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Suggested Reference

Jones, S., Blake, S., Hamblin, R., Petagna, C., Shuker, C., & Merry, A. F. (2016). Reducing harm from falls. *New Zealand Medical Journal*, 129(1446), 89-103.

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Reducing harm from falls

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ABSTRACT

Serious adverse event reporting from district health boards (DHBs) brought in-hospital falls to the attention of the Health Quality & Safety Commission (the Commission) when it was incepted in 2010. In 2012, responding to the large numbers reported, the Commission began planning for a three-year programme to reduce harm from falls, initially to run 2013–2015. In this article we discuss the serious consequences of falls, and the challenges and practical considerations involved in reducing the risk of falling and the rate of falls. We explore the Commission's choice of an adaptive approach in its programme, and show how a targeted measurement framework and national action has led to a nationwide statistically significant reduction in fractured neck of femur (hip fracture) and associated costs resulting from in-hospital falls, from a median of 12 per 100,000 admissions to eight per 100,000 admissions, sustained as at June 2016 for six quarters. This reduction reflects nationwide implementation of two key care processes: 1.) the percentage of patients 75 and over provided with an assessment of their risk of falling upon admission to hospital has risen from 77% in the first quarter of 2013 to 91% nationally in June 2016, 2.) the percentage of those with identified risk who were provided with an individualised care plan that addressed those risks has risen from 77% of older patients in the first quarter of 2013 to 95% nationally in June 2016. (These results are also reflected in a 14% decrease to 30 June 2016 in numbers of falls reported by DHBs as serious adverse events). Finally, we give a call to arms to the disparate health practitioners and services across all settings for individualised responses to prevent falls one patient at a time, and for leadership responses that promote an integrated approach to falls in older people.

Serious adverse event (SAE) reporting from district health boards (DHBs) brought in-hospital falls to the attention of the Health Quality & Safety Commission (the Commission) when it was incepted in 2010. In response to the large and apparently increasing numbers reported,¹ the Commission developed a three-year programme to reduce harm from falls, launching in 2013 with an initial and continuing focus on reducing falls in hospital and promoted via the national patient safety campaign *Open for better care*. Such falls are a priority in patient safety, but present a challenge given the complexities associated with an older inpatient population. In this article we discuss the serious consequences of falls for older people—most dramatically demonstrated in the burden of hip fracture (see below)—and the challenges and practical considerations involved in reducing the risk of falling and the rate of falls. We explore the Commission's choice of an adaptive approach in its programme, and show how targeted measurement and

national action has led to wide national uptake of two key care practices known to reduce falls, and a nationwide statistically significant reduction in fractured neck of femur (broken hip or hip fracture) resulting from in-hospital falls, from a median of 12 per 100,000 admissions to eight per 100,000 admissions, a reduction sustained as at June 2016 for six quarters.

This reduction is paralleled with and supported by serious adverse event data reported by New Zealand district health boards (DHBs): in the period 1 July 2015 to 30 June 2016, all falls-related serious adverse events reported by DHBs had decreased by 14% from 2014/15 (277 to 237—this latter figure including reported falls of visitors and outpatient events).²

Finally, we give a call to arms for individualised and integrated approaches to falls prevention from all the disparate health practitioners and services dealing with older people, whether in hospital, aged residential care or the community.

Unbundling care and an “adaptive approach”

Internationally, approaches to improving patient safety in hospitals have frequently involved ‘bundles of care’. A bundle for improving quality of care is “a small, straightforward set of evidence-based practices—generally three to five—that, when performed collectively and reliably, have been proven to improve patient outcomes”.³

However, in many jurisdictions, ‘bundles’ have failed to reduce harm from falls—implementing a ‘set menu’ of programme components does not assure success.⁴⁻⁶ While reviews have established that multi-component programmes reduce fall rates by about 20 to 30 percent,^{4,7,8} it is difficult to tell which components are working best, and unclear what the ‘ideal’ mix is.⁴ Since a fall is a complex interaction between an individual’s environment and his or her risk factors,⁹ what is needed in hospital and residential care settings is local leadership and learning to determine appropriate programme components targeting environmental hazards and an adaptive approach that addresses individuals’ risk factors related to falls.¹⁰⁻¹²

In line with these findings internationally, and with experience ‘on the ground’ as the programme evolved, the Commission promoted a number of robust, evidence-based interventions that providers could choose to implement, and provided resources that could be added to established programmes or be used to build a set of components if no programme was in place. Rather than attempting to impose a grand plan, the Commission supported “the principle of multiple [small] improvements throughout any given process collectively achieving a far superior output”—that is, the “aggregation of marginal gains”.¹³ This concept has been deployed successfully in organised sport^{14,15} and also in human resources and organisational theory,¹⁶ anaesthesia,¹⁷⁻¹⁹ care of acute stroke,²⁰ medication safety²¹ and perioperative patient management.¹³ The Commission has aimed to achieve multiple gains in reducing falls through promoting a range of programme components and resources for providers to use in a response appropriate to their context. Across all settings, the most important focus is on addressing person-specific risk factors, along with safe environments and safe mobilising. In the hospital setting, the intention is that raised

awareness and guidance across multiple parts of the process, along with targeted performance measurement, will lead ultimately to focused, proactive and empowered falls prevention at the clinical front line.

The problem of falls in older people extends far beyond the hospital and institutional settings. The Commission’s commitment to older people’s independence and well-being through an integrated and evidence-informed approach to falls prevention is reflected in the expansion of the programme’s focus from hospitals into aged residential care in its second year, and primary care and the community in the third year.

Fall-related injuries

In 2014, 205,000 New Zealanders aged 50 or over had an ACC claim accepted for a fall-related injury, representing a 20% increase since 2011.²²

Compared to 50–64-year-olds, people aged 85 or over were twice as likely as to have an ACC claim for a fall-related injury. One in four people in this older age group (21,854) had an accepted ACC claim for a fall-related injury, equating to 60 ACC claims per day. They were also 17 times more likely to be admitted to hospital as a result, had more hip fractures (in fact, 49% percent of all hip fractures) and stayed in hospital three times longer (average of 15.5 days compared with 4.6 days).²²

About one in 20 of those who fall will have a fracture or other serious injury requiring hospital admission, with the likelihood of injury increasing with age.⁹ Figures for accepted ACC claims don’t capture the many falls which don’t result in physical injury and where no medical attention is sought. Nevertheless many of these falls may result in a damaging loss of confidence.²⁰

Hip fracture (in this context, fractured neck of femur or FNOF) results from about one percent of falls, and incidence rates increase exponentially with age in both men and women.²⁴ Hip fractures are more common than wrist fractures after the age of 75, probably because of slower reflexes and age-related changes in balance strategies for fall-avoidance.^{24,25} From the age group 75–84 years old to those 85 years and over, the hip fracture rate per 1,000 of the population quadruples from 6.1 to 23.3.²² Hip fractures are 10 times higher in residential care than in the community but the consequences for all older people are profound and protracted (see Box 1).²⁶

Box 1: The burden of hip fracture.

Hip fracture is a very serious injury, and the most common serious fall-related injury in the over 80s.²⁷

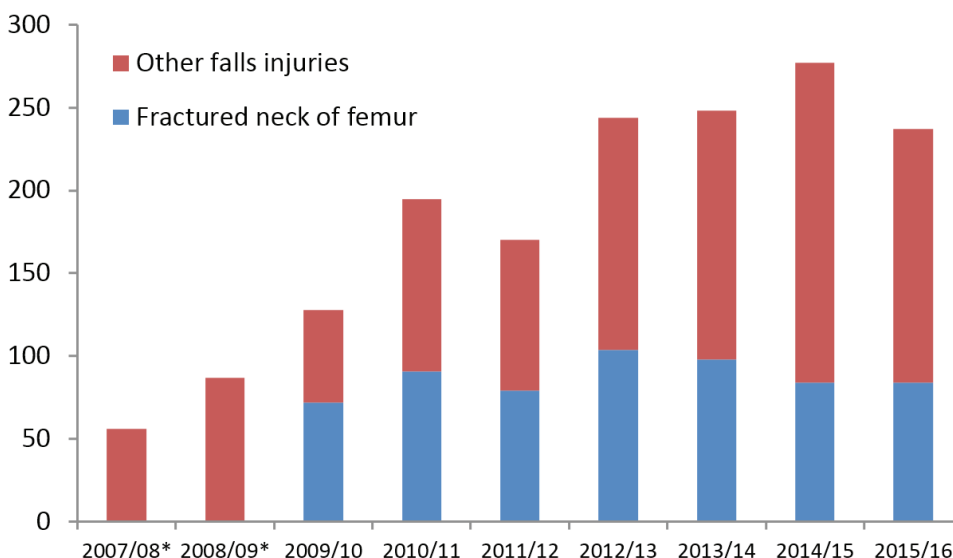
- Only half of those who survive a hip fracture will walk unaided again,²⁸ and many will not regain their former degree of mobility.^{29,30}
- Between 10 and 20% will be admitted to residential care as a result of the fracture.^{31,32}
- Sixty percent will require assistance with activities of daily living a year after the event.³³
- Twenty-seven percent will die within a year of their hip fracture, and of these, just under two-thirds would have lived if they had not fractured their hip.³⁴
- Hip fractures accounted for 14% of fractures in the US in 2005, but 72% of total fracture-related costs.^{24,35}
- More than 3,640 people over 50 presented to New Zealand hospitals with a hip fracture in 2014 (an 8% increase from 2013), directly costing the system approximately \$171m.³⁶⁻³⁸
- A hip fracture resulting in three weeks in hospital costs \$47,000 (on average). A hip fracture with complications, followed by discharge to an aged residential care facility costs \$135,000.³⁸

Hip fracture: targeted measurement, serious adverse event reporting and the Atlas of Healthcare Variation

Part of the Commission’s role is the monitoring of patient harm and promotion of safe care in New Zealand public hospitals. The Commission collects information on hip fractures in three ways:

1. As an outcome measure of the national **Quality and Safety Marker (QSM)** for the Commission’s national Reducing Harm from Falls programme. QSMs track the implementation of quality improvement process changes in New Zealand hospitals and the outcomes that follow (the latter from data extracted from the NMDS).
2. As part of the voluntary reporting of **serious adverse events (SAE)** by hospitals to the Commission for the purposes of transparency, learning and prevention (see Figure 1).

Figure 1: Inpatient falls adverse events, including fractured neck of femur, 2007–08 to 2015–16.



Source: Health Quality & Safety Commission. Learning from adverse events. Years marked with an asterisk (*) did not include breakdown by injury.

3. As a domain in the **New Zealand Atlas of Healthcare Variation**, which measures areas of variation in practice and outcomes between DHBs to identify potential areas for quality improvement.

Quality and Safety Marker (QSM)

Measuring the quality of health care and communicating the results openly is a powerful way to stimulate improvement.

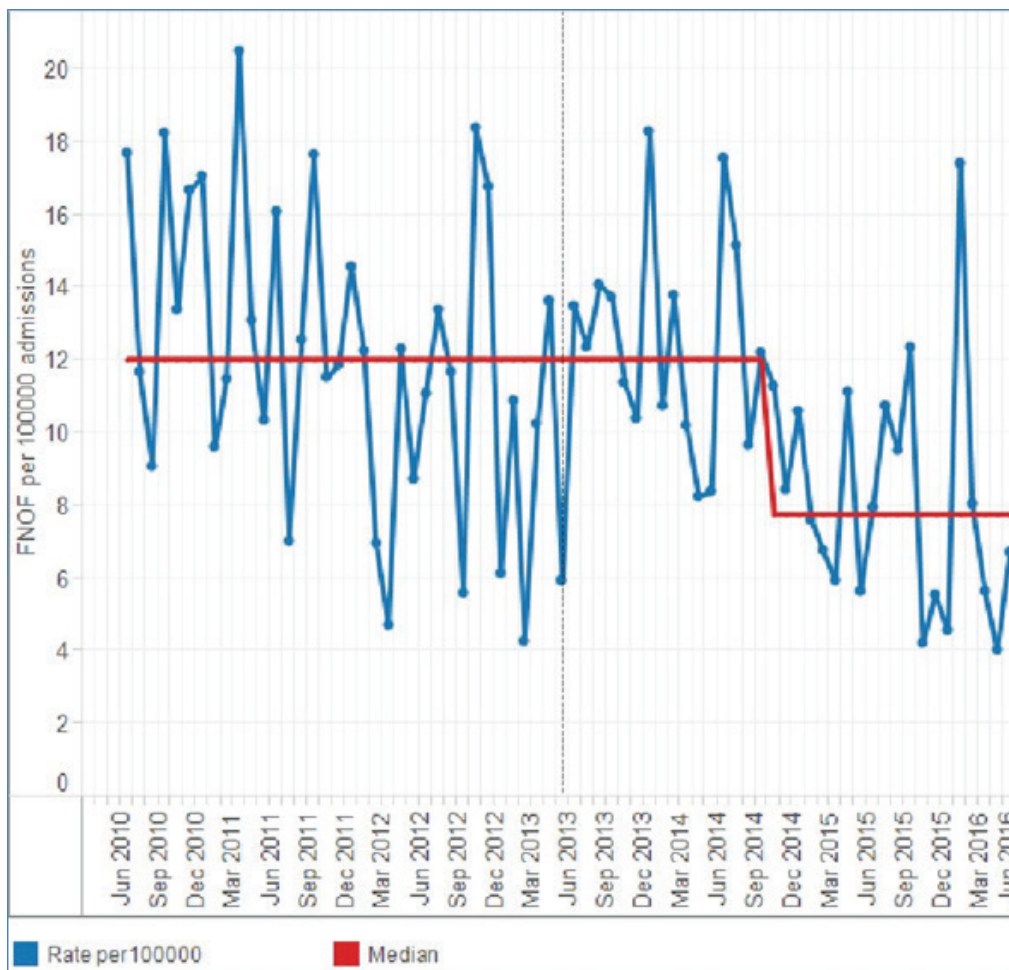
The Commission’s QSM helps drive change by giving providers feedback on uptake of two care processes known to be effective in preventing falls and monitoring that they are being implemented consistently, then linking these to the outcome we want to reduce: the number of cases of fractured neck of femur after an in-hospital fall, and related costs.

Since December 2014 there has been a 40% statistically significant reduction in in-hospital falls that resulted in fractured neck of femur, from a median of 12 per 100,000 admissions to eight per 100,000 admissions. This has now been sustained for six quarters (see Figure 2).⁴⁴

The two care processes we measured that contributed to this reduction were:⁴⁴

1. the percentage of patients 75 and over who were provided with an assessment of their risk of falling upon admission to hospital. Seventy-seven percent of older patients in in New Zealand hospitals were assessed for their risk of falling in first quarter of 2013, this has risen to 91% nationally in June 2016.
2. The percentage of those with identified risk who were provided with

Figure 2: Outcome measure: run chart showing in-hospital falls leading to a fractured neck of femur (FNOF) per 100,000 by month, 2010–2016.



Source: Health Quality & Safety Commission.

an individualised care plan that addressed those risks. Seventy-seven percent of older patients were given an individualised care plan in first quarter of 2013; this has risen to 95% nationally in June 2016.

Based on the New Zealand Institute of Economic Research (NZIER) 2010 estimate of \$47,000 health and health service costs per hip fracture incident,³⁸ this reduction conservatively represents a saving to the health system of \$1.9m in the year ending June 2016. Further, NZIER estimates suggest a saving of up to \$2.6m in the same period from 20% fewer admissions to aged residential care after hip fracture in hospital.^{38,45}

Serious adverse event (SAE) reporting

At the time of the Commission's inception in 2010, falls in hospital accounted for more than 50% of all reported hospital SAEs, and about half were associated with hip fractures. Reports had increased in number by 50% every year after 2007, presumably in part as engagement in reporting improved.¹ No other category of reportable event was as large as falls, and they clearly constitute a substantial cost in both human and financial terms. As these injurious falls have occurred while patients are in our care, the Commission made reduction of injury due to in-hospital falls a high priority.

In the period 1 July 2015 to 30 June 2016, all falls reported by DHBs as serious adverse events (including outpatient and visitor falls not included in the NMDS figures) reduced from 277 (2014/15) to 237 (a 14% reduction).²

New Zealand Atlas of Healthcare Variation

Much of the data on the burden of hip fracture in Table 1 above is drawn from the Atlas.²² The Atlas draws on multiple data sources such as ACC claims for fall-related injuries, the Ministry of Health's NMDS and the Pharmaceutical Collection to present data in map form by DHB over eight falls-related indicators. These include, for all patients across New Zealand aged 50 years and over from 2011: ACC claims, hospital admissions, hip fracture rates as well as time to surgery, length of stay and prescribing for hip fracture patients on discharge. Where possible, these measures are further broken down by age, ethnicity and gender. DHBs

can compare their rates as well as trends to identify potential areas to improve practice.

What do hip fractures tell us about falls in older people?

Hip fracture rates are a usefully quantifiable tip of the nearly unquantifiable iceberg of falls and fall-related injuries in older people both in and out of hospital. A hip fracture tells us that multiple opportunities to prevent falls and reduce harm from falls have been missed. These opportunities start with healthy lifestyles that promote bone health. The first fragility fracture is an indication that the risk of hip fracture has doubled³⁹ and should prompt evaluation and consideration of active therapy—hence the importance of systematic approaches to assessment of bone health and fracture risk in primary and secondary care. Hip fracture is often a late event in an 'osteoporotic career' fuelled by decreasing bone strength and increasing risk of falls.^{40,41}

Far more fractures occur out of hospital than in hospital, but the objective of hospitalisation is to heal, not to harm; patients in hospital have a right to safe care;⁴² and health professionals have a duty of care to the patients in their charge. Hip fractures in hospital provide an outcome indicator for a Quality and Safety Marker (QSM) to monitor initiatives to reduce falls in hospital. FNOF is an injury with a clear diagnosis that will not generally be missed. These fractures occur often enough for changes in rates to be identified in a statistically meaningful way and data can be matched to the National Minimum Dataset (NMDS).⁴³

The larger volume of falls is in the community

The Commission is using these data to inform and support an expanding focus across primary and community care settings. For every hip fracture in a public hospital, our analysis suggests there are approximately 30 hip fractures in the community.^{46,47} An economic analysis of the cost of falls and the case for investment indicated that the volume of falls in the

community³⁸ and return on investment⁴⁸ warrants giving attention to preventing falls and reducing harm from falls in community-dwelling older people.

This larger task poses a question of where to start: should the focus be on the smaller group at immediately higher risk of injurious falls or should a longer-term public health approach be taken, aiming to keep older people on their feet? The question can be answered through a system-wide approach that reconciles these equally important strategies, rather than advancing one and not the other. Consequently, activities in the third year of the programme included promoting 10 priorities for an integrated approach⁴⁹ and making the Stay Independent Falls Prevention Toolkit for Clinicians⁵⁰ available to primary care and community providers.

A system-wide integrated approach is needed as falls in older people present a complicated set of challenges and opportunities for a population group that ranges from those generally healthy and active to the very frail or debilitated. Meeting the needs of this diverse group and ensuring sustainability of services for older people requires:

- primary prevention of injurious falls in older people: preventing falls in the first place, for example through promotion of exercise programmes to improve balance and strength; ensuring safe civic and home environments; and screening bone health from age 50 for early prevention and treatment of osteoporosis
- secondary prevention for those who have had a fall with or without injury—as demonstrated in the ACC data cited above, special attention should be given to the age group 85 and older.²²

The Commission's approach is two-fold: promoting *a system-wide integrated approach to falls in older people*; and at the same time, *supporting clinicians in better management of older persons identified as being at risk of injury from falling*.

Clinicians can take practical leadership actions within their sphere of influence

to support an integrated approach to falls in older people. At a system level, such an approach incorporates effective falls prevention programmes, improvements in service delivery and specific actions to keep falls on the agenda and ensure a commitment to progress (the latter encompassing data collection and system capability). At the individual level, determining the particular falls risk factors for each person, and then working with him or her to address those factors, is the most effective way of reducing harm from falls. Frances Healey, a leading international patient safety expert and falls researcher recommends focus on the individual to overcome the enormity of the task: "Every older person is different. Don't try to answer the question 'What will stop older people falling?' and just repeatedly ask 'What might stop this person falling?'"⁵¹

Falls in older people often have causes related to underlying medical conditions, so we cannot manage falls effectively without taking the whole picture of older people's health into account, particularly the interplay between independence, physical activity, fragility, frailty and dementia.⁵²⁻⁵⁴ An individual with dementia is up to three times more likely to sustain a hip fracture than a cognitively intact older adult, for example.^{52,53} Further, thinking outside 'the health sector box' means giving attention to important gaps, such as the links between the built environment and falls,⁴⁸ and requires alliances at many levels to bring policy, provider and consumer perspectives together.

The challenge for the Commission is how to reduce harm associated with older people's falls in care settings while supporting older people in the community in taking the positive actions which will help them avoid falls and maintain independence. To help focus effort and attention, the Reducing Harm from Falls programme determined 10 priorities for an integrated approach to falls in older people, promoting this approach when the national patient safety campaign *Open for better care* revisited falls prevention in mid-2015.

An integrated approach to falls in older people—10 priorities

1. **Exercise programmes** reduce falls and fall-related injuries in community-living older people.⁵⁶ Effective programmes typically include balance retraining and lower limb strengthening exercises.⁵⁶ A range of programmes caters to different levels of physical function and personal preferences. The Otago Exercise Programme (OEP), based in the home, has been associated with a reduced falls rate in programme participants of 35%.⁵⁷

2. **Multifactorial risk assessment and multicomponent interventions** are recommended for patients at risk of falling and reduce the rate of falls for inpatients⁷ and older community-dwellers.⁵⁶ Providing a multifactorial risk assessment and plan of care is a key component of the Commission's recommendations and resources for inpatient and community settings.^{58,59}

3. **Home safety assessment and modifications** reduce the risk of falling and rate of falls, and are more effective for those at higher risk of falling and when delivered by an occupational therapist.⁵⁶

4. **Medicine use review** to target and modify the use of falls-risk-increasing medicines (especially psychotropics) reduces the rate of falls.^{56,60} Prescribed vitamin D supplementation for older people likely to be at risk of vitamin D deficiency/insufficiency helps prevent osteomalacia. While there are findings that also point to a reduced risk of falling, the evidence for prescribed vitamin D supplementation is at present contradictory and emerging at pace.^{7,56,61–65}

Service delivery

5. Locally developed, **integrated falls pathway and referral processes**, in which 'any door is the right door' for assessment of falls risk and referral for appropriate interventions.⁶⁶

- Nelson Marlborough DHB's coordinated 'single point of entry' for falls referrals is a multi-agency alliance with primary health organisations (PHOs) and ACC. The programme identifies as a 'herald faller' people

who have sustained at least one fall. All herald fallers seen by health professionals are internally referred to a centralised triage point from where triage coordinators refer them externally to appropriate community falls prevention services, primary or secondary care, physiotherapy, Māori Health Providers, vitamin D supplementation, occupational therapy and other services to reduce the likelihood of subsequent and more serious falls.⁶⁷

6. Systematic approaches to **assessment of bone health and fracture risk** and appropriate interventions for primary and secondary prevention of fragility fractures; and improvement of **fracture care and recovery**.⁶⁸

- Fracture Liaison Services (FLS),⁶⁹ mandated by the Ministry of Health and to be implemented by all DHBs, ensure that all patients presenting with fragility fractures to the particular service or institution receive fracture risk assessment and treatment where appropriate.
- The Australian & New Zealand Hip Fracture Registry (ANZHFR)⁷⁰ is a trans-Tasman partnership to develop and define shared guidelines and clinical care standards supported by international evidence. The registry will allow for better analysis of national data, and improve quality and consistency of care after a hip fracture through the use of a set of key quality indicators.

7. For older people identified as frail, **comprehensive geriatric assessment** is a key to safe, compassionate integrated care in primary, long-term care and acute settings, especially for those with problems which contribute to falls risk, such as impaired mobility and dementia.^{71,72}

Leadership actions

8. **Keep falls on the agenda as everyone's business**. The causes of falls in older people are complex—we should not be surprised that service improvement is difficult and takes sustained effort, attention and leadership.⁷³ Leadership support was shown to be one of the strongest factors for success of falls reduction programmes in a study of 34 Veterans Affairs health centres in the US.⁷⁴

- An organisational audit tool is available for clinical leaders to review their service's performance against the 10 Priorities for an integrated approach.⁷⁵
- Leadership also means partnering with patients and families. Older people's views are critical in service planning and provision as to what will work for them. Using patient stories at all levels is a powerful reminder and motivator.

9. Ensure systems and processes are in place to **collect, monitor and analyse data** related to fall prevention measures and falls incidents. Providing **meaningful feedback** to those involved promotes learning and shows where to improve practice.

- The Commission's falls QSM reports quarterly the compliance of all DHBs in providing older patients with a falls risk assessment and tailored care plan (ie, process measures) and the number of falls in hospital resulting in a fractured neck of femur, and associated costs (outcome measures).⁴⁴ The falls domain of the Commission's New Zealand Atlas of Healthcare Variation gives clinicians, patients and providers an overview of the prevalence of falls in people aged 50 and over, including those treated in the community and in hospital. Admission rates for hip fracture are shown, and

indicators on how these patients are managed, by DHB.³⁶

- The Commission has also conducted a review of reports on 48 falls with serious harm from a subset of DHBs. These reports provide valuable learning, which is 'hard won'—the reports are only generated when a patient or resident suffered a significant injury related to a fall.⁷⁶ This review demonstrated that the quality of the analysis left room for improvement and that learnings did not always translate to sustainable actions.

10. Ensure **system capacity and capability** for quality improvement and innovative practice for falls prevention. Both evidence and experience-based fall prevention practices require behaviour change and new competencies for staff, and change management to support organisational and system change.⁷⁷ Networks can be energising, build resilience and spread knowledge and learning.⁷⁸

Each of the above 10 Priorities for an integrated approach to falls in older people will intersect with different clinicians' spheres of influence in different ways. The case study below presents multiple points where better care might have changed the story—as also might have a better system integration (see Box 2).

Box 2: Gordon's story: from a community fall to a hospital fall to residential care.⁷⁹

Gordon is elderly, lived in a rural area, and had suffered several prior falls at home before the fall that led to his admission. "I tripped on the carpet, I think. Or the lip that goes across the sliding door. I could have kicked that", he said. "And over I went".

He had multiple comorbidities, many of which signal a risk of falling—including glaucoma and poor vision, gout, frailty and memory problems. Gordon was admitted for injuries sustained in this fall. Then his niece received a phone call from the hospital.

"He was stretching out to get a walker that was too far away from his chair", his niece said. On the ward, Gordon had fallen again and fractured his hip. Surgery was required. "Once they got him back on his feet they turned around and says well he can't manage at home so you'll have to look for a rest home".

The pain and waste is dramatic—suffering for Gordon, sudden, unexpected and ongoing costs to his family for residential care, additional costs to the hospital and the bitter disappointment for his caregivers and nurses. His ability to live at home and his quality of life have been abruptly curtailed in the place and at the moment he should have been safest.

Falls in older people: starting with this patient

What might have stopped Gordon falling? The clinician's personal leadership role in moving toward an integrated approach to prevent falls is the longer term priority. Perhaps just as challenging is their role for each older person in their care.

Older people can regard falls as a common problem for their age group, yet not a problem for them personally.^{80,81} Fear of falling can create a downward spiral of restricted activity, which increases the risk of falling.⁸² Moreover, older people don't necessarily mention falls. A 2014 survey found that more than half of people would not report a fall even if there was a minor injury.⁸³ Older people need to be helped to develop a personally relevant awareness of risk matched to an understanding that falls are much more preventable than inevitable. Asking the older person about falls begins that conversation.

It is not surprising that older people in hospitals and in care settings are prone to fall and susceptible to injury. In these settings, age-related physiological changes (such as slower protective reactions) combine with a high prevalence of clinical conditions implicated in increasing risk of falling (such as postural hypotension) or risk of injury (such as osteoporosis or anticoagulant therapy).⁹ Further, older people present with an array of co-morbidities, to which are added the effects of treatments and medicines, some of which increase the risk of falling or of injury. As an additional challenge, the older person in hospital must orient to and safely negotiate an unfamiliar and often hazardous environment. Any tendency to move less in consequence of all these factors presents its own array of risks, including deconditioning and pressure injuries.

People at risk of falling, or their families, typically want to be engaged in their own care. A study engaging consumers who had already fallen in hospital found that, with the benefit of hindsight, they "wanted to be informed and told of why they were at risk".⁸⁴ They further wanted to know "what specific activities the nurse wanted them to

do to reduce their risk and the role of the health care team in their fall prevention".⁸⁴

Finally, throw into the mix the reality that a significant proportion of older inpatients will not be able to undertake the protective tasks of looking after themselves, due to cognitive impairment or acute confusional states (which themselves significantly increasing risk of falling).^{85,86} Dementia will affect more than 2.6% of the population by 2050—more than 14,000 people (probably over-represented among inpatients).⁸⁷ Delirium affects up to half of older inpatients and is associated with poor functional outcomes and increased mortality, but it is preventable and reversible in many cases.⁸⁶

Conclusion

On the International Day of Older Persons in 2012, United Nations Secretary-General Ban Ki-moon reminded us that, "Longevity is a public health achievement, not a social or economic liability ... let us pledge to ensure the well-being of older persons, and to enlist their meaningful participation in society so we can all benefit from their knowledge and ability".⁹⁸ Addressing the challenge of adding 'life to years' includes reducing the impact that falls and resulting injuries have on well-being, coping and independence.

The New Zealand Triple Aim is the simultaneous pursuit of improved quality, safety and experience of care for the individual, improved health and equity for all populations, and best value for the health system.⁹⁹ The point of a Triple Aim approach is to integrate and balance apparently competing priorities simultaneously.

It is often said "It takes a village to raise a child." Equally, it takes a village to prevent an older person from falling.⁶⁶ A clinical community can aggregate the marginal gains available from attention to many details throughout the continuum of ageing. The apparently good results noted above may attest to the value of such an approach—raising awareness, interest and engagement; provision of knowledge, resources and tools; and influencing attitudes towards culture and behaviour change coupled with robust measurement approaches.

The challenge for individual clinicians, and the teams in which they work, includes

Box 3: Resources and support.

Five main programme components developed for the Reducing Harm from Falls programme are: multifactorial interventions, safe mobilisation, learning from analysis of fall events, engagement and education on falls issues for the workforce and other stakeholders, and a toolkit for primary care. The first four components were launched with the national patient safety campaign mid-2013.

- **Ask, assess, act**⁸⁸—a process based on clinical practice guidelines for prevention of falls in older people^{65,89-91} encompassing screening for falls risk, multifactorial assessment and individualised interventions for modifiable risk factors. The ‘Ask, assess, act’ process applies in any setting and is an integral part of the Toolkit. It supports a conversation in which each older person’s individual perspective and experience—and that of their family and/or carers—is the key to discovering his or her priorities and the steps he or she would be willing and able to take to reduce the risk of falling.
- **Signals for safe mobilising**⁹²—a system of symbols and visual aids signalling the level of assistance needed for safe mobilisation was developed, trialled and made available as a nationally standardised system.
- **Learning from fall incidents**—based on a review of falls-related serious adverse events reported to the Commission, a suite of resources was developed to support consistency in the classification of harm related to falls and improve quality in the analysis of events requiring root cause analysis, including a human factors guide and framework, and a template for reporting. Ultimately, an incident management system⁹³ only produces improvements when action is taken to improve patient safety.
- **10 Topics and other resources**⁹⁴—a set of resources covering key issues in falls in older people were developed and made available online, including a survey and competition (the national annual April Falls Quiz⁹⁵), learning activities structured to meet continuing professional development requirements (10 Topics in reducing harm from falls⁹⁴) and four videos highlighting effective programmes in hospital, aged residential care and community settings.⁹⁶
- **Stay Independent Falls Prevention Toolkit for Clinicians**⁵⁰—this was developed by BPACNZ (Best Practice Advocacy Centre New Zealand) in partnership with the Commission, adapted from the US Centers for Disease Control and Prevention’s STEADI (Stopping Elderly Accidents Death and Injuries) materials⁹⁷, with input from Nelson Bays Primary Health. Made available from mid-2015, the Toolkit contains resources intended to help screen, assess and support older people in preventing falls and maintaining their independence. The tools can be used to identify and address an older person’s modifiable risk factors for falling, allowing positive steps to be put in place to increase strength and mobility, and reduce the likelihood of falling.

Additionally, there have been projects to produce patient and resident information and signage, to promote prescribed vitamin D supplements for older people likely to be at risk of insufficiency or deficiency, and a small-scale targeted quality improvement initiative in a group of aged residential care facilities.

capitalising on every opportunity to provide appropriate individualised care, and taking actions to ensure joined-up care in an integrated system. These actions are naturally part of a commitment to the general good care of older people, and are necessary for system sustainability. Moreover, effective,

carefully targeted falls prevention strategies—starting with a heightened awareness of the importance of falls and simply asking older people about falls—are a relatively low cost investment that returns potentially substantial savings, both financial and in terms of human suffering.⁴⁸

Competing interests:

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