

# Evaluation of the Falls Specialist Officer Pilot Project

Final Report, January 2011



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## Evaluation of the Falls Specialist Officer Pilot Project, Final Report (2011)

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### Suggested citation:

Black A, Bell R, Brauer S & Haines T (2011). *Evaluation of the Falls Specialist Officer Pilot Project*. Centre for Healthcare Improvement, Queensland Health: Brisbane.

## **Acknowledgments**

We would like to thank Alyssia Economidis and Simone Dullaway for their valuable contribution and assistance in providing information and feedback for this report. In addition, we would like to acknowledge the support received from staff of the Falls Prevention Program, Patient Safety and Quality Improvement Service (PSQ), and thank particularly Kate Smith, Heidi Atkins, Diana Olsson and Kristina O'Dwyer.

Furthermore, we would like to thank PSQ senior management and Falls Injury Prevention Collaborative members who provided valuable comments on earlier drafts of this report. The support of the Health Statistics Unit and PSQ Data Analysis Team in providing data is gratefully acknowledged.

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# Executive Summary

## Issue addressed

Falls are the most commonly reported adverse event in Queensland hospitals. During 2006-07, over 10,000 falls were reported in Queensland Health facilities (Queensland Health 2008). Falls rates in hospital vary according to patient populations, with estimates ranging from 3 to 18 falls per 1,000 bed days (Haines *et al.* 2008a). These hospital-acquired falls can result in harm, longer recovery times, increased length of hospital stay and mortality, all of which increase the burden on the health care system. This pilot project was designed to evaluate the role of Falls Specialist Officers (FSO) working in hospitals to deliver education, training and support to frontline staff on best practice strategies for falls prevention. The project aims were to build staff awareness, competency and attitudes towards falls prevention, and reduce the rate of falls and fall injuries.

## The intervention

For this project, two FSOs were placed in three south-east Queensland metropolitan hospitals, jointly funded project by the Patient Safety and Quality Improvement Service (formerly known as the Patient Safety Centre) and the participating Health Service Districts. During the 12-month project, the FSOs raised awareness on best practice strategies for falls prevention, developed and delivered tailored training and education to all frontline staff across 11 wards, and facilitated broad hospital engagement in falls prevention activities.

## Methods

This report details the findings of the project evaluation, using data collected pre- and post-project. The levels of compliance with best practice safety actions in falls prevention were examined using compliance audits, and safety attitudes towards falls prevention were assessed using a standardised safety climate instrument. The rate of reported falls and coded injurious falls were examined during the 12-month periods pre-, during and post-program, collected from hospital incident reporting systems and coded admitted patient data.

## Results

Staff compliance with best practice strategies for falls prevention varied considerably pre-project, and significant improvements in compliance were demonstrated post-project. There was a 19-57% increase in the use of falls risk screening strategies (complete, correct, documented and completed within 24 hours;  $p < 0.05$ ); and a 7-32% increase in environmental safety actions (appropriate bed height, bed-brakes locked, access to call bell, clutter-free environment;  $p < 0.05$ ). Small improvements in safety attitudes were reported post-project, particularly for the "learning from mistakes" dimension, which suggests that staff were willing to learn from mistakes and make positive changes. Two dimensions remained problematic post-project: "unit recognition and support" and "provision of safe care". As such, additional strategies are required to build stronger teamwork for falls prevention, facilitate open and blame-free communication, and promote recognition and rewards for safe actions.

There was, however, no reduction in the rate of reported falls or coded injurious falls. There are a number of factors which may explain this finding: increased incident reporting behaviour, which is an indicator of teams with a positive safety culture; the limited evidence whether improving compliance with best practice strategies for falls prevention is effective in preventing falls; and the intervention period may have been too short to show an effect. In addition, the study did not modify existing falls risk tools or assessed whether falls prevention intervention strategies were implemented appropriately.

## Conclusion

The tailored education program developed and delivered by FSOs was effective in enhancing staff competencies in best practice strategies for falls prevention, as well as improving compliance behaviour and staff attitudes towards falls prevention. However, given there was no reduction in the rate of reported falls or coded injurious falls, further investigation with the addition of strategies targeted towards patient education and risk factor interventions is warranted.

## Where to from here?

The opportunities from this project are that momentum has been built for preventing falls in Queensland hospitals. At a hospital level, local investment is essential to maintain the focus on ongoing education and enhancement of safety culture towards

falls prevention. This project demonstrated that the FSO role working in hospitals can be an effective mechanism in which to drive these initiatives. At a state level, Queensland Health should consider the development of a suite of standardised tools and training resources to ensure the consistency of falls prevention education. These approaches are required to provide the necessary top-down and bottom-up approach to target all hospital staff and management, and develop and sustain effective falls prevention initiatives across Queensland Health facilities. In all, valuable information was obtained from this project about the future needs within hospitals and other Queensland Health facilities, to ensure the continued development of falls prevention education and training, which can inform future Queensland Health policy and other strategic planning processes.

# About this report

This evaluation report is offered as a constructive contribution to a field in which research evidence remains limited, and in the hope that it extends understanding of factors that contribute to the implementation of effective fall-prevention interventions to assist in reducing the rate of in-patient falls. The aim of this report is to present the evaluation results of the Falls Specialist Officer (FSO) pilot project.

## Report structure

This report commences with a summary of the background and context of in-patient falls in hospital. It then details the development and implementation of the FSO pilot project. It follows with three chapters which report on the findings from the project's impact on levels of staff compliance with best practice strategies for falls prevention; staff safety culture towards falls prevention; and the rate of reported falls and coded injurious falls. The final section of this report summarises the key findings, lessons learnt, and enablers and barriers to the project implementation. In addition, this chapter provides a number of recommendations to guide the development of future fall-prevention initiatives.

## Potential users of this report

This evaluation report is intended to provide information to persons with an interest in falls prevention in the hospital setting. This includes, but is not limited to, frontline clinicians, hospital managers and policy makers across all levels of Queensland Health. Information from this report will also provide valuable advice for the statewide planning of falls prevention in Queensland across the healthcare continuum.

## SECTION 1

# Background and context

Falls are the most commonly reported adverse event in hospital. Reported falls in public sector Queensland hospitals provide an estimate of the magnitude of the problem. In the 2006-07 financial year, over 10,000 inpatient falls were reported – 23% of all reported clinical incidents (Queensland Health 2008). Furthermore, almost 4,000 (40%) of these falls resulted in some form of patient harm and 10 resulted in death or permanent loss of function (Queensland Health 2008). The actual numbers of falls may be even higher, as incidents may be under-reported, particularly for falls that are unwitnessed. These findings reflect both national and international trends, where reported rates of inpatient falls in previous studies range from 3 to 14 falls per 1000 bed days (Healey *et al.* 2008, Oliver *et al.* 2007). Importantly, patients experiencing falls in hospital may suffer serious injuries, have longer recovery times and increased length of stay, and are more likely to be placed in a nursing home after hospital discharge, all of which contribute to additional health care costs (Corsinovi *et al.* 2009, Hill *et al.* 2007).

Studies have identified a number of risk factors which contribute to inpatient falls, which is necessary to inform the development of evidence based falls prevention programs. The majority of the risk factors are patient-based, such as impaired cognition, impaired mobility, medication use (sedatives/hypnotics), history of previous falls, incontinence and age (Corsinovi *et al.* 2009, Oliver *et al.* 2004). As such, much of the research to date has examined the use of risk assessment tools and risk reduction interventions to prevent falls. There is, however, no conclusive evidence that these programs are effective and further research is needed (Coussement *et al.* 2008). As such, falls continue to be a challenge for frontline staff and is deserving of a continued prevention effort.

There are also other factors which are likely to contribute to falls, including staff, team, environmental and organisational factors. Frontline staff make a major contribution to patient safety by assessing fall risk and designing patient-specific fall prevention interventions that reduce risk of falls and fall-related injury. As such, the knowledge, skills and attitudes of staff towards falls and fall-prevention strategies is likely to contribute significantly towards the effectiveness of fall prevention programs. In addition, organisational factors are important. A small scale study recently showed

that a routine nurse rounding intervention resulted in a reduction in the rate of falls in a single 27 bed, adult surgical unit (Woodard 2009).

Many falls in hospital can be prevented, and frontline hospital staff are responsible for ensuring the safety of patients in their care and should have the necessary knowledge, skills and attitudes to provide the highest level of care. Current initiatives to address the growing problem of falls in Queensland hospitals include the statewide dissemination of the 2005 Best Practice Guidelines for Australian Hospitals and Residential Aged Care Facilities (The Australian Council for Safety and Quality in Health Care 2005), with clinician support and education provided by Patient Safety and Quality Improvement Service, formerly known as the Patient Safety Centre.

Despite the increased focus on falls prevention with the National Fall-prevention Guidelines in place, the message is failing to reach frontline staff. There remains limited ongoing education and training provided to Queensland Health frontline staff and a need to improve their competencies in this area. As the majority of fall-prevention research has focused on patient risk factors, little is known about the contribution of staff attitudes and actions in relation to falls prevention.

Preventing falls and fall injuries among older adults staying in hospitals has become an important focus for patient safety. To enhance Queensland Health's response to preventing these incidents, this pilot FSO project was developed and implemented at three south-east Queensland metropolitan hospitals. The remainder of this report outlines the findings from the evaluation of this pilot program.

## SECTION 2

# Project outline

## 2.1 Project development

The Falls Specialist Officer (FSO) pilot project was developed in response to concerns about the considerable rate of falls occurring in Queensland Health facilities. These concerns were discussed, and identified the need to increase the capacity and skills of all frontline staff to deliver best practice strategies for falls prevention to patients. For this project, a bottom-up approach was taken, targeting frontline hospital staff.

## 2.2 Project aims and objectives

### Aims

- To increase awareness of falls and falls prevention in the facilities;
- To increase compliance of frontline staff in delivering best practice strategies for falls prevention to patients;
- To improve the safety culture towards falls prevention among ward staff;
- To reduce the rate of hospital-acquired falls and fall injuries in the wards.

### Objectives

- To develop resources to increase awareness of falls prevention in the facilities;
- To develop and deliver education on the use of evidence-based falls prevention strategies to all frontline staff;
- To establish a Falls Prevention Team in each facility to assist in the development and delivery of interventions;
- To conduct regular audits to monitor compliance behaviour with best practice strategies for falls prevention;
- To conduct safety climate surveys to examine safety culture towards falls prevention;
- To monitor the rates of falls, with regular feedback to ward staff.

## **2.3 Project location and funding**

The first step was to identify locations in which to pilot the project. Expressions of interest were sought from potential Health Service Districts (HSD), and two HSD were selected to participate in the project.

The project was jointly funded by the Patient Safety and Quality Improvement Service (PSQ, formerly known as the Patient Safety Centre) and the HSDs. Service level agreements were signed between the parties. Funding primarily comprised of the FSO salary (PO4 or NO4 level) and salary for ward staff to attend Falls Prevention Team meetings (6x staff, 1 day per month for 12 months). Other general office costs were provided in-kind by the participating facilities. The total funding at for each HSD was approximately \$117,000.

## **2.4 Project personnel**

The project comprised of FSOs, whose role was to educate and drive individual and organisational change to build the capacity of staff in delivering best practice strategies for falls prevention. In total, two FSOs were appointed on a full-time basis to lead the project in the corresponding HSD: one FSO was located at a single hospital (Hospital A), and the other FSO serviced two hospitals (Hospitals B and C). Both FSOs were qualified allied-health staff (physiotherapy and occupational therapy) recruited from within the participating HSD.

The FSOs were provided with initial training and resources by Dr Terry Haines from the Falls Injury Prevention Collaborative and PSQ (formerly the PSC) Falls Injury Prevention Program team members.

## **2.5 Project setting**

The project was conducted between September 2007 and September 2008 in 11 wards of the three metropolitan hospitals outline in Section 2.4. The wards (six acute and five sub-acute) ranged in size from 10 to 33 patient capacity (Table 2-1).

**Table 2-1: Characteristics of the eleven participating wards**

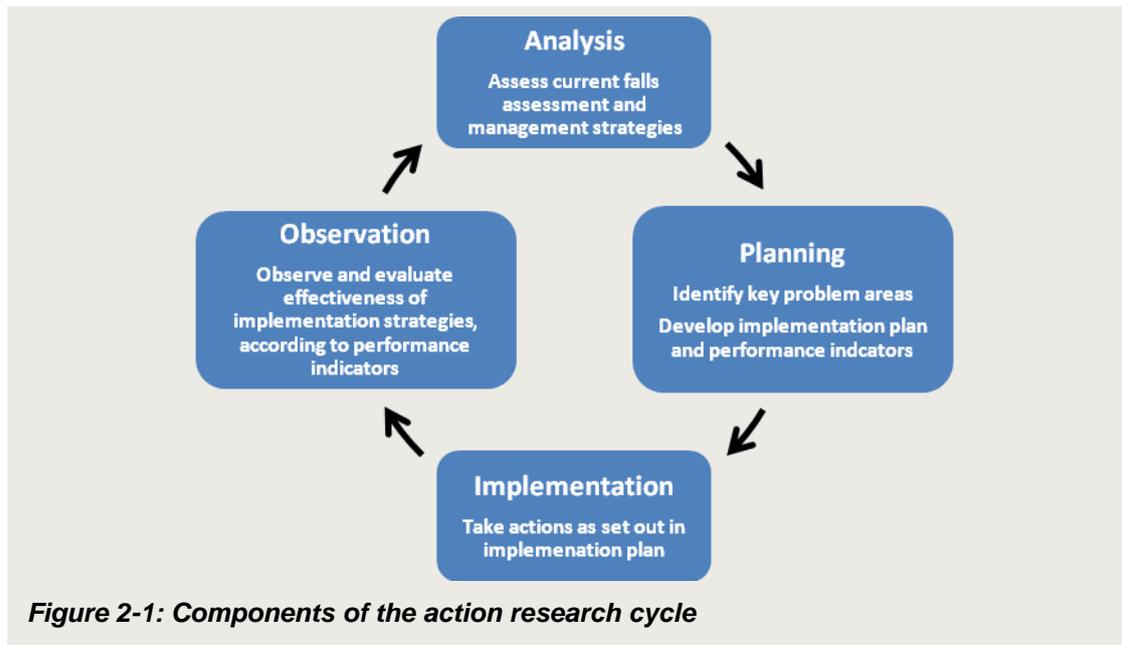
HOSPITAL & WARD	MAXIMUM NUMBER OF PATIENTS	WARD SPECIALTY
<b>Hospital A</b>		
Ward 1	23	sub-acute rehabilitation and stroke
Ward 2	10	sub-acute palliative care
Ward 3	28	acute general medical
Ward 4	23	acute general medical
Ward 5	33	acute surgical
Ward 6	30	acute orthopaedics
<b>Hospital B</b>		
Ward 1	26	sub-acute rehabilitation
Ward 2	30	sub-acute extended care
Ward 3	30	acute general medical
<b>Hospital C</b>		
Ward 1	30	acute general medical
Ward 2	24	sub-acute rehabilitation

## 2.6 Intervention components

During the 12-month project, each FSO completed three action research cycles (ARCs), which are used widely in health, business and education sectors to implement practice change using a consultative, flexible and collaborative approach. From these ARCs, the gaps in the knowledge, skills and attitudes of frontline staff towards falls prevention were identified, and intervention components were developed and implemented to target these areas and enhance the capacity of staff in falls prevention. The ARC enables tailored interventions to be developed and implemented for each ward, which are presented in Table 2-2.

As illustrated in Figure 2-1, each action research cycle in the project encompassed:

- **Analysis** of existing practices and strategies for falls prevention;
- **Planning** and development of the intervention components, performance indicators and strategies for implementation;
- **Implementation** of the intervention components; and
- **Observation and evaluation** of the intervention components based on the performance indicators.



To achieve the objective of increasing organisational involvement in fall-prevention activities in the facilities, the FSOs established a Falls Prevention Team at each hospital, which met monthly to discuss issues relating to the falls education intervention, particularly with planning, delivering and evaluating the project components. This team was led by the FSO and comprised at least one clinical staff representative from each ward.

## 2.7 Project resources

During the 12-month project, the FSOs created various resources and education materials, targeting the gaps identified during the action research cycles. Examples of some of these resources are provided in Appendix 8.2.

## 2.8 Ethics

Approval for undertaking the evaluation of the project was granted by the Human Research Ethics Boards from the participating hospitals.

**Table 2-2: The intervention components\***

<b>Established a Falls Prevention Team</b>
<ul style="list-style-type: none"><li>• Comprised one nurse representative from each ward</li><li>• Chaired by the falls specialist officer</li><li>• Met monthly to discuss planning, delivery and evaluation of the project components</li></ul>
<b>Developed suite of resources and education materials</b>
<ul style="list-style-type: none"><li>• Presentations, quizzes and activities for education sessions</li><li>• Promotional items, including pens, display banners and posters</li><li>• Risk assessment reference charts</li><li>• Falls risk alert signs</li><li>• Footwear display boards and brochures</li></ul>
<b>Delivered education sessions to all nursing, medical, allied-health and operational service staff</b>
<ul style="list-style-type: none"><li>• Topics include: "What is a fall?"; Falls risk factors; Reporting falls; Risk assessment and screening tools; Best practice prevention strategies (bed use, environmental risk); Footwear in hospital</li></ul>
<b>Conducted regular compliance audits and monitored falls rates</b>
<ul style="list-style-type: none"><li>• Feedback provided to staff on compliance rates and number of reported falls</li><li>• Rewards and incentives provided for practice improvement</li></ul>
<b>Provided a local falls prevention consultation service to staff</b>
<ul style="list-style-type: none"><li>• Advised to staff relating to falls best practice strategies</li></ul>

\*These components were selected and tailored to suit each ward

## 2.9 Evaluation methodology

This evaluation is based on a pre-post study design, which allows for the comparison of outcome measures collected pre- and post-project. The scope of this evaluation is limited to the data collected by the FSOs during their placement in the participating hospitals, and data collected by the authors from hospital incident reporting systems and coded admitted patient data.

The following three outcome measures were used to evaluate the impact of the project:

- The levels of compliance of staff with best practice strategies for falls prevention, collected using chart and bedside audits;
- The safety attitudes of staff towards falls prevention, using a validated safety climate survey;

- The number and rate of falls and falls injury, collected from hospital incident reporting systems and coded inpatient admitted data.

In addition, key enablers and barriers to project implementation were identified using thematic analysis.

The following three sections describe the specific evaluation methodology for these outcome measures in detail. All statistical analyses were carried out using SPSS (ver. 16.0). All statistical tests were two-sided and p-values less than 0.05 were considered statistically significant.

## SECTION 3

# Compliance with falls prevention safety actions

This chapter reports on the compliance levels of staff with best practice strategies for falls prevention, pre- and post-implementation of FSO pilot project.

### 3.1 Background

An important aspect to improving patient safety in hospitals, including falls prevention, is ensuring the appropriate use of safety actions and behaviours (Wakefield & Jorm 2009). Their use underpins the provision of safe care, although improvements in safety actions do not necessarily guarantee improved safety performance (Wakefield & Jorm 2009).

A considerable amount of research has examined factors which contribute to unsafe acts or processes in the health care setting. The need for staff to be fast, efficient and effective can often lead to skipping safe procedures. The “normalisation of deviance” is a key issue for safety, whereby situations that occur repeatedly become the norm, even though they are unacceptable and potentially dangerous (West 2000). Changing behaviour and daily work processes requires ongoing education to reinforce and model desired behaviours and actions, and demonstrate the value of actions in improving patient outcomes. Challenges to achieving this change of behaviour includes a lack of leadership commitment, achieving clinician buy-in, and lack of resources and time to implement patient safety initiatives and provide staff education.

Translating evidence into practice is difficult, particularly as the development of protocols and guidelines do not equate to adoption into practice (Francke *et al.* 2008). Staff education that focuses on expectations and evidence supporting the protocols and procedures is critical to the success of any implementation strategy. Changes in practice patterns happen over time and require frequent reinforcement, and thus, require an investment in time and money to achieve the desired adherence and uptake. Compliance audits provide a measure of the use of safety actions, and are useful in observing the gap between knowledge about best practice processes and actual practice.

The adherence to fall-prevention strategies based on evidence of best practice remains poor in the hospital setting, despite the development of 2005 Best Practice Guidelines for Australian Hospitals and Residential Aged Care Facilities (The Australian Council for Safety and Quality in Health Care 2005). Inconsistent adherence of nursing staff to a fall prevention program has been reported (Dempsey 2004), and barriers to implementation of falls guidelines include knowledge and motivation, availability of support staff and access to resources (Koh *et al.* 2008). Furthermore, poor adherence to guidelines may also reflect a lack of effective implementation strategies to translate evidence into practice (Hakkennes & Dodd 2008).

A deficiency in staff education and training may be a potential limiting factor in the effectiveness of fall-prevention programs. In a recent study, professional development programs for nursing staff were shown to be successful in improving both behaviour and use of safety actions towards falls prevention (Dempsey 2009). Education sessions to staff were successful in increasing nurses' knowledge and skills in falls prevention (Koh *et al.* 2009), and increased their use of existing falls prevention strategies (Krauss *et al.* 2008). Neither of these studies, however, demonstrated a concurrent significant reduction in the rate of falls. In contrast, Brandis (1999) reported a 7.5% reduction in falls two years following the implementation of a falls program, which included a number of educational components to staff. Barker *et al.* (2009) also reported reductions in the rate of falls injury, but not the rate of falls, following the implementation of a falls prevention program, which included staff education.

It is possible that ongoing, local staff education integrated into workforce development may lead to improved engagement, uptake and adherence with best practice strategies for falls prevention. In an attempt to clarify this issue, this pilot FSO project targeting all frontline hospital staff aimed to improve their use of safety actions towards falls prevention.

## **3.2 Outcome measures**

### **Compliance audits**

The levels of compliance with best practice strategies for falls prevention were measured pre- and post-project using chart audits and direct observation at the

bedside. The audit items were selected from the Best Practice Guidelines for Australian Hospitals and Residential Aged Care Facilities (The Australian Council for Safety and Quality in Health Care 2005).

### **Audit tool**

The FSOs developed their own audit tool, as no standardised or structured audit tool was provided. This resulted in considerable variations in the audit items, and therefore, some audit data was not collected in some wards.

The **chart audits** examined the following risk assessment safety actions:

- Completion of a risk assessment/screening tool;
- Completion of a risk assessment/screening tool within 24 hours;
- Correct risk rating documented in chart; and
- Regular review of patient risk level.

The **bedside audits** examined the following environmental safety actions:

- Call bell within reach;
- Appropriate bed height;
- Bed brakes locked;
- Bedrails down; and
- Clutter-free environment.

Some additional falls prevention components were examined by the FSOs, such as patient footwear. The data collected, however, was inconsistent for any formal analysis to be undertaken, and is not presented in this report. The audit tools were also limited by the fact that they did not assess whether interventions were put in place to modify patient risk factors following assessment, or whether the interventions were appropriate.

### **Audit sample**

A minimum of 30 percent of patients in each ward were audited. The total samples for each audit varied due to the considerable time in undertaking the structured audits.

## **Audit frequency**

The audits were repeated periodically according to the action research cycles and provided valuable feedback to staff during the education sessions. For the purpose of this report, however, only the pre- and post-project results are presented.

## **Statistical analyses**

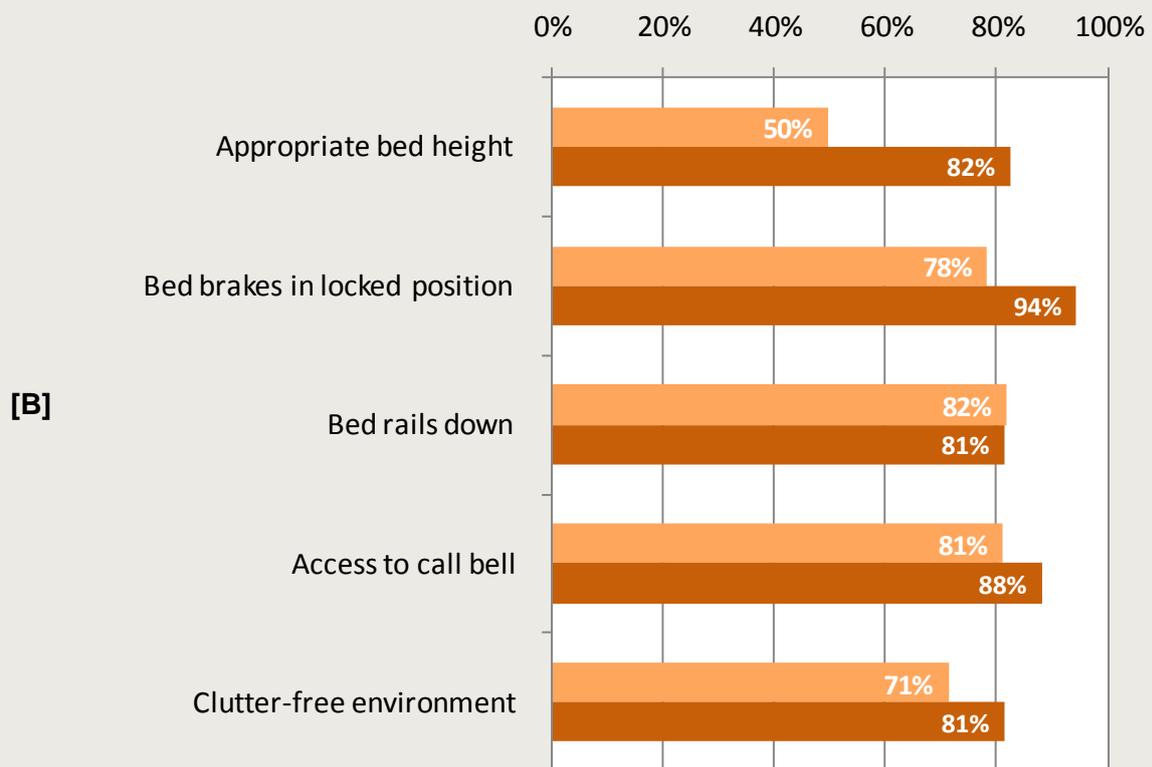
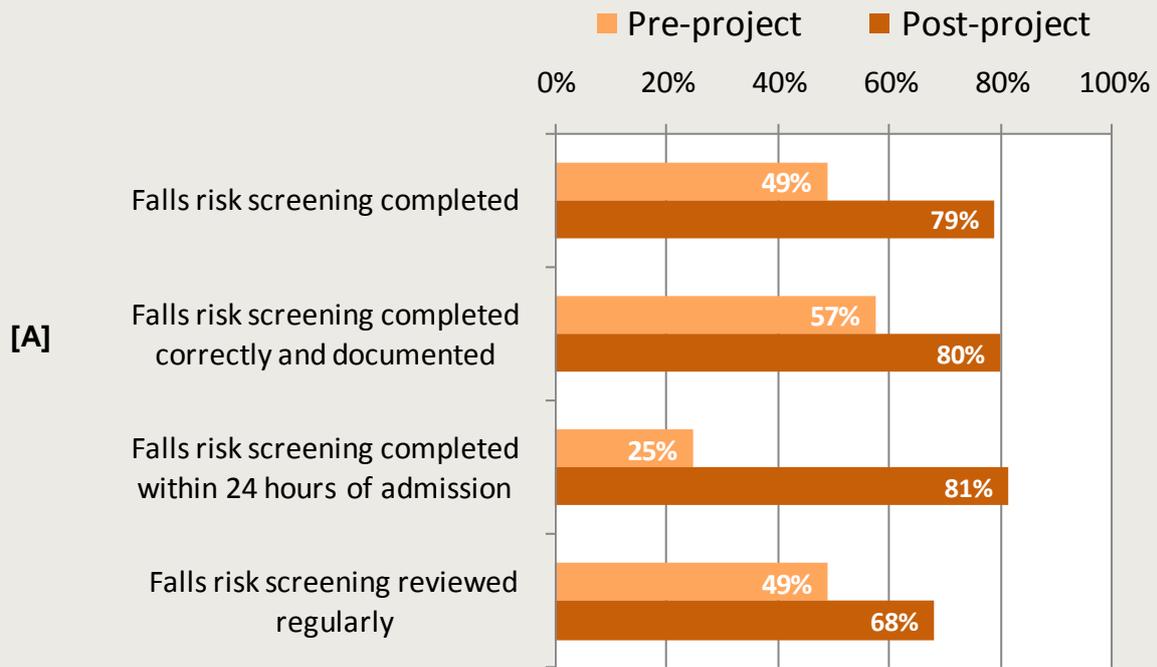
The level of compliance with safety actions were examined by logistic regression analyses with generalised estimation equations (GEE) to account for correlations between repeated measurements, using an exchangeable working correlation structure. The results were quantified by calculating odds ratios (OR) with their 95% confidence intervals (95% CI).

## **3.3 Results**

The level of compliance with use of best practice strategies for falls prevention pre- and post-project are presented in Table 3-1 and Figure 3-1. Following the intervention, a greater proportion of patients received a risk assessment (pre 48.7% vs. post 78.8%;  $p < 0.001$ ) and had correct risk documentation in medical charts (pre 57.4% vs. post 79.9%;  $p < 0.001$ ). The intervention also significantly increased the proportion of patients who received a risk assessment within 24 hours of admission (pre 24.7% vs. post 81.3%;  $p < 0.001$ ), and received regular review of their risk levels (pre 48.8% vs. post 68.0%;  $p = 0.01$ ). The level of compliance with environmental safety actions also increased, notably appropriate bed height (pre 49.6% vs. post 82.4%,  $p < 0.001$ ), locking of bed brakes (pre 78.3% vs. 94.4 %;  $p < 0.001$ ) and clutter-free environment (71.3% vs. 81.4%;  $p = 0.02$ ). No change was noted for the proportion of patients using bed rails or having safe access to a call bell.

**Table 3-1: Compliance with falls prevention safety actions, pre- and post-project**

		Mean percentage (95% CI)	Odds Ratio (95% CI)	P-value	Change
<b>Chart Audits</b>					
Risk Screening completed (N=11 wards)	Pre	48.7 (39.8 - 57.6)	Reference		
	Post	78.8 (72.0 - 85.5)	3.90 (2.62 - 5.81)	<0.001	↑ 30.0%
Risk screening completed correctly and documented (N=11 wards)	Pre	57.4 (48.7 - 66.1)	Reference		
	Post	79.9 (73.2 - 86.5)	2.95 (1.97 - 4.41)	<0.001	↑ 22.5 %
Risk screening completed within 24 hours of admission (N=5 wards)	Pre	24.7 (11.4 - 38.1)	Reference		
	Post	81.3 (70.2 - 92.3)	13.19 (5.38 - 32.34)	<0.001	↑ 56.5 %
Risk screening reviewed regularly (N=4 wards)	Pre	48.8 (31.5 - 66.2)	Reference		
	Post	68.0 (52.5 - 83.4)	2.22 (1.21 - 4.07)	0.01	↑ 19.1%
<b>Environmental Audits</b>					
Appropriate bed height (N=8 wards)	Pre	49.6 (39.9 - 59.3)	Reference		
	Post	82.4 (76.1 - 88.7)	4.75 (2.68 - 8.43)	<0.001	↑ 32.8%
Bed brakes in locked position (N=10 wards)	Pre	78.3 (71.1 - 85.4)	Reference		
	Post	94.4 (90.8 - 97.9)	4.67 (2.09 - 10.39)	<0.001	↑ 16.1%
Bed rails down (N=6 wards)	Pre	81.8 (74.0 - 89.6)	Reference		
	Post	81.4 (74.2 - 88.5)	0.97 (0.61 - 1.55)	0.90	↓ 0.5%
Access to call bell (N=10 wards)	Pre	81.1 (74.3 - 87.9)	reference		
	Post	88.1 (82.9 - 93.3)	1.72 (0.9 - 3.28)	0.10	↑ 7.0 %
Clutter-free environment (N=4 wards)	Pre	71.3 (63.5 - 79.1)	reference		
	Post	81.4 (73.1 - 89.7)	1.76 (1.1 - 2.82)	0.02	↑ 10.1 %



**Figure 3-1: Compliance with [A] falls risk assessments and [B] environmental strategies, pre- and post-project**

## 3.4 Discussion

### Compliance levels pre-project

The levels of compliance with the best practice strategies for falls prevention were variable prior to the project implementation, despite the encouragement and support for the use of the national fall-prevention guidelines and a requirement for national hospital accreditation. These results are consistent with research which shows that guideline development and implementation does not guarantee a translation into clinical actions, without addressing change in organisational and professional behaviour (Francke *et al.* 2008, Hakkennes & Dodd 2008).

In particular, staff compliance with the use of risk assessment tools were considerably limited. On average, only around half of the patients audited received a risk assessment or had correct documentation of risk in their charts. Furthermore, compliance with timely assessment and review of falls risk was poor. On the other hand, staff compliance with the use of environmental safety actions was reasonably high (>70%), except for the use of appropriate bed height (50%).

### Compliance levels post-project

The pilot project was successful in improving the level of compliance with the best practice strategies for falls prevention. In particular, there was a 19 to 57% increase in the use of falls risk screening strategies (complete, correct, documented and completed within 24 hours;  $p < 0.05$ ). The most improved component observed was for the completion of falls risk screening within 24 hours of admission, with compliance increasing from 25% pre-project to 81% post-project ( $p < 0.001$ ).

The compliance levels with the use of environmental safety actions were reasonably high at the commencement of the project; small, but nonetheless significant, improvements were demonstrated. Overall, a 7 to 32% increase in environmental safety actions was demonstrated. The most improved component observed was for the use of "appropriate bed height", with compliance increasing from 50% pre-project to 82% post-project ( $p < 0.001$ ).

## **Limitations**

There are some limitations to the project which need to be considered. The best practice strategies for falls preventions examined were not comprehensive, and there remains limited evidence as to whether these strategies are effective in reducing falls. The project did not modify existing tools in the facilities, and there is debate on the value of formal falls risk-predicting tools, particularly if no interventions are subsequently put in place to modify patient risk factors (Oliver 2008). Implementation information was also not examined as part of this project. Other limitations of the study include the lack of a standardised audit tool, and the small sample size.

## **Conclusion**

The education approach used in this pilot FSO project successfully improved compliance behaviour with regards to use of a number of best practice strategies for falls prevention. This confirms that frequent, ongoing and local education is needed to promote an understanding of falls and falls prevention, to form appropriate practices and beliefs, and to reinforce and model desired behaviours. Investing in safe practice education is clearly beneficial in building the capacity and competency of staff to provide safer care to patients.

## SECTION 4

# Safety culture towards falls prevention

This chapter reports on the safety culture of staff towards falls prevention, pre- and post-implementation of the FSO pilot project.

### 4.1 Background

The culture of safety in hospitals is a core component in patient safety (Wakefield & Jorm 2009). A culture of safety arises from the shared safety-related values, attitudes and behaviours of staff, and is vital to promote an atmosphere for reporting and addressing errors and promoting safe care (National Patient Safety Agency 2004, Walshe & Boaden 2006). The culture of safety guides group thinking and behaviour by setting expectations about attitudes and norms of behaviour (Singer *et al.* 2008). As such, organisations should develop practices and protocols to support a culture of safety and minimise preventable errors. A number of generic patient safety surveys have been developed, which capture a snapshot of the safety-related attitudes and perceptions of healthcare workers, known as "safety climate", although the terms culture and climate are often used interchangeably in the literature (Sexton *et al.* 2006). However, there are no safety climate surveys designed to assess specific patient safety areas, such as falls prevention.

Despite the fact that falls represent one of the leading causes of patient harm for older adults in hospital, little is known about the safety culture and attitudes of staff towards falls prevention. It is likely that a successful falls prevention program in hospital will be facilitated by a positive safety culture towards falls prevention among staff. Understanding the specific components of the safety climate may assist in developing strategies to facilitate change in clinical practice, guide fall prevention implementation strategies, and build a positive safety climate towards falls prevention in hospitals.

A hospital's cultural commitment to safety in terms of falls prevention may be an important indicator of its ability to provide safe care, given the links between staff attitudes and behaviours on safety outcomes. Emerging research has linked safety culture with adverse events in hospitals, including falls. Vogus and Sutcliffe (2007)

developed and tested a safety culture survey across 13 hospitals in the United States and reported that a more positive safety culture among nursing staff was associated with fewer patient falls. These findings suggest that successful falls prevention strategies in hospital will be facilitated by a positive safety culture among staff. Their survey, however, did not focus specifically on the safety culture towards falls prevention, nor provide any insight into the problematic components of safety culture.

The attitudes and beliefs of staff are critical factors in the prevention of falls. Focus group research among nurses and nursing assistants identified teamwork an important component in the prevention of falls, particularly “working together” and “assistance from other health care staff” (Dykes *et al.* 2009). There are also important attitudinal components to the adherence of staff in the implementation of falls programs. Dempsey (2004) reported inconsistent adherence of nursing staff to a fall prevention program, while Koh *et al.* (2008) identified barriers to the implementation of falls guidelines, which included knowledge and motivation, availability of support staff and access to facilities. In a recent study, a professional development program for nursing staff was shown to be successful in improving both behaviour and use of safety actions towards falls prevention (Dempsey 2009). The professional development program primarily comprised of gaining time to reflect on, and subsequently shape, their work in falls prevention.

Frontline staff are well-positioned to take action to prevent falls in hospital to minimize patient harm, yet little is known about their culture of safety towards the prevention of falls. Building a strong safety culture is likely to be an important factor in improving the success of falls prevention strategies; however, this has not been examined in previous research.

The aim of this evaluation was to examine safety climate towards falls prevention among frontline hospital staff pre- and post-project, using a standardised safety climate instrument.

## 4.2 Outcome Measures

### Safety climate survey

Safety attitudes of staff were assessed using the Patient Safety Climate in Healthcare Organizations (PSCHO) instrument (Singer *et al.* 2003), (Appendix 8.1), which comprised 45 items about safety climate and 6 questions about respondents' characteristics. From the 45 questions, 9 dimensions are constructed relating to covering organisational, work-unit and personal factors (Singer *et al.* 2007, Singer *et al.* 2008, Singer *et al.* 2009). Each item in the survey makes a statement about an element of safety climate and asks respondents whether they "strongly agree", "agree", "neither agree nor disagree", "disagree" or "strongly disagree", or whether the statement is "not applicable". The survey was modified for the present analysis by asking participants to respond to each item as it applied to inpatient falls and fall-prevention.

Survey data were analysed for the proportion of responses that were inconsistent with a climate of safety, i.e. only responses that disagreed or strongly disagreed with positively worded items and agree or strongly agree with negatively worded items. Neutral responses were coded as non-problematic. A fraction known as the percentage problematic response (PPR) was calculated for each dimension as the mean of the included items weighted equally. An overall safety climate score was calculated as the mean PPR score across all 45-items. Lower PPR scores indicate a stronger level of safety climate.

### Data collection

Survey data was available from two facilities: Hospitals B and C. Due to unforeseen problems during the printing of the survey at Hospital A, they were unable to be analysed and included for this evaluation. The survey was provided to all staffing working on a single day in a 24 hour period, prior to and at the completion of the program.

Participation in the survey was voluntary and all responses were anonymous. The written surveys were collected by the FSOs in a data collection envelope, and were not made accessible to unit managers, to promote honest responses. This was considered important as responses to the survey items could potentially make the

professional practice of the respondents or their colleagues appear to be inappropriate.

In total, baseline surveys were collected from five wards. Due to missing surveys, only three wards completed the post-project surveys.

### **Statistical analyses**

Frequencies were used to describe the demographic characteristics of respondents and descriptive statistics were used to report the percentage of problematic responses for individual items, dimensions and overall scores. Two planned baseline subgroup comparisons were performed, according to hospital and staff disciplines. The comparisons between staff disciplines were restricted to only nursing and allied-health staff, due to low response rate in medical and other staff disciplines. Pairwise comparisons were made using the Mann-Whitney test.

Pre and post-program comparisons for safety climate were made using the Mann-Whitney test. It was not possible to examine changes in safety climate according to disciplines or hospitals due to the small sample size.

## **4.3 Results**

### **Characteristics of baseline respondents**

Characteristics of the 79 respondents from the participating wards are presented in Table 4-1. Respondents were predominantly female (81%) and aged between 18 and 40 years of age (58%). Most were nursing or allied-health disciplines (46% and 35%, respectively), in non-management positions (77%) and had spent less than one year at their current facility (51%). Response rates from participating wards ranged from 46% to 94% (overall rate = 73%), based on estimates of rostered staffing numbers.

**Table 4-1: Characteristics of survey respondents (n=79)**

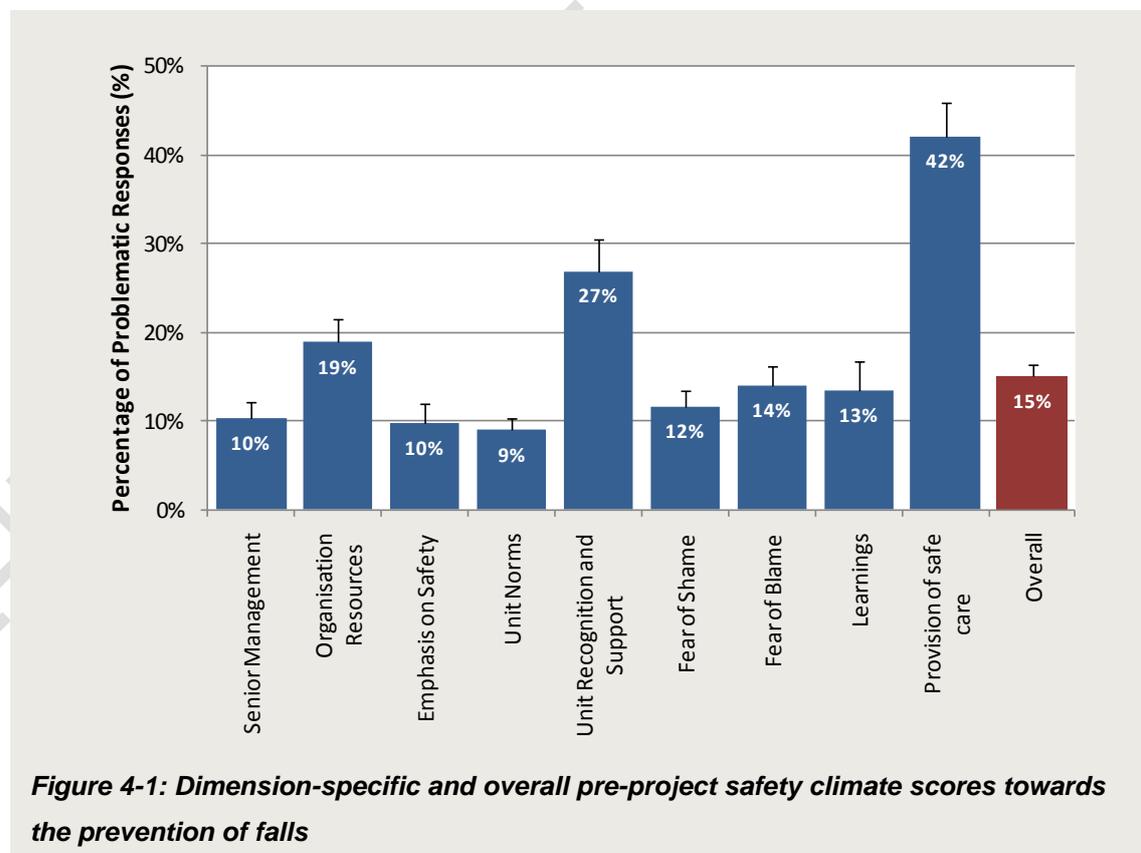
	<b>N</b>	<b>(%)</b>
<b>Age (years)</b>		
18-30	27	(34.2%)
31-40	19	(24.1%)
41-50	15	(19.0%)
51-60	12	(15.2%)
61+	1	(1.3%)
Not reported	5	(6.3%)
<b>Gender</b>		
Female	64	(81.0%)
Male	12	(15.2%)
Not reported	3	(3.8%)
<b>Discipline</b>		
Medical	6	(7.6%)
Allied	28	(35.4%)
Nursing	36	(45.6%)
Other	6	(7.6%)
Not reported	3	(3.8%)
<b>Job Level</b>		
Senior management	1	(1.3%)
Supervisor	11	(13.9%)
Non-management	61	(77.2%)
Not reported	6	(7.6%)
<b>Time at institution (years)</b>		
Less than 1	40	(50.6%)
1 to 3	14	(17.7%)
3 to 5	9	(11.4%)
5 to 10	7	(8.9%)
10 or more	5	(6.3%)
Not reported	4	(5.1%)
<b>Work Area</b>		
Hospital B		
Ward 1 (26 bed, rehabilitation unit)	11	(13.9%)
Ward 2 (30 bed, extended care unit)	22	(27.8%)
Ward 3 (30 bed, general medical unit)	17	(21.5%)
Hospital C		
Ward 1 (30 bed, general medical unit)	13	(16.5%)
Ward 2 (24 bed, rehabilitation unit)	16	(20.3%)

### **Baseline safety climate towards the prevention of falls**

The average percentage of problematic responses for each PSCHO dimension and overall scores for all respondents towards the prevention of falls, and by hospital and staff discipline, are presented (Table 4-2). While the overall percentage of

problematic responses for all respondents indicated the presence of a culture of safety towards the prevention of falls, around 15% of responses on average were inconsistent with a climate of safety. Figure 4-1 presents the pre-project safety climate scores. The dimensions reporting the weakest safety climate (highest percentage of problematic responses) were for provision of safe care (42.1%); unit recognition and support for safety efforts (26.9%); and organisational resources for safety (18.9%). The dimensions reporting the strongest safety climate (lowest percentage of problematic responses) were unit safety norms (9.0%), overall emphasis on safety (9.7%) and senior management engagement (10.4%).

The overall safety climate towards the prevention of falls was similar between hospitals (15.6% and 14.2%, respectively;  $p=0.26$ ) and nursing and allied-health disciplines (16.3% and 14.4%, respectively;  $p=0.51$ ). Similarly, safety climate dimensions were similar between hospitals and nursing and allied-health disciplines (all variables,  $p>0.05$ ). There was a trend towards a weaker safety climate in nursing staff in the area of fear of blame compared to allied-health staff, although this did not reach statistical significance (18.8% and 9.2%, respectively,  $p=0.07$ ).



**Table 4-2: Safety climate towards the prevention of falls: overall and by dimensions**

	Percentage Problematic Response (%)						
	Total (n=79)	Hospital			Staff Type		
		Hospital B (n=50)	Hospital C (n=29)	p-value <sup>†</sup>	Nursing (n=36)	Allied- Health (n=28)	p-value <sup>†</sup>
<b>Safety Climate Overall</b>	15.1%	15.6%	14.2%	0.26	16.3%	14.4%	0.51
<b>Safety Climate Dimensions</b>							
Senior management engagement	10.4%	10.7%	9.8%	0.65	13.5%	8.7%	0.31
Organisation resources for safety	18.9%	19.8%	17.2%	0.40	21.5%	18.8%	0.66
Overall emphasis on safety	9.7%	9.3%	10.3%	0.81	13.0%	6.0%	0.14
Unit safety norms	9.0%	10.1%	7.1%	0.15	8.9%	10.6%	0.74
Unit recognition and support for safety efforts	26.9%	30.8%	20.1%	0.08	24.1%	30.7%	0.34
Fear of shame	11.6%	12.8%	9.7%	0.67	8.9%	10.0%	0.51
Fear of blame	14.0%	12.0%	17.5%	0.33	18.8%	9.2%	0.07
Learnings	13.5%	14.3%	12.1%	0.94	15.3%	13.0%	0.60
Provision of safe care	42.1%	40.5%	44.8%	0.55	42.1%	43.8%	0.83

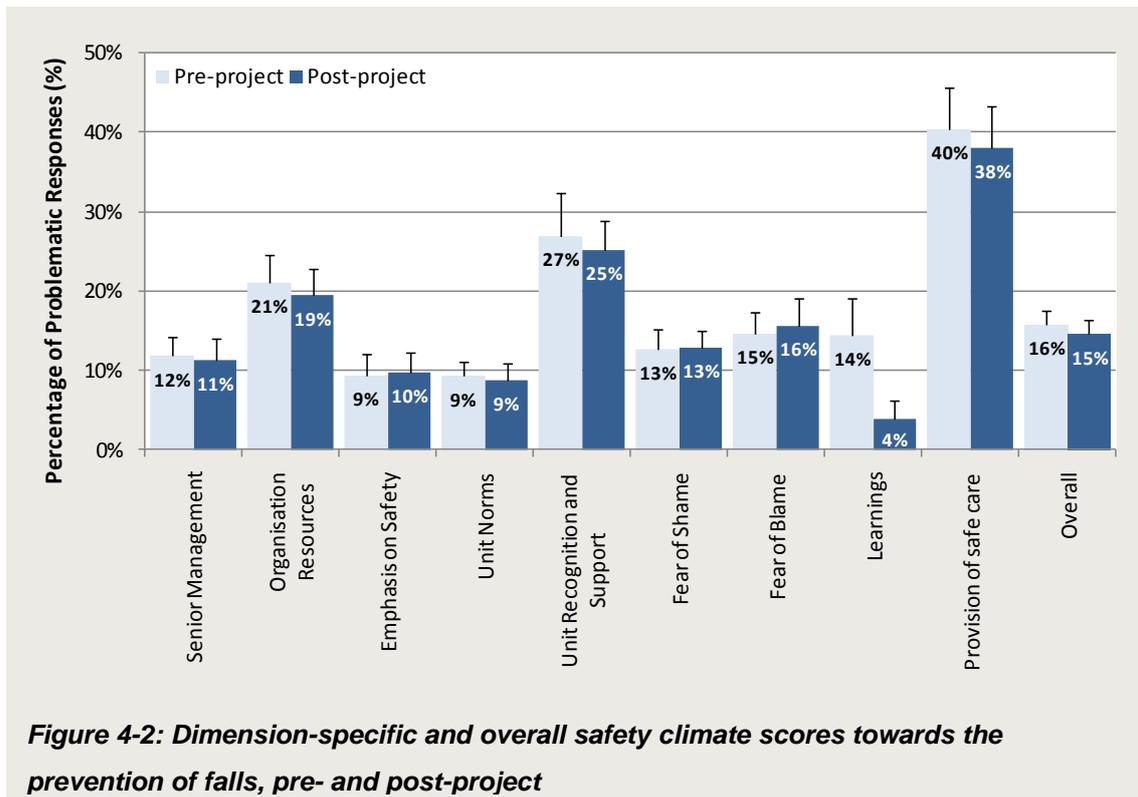
† Mann-Whitney test

## Safety climate towards the prevention of falls: pre- and post-project

The overall percentage of problematic responses in the safety climate survey was lower following the intervention (pre 15.8% vs. post 14.6%), although this was not significant (Table 4-3). Figure 4-2 presents the pre- and post-project safety climate scores. Only the “learning” dimension demonstrated a significant reduction in problematic responses following the program.

**Table 4-3: Safety climate scores towards the prevention of falls: pre- and post-project (n=3 wards)**

	Percentage Problematic Responses (%), mean ± SD		
	Pre-program (n=46)	Post-program (n=51)	P-value*
<b>Overall Safety Climate</b>	15.8 ± 11.9 %	14.6 ± 12.6 %	0.48
<b>Safety Climate Dimensions</b>			
Senior Management	11.8 ± 16.9 %	11.3 ± 18.8 %	0.54
Organisation Resources	21.0 ± 24.0 %	19.4 ± 24.4 %	0.73
Emphasis on Safety	9.4 ± 18.1 %	9.8 ± 18 %	0.87
Unit Norms	9.3 ± 11.8 %	8.7 ± 15.1 %	0.54
Unit Recognition and Support	27.0 ± 35.9 %	25.2 ± 27.2 %	0.78
Fear of Shame	12.6 ± 17.1 %	12.9 ± 14.4 %	0.56
Fear of Blame	14.7 ± 17.9 %	15.7 ± 24.2 %	0.73
Learnings	14.4 ± 31.3 %	3.9 ± 16.9 %	0.04
Provision of safe care	40.4 ± 35.1 %	38.0 ± 36.9 %	0.73



## 4.4 Discussion

### Baseline safety climate towards the prevention of falls

The baseline survey results identified a number of attitudes and perceptions among staff which are inconsistent with a strong safety climate towards the prevention of falls. We can interpret these findings as evidence of the need for additional strategies to improve the safety climate in hospitals relating to falls prevention. Frontline staff reported that the provision of safe care for patients towards falls prevention remains poor, and there did not appear to be strong recognition of and support for safety efforts within units. Targeting these problematic areas may assist in promoting an atmosphere for reporting and addressing errors and promoting safe care relating to the prevention of falls.

Previous studies using the PSCHO tool relating to all aspects of patient safety have reported that around 17% of responses suggested the absence of a safety climate among frontline staff across 92 hospitals in the United States (Singer *et al.* 2008, Singer *et al.* 2009). In these studies, the weakest safety climate dimensions were for fear of blame (33%), unit recognition and support (30%) and provision of safe care (29%). These trends are commensurate with that reported in the present study, although direct comparison is difficult as our findings are specifically related to the

prevention of falls. Variations can be attributed to the diverse culture of safety among other aspects of patient safety, as well as local factors such as the implementation of the Best Practice Guidelines for Australian Hospitals.

In the present evaluation, respondents reported the presence of a strong safety climate towards the prevention of falls for a number of dimensions, particularly unit safety norms, emphasis on safety and senior management engagement. These findings suggest that there are relatively few problems relating to the managerial support and communication within units for falls prevention. In addition, respondents perceived sufficient training and provision of resources to provide safe patient care, as well as adequate efforts within units to promptly identify and correct issues to prevent falls.

Two dimensions, however, were inconsistent with a positive safety climate towards the prevention of falls. Respondents reported problems in the provision of safe care, particularly witnessing others carry out potentially unsafe actions, or performing these acts themselves. In addition, the recognition and support by units in relation to developing and promoting safe practice for falls prevention was limited. Our findings suggest the need for interventions that develop stronger falls prevention teamwork, to facilitate open and blame-free communication and promote education, recognition and rewards for safe actions. Teamwork has been identified as an important component of falls prevention (Dykes *et al.* 2009), and is likely to overcome attitudinal barriers in the implementation of falls prevention strategies (Dempsey 2004, Koh *et al.* 2008). Further research is required to establish effective strategies to target these problematic aspects of safety culture.

A second key finding was that safety climate towards the prevention of falls was consistent between hospitals and staff disciplines, as no statistical differences were found for the overall and dimension-specific PPR scores. This finding suggests that the problematic safety climate areas are less likely to be hospital or discipline specific, and strategies to improve safety culture should be targeted at a broad level.

### **Safety climate towards the prevention of falls: pre- and post-project**

Improving safety attitudes of frontline staff towards falls prevention is important in creating and sustaining a culture of safety by placing a high priority on safe care (O'Connor *et al.* 2006). In the present study, there was a small improvement in the overall safety climate towards the prevention of falls, although this was not

significant. The program did significantly improve attitudes towards the “learning” dimension, which indicates that staff are more willing to learn from their mistakes and make positive changes in their units accordingly.

The findings relating to the change in safety climate post-program are limited due to the small sample obtained. Further research is needed to determine effective strategies to improve safety attitudes in the other areas of safety climate within a larger sample of staff.

### **Limitations**

There are a number of limitations to this study which should be considered. As the safety climate survey used was not designed with a falls prevention focus, the responses provided may also reflect broader safety culture issues within wards, not specific to the falls prevention area. Further research is needed to develop a specific tool to adequately capture the safety climate toward falls prevention in hospitals.

Furthermore, the sampling approach targeted a subset of staff working during a 24 hour period on the targeted wards. As staff rostering in these institutions works on a largely rotational basis, this approach aimed to generate a quasi-random sample of the broader population of hospital staff working on the targeted wards with proportional representation of night and day staff. The response rate (between 46% and 94%) indicates there may be some bias in these results however, without knowing why individual staff chose not to participate it is difficult to speculate on the direction of this bias on our results.

The sample size also limited the extent to which we could reliably examine differences between ward types and staff disciplines. Although it may be difficult to generalise the findings to other hospitals and wards, the findings were consistent across the two hospitals and disciplines. Despite these limitations, the findings shed light on important aspects into the culture of safety towards falls prevention.

## Conclusion

In conclusion, this study reports a real-world insight into the culture of safety towards the prevention of falls among hospital staff. While the overall responses indicated a positive culture of safety towards falls prevention, there were specific aspects that remain inconsistent with a culture of safety. Strategies are required to target these factors, particularly in providing safe care for patients and improving the recognition and support for the efforts provided by staff within work-units. The findings from this study will help guide strategies to target specific components of safety culture to promote an atmosphere for reporting and addressing errors and, ultimately, prevent falls and reduce patient harm.

## SECTION 5

# Falls and fall injuries

This chapter reports on the rate of reported falls and coded injurious falls in the participating wards pre-, during and post-implementation of the FSO pilot project.

## 5.1 Background

Falls remain a significant safety concern among older patients in the hospital setting, given their frequent occurrence and associated physical, psychological and economic consequences (Hill *et al.* 2007, Oliver *et al.* 2007). Falls prevention intervention in hospitals has been a focus of recent research with a primary focus on patient risk factors (Cumming *et al.* 2008, Haines *et al.* 2004, Healey *et al.* 2004), with mixed success. Due to the limited evidence to guide fall-prevention programs, falls continue to be a daily challenge for frontline staff.

The aim of this evaluation was to examine whether the FSO pilot project reduced the rate of reported falls and coded injurious falls in participating wards.

## 5.2 Outcome Measures

### Reported falls from hospital incident reporting systems

Falls were recorded by hospital staff using the hospital computer-based incident reporting systems, where incidents are self-reported by staff. The number of falls reported in each ward was collected 12-months pre-, during and post-project, from the respective incident reporting systems. The rate of reported falls per 1,000 occupied bed days per ward per month was calculated. Any further breakdown based on reported falls with harm or no-harm was not possible due to inconsistencies in the data.

### Coded injurious falls from admitted patient data

Trained clinical coders routinely collect information from clinical records following patient discharge or transfer from hospital. The number of falls resulting in patient harm or injury was obtained from the coded inpatient data using the “condition onset” flag, using the International Statistical Classification of Diseases and Related Health

Problems, 10th Revision, Australian Modification (ICD-10-AM). The number of coded injurious falls was collected for each ward for 12 months pre-, during and post-program and converted into monthly rates per 1,000 occupied bed days.

## Analyses

Generalised estimation equations (GEE) were used to examine the rate of reported falls and coded injurious falls pre-, during and post- project, using a linear model with identity link and exchangeable working correlation structure. The results were quantified by parameter estimates with their 95% confidence intervals (95% CI).

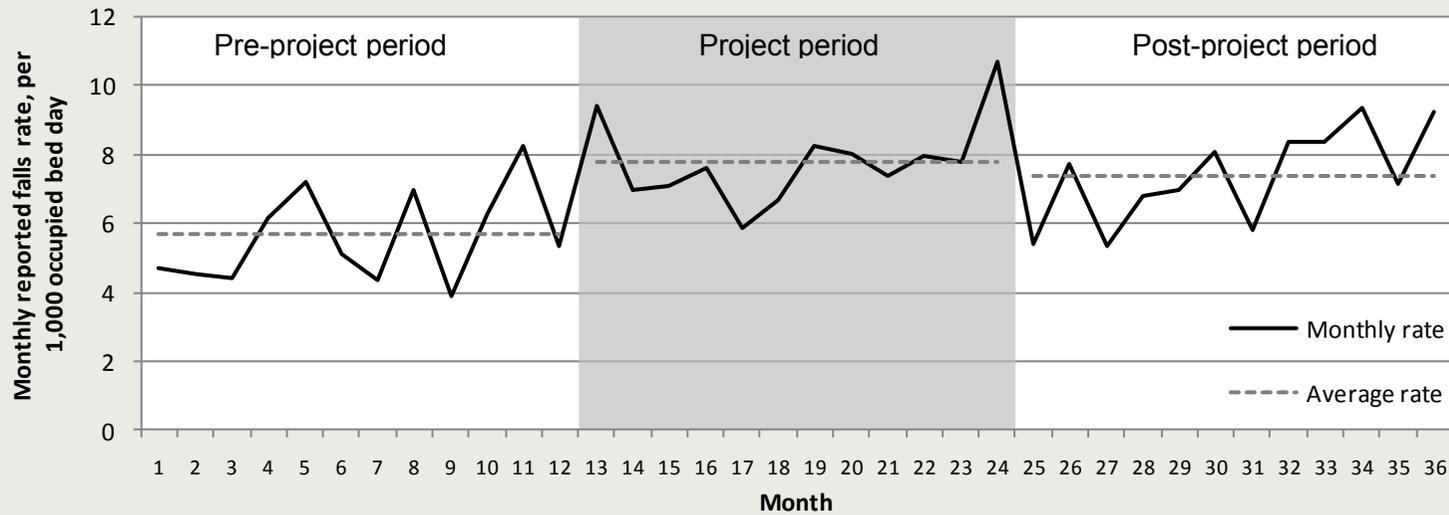
## 5.3 Results

The rate of reported falls and coded injurious falls during the 12-months pre-, during and 12-month post-project are presented in Table 5-1. There was a significantly higher rate of reported falls during and post-program, compared to the pre-program period. This trend was also consistent with the rate of coded injurious falls. The monthly rate of falls and injurious falls are presented in Figures 5-1 and 5-2.

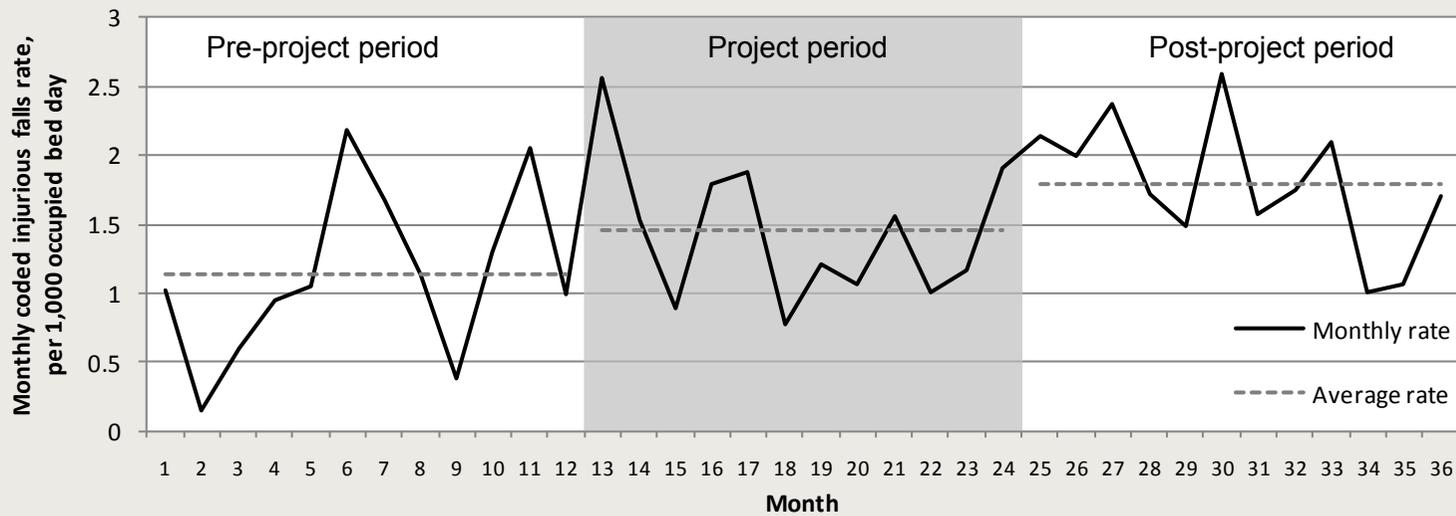
**Table 5-1: Rate of reported falls and coded injurious falls: 12 months pre-, during and post-project\***

	Reported falls: mean monthly rate per 1,000 occupied bed day		Coded injurious falls: mean monthly rate per 1,000 occupied bed day	
	Rate (95% CI)	P-value	Rate, (95% CI)	P-value
12-month pre-program	5.68 (4.06 to 7.31)	reference	1.14 (0.83 to 1.46)	reference
12-month during program	7.80 (5.60 to 10.0)	p < 0.01	1.45 (1.01 to 1.88)	p = 0.045
12-month post-program	7.38 (5.61 to 9.16)	p < 0.01	1.79 (1.17 to 2.42)	p < 0.01

\* Using linear generalized estimating equations  
CI = confidence interval



**Figure 5-1: Reported falls rates across all wards: pre-, during and post-project**



**Figure 5-2: Coded injurious falls rates across all wards: pre-, during and post-project**

## 5.4 Discussion

The FSO pilot project did not lead to reduced rate of reported falls or coded injurious falls. In fact, a higher rate of reported falls or coded injurious falls was found during and post-project, compared to pre-project. There are several possible explanations for this finding.

There are considerable issues regarding the validity of in-hospital falls data. Inconsistencies in the classification of falls in incident reporting systems have been reported, mainly due to variations in staff knowledge of what constitutes a fall and the fact that falls are often unwitnessed (Haines *et al.* 2008b, Haines *et al.* 2009b). Our education program provided specific education on reporting falls, which may have contributed to the apparent increase in the rate of falls. In addition, organisations with stronger culture of safety have been shown to have higher incident reporting rates (Hutchinson *et al.* 2009). Furthermore, coded injurious falls from inpatient data is conditional on the reporting of all fall-related injuries in clinical records, and information concerning dates and locations of falls cannot be extracted.

Although the study showed that improvements in compliance can be achieved, there is limited evidence whether these actions are actually effective in preventing falls. There is debate on the value of formal falls risk-predicting tools, particularly if no interventions are subsequently put in place to modify patient risk factors (Oliver 2008). In addition, the use of clinical judgement of staff may be a valid approach in falls risk screening (Haines *et al.* 2009a, Vassallo *et al.* 2008), highlighting the importance of ongoing education and training to maintain the knowledge and skills of staff. Short-comings of this study were that there was no modification of existing risk tools, which varied between the hospitals; nor did it assess whether appropriate fall-prevention strategies were implemented following a patient's falls risk assessment. Kerse *et al.* (2004) also suggested that some fall prevention programs may in fact reduce staff time spent at the bedside; thus possibly increasing the rate of falls. Further research is needed to identify other approaches to preventing inpatient falls, particularly the provision of patient education (Haines *et al.* 2006) or the use of volunteers (Giles *et al.* 2006).

## Limitations

There are a number of limitations to this evaluation which should be considered. Most notably, the study comprised of a small sample of wards and was not a randomised controlled study. In addition, there may be some selection bias in the wards, given the self-selecting process to participate. It is unlikely, though, that this bias influenced the findings, as there was considerable variation in the level of compliance with best practice fall-prevention actions prior to the program commencement.

## Conclusions

Due to the limited findings, this approach to reduce falls in hospital warrants further investigation, and should incorporate other evidence-based strategies targeting patient risk-factors. Factors, such as incidence reporting culture and lack of strong evidence on effective falls prevention strategies in the hospital setting, limited the extent to which the project be measured in terms of impact on the rate of falls and injurious falls in the participating wards.

Continued efforts are needed to promote the use of the FSO role in the hospital setting to drive falls prevention initiatives, provide local targeted staff and patient education, and incorporate emerging falls prevention evidence into clinical practice. This will ensure the highest quality of patient care is provided to Queenslanders in hospital.

## SECTION 6

# Summary

This chapter summarises the key findings, lessons learnt, enablers and barriers to the project implementation, and recommendations arising from the project.

### 6.1 Key achievements

In spite of the project's limitations and implementation challenges, the project was successful in achieving considerable progress towards a number of its key objectives, namely raising the profile of falls prevention in hospital wards, improving aspects of safety culture towards falls prevention, and increasing staff competencies in delivering best practice strategies for falls prevention to patients.

Key achievements of the project were as follows:

- The awareness and profile of falls and falls prevention in facilities was raised;
- A range of resources and education material for falls prevention was developed and delivered to all frontline staff;
- A Falls Prevention Team was established at each facility, with the hope of continuing the falls prevention work in the facilities;
- The levels of compliance with best practice strategies for falls prevention improved significantly following the education and training provided by the FSO;
- Some small improvements in aspects of safety climate were achieved, particularly 'learning from mistakes', which indicates that staff were more willing to learn from mistakes and make positive changes accordingly.
- Valuable information was gained regarding the enablers and barriers to the implementation of the project to inform future falls prevention initiatives in hospitals.

## 6.2 Project limitations

The findings of this evaluation need to be considered in light of the following project limitations:

- The resources and education materials were not standardised;
- The audit tools and audit items were not standardised;
- There was no modification of existing risk tools in the participating wards;
- The project did not assess whether interventions were subsequently put in place to modify patient risk factors following falls risk assessment;
- The project duration may be insufficient to detect a real change in practice and/or culture; and
- There are considerable limitations with the use of incident reported falls data.

## 6.3 Lessons learnt

The lessons learnt from this project can be used to inform future falls prevention activities in the hospital setting. These include:

- Hospitals required adequate staffing to offer ongoing education and training to frontline staff.
- There is a need to develop a standardised approach to hospital falls prevention across Queensland, particularly for the falls assessment tools, care plans, post-falls management, audit tools and training resources.
- The action research cycles approach provided the flexibility to respond to the needs of different facilities, and tailor interventions to suit the facilities.
- The hospital Falls Prevention Teams were a key factor in the planning and delivery of education strategies in facilities. This built a sense of ownership of the problem within the facility, and the ability to adapt and direct education strategies to their own facility.
- Regular feedback of compliance audits and falls reports with staff was an important opportunity to reflect on issues in a supportive and trusted environment. Staff became empowered to own the problem, problem-solve the issues, be part of the solution, and learn from incidents.
- There is a need to celebrate achievements and reward staff for appropriate safety actions to sustain change in practice.
- Changing safety culture in hospitals takes time.

- The quality of the falls data is a challenge, particularly as incident reporting rates correlate with safety culture. In addition, there are limitations to coded inpatient data.

## 6.4 Enablers and barriers to the project implementation

A number of enablers and barriers to achieving individual and organisational change in the project were identified from the reports and informal interviews with the FSOs. The findings were synthesised into the following key themes:

### General factors:

#### *Enablers:*

- The use of action research cycles provided the flexibility to respond to different ward needs, and ability to make adjustments in response to reflecting on actions.
- The establishment of Falls Prevention Team at each hospital provided a sense of ownership of falls prevention within the organisation. The team developed strategies which were adapted to suit the organisational needs.
- The provision of regular feedback of audit and falls reports developed a positive safety culture around falls prevention. This provided an opportunity for staff to reflect on the issues, be part of the solution, and learn from incidents in a supportive, blame-free environment.

#### *Barriers:*

- There was limited support from the Patient Safety and Quality Improvement Service, in terms of training, resources and measurement tools.
- The FSOs felt that there was insufficient time for planning and implementation of the project, and that the timeframe was too short to detect a real change in practice and/or culture.

### FSO-related factors:

#### *Enablers:*

- The FSOs were able to develop good rapport with hospital staff, given they were recruited from within the district, and were allied-health clinicians with knowledge of falls and their causes.

**Barriers:**

- In some instances, FSOs found it difficult to engage nursing staff, who perceived that the FSOs did not appreciate the requirements of nursing practice.
- In addition, attempts to motivate and engage staff was difficult where the FSO role was not physically located at the hospital, or was unknown by new members of staff.

**Staff-related factors:****Enablers:**

- The nurse unit managers (NUM) who were motivated and engaged in the project were instrumental in driving and promoting the project.

**Barriers:**

- The project relied heavily on NUM engagement. Lower levels of motivation of the NUMs for the project negatively affected overall staff engagement. In addition, personnel changes in NUMs often delayed the implementation of strategies.
- There were significant challenges in maintaining engagement with staff, particularly towards the completion of the project. Engagement was also influenced by general staffing issues on wards, which led to project delays.
- The project had to compete with other work requirements and patient safety issues.

**Organisational factors:****Enablers:**

- Strong involvement of the hospital nursing directors assisted in encouraging involvement of the NUMs.
- Support from administrative staff and access to resources assisted in development of project resources.

**Barriers:**

- There was a lack of continuity with line managers of the FSO, particularly due to numerous staffing changes.
- Where the FSO was not physically located in the hospital, it was difficult to maintain a physical presence within the wards, build rapport with staff, and co-ordinate education and planning sessions.

## **Patient-related factors:**

### ***Enablers:***

- The task of providing falls education to patients by staff was facilitated in those who were cognitively intact.
- Strong family support was also beneficial in the provision of patient education by staff.

### ***Barriers:***

- As many of the wards dealt with older patients, the issues of dementia, delirium and confusion often made the task of patient education by staff difficult.
- Repeat fallers were often confused, impulsive and did not have insight into their medical conditions and disabilities.

## **6.5 Project recommendations**

Queensland Health should consider the following recommendations based on the findings of this evaluation, for future falls prevention initiatives in the hospital setting. These recommendations encourage a co-ordinated approach to falls prevention, which includes a top-down approach by engaging hospital management in fall-prevention activities, in addition to a bottom-up approach targeting frontline staff.

### **Local hospital recommendations:**

- Build the capacity of staff in falls prevention with an ongoing commitment and investment in education and training to develop their competencies and build effective falls prevention teams.
- Provide multifaceted approaches which target the barriers to changing and sustaining clinical practice, with the support of regular monitoring and feedback of clinical practice.
- Provide dedicated local staff, such as FSOs, to provide the required education, feedback and support for staff, as well as for patients and carers.
- Provide staff with a clear understanding of their falls prevention responsibilities, and encourage all team members to be actively involved in preventing falls to provide safe patient care.

## **Queensland Health recommendations:**

- Maintain the support and investment into the statewide co-ordination of preventing falls in hospitals.
- Standardise resources and education materials for staff and patients, to ensure consistency of disseminated information.
- Standardise falls care plans in the hospital setting and develop regular audit tools to monitor and feedback on performance. This process will promote consistency in falls assessment across the state, facilitate standardisation of education and training, and promote regular compliance auditing in hospitals.

## **6.6 Future research**

This project highlighted a number of areas which would benefit from future research, which include:

- Development of safety climate surveys specific to falls prevention in hospitals;
- Examine potential workplace strategies to target weak aspects of safety climate towards falls prevention.
- Standardise falls care plans, post-fall management and audit tools for use across the state.
- Examine the effectiveness of additional best practice strategies for falls prevention in the hospital setting.

## **6.7 Current Queensland Health falls prevention initiatives**

Currently, the PSQ Falls Injury Prevention Program has a number of initiatives underway to address some of the recommendations outlined in this report. These initiatives include:

- Developing partnerships with other Queensland Health quality improvement programs. Key program such as "Transforming Care at the Bedside" and "Productive Ward", which focuses on improving the quality and safety of patient care, including the effectiveness of teamwork in providing patient-centred care.
- Developing a statewide Health Service Plan for falls prevention across the healthcare continuum.
- Developing standardised falls prevention education and training resources for hospitals.

- Dissemination of the 2009 Falls Prevention Best Practice Guidelines for Australian Hospitals.

## 6.8 Overall conclusion

This report adds to the evidence supporting the need and benefits gained from ongoing education and training of frontline staff towards the prevention of falls in the hospital setting. The project was successful at increasing awareness of falls prevention in the participating facilities, improving compliance behaviour and aspects of safety culture towards falls prevention. However, it is unclear if and how this will continue in the absence of dedicated funding for the FSO role to take on the driving role.

Although improvements in staff competencies, compliance behaviour and safety culture towards falls prevention were achieved, the rate of reported falls or coded injurious falls in the wards did not decrease. This may be due to the limited evidence as to whether these safety actions are actually effective in preventing falls, or may reflect an increase in reporting falls in healthcare teams with a strong safety culture. The findings support the need for more research into the effectiveness of safety actions in preventing falls in the hospital setting.

It is clear that improving compliance with safety actions and safety culture are at least the first stage in preventing falls in hospitals. In addition, it is important that hospital management see the benefit of being involved in such activities. Limitations notwithstanding, this pilot FSO project illustrated the promise of a multi-strategy approach to educate frontline hospital staff to improve compliance behaviour and safety culture towards falls prevention. These findings will help guide the continued refinement of strategies to improve staff compliance with best practice strategies for falls prevention and provide the highest quality of patient care to Queenslanders in hospitals.

## SECTION 7

# References

- Barker A, Kamar J, Morton A & Berlowitz D (2009): Bridging the gap between research and practice: review of a targeted hospital inpatient fall prevention programme. *Qual Saf Health Care* **18**, 467-472.
- Brandis S (1999): A collaborative occupational therapy and nursing approach to falls prevention in hospital inpatients. *J Qual Clin Pract* **19**, 215-220.
- Corsinovi L, Bo M, Ricauda Aimonino N, Marinello R, Gariglio F, Marchetto C, Gastaldi L, Fissore L, Zanolchi M & Molaschi M (2009): Predictors of falls and hospitalization outcomes in elderly patients admitted to an acute geriatric unit. *Arch Gerontol Geriatr* **49**, 142-145.
- Coussement J, De Paepe L, Schwendimann R, Denhaerynck K, Dejaeger E & Milisen K (2008): Interventions for preventing falls in acute- and chronic-care hospitals: a systematic review and meta-analysis. *J Am Geriatr Soc* **56**, 29-36.
- Cumming RG, Sherrington C, Lord SR, Simpson JM, Vogler C, Cameron ID & Naganathan V (2008): Cluster randomised trial of a targeted multifactorial intervention to prevent falls among older people in hospital. *BMJ* **336**, 758-760.
- Dempsey J (2004): Falls prevention revisited: a call for a new approach. *J Clin Nurs* **13**, 479-485.
- Dempsey J (2009): Nurses values, attitudes and behaviour related to falls prevention. *J Clin Nurs* **18**, 838-848.
- Dykes PC, Carroll DL, Hurley AC, Benoit A & Middleton B (2009): Why do patients in acute care hospitals fall? Can falls be prevented? *J Nurs Adm* **39**, 299-304.
- Francke AL, Smit MC, de Veer AJ & Mistiaen P (2008): Factors influencing the implementation of clinical guidelines for health care professionals: a systematic meta-review. *BMC Med Inform Decis Mak* **8**, 38.
- Giles LC, Bolch D, Rouvray R, McErlean B, Whitehead CH, Phillips PA & Crotty M (2006): Can volunteer companions prevent falls among inpatients? A feasibility study using a pre-post comparative design. *BMC Geriatr* **6**, 11.
- Haines T, Bennell K, Osborne R & Hill K (2004): Effectiveness of targeted falls prevention programme in subacute hospital setting: randomised controlled trial. *British Medical Journal* **328**, 676-679.
- Haines T, Kuys SS, Morrison G, Clarke J & Bew P (2008a): Balance impairment not predictive of falls in geriatric rehabilitation wards. *J Gerontol A Biol Sci Med Sci* **63**, 523-528.
- Haines T, Kuys SS, Morrison G, Clarke J & Bew P (2009a): Cost-effectiveness analysis of screening for risk of in-hospital falls using physiotherapist clinical judgement. *Med Care* **47**, 448-456.
- Haines TP, Cornwell P, Fleming J, Varghese P & Gray L (2008b): Documentation of in-hospital falls on incident reports: qualitative investigation of an imperfect process. *BMC Health Serv Res* **8**, 254.
- Haines TP, Hill KD, Bennell KL & Osborne RH (2006): Patient education to prevent falls in subacute care. *Clin Rehabil* **20**, 970-979.
- Haines TP, Massey B, Varghese P, Fleming J & Gray L (2009b): Inconsistency in classification and reporting of in-hospital falls. *J Am Geriatr Soc* **57**, 517-523.
- Hakkennes S & Dodd K (2008): Guideline implementation in allied health professions: a systematic review of the literature. *Qual Saf Health Care* **17**, 296-300.

- Healey F, Monro A, Cockram A, Adams V & Heseltine D (2004): Using targeted risk factor reduction to prevent falls in older in-patients: a randomised controlled trial. *Age and Ageing* **33**, 390-395.
- Healey F, Scobie S, Oliver D, Pryce A, Thomson R & Glampson B (2008): Falls in English and Welsh hospitals: a national observational study based on retrospective analysis of 12 months of patient safety incident reports. *Qual Saf Health Care* **17**, 424-430.
- Hill KD, Vu M & Walsh W (2007): Falls in the acute hospital setting--impact on resource utilisation. *Aust Health Rev* **31**, 471-477.
- Hutchinson A, Young TA, Cooper KL, McIntosh A, Karnon JD, Scobie S & Thomson RG (2009): Trends in healthcare incident reporting and relationship to safety and quality data in acute hospitals: results from the National Reporting and Learning System. *Qual Saf Health Care* **18**, 5-10.
- Kerse N, Butler M, Robinson E & Todd M (2004): Fall prevention in residential care: a cluster, randomized, controlled trial. *J Am Geriatr Soc* **52**, 524-531.
- Koh SL, Hafizah N, Lee JY, Loo YL & Muthu R (2009): Impact of a fall prevention programme in acute hospital settings in Singapore. *Singapore Med J* **50**, 425-432.
- Koh SS, Manias E, Hutchinson AM, Donath S & Johnston L (2008): Nurses' perceived barriers to the implementation of a Fall Prevention Clinical Practice Guideline in Singapore hospitals. *BMC Health Serv Res* **8**, 105.
- Krauss MJ, Tutlam N, Costantinou E, Johnson S, Jackson D & Fraser VJ (2008): Intervention to prevent falls on the medical service in a teaching hospital. *Infect Control Hosp Epidemiol* **29**, 539-545.
- National Patient Safety Agency (2004) Seven steps to patient safety. NHS.
- O'Connor P, Creager J, Mooney S, Laizner A & Ritchie J (2006): Taking Aim at Falls Injury Adverse Events: Best Practices and Organizational Change. *Healthc Q* **9**, 43-49.
- Oliver D (2008): Falls risk-prediction tools for hospital inpatients. Time to put them to bed? *Age Ageing* **37**, 248-250.
- Oliver D, Connelly JB, Victor CR, Shaw FE, Whitehead A, Genc Y, Vanoli A, Martin FC & Gosney MA (2007): Strategies to prevent falls and fractures in hospitals and care homes and effect of cognitive impairment: systematic review and meta-analyses. *Bmj* **334**, 82.
- Oliver D, Daly F, Martin FC & McMurdo ME (2004): Risk factors and risk assessment tools for falls in hospital in-patients: a systematic review. *Age Ageing* **33**, 122-130.
- Queensland Health (2008) Patient safety: From learning to action II. Queensland Government.
- Sexton JB, Helmreich RL, Neilands TB, Rowan K, Vella K, Boyden J, Roberts PR & Thomas EJ (2006): The Safety Attitudes Questionnaire: psychometric properties, benchmarking data, and emerging research. *BMC Health Serv Res* **6**, 44.
- Singer S, Meterko M, Baker L, Gaba D, Falwell A & Rosen A (2007): Workforce perceptions of hospital safety culture: development and validation of the patient safety climate in healthcare organizations survey. *Health Serv Res* **42**, 1999-2021.
- Singer SJ, Falwell A, Gaba DM & Baker LC (2008): Patient safety climate in US hospitals: variation by management level. *Med Care* **46**, 1149-1156.
- Singer SJ, Gaba DM, Falwell A, Lin S, Hayes J & Baker L (2009): Patient safety climate in 92 US hospitals: differences by work area and discipline. *Med Care* **47**, 23-31.
- Singer SJ, Gaba DM, Geppert JJ, Sinaiko AD, Howard SK & Park KC (2003): The culture of safety: results of an organization-wide survey in 15 California hospitals. *Qual Saf Health Care* **12**, 112-118.
- The Australian Council for Safety and Quality in Health Care (2005) Best practice guidelines for Australian hospitals and residential aged care facilities. Commonwealth of Australia.

- Vassallo M, Poynter L, Sharma JC, Kwan J & Allen SC (2008): Fall risk-assessment tools compared with clinical judgment: an evaluation in a rehabilitation ward. *Age Ageing* **37**, 277-281.
- Vogus TJ & Sutcliffe KM (2007): The Safety Organizing Scale: development and validation of a behavioral measure of safety culture in hospital nursing units. *Med Care* **45**, 46-54.
- Wakefield JG & Jorm CM (2009): Patient Safety - a balance measurement framework. *Aust Health Rev* **33**, 382-389.
- Walshe K & Boaden R (2006) *Patient safety : research into practice* Open University Press, Maidenhead.
- West E (2000): Organisational sources of safety and danger: sociological contributions to the study of adverse events. *Qual Health Care* **9**, 120-126.
- Woodard J (2009): Effects of rounding on patient satisfaction and patient safety on a medical-surgical unit. *Clinical Nurse Specialist* **23**, 200-206.

# SECTION 8

## Appendices

### 8.1 Patient Safety Climate in Healthcare Organisations (PSCHO) survey



#### PATIENT SAFETY CLIMATE IN HEALTHCARE ORGANIZATIONS



**INSTRUCTIONS**

For the following statements, please answer if you "strongly disagree," "disagree," "neither agree nor disagree," "agree," or "strongly agree." If you wish to change an answer, fill in the square for your preferred answer and circle it.

**CORRECT MARKS**         
 **INCORRECT MARKS**

**SECTION I**

This set of statements relates to your experiences regarding patient safety in your unit *and* at your facility as of today, unless otherwise noted.

Some statements refer to "my unit." Physicians and other care providers who are not unit-based should respond to these statements based on their experiences in their service, such as medicine or surgery. All others should respond to these statements based on their experiences in the work unit where they spend the majority of their time, such as ICU, 6 South, or Ambulatory Care Blue Team.

**Definition:** Patient Safety – Activities to avoid, prevent, or correct adverse patient outcomes which may result from the delivery of healthcare.

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Not Applicable			
1. Good communication flow exists up and down the chain of command regarding patient safety issues .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. I am provided with adequate resources (personnel, budget, and equipment) to provide safe patient care .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Senior management supports a climate that promotes patient safety .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Senior management has a clear picture of the risks associated with patient care .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. My unit takes the time to identify and assess risks to ensure patient safety .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Asking for help is a sign of incompetence .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Senior management has a good idea of the kinds of mistakes that actually occur in this facility .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. My unit does a good job managing risks to ensure patient safety .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. If I make a mistake that has significant consequences and nobody notices, I do not tell anyone about it .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. My unit recognizes individual safety achievement through rewards and incentives .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Senior management considers patient safety when program changes are discussed .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Compared to other facilities in the area, this facility cares more about the quality of patient care it provides .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. I have learned how to do my own job better by learning about mistakes made by my coworkers .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. In the last year, I have witnessed a coworker do something that appeared to me to be unsafe for the patient .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. If people find out that I made a mistake, I will be disciplined .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. I have enough time to complete patient care tasks safely .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Clinicians who make serious mistakes are usually punished .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. In my unit, there is significant peer pressure to discourage unsafe patient care .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. I have never witnessed a coworker do something that appeared to me to be unsafe patient care .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. In the last year, I have done something that was not safe for the patient .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. I am rewarded for taking quick action to identify a serious mistake .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. My unit provides training on teamwork in order to improve patient care performance and safety .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. Overall, the level of patient safety at this facility is improving .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. Patient safety decisions are made by the most qualified people, regardless of rank or hierarchy .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Not Applicable	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
25. Management in my unit helps me overcome problems that make it hard for me to provide safe patient care .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26. Mistakes have led to positive changes in my unit .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. Staff feel comfortable questioning the actions of those with more authority when patient safety is at risk .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28. Bringing patient safety problems to management's attention usually results in the problem being addressed .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. In my unit, management puts safety at a higher level of importance than meeting the schedule and productivity .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30. I have received sufficient training to enable me to address patient safety problems .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31. My performance is evaluated against defined safety standards .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32. In my unit, anyone found to intentionally violate standards or safety rules is corrected .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33. Staff freely speak up if they see something that may negatively affect patient care .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34. Whenever pressure builds up, management in my unit wants us to work faster, even if it means taking shortcuts that might negatively affect patient safety .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35. On my unit, we identify and fix safety problems before an incident actually occurs .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36. When I take time to communicate about patient safety problems there is appropriate follow up .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37. I am comfortable reporting safety concerns without fear of being punished by management .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38. Our process of accident and incident investigation is effective at identifying root causes .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
39. This facility devotes sufficient resources to follow up on identified safety problems .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40. Deliberate violations of standard operating procedures are rare in my unit .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41. In my unit, patient safety problems and errors are communicated to the right people so that the problem can be corrected .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
42. I will be blamed if I make an error .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43. People will doubt my abilities if I ask a question .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44. My coworkers will lose respect for me if they know I've made a mistake .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
45. I feel embarrassed when I make a mistake in front of my coworkers .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## 8.2 Examples of materials developed during the project

**'Bee Safe' – Implement the 5 B's:**



- **B**ed Low
- **B**rakes On
- **B**ed Rails – only if needed
- **B**uzzer within reach
- **B**elongings within reach

**Phasing out Falls!**  
**'pick the problems' quiz**



1. \_\_\_\_\_  
2. \_\_\_\_\_  
3. \_\_\_\_\_  
4. \_\_\_\_\_  
5. \_\_\_\_\_  
6. \_\_\_\_\_  
7. \_\_\_\_\_  
8. \_\_\_\_\_

Name: \_\_\_\_\_ Ward: \_\_\_\_\_

Remember: Both hand rails are up, bed in high position, clutter on right side of bed, buzzer out of reach. Buzzer off. Physical items not within reach, unapproved furniture, remove all risk of falling over rails.

**"We are Phasing out Falls!"**

To prevent falls in hospital remember to:

- Complete falls risk assessment
- Document falls risk rating and strategies
- Educate patients, families and staff
- Call buzzer, walking aids and belongings in reach
- Bed low, brakes on
- Reduce clutter
- Well-fitted, non-slip footwear

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**Phasing out Falls!**

To Prevent falls in hospital remember :

- Assess falls risk 
- Document falls risk and strategies
- Educate patients, families and staff 
- Call buzzer, walking aids and belongings in reach
- Bed low, brakes on 
- Reduce Clutter
- Well-fitted, non-slip footwear 

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## Falls Prevention

You might just prevent a patient from fracturing a hip – making their hospital stay a much more pleasant one!

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### Apply Falls Prevention Strategies

Specific for HIGH Risk Patients:

- Apply "Falls Alert" sign above bed
- Provide "One Step Ahead" booklet
- Ensure LowLow bed is at lowest position
- Supervise all transfers
- Ensure toileting regime is in place
- Regular checks of patients' whereabouts and activities
- Ensure it is included in handover
- Locate patient close to nurses station if possible

### Falls Risk Assessment

- Complete Falls Risk Assessment Tool within 24hrs of admission to the unit
- Ensure it is correct
- Common mistakes:
  - Incorrect days since admission
  - If patient wears bifocals or has cataracts – they score 2 for vision
  - If patient has 3 or more chronic conditions – they score 3 for co-morbidities
- Review if patient has had a fall

### Footwear Board



### Apply Falls Prevention Strategies

General Rules:

- Ensure nurse call is within reach & in working order
- Ensure walking aid is within reach
- Avoid bedrails
- Apply toileting regime if applicable
- Ensure LowLow bed is put in lowest position
- Ensure flat, well-fitting shoes are worn
- Ensure bed & chair are at appropriate height

### Stick-to-Stand

▪ A system for measuring the most appropriate bed height for the patient at high risk of falling.

▪ Allows any person to raise or lower the bed back to the correct height when leaving the room

▪ High risk patients will have their beds set at the right height on admission. See 'How to use stick to stand' slide

Blue tag should be just touching the ground

