scheduling staff off for a full-day was reported by managers as easier than finding replacements for part-days.

Inconsistent attendance was the norm rather than the exception. There were many instances where facilities were represented in only one or two of the three learning sets: each of the three learning sets was attended by staff from 28 or 29 facilities. Those attending only one learning set seemed to be just as engaged in the falls prevention initiative as those who attended all three. Non-attendance was not linked to dissatisfaction but rather to staff being busy with other priorities. In many facilities, especially the smaller ones time off for courses needs to be planned in advance and there are not sufficient staff to backfill unexpected absences.

> *We had to divide to have our fair share of going to the session (Facility)*

Staff who attended the learning sets took the information back to others at their facility and shared it for example through journal clubs or presentations at team meetings.

[7] http://www.hqsc.govt.nz/our-programmes/reducing-harm-from-falls/10-topics/

[8] The count of facilities counts the different locations of a facility separately

4.4 Reasons for not participating

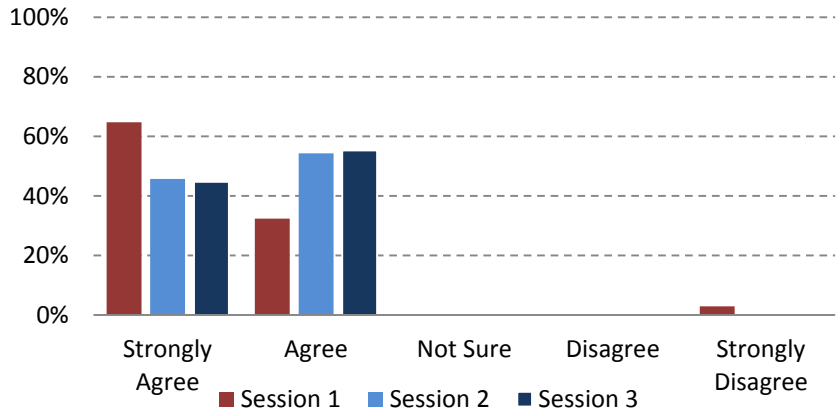
Representatives of facilities that did not participate or who did not attend all sessions were asked about their reasons. For most a lack of time prevented attendance, for some the timing of the falls prevention initiative didn't work well with respect to the facility changing ownership, staff shortages or other reasons. Most were positive about the opportunity and many would attend given another opportunity. More information and a link to the HQSC website with information about the falls prevention programme was provided to several at their request. Word about the falls prevention initiative seemed to have spread through the sector.

However, a minority of those who attended did not think the learning programme met their needs. One felt that the strategies were not suitable for a dementia unit, another that everything covered they already did at the facility she worked at.

4.5 Overview of the learning sets

Participants were generally positive about the learning set sessions with almost all of those who provided feedback forms after the sessions strongly agreeing or agreeing that the overall quality of the event was excellent (Figure 1).

Figure 1: The overall quality of the event was excellent



The first learning set included a stronger emphasis on data than subsequent sessions. This worked for some participants but others saw the session as more aimed at managers and clinical leaders. Others appreciated hearing about the data side of falls prevention even if they didn't fully understand it.

> *The learning sets were really good, especially the first one. Especially the guy that talked about how to track the data. Provided the foundation about how to do it. The third one was useful as we were feeding back after a good long time and we had implemented our initiatives. We heard new ideas. (Facility)*

> *I found some think were over my head – more like nurse manager stuff. The first one had a very good speaker. The graphs were helpful but … for nurse managers it would have been really good. (Facility)*

> *I was expecting to learn about falls but all the talk was about graphs. I was hoping for more examples more about prevention…The first one they talked a lot about graphs – no interest – I wanted to learn the practical side of falls. Everything they said we already do here. (Facility)*

Generally, the registered nurses and health care assistants found the sessions on sharing information and practical things to put in place more valuable.

> *The learning sets reached down to the people on the ground – but focus was confused and the needs of each group differ (Agency)*

The aspect of the learning sets that was reported as most valuable was the chance to hear what other facilities were doing. This was a consistent theme across all facilities included in the case studies. Therefore, even facilities who only attended one session felt they had value from the programme because of the opportunities to network and share ideas. People sharing ideas and experiences was also a learning experience:

> *People found standing up in front of a group hard at the beginning…that was learning process as well – standing up and talking – it pushed them out of their comfort zone. (Agency)*

Sharing and networking was the reasons some gave for attending the learning programme.

> *When offered the opportunity I thought it would be really useful to talk to other aged care facility providers hear what other facilities are doing (Facility)*

> *Sometimes we get a bit stuck and wonder if anyone else has some ideas about how to help this frequent faller. Got ideas from the other facilities (Facility)*

> *The team doesn't have many opportunities to share with other facilities and to ask questions (Facility)*

In the post-session feedback forms, all but one participant reported learning new ideas and most planned to test the ideas in the next month (Figures 2 and 3).

Figure 2: How many new ideas did you learn as a result of participating in this program?

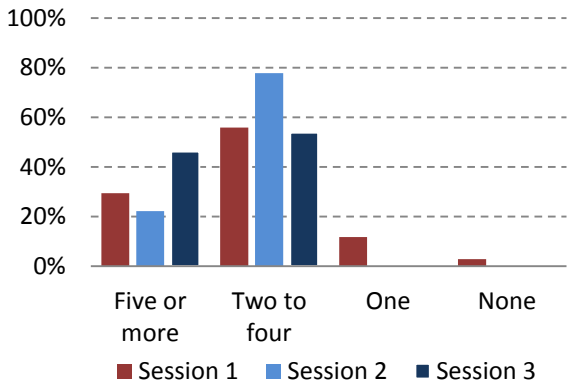
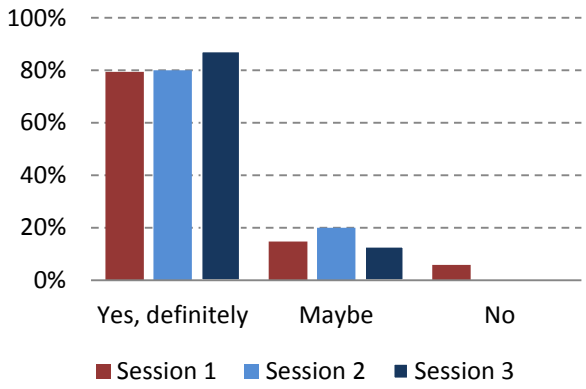


Figure 3: Will you be testing ideas learnt during the next month?



The quality improvement model was easily understood. Some facilities have used it to document changes they have put in place.

> *The PDSA cycles are really helpful. Not something we can use just for falls…we can use it for something else...we now know what to do. (Facility)*

As many participants did not attend the full series of three learning sets subsequent learning sets revisited information previously covered. Some participants appreciated repetition as an opportunity to reinforce what they had learnt. Others commented negatively about the repetition and also the inability to cover planned activities such as reviewing examples of care plans because newcomers did not come prepared.

> *Learning sets were really helpful but last one was very repetitive. Some people had not been to an earlier one so they repeated the PDSA cycle and the history of what they were doing. We had already had that in the first session. (Facility)*

> *I was really looking forward to seeing if I as a manager was putting in the right things. I would have liked more around that. In the future more time dedicated to looking at what needs to be care plans*

for people who are high risk. I know its individual abut there are standard things that need to go into every care plan.

In the post-session feedback form some attendees commented that they expected more on evidence-based falls strategies and presentation of wider data from across the region.

4.6 The visit from the quality improvement advisor

The aspect of the learning programme the case study facilities most often raised as the most useful was the visit to the facility by the quality improvement advisor. In the visits the quality advisor set up data tracking, interpreted trends and provided advice on interventions to prevent falls. The quality improvement advisor was essential as facilities felt they could not initiate quality improvement programmes themselves. A large part of the learning and reinforcement of the learning happened through these visits. The value of the visit to the facility was confirmed by the experiences of the *First Do No Harm* Programme.

Visiting facilities was part of the plan from the beginning but developed as we went along (Agency)

Interviewed facility managers cited examples and emphasised the value for them of other specialist educators or advisors who visit the facilities such as the infection control officer.

We have someone we can call on for mental health advice. She can come in and that's useful. (Facility)

In the past have had someone from ACC come around and provided a manual – that was very good. Then it stopped. I feel that's the way to go. The ACC worksafe manual. (Facility)

4.7 The tools

Attitudes towards the data collection tools and processes varied depending on the experience and familiarity with excel and with using data.

Where the person attending the learning sets was a manager or clinical lead they were able to incorporate aspects of the tools into their existing work. Most were not experienced and the excel template provided allowed them to produce graphs of their falls rates. The graphs became valuable tools at the facilities that used them.

I really liked the spreadsheet. Excel is a computer programme I am not particularly familiar with. Plug the figures in and it makes the graphs for you – really helpful. (Facility)

The falls crosses and falls maps were very useful tools for the case study teams. Most of the case study facilities incorporated them to some degree following the learning programme. Some of the case study facilities had started to use severity assessment codes (SAC) ratings in recording the falls.

Simple tools and guidance to people on the ground works (Agency)

Some staff on the floor had different needs:

They [SAC ratings] are not interesting to staff on the floor (Facility)

4.8 Cluster groups

Cluster groups were planned as an aspect of the learning programme that would provide facilities with further opportunities to share ideas. Cluster groups were generally considered by the case study facilities as useful as an opportunity for sharing but only if everyone made the effort to come and to share experiences and ideas. Facility ownership of cluster groups was the aim but it is unlikely that this will occur. Messages from facilities were uniformly that they need an external person to take the lead.

Our cluster group didn't work very well. Our cluster group found it hard to get time to meet with each other. Time was the issue. Difficult to decide on times that worked for people (Facility)

Cluster groups have not worked – we set up a meeting and no one came (Facility)

Several of the case study facilities commented on how effective an earlier DHB programme had been.

I used to go to the clinical governance meeting run by …. All rest homes had to go and we had a link. She left so it's stopped now. We all took turns in hosting but she organised, send the agenda and took the minutes. It's what we need. I only attended a few but it was beneficial because I got to meet people from other homes. We got to discuss the issues. (Facility)

We valued that role and a lot of people want it back. The initiative filled the gap that was left. (Facility)

The importance of the meeting environment and the need for it to be focussed on quality was mentioned by many of the case study facilities. Some felt that the need for a quality focus meant the DHB may not be the best organisation to provide the meetings unless quality was clearly separated from contract management.

The meeting has to be safe and non-judgemental. The person who runs it needs to be a neutral person and not affiliated with any organisation of agenda. E.g. if they are from DHB they may be looking at budgeting and that is not our focus we are about quality. (Facility)

4.9 Suggestions to improve the learning programme

Suggestions for improving the learning sets included:

- Targeting the learning sets - The learning needs of different staff within the facilities varied. Further development of the learning sets into analytical and practical sessions may better meet the needs and expectations of people with different roles within the elder care facility team.
- Preparation - Providing information prior to the course that sets expectations of what will be covered and who in the facility it is targeted at. It was noted that this may have been provided but had not necessarily filtered down to the attendees.
- Course content - More practical information on care planning and review of care plans.
- Sharing ideas - More time to share experiences and ideas. Incorporating a way to challenge their ideas such as a panel to discuss ideas was suggested by a stakeholder as a way to ensure that new initiatives were based on evidence about what works.

  Nothing is in place to control the quality of shared ideas. Preventing falls is about what works for an individual resident (Expert).

- Sustainability - Including more information about next steps in the final falls prevention programme.

4.10 Overview of the learning programme

More facilities than expected attended at least one of the learning sets. Although the programme was set up as a series of three learning sets, attendance was inconsistent and many attended one or two of the sessions rather than all three. Staff who attended represented all of the different roles within an ARRC facility.

Inconsistent attendance reflected competing demands rather than dissatisfaction. Almost all participants who all of those who provided feedback forms after the sessions strongly agreed or agreed that the overall quality of the event was excellent.

Feedback about the value of different aspects of the learning sets varied, reflecting the different roles and responsibilities of the participants. The most often mentioned value of the learning sets was the opportunity to network and share ideas and experiences with staff from other facilities. Some participants found the first session very focussed on data and hard to understand or not relevant to their roles. Generally, the registered nurses and health care assistants found the sessions on sharing information and practical things to put in place more valuable.

The quality improvement model was easily understood. Some facilities have used it to document changes they have put in place. In the post-session feedback forms, all but one participant reported learning new ideas and most planned to test the ideas in the next month. In the case study interviews, facilities demonstrated the changes they had made and the initiatives that had put in place and assessed using the PDSA cycle.

The aspect of the learning programme the case study facilities most often raised as the most useful was the visit to the facility by the quality improvement advisor.

Cluster groups were planned as an aspect of the learning programme that would provide facilities with further opportunities to share ideas. Cluster groups were generally considered by the case study facilities as useful as an opportunity for sharing but only if everyone made the effort to come and to share experiences and ideas. Facility ownership of cluster groups was the aim but it is unlikely that this will occur. Messages from facilities were uniformly that they need an external person to take the lead.

5. ARRC facility achievements in reducing harm from falls

Has the falls prevention mini-collaborative improved the participating facilities' falls prevention programmes?

The influence the learning programme has had on facilities falls prevention programmes was considered by looking at both qualitative outcomes as well as data about falls rates.

The opinion from all but one of the case study facilities was that:

> *It's working – people are now doing things they were not before (facility)*

Profiles of the falls preventions activities of the case study facilities are appended (Appendix Two) and summarised below.

5.1 Recognition of the need for the falls prevention programme

Interviewing staff from the case study facilities highlighted how much staff at the facilities care about the residents and their well-being. Facility staff take pride in providing good care for residents. The motivation for quality improvement was to keep their residents well.

> *The return for facilities is really in providing the 'best of care' and not financial 'they truly care about the residents' (Facility)*

Falls were acknowledged as a problem to be solved and many of the case study facilities were looking at ways to reduce falls but needed new ideas.

> *Now what are we going to do (Facility)*
>
> *It's worth preventing falls – there is a cost – maybe that is something they need to show and talk about.*

5.2 Leadership

Support from the facility manager was an important success factor.

> *Leadership is very important…if the leader celebrates it the staff will be aware. It means a lot to the team if it means a lot to the leader (Agency)*

There can be limited support for facility managers to develop their skills and the learning programme was seen as an opportunity.

> *There is very little in place to develop managers. They rise to the top…there is a need for a nurse manager training programme. (Facility organisation)*

In some cases facility management was not involved even though there was significant activity amongst the facility team. Comments by facility organisations may reflect the need for more communication with facility managers.

> *Awareness among senior people in the sector may not have been at the level aimed for. The depth of penetration was not there (Agency)*

5.3 Falls prevention committees

In the first learning set, falls prevention committees were suggested as a way of increasing the focus on falls prevention and planning strategies to prevent falls. Many of the case study facilities had set up a falls prevention committee, often as a sub-group of the quality improvement committee, and felt they worked as a way of focussing on falls.

We now have a separate meeting just for falls. So we can really focus on it. In a quality meeting there are lots of things to discuss. (Facility)

The falls prevention committees were also a way of disseminating information to staff. Including representation from the different areas within a facility helped bring the perspective of the different parts.

We do minutes each meeting and identify what we have been doing in each area. Plan for the next couple of months. Whoever represented that area would then carry the plans through (Facility)

After the first meeting we thought about who we could get onto the committee. The idea of a committee was suggested at the first session. It really helps having a group across the different areas and different shifts – something that works in the rest home might not work in the hospital (Facility)

Some planned to keep the committee going whereas others felt the committee had put a programme in place and that falls prevention would be monitored on an ongoing basis as part of other quality improvement activities.

5.4 Involving the whole team

All of the case study facilities emphasised the need to work as a team to prevent falls. Involving the whole team was seen as very important as all staff would need to put the actions in place to make the changes. The case study facilities had different ways of involving the whole teams. Examples included ensuring the different parts of facilities were represented on the falls prevention committees, sharing information at meetings, displaying information in the staff room, displaying falls crosses in the corridor and in the staff room.

In a big facility like this we need to think about how to get the information out. We would take it to the handover meeting. Everyone was on board. We sell the idea to the different areas. We talked about it in the staff meetings. (Facility)

Most importantly it is about communicating with your staff about why things have happened. Once they are on board it is easy to push forward. And give them positive feedback. (Facility)

Managers noted that it is the care staff who may be the first to notice changes in residents that may make them more vulnerable to falling.

All of our staff are aware and know if someone needs assistance. It's everybody—not just the RNs...we all look after the residents. We work as a team here. (Facility)

There has been a change over the last few years to making quality part of everyone job and not just a quality person. (Facility)

Staff are very good at identifying risk and if someone's mobility changes. They come with ideas. They are on the floor and they know what works. (Facility)

5.5 Documenting changes

The learning programme had helped facilities to be more systematic in their approach to recording falls information, putting interventions in place and assessing the results. Some of the facilities had recorded all of the information about their falls prevention programme in folders. The folders included the charts and documented PDSA cycles. Some facilities noted the value of the folders as part of the audit process.

Aged care facilities are most audited process – if it is not written it is not done. Something we can show to the auditor as well (Facility).

As a result of the learning programme a number of the case study facilities had changed their incident reporting sheets, their falls definitions or added SAC ratings. The improved quality of data collection has the potential to lead to an improved ability to consistently report and analyse falls data across facilities. In some

the new incident reporting forms were in addition to ones they routinely filled in and provided to 'head office'.

5.6 What facilities put in place as part of the falls prevention initiative

The falls prevention learning programme provided a new way of looking at the falls data and gave the staff ownership of the data and responsibility for finding solutions. The learning programme made staff aware they could make a difference.

> *…talked about vitamin D supplements and made us aware we could do something that made a difference" (Facility)*

Prior to the learning programme, falls prevention for nurses and healthcare assistants was more focussed on an individual resident and the interventions required to keep that resident safe. Data collection at the facilities tended to be the responsibility of the manager or clinical leader. The extent to which the data collected were displayed and used for quality improvement varied. In one case study facility falls were graphed and displayed on a monthly basis for staff to see. In others collecting falls data was seen as an activity that was required for audit purposes and/or by 'head office'.

> *We have become so compliance driven and regulated that staff struggle to move from audit to quality improvement. They miss the point that audit is a tool for quality improvement (Facility organisation)*

Different approaches worked in different facilities and in different parts of facilities highlighting the advantages of the learning programme in providing a suite of tools and interventions that facilities could draw on.

- The safety cross

  The visual safety cross – stars for fall free days – worked well in the hospital but not so much in the residence and not at all in dementia unit (Facility)

  The starchart has been really rewarding. It's on display and the team use it. They like to get a star for a fall free day. Just a positive – there are no negatives of blame. (Facility)

  I put [falls crosses] on the wall in the hope everyone will see what we are aiming to do and how we are going. Others in the team mainly look at the falls crosses and see the red square (they don't give any details about the time of day or why). (Facility)

  I don't use the falls cross- I don't like that idea personally. I'm a bit concerned about the competitions. To me that's not a good ideas because we are all one team. People who are there when the falls happen can feel really bad. We are about being positive – let's look at why so they don't happen again. Rewards can have the potential for making staff not record falls. (Facility)

- Falls mapping - Falls mapping helped facilities to put in place facility wide initiatives to respond to patterns they saw in the data

  We did a map of the facility. The map showed some clustering because of a frequent faller who falls in one place. (Facility)

- Falls clocks – recorded the time of day when a fall occurred

  We also do a falls clock – we can look at times. We can look at where staff are at that time (Facility)

5.7 Falls prevention initiatives for individual residents

Tools such as the falls clocks and falls maps provided a foundation for putting facility-wide initiatives in place. Looking at patterns across a facility was made easier by the use of tools and the learnings provided through the programme. Previously for many staff the focus had been on the individual resident.

From the first month I could identify clusters and see whether the falls were happening the most – and it was in the living area. I didn't put the connections together until it was on a paper and I could visually see… Each month we map and we use a different colour so we can look at trends as well. If a resident is frequently falling in a place we can look at that place and see if there is anything wrong with the lighting etc. (Facility)

Examples of facility-wide initiatives included diversion therapy programmes, Vitamin D prescribing or increased time outdoors through garden activities or walking groups and changes such as handrails or rearranging furniture.

We introduced an afternoon diversion therapy programme to reduce a peak – and it was successful (Facility)

We put in a handrail in the hall (Facility)

5.8 Falls prevention initiatives for individual residents

The case study facilities described a number of initiatives they had tried to prevent falls for individual residents. Some had put a PDSA cycle in place around an individual and tracked the falls. Ideas for the different initiatives were also sourced from sharing information with other facilities. Examples are provided in the case study profiles in Appendix Two and included sensor beams and mattresses, falls mattresses, socks, ensuring footwear was safe, bringing families in at times when the resident feel frequent or using diversion therapy, ID Tags and decorated walkers, and regular toileting regimes.

5.9 Collaboration and relationships

Managers at the case study facilities commonly noted that participating in the falls prevention programme:

- Made staff feel proud about the contribution they made

  They presented their ideas with pride (Expert)

- Increased staff satisfaction

  Increased staff satisfaction and retention. The young nurses are excited and it gave them collegiality (Facility)

The falls prevention activities were also valued by families and in one facility the GP also used the falls calendar.

Some of the families and the GP know about the calendar. When the GP comes he always has a look at the calendar. Some of the families give positive feedback and like to see that we are monitoring them – they know that we are doing something for the residents to minimise falls.

5.10 Tracking data about falls

Some interviewed stakeholders saw the success of the initiative as based on a reduction in the number of falls.

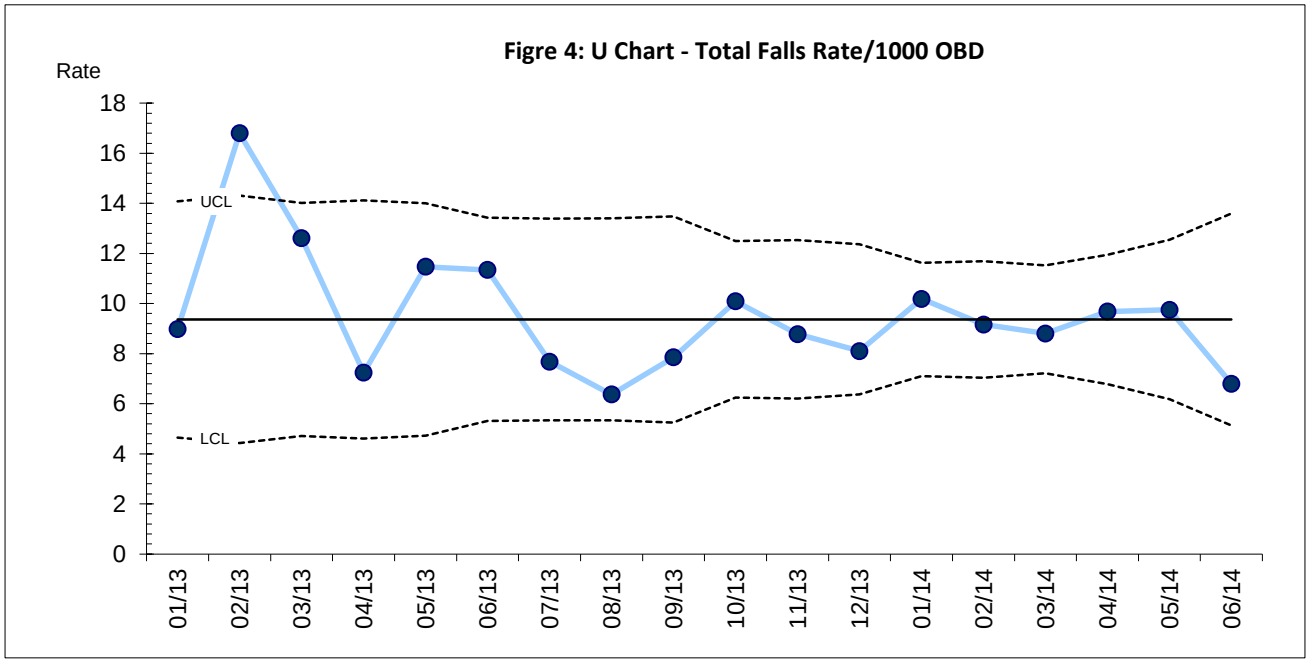
Raising awareness doesn't matter if it doesn't reduce falls (Organisation)

Falls data were tracked in different ways that were relevant to different stakeholders:

- Falls for an individual resident – were meaningful for the RNs and healthcare assistants to track the progress of initiatives they have put in place for individual residents.
- Falls within a facility – tracking falls within a facility was attempted by some participants. However, after seeing an initial drop in the rates of falls some saw falls rates increase again and became disappointed. Those facilities who had started to use SAC ratings found them useful in understanding the different outcomes of falls.

- Falls within a facility chain – tended to be considered by many as a compliance exercise rather than as information to use in developing a quality improvement initiative. Quality improvement was a response later when the facility was given targets for falls reduction.
- Falls across a region – useful at organisation level. Some facilities were interested in benchmarking their facility against others. Other facilities considered there were too many differences between residents and falls risks across facilities for residents to make benchmarking useful.

Falls data were recorded centrally by the quality improvement advisor for up to 14 facilities. The data were tracked and were useful in providing facilities with benchmarking (Figure 4).



However, interpreting the data are difficult because:

- The number of facilities contributing data varied
- The number of incidents, especially with serious harm was small so changes in residents could potentially have a substantial impact on rates. Facilities can get frustrated when there is an increase in falls despite their best efforts. There may be a need to improve understanding of the effect of small numbers on variation and the effect of a new resident who is falls prone.

  It is too early to evaluate our progress. It gets frustrating for us – we thought we were ahead of everything already but this month the stats are high – we are now trying to think of other ideas and preventative action. (Facility)

- The facilities contributing data differed in the falls risks of their residents with some having many more dementia beds than others.

At facility level, some were confident that they had reduced the rate of falls.

> *We know we have reduced our fall rates. We set targets at the end of last year….we wanted to reduce SAC 4 by 10% and SAC 3 by a quarter and halve our fracture rates (SAC 2) versus 2013. We are on target for SAC 4 and beating our targets for SCA 3 and 2. I don't want anything to go wrong…I think the change is attributed to the course. All interventions are based on evidence that it works. It has brought falls to the forefront and it is a constant reminder to the staff that we are doing this. (Facility)*

Others were tracking the number of falls for individual residents and to assess the effectiveness of interventions.

5.11 Extending a quality improvement approach to other topics

The learning programme provided staff with a new way of thinking that could be extended to other aspects of quality. Examples were given by facilities of extending a quality improvement approach to pressure injuries and to medication errors. Other facilities talked about plans to extend the PDSA approach to other topics.

> *This movement of adding in thinking about evidence based change strategies and applying them to individual residents – reflects the change in the way of thinking the learning sets achieved (Agency)*

Effective use of Inter-RAI is also going to require staff to think about what the data means and how to apply the information to care of the individual in a meaningful way.

> *The initiative appeared to have been successful in establishing a culture of learning rather than a culture of blame. However, there were risks with respect to the use of falls crosses. In the smaller facilities falls crosses meant that staff who were on duty when a fall occurred were easy to identify. (Facility)*

5.12 Challenges for facilities

Case study facilities were asked about what had been difficult for them in putting falls prevention initiatives in place. A number of challenges and responses were described:

- Engaging staff was most frequently noted as a challenge – Staff buy-in was essential for making changes. The falls prevention committee members were aware they were asking staff to do more work and made considerable efforts to explain the reasons to staff and to communicate back information about successes. Engaging staff who worked on shift work was noted as important but also challenging because of meeting timing.

  Resistance from healthcare assistants who say 'we have been here for ages and it works ok so don't see why we need to change it'. (Facility)

  Changing habits is hard and we are adding something to their work. They initially thought the falls charts were extra work but they did it. We got them to do it with lots of gentle reminders and please and thank yous. (Facility)

- Time - time both to develop the falls prevention interventions and monitor results as well as staff time in putting changes in place were commonly mentioned challenges. The falls prevention activities were voluntary and could be side-lined by 'must-do' activities.

  It's all extra on top of what you are doing (Facility)

- Putting interventions in place – there we problems in putting interventions in place that included:
  - Money - cost challenges for some limiting the use of interventions such as hip protectors and time from allied health professionals such as physiotherapists.
  - Support from other health professionals - Some initiatives required GP support through prescribing. Use of Vitamin D had mixed support from GPs so some facilities were in the position of having Vitamin D prescribed for some residents and not for others. Facilities not able to use vitamin D looked for alternatives such as walking groups and outdoor activities.
- Communication – with facilities and between staff in facilities. A lack of email for some and different rosters made communication challenging.

  Some don't have communication out – no email access. We had to email the nurse manager to pass information on (Agency)

- Mandate to act – Some facilities that are part of national organisations considered did not have the mandate at local level to make changes.

- Context – aspects of the context in which facilities work were also mentioned by some as difficult including
    - Competition limiting the extent facilities shared information – agencies anticipated that competition between agencies had been a challenge in the past and might limit information sharing. However, staff from the case study facilities noted that competition had not been a problem and most commented on how willing everyone had been to share information.

    They have slowly got over the problem of sharing resources. There is a low occupancy rate at the moment so it is competitive (Agency)

5.13 Overview of facility achievements

The falls prevention learning programme was considered as a success by all but one of the case study facilities. The facility that did not consider the programme a success already had a number of falls prevention initiatives in place.

The programme had been used by facilities to different extents:

- Some had sent individual staff members as a professional development opportunity to reinforce the staff member's knowledge of falls prevention
- Some had worked on putting in place a falls prevention programme as a team by changing their data collection processes and taking a quality improvement perspective to analysing the data
- The case study facilities were all using at least some elements of the PDSA improvement model.

The value of the falls prevention initiative was demonstrated through facilities reports that the programme had provided them with a new way of looking at data. The programme had been successful in at least some facilities in bridging the gap between collecting data for audit and using data as a foundation for quality improvement. The falls prevention learning programme had engaged with staff at all levels ARRC organisations and as a result increased awareness of falls, the focus on falls and personal responsibility of staff to put changes in place.

The extent to which the learning programme resulted in changes in falls rates was difficult to demonstrate. Some facilities were able to demonstrate falls reductions across their facility against the targets they had set and falls reductions for individual residents in response to falls prevention initiatives they had put in place. Interpreting regional data collection and benchmarking was more challenging because of the limited numbers of facilities submitting data and variations in data as a result of small numbers of falls.

6. Looking Ahead

How can the achievements in the facilities that participated in the falls prevention programme be sustained and built on?

The falls prevention mini-collaborative has created momentum for falls prevention both within the participating agencies and within the facilities in the region. There is the opportunity to build on this momentum. Facilities that participated in the learning sets are keen to know what the next steps will be.

> *The pilot and then the pause creates uncertainty (Agency)*

6.1 Sustaining the current initiative

The case study facilities all thought they would continue the falls prevention initiatives they had put in place.

> *We aim to continue with whatever we are doing and expanding to other residents who need it. The small things in the small areas can have a huge impact. (Facility)*
>
> *We will keep it going – it had the girls thinking outside the square (Facility)*
>
> *We will keep doing it. We will continue to carry on with the programme. It has been a guide for us. Quality is about ideas from each and every one. We were pleased that other facilities were happy to share what they had done. (Facility)*

Extension of a quality improvement approach to other initiatives will continue to sustain a quality improvement way of thinking.

> *QI should be a golden thread that runs through everything (Facility)*
>
> *Yes we have learned a lot – the evidence is in the folder. It was worthwhile- we will do it again. We have started it already with medication error. (Facility)*

Although the facilities thought they would keep falls prevention going they also emphasised the importance of external support and new ideas.

> *We need outside momentum or we get stale…. We need someone for questions – an out of the box thinker (Facility)*
>
> *A follow up session to recap on what people are doing would be good. Good to hear about the impact it has had. Has it reduced costs?*
>
> *We learnt new things. We had the foundation there already. The seminar gave us impetus to what she did. The focus was on what we need to do. If we keep the concept going we will do much more. After the seminars the two nurses thought outside of the square. The action and the plan.*

Agency stakeholders were not sure that the facilities will keep going without external help.

> *They will need people to drive it … it's not developed enough (Agency)*
>
> *There is value in having a specialist go to facilities and see what they are doing (Facility organisation)*
>
> *The visits are more important than the sessions (First do no harm)*

Suggestions of how to provide the external support emphasised the value of having a quality improvement advisor continue to visit facilities. Other ways that might work for some were information on websites, online discussion forum. However, these strategies would all require someone to take ownership and lead discussions and keep information up to date.

One organisation is providing a consultant to work with a facility team. The team chooses something to change. They look at the barriers and pick a project (Facility organisation)

Even a regular newsletter about falls prevention and management direct to providers would be helpful. About the importance of collecting data, risk assessments and the key things you need to do (facility organisation).

The data collection and benchmarking aspects of the mini-collaborative programme are not likely to be sustainable.

Data collection is dropping right off. (Agency)

Actively disseminating the information from the falls initiative would help support falls prevention in facilities that did not take part and also reinforce learnings for those who did take part. Many of the non-participating facilities were keen to hear more about the initiative.

We need to make the work done last year more available. Put up the posters, put out the fact sheets. Use the public system resources for the private sector (Facility organisation)

The website at HQSC will continue and the material will stay there (Agency)

6.2 Leadership moving forward

Ongoing development of quality improvement programmes requires an agency to take responsibility for progressing the programme and provide leadership. Stakeholders discussed possible options.

Who should be the leader – NZACA, DHB or organisations such as HQSC? (Facility)

The DHBs were seen by some as the agency who would 'own the project long-term'. Others saw the DHB as more compliance and contracting focussed.

It should be driven by SIDU as they have the relationship with the facilities (Agency)

SIDU portfolio managers attended some sessions but more as observers than taking an active role with a view to sustaining the initiative. SIDU portfolio managers were not necessarily seen as the best people to maintain quality initiatives:

There is no real plan of how to keep going (Agency).

There has been no formal handover to SIDU (Agency)

The SIDU portfolio managers might not know the model well enough to support facilities by giving suggestions and asking the right questions (Agency)

Others felt the collaborative approach or leadership by an agency other than the DHB was an advantage. The mini-collaborative demonstrated the advantages of agency collaboration in quality improvement. A number of stakeholders commented about a gap in quality improvement and the need for a systematic focus. The interface with Inter-RAI[9] also needs to be considered. Inter-Rai is designed to provide information about individuals to support individual care plan development and benchmarking. Inter-Rai will be not be accessible by healthcare assistants. There is a need to combine the two levels of data – Inter-RAI and the collaborative data on a systems/facility approach.

6.3 Overview

The falls prevention mini-collaborative changed the approach to quality improvement in at least some of the participating facilities. In these facilities the programme linked data to improvement activities and made the connection that collecting data was not just an audit activity but an activity that provided information that

[9] A clinical assessment tool that is mandatory for publically financed facilities. From July Inter-RAI will need to be done for every resident every six-months. Inter-RAI measures falls in the last 9 months

could be used to make changes. The learning sets and visits by the quality improvement advisor helped facilities to understand how to use the data and make changes. Staff movement between facilities is helping to disseminate information.

There is momentum for quality improvement. There is increased awareness of what quality improvement is and that facility staff can make a difference. The tools and training reached down into the facilities and developed the skills of people in the different roles in facilities.

To sustain the momentum additional external support will be required. Mainly to keep teams motivated and to facilitate the sharing of evidence based solutions. The most effective way of providing that ongoing support seems to be the continuation of a quality improvement advisor role.

Further conversations are needed at senior management level to look at consistent use of tools and interventions across the region to be able to benchmark and track falls rates.

> *There is a need to have the conversations with the head offices to promote paperwork as they ultimately control it from a central point of view (Expert).*

7. Tool-kits

To provide the DHBs and participating facilities with tools to assist with putting in place future in-house evaluations of new quality improvement initiatives.

One of the aims of the mini-collaborative is to develop a 'tool-kit' that can be used to for future quality improvement initiatives. The 'tool-kit' will be consistent with the Plan – Do - Act – Study IHI model for improvement and will include descriptions of what facilities have put in place, what works, and challenges and how they have been addressed. It is likely that some resources already exist and so duplication should be avoided.

Topic area	Tool-kit content	Comment
Communication strategy – why participate in falls prevention		
Communication packs targeted at different roles within ARRC	A communication pack that includes: • Information about the costs of falls and the impact of falls and hospital admissions • Information to benchmark the facility against average rates for similar facilities/ levels of care • Evidence that falls are preventable • Success stories of how facilities have prevented falls • Benefits of quality improvement initiatives to facilities e.g. value in the audit process, reduction in harm for residents, improved staff satisfaction and retention • A contact person – name and contact details of a quality improvement advisor who can help the facility get started.	A communication strategy is essential to develop messages to promote participation in quality improvement initiatives. The core messages for communication packs is about the costs of falls and that falls prevention can make a difference. Communication packs need to be developed with information that is relevant to the different roles in ARRC. For examples managers will be interested in costs and benefits of falls preventions and the value of initiatives in the audit process and in staff satisfaction and retention. Information for healthcare assistants could message that they can make a difference to falls.
Getting started – how to put a falls prevention initiative in place		
Getting started	• How to get started – links to tools and resources and tips about how to be successful.	Initial engagement with the quality improvement advisor is essential at this stage to work with the facility to look at what is already in place, and how to move forward.
Strategies for success	Tips about how to be successful: • Management support • Identifying a falls champion • Involving the whole team • Setting up a falls sub-committee.	Tips on how to engage the facility team, how to communicate with the team about what is happening and what is being achieved.
Tools and resources	Data collection tools: • Falls definitions	Providing a suite of tools that can be drawn on ensuring there are both

	• Incident reporting forms Making sense of the data: • Overview of understanding the data and how to use it to assess falls risks • Templates and information about presenting the data using falls maps, crosses, clocks • Tracking falls – graphs and how to interpret trends and the variation that will result from small numbers Making changes: • Individualised care plan templates - detailed advice about what should be in a care plan with respect to falls prevention • Links to evidence based approaches to falls prevention – at facility level and for individuals requiring different levels of care.	simple paper based tools and electronic tools with good explanation about how to use the tools.
Planning and measuring success	How to put in place a PDSA Cycle	Information about the cycle and templates for planning and recording and evaluating success.
Ongoing support for participating facilities		
A contact person	A quality improvement advisor available to provide ongoing support e.g. answering questions, reviewing initiatives, assisting with tracking data.	The most important component of the tool-kit is access to a person who is available on an ongoing basis to provide support and make regular contact with the facility.
Continuous development	• IHI quality improvement approach • Learning about what makes a difference • How to incorporate falls prevention and quality improvement into professional development.	Information about the PDSA approach and examples. Tips about how to incorporate quality improvement into different ongoing education requirements.
Expanding a quality improvement approach	• How to apply a quality improvement approach to other topics	Information and links of examples of quality improvement approaches applied to similar topics.
Sharing	Cluster groups, websites	Links to useful information that is frequently updated.

Appendix One: Logic Model

Appendix Two: Facility Case Study Profiles

Cashmere and Aotea Home: Falls Prevention Initiatives

Cashmere and Aotea Homes participated in the Aged Related Residential Care mini-collaborative[10] to reduce harm from falls. The collaborative was established by the Health Quality and Safety Commission in conjunction with the Accident Compensation Corporation and three Wellington based district health boards.

About Cashmere and Aotea

Cashmere and Aotea are part of the Enliven Group. Both are located in Johnsonville, in the Wellington area. Aotea provides rest home level care. Cashmere offers rest home, hospital and specialist dementia unit care.

Cashmere and Aotea's approach

Cashmere and Aotea collected falls data prior to the falls prevention initiative. They recognise the importance of falls prevention and effectively manage the risk of falls for residents in the dementia unit. The homes have a quality monitor and benchmark through QPS audits. An incident report is prepared after each fall and there is a planned approach for anyone who is at high risk of falls.

The clinical coordinator went to the first session with two of the registered nurses, one of whom worked night shifts. The subsequent sessions were attended by the registered nurses.

The staff who were chosen to go were selected to broaden their experience:

> *"We wanted to give some of our RNs some experience. They see the falls happening and it's good for them to get a session from outside. It gives them a different look and different ideas. Reinforces that there is something they can do to prevent the falls."*

The nurses who went to the falls prevention sessions came back and shared their experience and learnings with other nurses as part of the journal club.

Examples of Cashmere and Aotea's responses

Since attending the learning sets the interviewed registered nurse said she had made some changes to build on what they already had in place. Changes included:

- Adding mobility information to the care plans
- Monitoring more systematically the results of the initiatives that are in place such as falls mats, sensors, hip protectors
- Introducing regular toileting regimes at night
- Giving priority to answering the bells promptly at night

Falls crosses and maps are not currently used but are being considered.

How the falls prevention mini-collaborative helped

The manager considered that:

> *"Going was good for the staff – it reinforced for them that falls can be prevented. Not for everyone but for some. It established a routine."*
>
> *"It was good for the staff to go to something different and have it reinforced by an outside agency."*

The clinical coordinator described the first learning set that she attended as very good.

> *"It put forward ideas and the why which was really great."*
>
> *"We learnt new things. We had the foundation there already. The seminar gave impetus to what [the nurse] did. The focus was on what*

[10] http://www.hqsc.govt.nz/our-programmes/reducing-harm-from-falls/projects/arrc-mini-collaborative/

we need to do. If we keep the concept going we will do much more. After the seminars the two nurses thought outside of the square."

The nurses attending the falls prevention learning sets found it very worthwhile to go.

One of the nurses reported that the number of falls had reduced. She felt that they were achieving good results because although they had monitored falls before the initiative, they were now more systematic, regular and planned in their approach.

"It's a good reinforcement for our work."

The opportunity to meet and share was valued:

"Very good chance to meet and share. I appreciate the time to meet staff from other facilities. It's a good chance for us."

Especially for the night nurses.

"Sometimes the night shift nurses don't get the chance to mix so much."

The manager noted that registered nurses working in elder care are

"…much more isolated in this environment that they are in hospital. There is only one RN on at any time. All the chains have different policies – for them to be able to chat between them about how they do things is great."

And the clinical coordinator noted that:

"We need more seminars like this open to the aged care sector. This sort of learning could improve collaboration and you make contacts."

Keeping going

Attending the learning sets built on what was already in place.

"Falls assessment is important so it will keep going."

One of the nurses who took part noted that she uses the website to catch up on information from the learning sets.

A follow-up session would be helpful:

"A follow up session to recap on what people are doing would be good. It would be good to hear about the impact it has had. Has it reduced costs?"

Churtonleigh Lifecare: Falls Prevention Initiatives

Churtonleigh Lifecare participated in the Aged Related Residential Care mini-collaborative[11] to reduce harm from falls. The collaborative was established by the Health Quality and Safety Commission in conjunction with the Accident Compensation Corporation and three Wellington based district health boards.

About Churtonleigh Lifecare

Churtonleigh is part of the Ultimate Care Group. It is a hospital and rest home level facility with 34 beds, located in Churton Park, Wellington. Churtonleigh Lifecare prides itself on residents being *'as independent or as cared for'* as they choose.

Churtonleigh Lifecare's approach

There was strong management support for the falls prevention initiatives and four of the Churtonleigh team went to the learning set sessions: Two registered nurses and two healthcare assistants. Attending the sessions and working on falls prevention initiatives as a team was really helpful as

> *"We could talk about things afterwards"*
>
> *"It was good to have each other's support when we were asking staff to do extra work"*
>
> *"We often work on different shifts so we are there for people to ask us questions"*

Talking about falls prevention to the wider team was a key part of Churtonleigh's approach. The four who attended the learning sets put together a poster about what they had learnt. Encouraging other staff was seen as very importantand the team focussed on encouraging staff, letting them know what was happening and thanking staff for their extra efforts.

Figure 1: Churtonleigh's falls prevention poster

The team started analysing the monthly falls data and graphing it. Data were sent to the quality improvement advisor to be used to benchmark the Wellington facilities. Although Churtonleigh already collected falls data, the team thought that by them also collecting data using clocks and maps they could *"focus on what is happening"* and be *"more specific with the times and locations….It is good to have that."*

[11] http://www.hqsc.govt.nz/our-programmes/reducing-harm-from-falls/projects/arrc-mini-collaborative/

Examples of Churtonleigh Lifecare's responses

Graphs were put on the wall as well as falls crosses. The falls crosses were looked at more by the wider team than the graphs. The team put in place a number of Plan-Do-Study-Act (PDSA) cycles.

- Responding to data that identified a peak from 3 to 7 in the afternoon by developing an afternoon diversion therapy programme which has been successful at reducing the peak.
- Responding to clusters of falls that identified a frequent faller. The team tried and assessed different approaches such as diversion therapy, bells, sensor mats for individuals.
- Initiatives for residents such as charting vitamin D and encouraging hip protectors for new residents.

Achievements

- The graphs showed reductions in the falls rate. The PDSA cycle is being used to look at the results of different initiatives.

Tip from the Churtonleigh team: It is helpful to have a clear goal for your PDSA cycle – your time frame and what you are aiming for. Be very specific. Explain to people what you are doing and why. If you have a clear goal you can see if it has been met or not.

How the falls prevention mini-collaborative helped

The team found the learning sets "really helpful". They took the learnings back to Churtonleigh and did the recommended work between learning sets.

The first learning set was helpful in providing information about the graphs but would have been possibly more useful for nurse managers. But with help with excel the team has found the graphs useful.

The visit by the quality improvement advisor was

> *"Very supporting, gave us ideas, encouraged us to keep going and motivated us."*

The team found the PDSA cycle really helpful.

> *"Not something we can use just for falls…we can use it for something else..we now know what to do."*

In the third learning set session they would have liked more time to be spent in the going over care plans in detail. They had come prepared with their care plan for a resident who falls frequently.

> *"I was looking forward to it…It would have been really useful to go into that in detail."*

Keeping going

The team plan to keep going. Cluster groups would be good but initial attempts to develop them have not worked. They hope to meet with other Ultimate Care facilities to work together.

> *"Sometimes we get a bit stuck and wonder if anyone else has some ideas about how to help this frequent faller…we got ideas from the other facilities."*

Fergusson Rest Home and Hospital: Falls Prevention Initiatives

Fergusson Rest Home and Hospital participated in the Aged Related Residential Care mini-collaborative[12] to reduce harm from falls. The collaborative was established by the Health Quality and Safety Commission in conjunction with the Accident Compensation Corporation and three Wellington based district health boards.

About Fergusson Rest Home and Hospital

Fergusson Rest Home and Hospital, part of the BUPA Group, is located in central Upper Hutt. Fergusson provides rest home, hospital and day care and care through a secure dementia unit.

The falls prevention initiative came along at the right time for the Fergusson team:

> *"…we had almost reached that optimum level – we didn't know what else to do. We have checked medications, checked the environment so when this collaborative came it was very timely. It gave us new ideas."*

The manager and three team members attended the first Learning Set. Four team members shared attendance at the other two learning sets. The aim was to involve team members from the rest home, hospital and dementia unit.

> *"It really helps having a group across the different areas and different shifts – something that works in the rest home might not work in the hospital."*

The plan was to:

> *"Start small with a few individuals. If it worked with them then expand it to the rest of the facility."*

The Fergusson team also worked closely with the quality improvement advisor before and during the falls prevention mini-collaborative.

Fergusson's approach

Fergusson's approach was based on team work. The team who went to the Learning Sets formed a falls prevention committee and worked together to collect data, look at where falls were occurring and make plans for falls prevention.

The Fergusson Falls Prevention team

The team mapped falls and developed a falls calendar and falls crosses. Data about falls were being collected before the falls prevention initiative but since taking part more detail is being collected and the information shared more widely.

[12] http://www.hqsc.govt.nz/our-programmes/reducing-harm-from-falls/projects/arrc-mini-collaborative/

"We did the map and recorded where and at what time falls happened. We noticed a trend."

The Committee meets regularly and records minutes and has a folder where all the ideas and information about what happens are collated.

"We do minutes each meeting and identify what we have been doing in each area. Plan for the next couple of months. Whoever represented that area [of the facility] would then carry the plans through."

Committee members take the information back to their areas of the facility and share the information and involve the wider team.

"In a big facility like this we need to think about how to get the information out. We would take it to the handover meeting. Everyone was on board. We sell the idea to the different areas. We talked about it in the staff meetings."

"The major thing we did was making everyone aware, getting everyone involved in the process. The calendar, identifying the ones at risk of falls."

"With the staff we attached the graphs to the meeting minutes. Staff look at them while they are having lunch and see this is where we were and look at where we are and what's been happening."

Examples of Fergusson's responses

Fergusson's responses included a combination of facility-wide responses and interventions for individual residents.

"In the rest home rearranging the bedroom furniture was effective in reducing falls for some frequent fallers."

Making sure everyone was aware of the residents at risk of falling by talking about them during handover and clearly identifying them by decorating their walkers and using ID tags on the walkers.

"We used ID tags and decorated the walkers. We let everyone know who the residents should be – they see the walker and look for the person. Everyone knows even the cleaner. If you see a high risk resident you walk along with them."

Changing the sensor pads the facility used – they were rolling at the edges causing tripping.

"The new mats don't require any mat over. You learn from what you do."

Other approaches were tried for individuals

"Toileting before they go to bed. It started to work."

"One resident was falling frequently and the sensor mats were not working. We decided to sit outside the door at night to keep her safe. Then we could hear when she was moving around."

Achievements

As well as reducing the number of falls, the Fergusson team have really enjoyed taking part in the initiative.

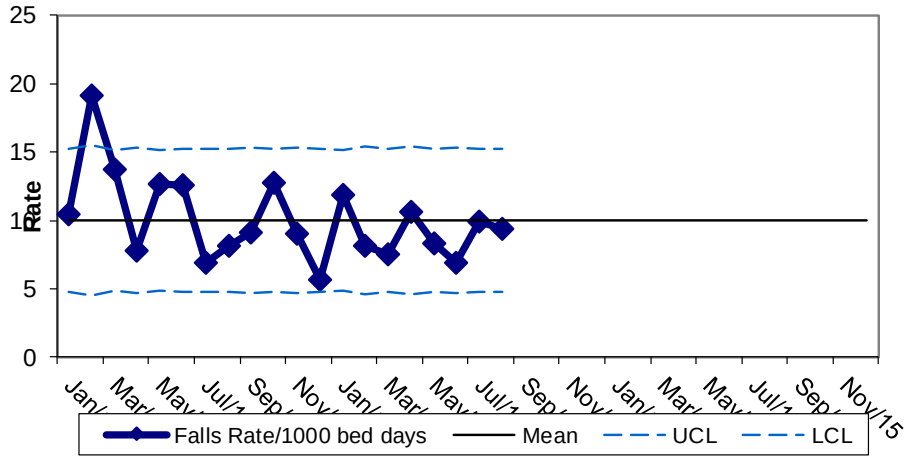
"The good thing is the enthusiasm that was coming out of the whole group."

The manager thought that job satisfaction had improved and working together to prevent falls had:

"Moulded the team together to work as a team."

The team take pride in reducing the number of falls:

"No one is going to fall on our shift"



An example of Fergusson's achievements in one part of the facility

How the falls prevention mini-collaborative helped

The team found the Learning Sets and most of the material quite helpful. What they gained most from was:

- Meeting with staff from other facilities to share ideas.

  "What we did find helpful was when the teams were sharing as to what they were doing at the different facilities….we managed to copy a lot of things…the techniques being used all over Wellington."

- The quality improvement facilitator working with them to graph their falls data

  "She took all our stats and made sense out of them. Put them on a graph to look at what times falls were prevalent and she did a site map and looked at where the falls were happening. She had a lot of information and she can suggest straightaway – what if you do it like this. Good having someone to do this. She sees it – dealing with it all the time."

The format of one-day sessions worked well as it meant the sessions were not too long and there was time for networking. The team would have liked more time in the third session to hear other facilities talk about their achievements.

"Allow more time for the sharing time – that is the most interesting of the lot. That was really good when they all presented about what they had done but they had limited time for that."

Keeping going

The team will keep going and expand what they are doing to other residents because:

"We still have that passion of keeping our residents safe. It is still there even though we have finished the study days."

The team also plans to extend the quality improvement approach to other topics:

"We are hoping that what we learnt will flow across to other areas. E.g. pressure injuries, medication errors could easily fit into such a system."

Having an ongoing way to share ideas would be helpful. The team suggested a website of email exchange of ideas. Continuing to have someone to go to such as a quality improvement advisor would be an advantage.

"We need someone for questions – an out of the box thinker…we need outside views.

Tips from Fergusson:

Involve the whole team: *"Bringing all of the different areas together – it worked really well."*

Have a clear target: *"If you really have a target like us – reduce harm from falls and falls rate so you set aside time for that."*

Glenwood Masonic Hospital: Falls Prevention Initiatives

Glenwood Masonic Hospital participated in the Aged Related Residential Care mini-collaborative[13] to reduce harm from falls. The collaborative was established by the Health Quality and Safety Commission in conjunction with the Accident Compensation Corporation and three Wellington based district health boards.

About Glenwood

Glenwood is a hospital level facility that encourages residents to move about as much as possible. A no restraints policy is in place.

The Glenwood team took part in the falls prevention initiative because they wanted to be preventive, preserve the function of residents and maintain the highest possible quality of care for their residents. Discussions about Vitamin D use with SIDU had made them realise they could put in place new initiatives that worked.

Prior to the falls prevention initiative the Glenwood team had developed a number of strategies tailored to prevent falls for individual residents. They had a restraints committee, had looked at falls mats, matteresses by beds, and put low beds in use for some residents.

The falls prevention initiative came along at the right time as the team were thinking:

"Now what are we going to do".

The changes Glenwood made

Attending the falls prevention sessions and the visits from the quality improvement advisor helped the team to shift their focus to looking at falls across the hospital as well as priovidng ideas about what to do for individual residents. The Glenwood team:

- Changed the way they recorded falls to include severity assessment codes (SAC), the falls wheel was further developed to include the SAC rating
- Developed a daily falls calendar and monthly falls map of Glenwood and looked at where falls were happening with colour coding for day, pm and night time falls.

The wheel and the maps *"allowed us to instantly hone down the data and think about why".*

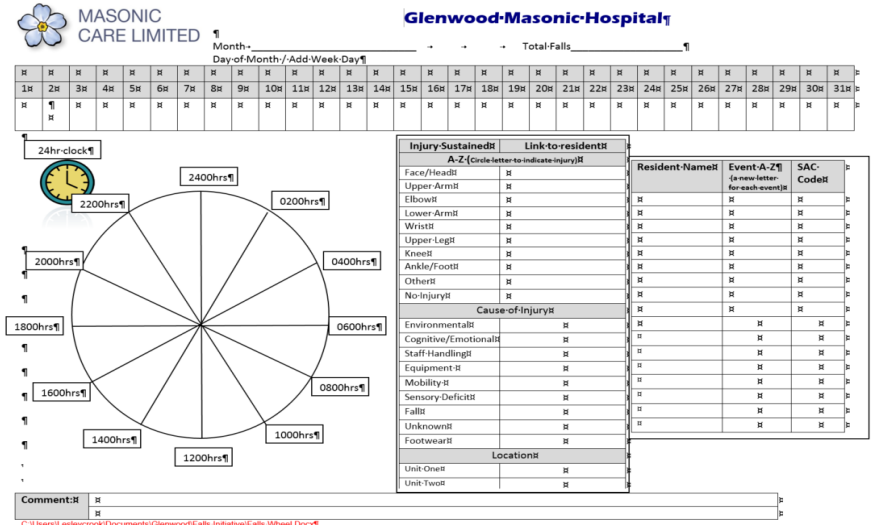


Figure 1: Glenwood's falls data collection form

[13] http://www.hqsc.govt.nz/our-programmes/reducing-harm-from-falls/projects/arrc-mini-collaborative/

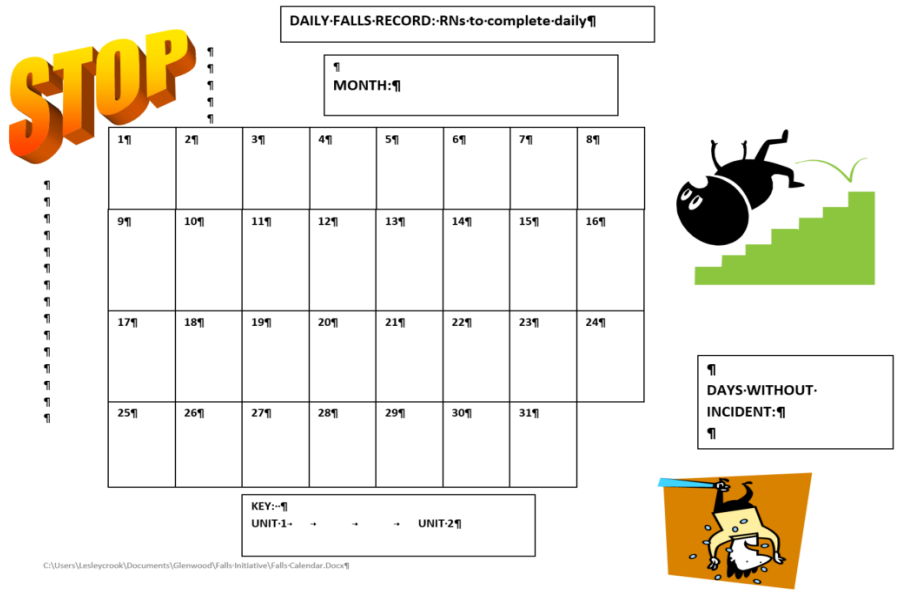


Figure 2: Glenwood's falls calendar

"We now have the data to make positive changes"

A falls sub-committee of the health and safety committee was formed to focus on falls prevention.

Falls have decreased in number. Data collected about the patterns of falls led to:

- Changing staff ratios on the floor at the times there were higher rates of falls.
- Identifying rooms where more falls happened. Knowing about where falls happened meant *"we know where to watch"*.
- Displaying the data in an easy to see format meant that the nurses could quickly glance at them at handover.
- Looking at patterns for individual residents and responding to their needs such as putting in place better toiletting regimes.
- Care plans being clearer about the risks of falls and falls risks highlighted in the handover sheets. This has the advantage of pinpointing risks for new staff and agency staff. Medication is reviewed for residents who fall.
- Staff have become better at filling in the details on the incident reports so there is good information about where, when and how.

Case Studies

1 *A woman who mobilised independently, but was quite unsteady, prone to falling.*

We have introduced a *Fallout Chair* – a chair designed to minimise the risk of falling out of it – and a daily routine of sleeping in the afternoon for her, which has decreased her falls. She also wears a personal alarm that will sound if she tries to get out of bed or off her chair. This has proven effective. Her family were invited to work in partnership with us to help reduce her falls. They changed their visit times to sit with her at her identified "at risk" times. This initiative has been the most effective initiative in reducing her falls.

2 *An independent man who wishes to undertake many of his activities of daily living alone.*

We have created a *Falls Calendar* for him, to improve his awareness of his falls. A non-slip mat in his bedroom and two large industrial non-slip mats along with four hand rails in his bathroom have also proven very effective.

3 *A woman who also wants to be independent; most of her falls occur during the night.*

We have given her a non-slip mat, which helps give her traction, and a source of "light" when her lights are not on. This has proven effective. We also introduced a nocte monitoring form – to increase her night time staff supervision with effect.

Glenwood's approach

Glenwood's approach included strong management support, having one person responsible for developing the falls prevention initiative, working as a team, including the healthcare assistants, acknowledging and implementing their ideas *"they know what will work"*.

How the falls prevention initiative helped

- The value of a national project that brought good links and information about what the agencies were doing.
- The Plan-Do-Study-Act (PDSA) cycle helped the team think about prevention activities for falls and for other issues.
- Taking part improved staff satisfaction - *"going home knowing you have made a difference" "The young nurses are excited. It improved collegiality".*
- The learning sets provided momentum – *"now we have data and examples".*
- We needed a 'go-to' person like the quality improvement advisor.
- Seeing what the other homes are doing – *"they are dealing with the same things".*
- Resources on the website - *"we went to the website and got sheets and used them and asked questions".*
- Sending the falls numbers in to the quality improvement advisor to be used to track numbers - *"comparing to the region would have been good as benchmarking for us".*
- The falls prevention initiative is useful as part of audit processes.

Keeping going

Glenwood will keep going with the falls prevention initiative they have in place. Monitoring falls is now part of business as usual. Keeping going will be helped by:

- Strong management support to continue
- Continuing to meet regularly to discuss ideas
- Pride in doing a good job - *"Everybody buys in to bettering things for patients".*
- Local cluster groups would be good but time is a challenge and everyone needs to contribute for groups to be effective.

Tips and ideas from Glenwood

The cream and beige falls mats worked better than the black ones as residents tended to try and step over the black ones as they perceive them as a hole.

Families can help – families offered to change their visiting times to times of high risk. This initiative decreased falls.

Double sided socks worked well for one resident.

"We now buy them for high-risk residents."

Walking charts for residents – developing programmes with the aid of a physiotherapist.

"It's working – people are now doing things they were not before"

Taking part in the falls prevention initiative has been worthwhile:

"We are here for the good of the people we are looking after"

Irwell Rest Home: Falls Prevention Initiatives

Irwell Rest Home participated in the Aged Related Residential Care mini-collaborative[14] to reduce harm from falls. The collaborative was established by the Health Quality and Safety Commission in conjunction with the Accident Compensation Corporation and three Wellington based district health boards

About Irwell

Irwell Rest Home is situated in Island Bay, Wellington. It is a privately owned rest home with 60 beds. Irwell's vision is to:

> *"Create a 'family' orientated rest home, ensuring a 'stress-free' life-style for our residents."*

Irwell selected one staff member to go along to the Falls Prevention learning sets. The staff member was selected because she is

> *"Good at transferring what she learns to her job and her colleagues."*

Falls prevention at Irwell

Irwell has a quality improvement committee that includes representatives from across the team: the managers, a registered nurse and the care coordinator.

Irwell charts falls data (along with other types of data) and compares trends over time - although they emphasised that there is no pattern. In a small facility one resident who falls frequently can make a big difference to trend data.

> *"One fall makes a big difference in a small rest home."*

The Irwell staff work as a team to keep an eye on residents.

> *"All of our staff are aware and know if someone needs assistance. It's everybody, not just the registered nurse. We all work as team here."*

> *"We are all working to ensure the residents have a safe and happy environment - the only way you can do that is by involving all staff."*

Falls that do happen are recorded in two categories – falls and near-misses. Falls charts and falls crosses are displayed for the team to see.

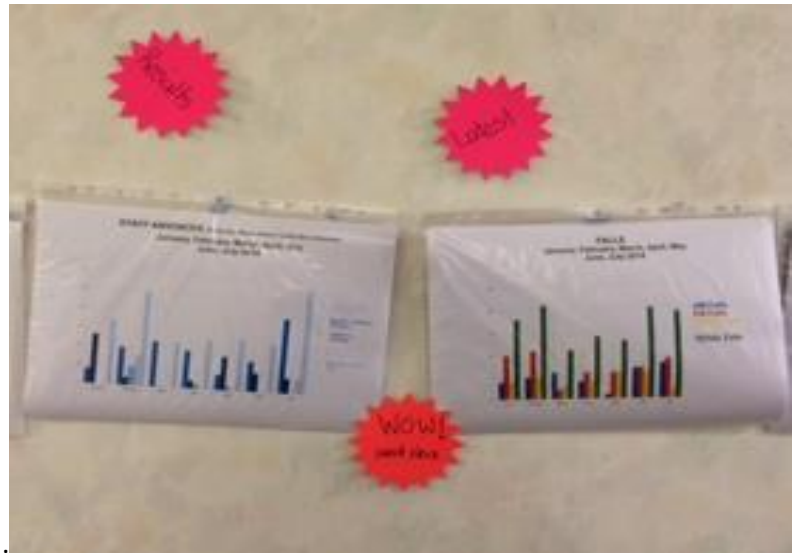


Figure 1: Irwell's falls data graphs

There is balance between preventing falls and maintaining the independence of residents, especially in a rest home level facility.

[14] http://www.hqsc.govt.nz/our-programmes/reducing-harm-from-falls/projects/arrc-mini-collaborative/

"You can't stop falls they are going to happen – you can't prevent all falls."

"The biggest challenge is getting the resident o accept the boundaries."

Each fall or near miss is reviewed to understand the reason for the fall or the near miss. Learnings are applied across the facility to prevent other falls.

"If they fall you need to understand why and fix it."

The falls prevention initiatives Irwell has in place focus on the rest home as a whole ensuring falls risks are minimised (monitoring the use of stairs, hand rails) and on interventions for individual residents.

"We have learnt what to do by experience and reviewing what happens when someone has a fall."

"We are small and we have the ability to make the changes."

The falls prevention initiative

The Irwell representative went to two of the learning sets with the expectation of learning practical information about how to prevent falls as part of a continuous improvement process for falls prevention.

"It can only improve."

However, the representative who attended the learning sets was disappointed in the lack of new practical information and ideas.

"I was expecting to learn about falls but all the talk was about graphs. I was hoping for more examples more about prevention. But everything that was spoken about we are already doing."

No changes have been as a result of the falls prevention initiative. The Plan-Do-Study-Act cycle might have been helpful if new ideas had been identified to try it out on.

Suggestions of what might be helpful in further developing Irwell's falls prevention programme included:

- A really practical focus of a course on falls prevention initiatives that the facility could put in place.
- One-on-one support from a falls advisor coming to the facility. The advisor could also be available to be called on for advice if there was a series of falls.
- Information about the costs of falls

The cost of education is high for small facilities and courses attend need to represent value for money. Shorter off-site meetings would be better than a day-long meeting.

Maupuia Lifecare: Falls Prevention Initiatives

Maupuia Lifecare participated in the Aged Related Residential Care mini-collaborative[15] to reduce harm from falls. The collaborative was established by the Health Quality and Safety Commission in conjunction with the Accident Compensation Corporation and three Wellington based district health boards.

About Maupuia Lifecare

Maupuia Lifecare, part of the Ultimate Care Group, provides rest home and hospital care. It is located in Maupuia, Wellington.

The facility manager, the clinical nurse leader and two registered nurses went to some or all of the sessions. The team who went to the meetings came back and shared the information with others at the facility.

Maupuia's approach

Maupuia already collected data about falls as part of a set of clinical indicators. Attending the falls prevention sessions helped the team to look at the falls data more systematically and to develop responses to minimise falls. Separating falls out from other clinical indicators helped the team to focus on falls prevention.

> *"We now have a separate meeting just for falls. So we can really focus on it. In a quality meting there are lots of things to discuss."*

Involving the whole team was seen by the manager as very important:

> *"As much as possible I consult the staff member because they are on the floor and they know what to do. I was able to explain that this is not just for me – you will also benefit. I involve them and I now ask them what are we going to do now we know this is the problem? What is your suggestion – how can we prevent this happening?"*

The team collects information about all falls and uses SAC ratings. They identify the time and place of falls, what happened and who was on duty. On a daily basis the information is recorded by the nurses onto a falls cross. The falls cross is displayed at the nursing station and on the walls in the corridors.

> *"The falls cross gives us the information at a glance."*

At the end of the month the manager graphs the data using the spreadsheet developed for the falls prevention initiative. The graph is discussed at the falls prevention meeting where the team establish causes and plan preventive action.

[15] http://www.hqsc.govt.nz/our-programmes/reducing-harm-from-falls/projects/arrc-mini-collaborative/

Examples of Maupuia's responses

Collecting the falls data and displaying information on the falls calendar was one of the important facility wide initiatives that resulted from the falls prevention initiative.

The team also made some changes after analysing the reasons for falls. For example:

- The team found that one fall occurred when a resident was struggling with a heavy door. A privacy curtain was installed in the toilet cubicle so the door didn't need to be used.
- Examples of preventing falls by individual residents included changing toileting regimes, looking at patterns in the falls and monitoring presidents more carefully at the times they are prone to falls. Sensor mats help by letting the team know when someone is getting up.

> *"The others that went share their ideas. New ideas to share with my team is toileting them regularly. That's why some of them get up. Also having someone on the floor all of the time. Some of them think they can do it. Keep an eye on them."*

Achievements

As well as reducing the numbers of falls, having the falls data has helped the team with their audits.

The number of falls has been reduced by increasing staff awareness of falls and looking at when falls are happening.

> *"Before starting this we had recurrent falls. When we started with the location monitoring and the calendar it has really reduced the falls. We could see the patterns and especially the times."*

Although there had been an initial reduction of falls the team had noticed a recent increase that may have been due to an increase in falling by one resident. Reducing falls is an ongoing challenge with the need to continuously monitor the reasons why falls are happening and respond.

> *"It is too early to evaluate our progress. It gets frustrating for us – we thought we were ahead of everything already but this month the stats are high – we are now trying to think of other ideas and preventative action."*

Reducing falls has become the responsibility of the whole team:

> *"Everybody is part of the programme."*

> *"We look at the calendar. I don't like to have any fall on my shift. No-one likes to have their name there if there is a fall. It's a competition not to have my name there and not to have a fall on my shift. I feel good if I go home and there is not a fall on my shift."*

The falls calendars for individuals are also being used by families and by GPs when they visit:

> *"Some of the families and the GP know about the calendar. When the GP comes he always has a look at the calendar. Some of the families give positive feedback and like to see that we are monitoring them – they know that we are doing something for the residents to minimise falls."*

How the falls prevention mini-collaborative helped

The team were positive about the value of attending the falls prevention sessions.

> *"They have done a great job. They are very helpful."*

Attending the sessions helped the team to document what they were doing and to be more systematic about putting in place initiatives and seeing how they worked. The process for making the graphs using the spreadsheet was:

> *"Simple and user friendly."*

Sharing experiences was valuable.

> *"We were very interested- we already had falls prevention. It was collaborative so you hear from different facilities what they do and they share ideas."*

> *"Our two nurses that went said they learnt a lot and they shared what we are doing. They were very proud to present to them what we have done."*

Potential improvements to the learning sets include the option of visiting each facility first to find out what they are already doing and then building on that in the sessions.

Keeping going

The Maupuia team will keep going:

> *"We will keep doing it. We will continue to carry on with the programme. It has been a guide for us. Quality is about ideas from each and every one. We were pleased that other facilities were happy to share what they had done."*

The team have already extended the quality improvement approach to medication error and have plans to extend further to monitoring infection.

> *"Yes, we have learned a lot – the evidence is in the folder. It was worthwhile- we will do it again. We have started it already with medication error."*

> *"We could do it to areas such as infection. This is very good at least we have a guide now we have the format and we could do it in another area. The safety calendar is also being applied to medication errors. We had a high rate – learned from the falls calendar and instead of falls it is medication error."*

A way to keep sharing ideas with other facilities would be welcomed:

> *"We can do it ourselves but it would be good to get fresh ideas from others. Other facilities might be doing something better. Blogs might work. Discussion sites on the internet."*

Sprott House: Falls Prevention Initiatives

Sprott House participated in the Aged Related Residential Care mini-collaborative[16] to reduce harm from falls. The collaborative was established by the Health Quality and Safety Commission in conjunction with the Accident Compensation Corporation and three Wellington based district health boards.

About Sprott House

Sprott House is a registered charity located in Karori, Wellington. Sprott House offers independent living, rest home and secure dementia care.

The general manager wanted the team to participate in the falls prevention learning sets. All three learning sets were attended by the manager of the dementia unit (also the resident safety officer) and the second set was also attended by the quality manager.

Sprott House's approach to falls prevention

Following the first learning set the Sprott House team started to map falls. Previously they had completed incident reports and sent in reports about the numbers of falls. Attending the first learning set gave them the idea of falls mapping.

> *"From the first month I could identify clusters and see where the falls were happening the most – and it was in the living area. [Previously] I didn't put the connections together…."*

Now each month:

> *"We map and we use a different colour each month so we can look at trends as well. If a resident is frequently falling in a place we can look at that place and see if there is anything wrong with the lighting etc."*

The Sprott House team now also uses a falls clock to look at the times falls are happening and where staff are at those times. Identifying when falls are taking place has meant that for some residents high risk times have been identified, such as meal times when staff are busier.

> *"We ask families to come in at the times that are high risk for falls – families have always been really good. It's just about working together."*

Involving staff in quality initiatives is essential. Information about falls is communicated to staff.

> *"Managers get the falls map and clock each month. Every meeting I have with the staff I take that. Copies go up in the staff rooms as well. All the staff are now well informed as well."*

> *"It's very important to staff to keep their residents safe. I let staff know how many falls we have had and what we are doing."*

Staff are also involved in finding solutions.

> *"Staff are very good at identifying risk and if someone's mobility changes. They come with ideas. They are on the floor and they know what works."*

Many of the potential solutions for individual residents were already in place before the falls prevention initiative. For example sensor beams, hip protectors. Information about individual residents is documented in the care plans and staff have the responsibility to ensure that recommendations are followed. The safety officer would have also liked to have more information about care planning included in the learning sets.

The new approach to falls prevention has led to facility-wide approaches and:

> "Allowed every one of us to be more accountable."

[16] http://www.hqsc.govt.nz/our-programmes/reducing-harm-from-falls/projects/arrc-mini-collaborative/

"Before we were not really thinking about what staff were doing, why residents were falling at a particular time…it helps to look at someone globally."

The emphasis at Sprott House is about collaboration and finding positive solutions. For this reason they prefer not to use the falls crosses because of the potential risks of making individual staff feel responsible for what is the responsibility of the whole team.

"It's not just my problem or the facilities problem. It's our problem and we need to be problem solving together."

How the falls prevention initiative helped

The most valuable aspect of the falls prevention initiative was the opportunity to meet people from other facilities and the practical advice provided by one of the speakers.

"It's been interesting to see what other homes have done. Some things they are doing we took away because they were causing falls. … It's been good to get together with other people."

Collecting data about falls using the falls calendar and falls clocks had helped to make a difference.

"Quality is more about following through in the statistics and thinking about what we can do. We are thinking more now – it's not just a bit of paper we fill in. we are thinking more now about the follow through. Why and we what we could put in place."

Having the data also made it easier to go to managers and suggest new initiatives.

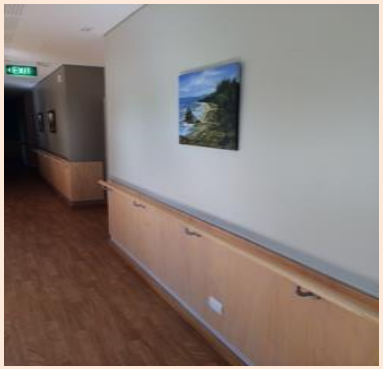
"Having the data makes it easier to go to your managers – you can explain the evidence."

Having agencies such as ACC and the Health Quality and Safety Commission involved was useful.

"You felt these people care and other people are trying to look at and prevent falls. It allowed me to think about things that are out there that we don't know about."

An example of one of Sprott House's falls prevention initiatives

We noticed that people were trying to hold on to the lip of the wooden panels. Dementia affects their perceptions. ACC funded hand rails in the unit as a result of the falls prevention unit. The residents immediately started using them. The number falls dropped but has come up again with new residents. We are continuing to look at that.



Keeping going

The falls mapping and falls clocks will continue – they have become part of the regular monthly reporting cycle. In addition the safety officer is planning to develop criteria for falls and new incident reporting forms that will include severity assessment criteria (SAC) ratings. Although meeting with staff from other facilities had been valuable it was unlikely these meetings would continue without someone external organising them.

Te Hopai Trust: Falls Prevention Initiatives

The Te Hopai Trust participated in the Aged Related Residential Care mini-collaborative[17] to reduce harm from falls. The collaborative was established by the Health Quality and Safety Commission in conjunction with the Accident Compensation Corporation and three Wellington based district health boards.

About Te Hopai

Te Hopai includes three areas: a rest home, a hospital and a dementia unit. The falls project formally commenced in September 2013 after the quality and training manager attended the first learning set of the falls prevention initiative.

Te Hopai's approach

There was strong management support for the falls prevention initiatives.

The Te Hopai team initially focussed on improving the data they were collecting about falls.

- They adapted (with permission from Mercy Parklands) their high falls risk profile and summary forms. The new form included severity assessment codes (SAC) ratings which had not previously been used.
- SAC ratings allowed the severity of falls to be tracked. Targets were set for falls reductions in each SAC rating category.

> *" We previously defined falls as injury and non-injury. Adding in the SAC rates is helpful because different interventions are required for different types of falls and different types of fallers."*

- Residents in the frequent faller category have a high falls risk profile added to their file.
- Visual saftey crosses were developed for fall free days and displayed where they could be easily seen by staff. They have raised general awareness of falls.

> *"Its in your face every day"*

- Falls data into the mini-collaborative to be used in tracking and benchmarking.

Staff engagement was encouraged:

- Vouchers were given for percentage reductions in certain types of falls.
- Initiatives had to be practical and care givers had to see the merit in the initiative. The three areas have different challenges in considering initiatives to prevent falls.

Data were analysed and initiatives planned to respond to the risks identified.

Examples of Te Hopai's response to the falls data

Different initiatives were tried in each of the three areas of Te Hopai.

> *"Some of the things we tried worked in one area but not in another."*

- Changes to the rest home roster to have someone starting earlier in the morning.
- The addition of a recreation officer in the dementia unit at the weekends. By examining falls data the team identified that falls occurred in the weekends in the morning when caregivers were occupied helping residents with personal cares. The addition of an extra staff member appears to be reducing the falls.
- The sunshine group - Increasing the sun exposure of residents to increase their vitamin D levels by increasing time outside. New garden furniture was purchased to help make the outdoors area look more

[17] http://www.hqsc.govt.nz/our-programmes/reducing-harm-from-falls/projects/arrc-mini-collaborative/

attractive. Walks and stories outside were organised. Results are being monitored but initial data shows a reduction in falls.

- Vouchers are being used in a positive way for falls free days on the star chart to encourage staff engagement with falls prevention and increase their awareness.

Achievements

The falls reduction targets have been met or exceeded for each SAC rating.

> *"We know we have reduced our fall rates. We set targets at the end of last year….we wanted to reduce SAC 4 by 10% and SAC 3 by a quarter and halve our fracture rates (SAC 2) versus 2013. We are on target for SAC 4 and beating our targets for SCA 3 and 2."*

How the falls prevention mini-collaborative helped

- The learning sets provided opportunities to meet people from the different agencies

  > *"It was good to meet people from the HQSC and work out how their roles and work could influence and improve our work here in aged residential care."*

- The learning sets and particularly the information about data

  > *"Provided the foundation about how to do it."*
  >
  > *"I really liked the spreadsheet."*

- Using the spreadhseet and benchmarking against other facilities

  > *"It's particularly useful and relevant to benchmark against local facilities that you know are the same as you…. We are all in the same DHB and have access to the same resources so we know we are similar."*

- New falls prevention initiatives have been set up using the The Plan-Do-Study-Act (PDSA) cycle. Initiatives are written up and the results reported. The PDSA concept was not new to the quality and training manager but the course provided new ideas.
- Taking part provided the opportunity to talk to others and hear what other aged care facility providers were doing.

  > *"It's always good to brainstorm a little. You can get ideas from other people and they can get ideas from you".*
  >
  > *"The third one was useful as we werefeeding back after a long time and we had implemented ourr initiatives. We heard new ideas."*

- Collegiality and collaboration.

  > *"There was definitely value, do it again! We need to work as whole team in aged residential care. We would like to have every older person in New Zealand living in a place they want to live in. Different facilities offer different things. We all have something different to offer. These groups break down barriers between us and encourage and enable us to share."*

Keeping going

Te Hopai will keep going with the falls prevention initiative they have in place. Monitoring falls is now part of business as usual.

> *"Yes, we will keep going…It is part of our quality planning for this year."*

The Te Hopai team are keen to keep using the spreadsheet and sending data in.