The Winston Churchill Memorial Trust of Australia

Report by Nataliya Shkuratova

2013 Churchill Fellow

The Vincent Fairfax Family Foundation Churchill Fellowship to discover new ways to develop and deliver multidisciplinary falls prevention intervention that can effectively protect older Australians from falls after discharge from hospital

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Dated
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Executive Summary

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The Vincent Fairfax Family Foundation Churchill Fellowship to discover new ways to develop and deliver multidisciplinary falls prevention intervention that can effectively protect older Australians from falls after discharge from hospital

Falls represent a major health problem for the growing population of older Australians as they result in injuries, loss of independence and even death. The aim of my Fellowship was to travel to the USA, Canada, Netherlands, UK and France to gain knowledge in four important areas: exercise programs for falls management, strategies for translation and implementation of falls prevention evidence into practice, patient’s perceptions of falls interventions and falls interventions for older people with dementia.

Highlights of the Fellowship:

- Meeting with leading specialists in the falls prevention area from the USA, Canada, Netherlands, UK and France
- Learning about the innovative falls prevention programs FallProof™, ‘Fit 4Life’, ‘Stay Well At Home’ (USA), ‘Strategies and Action for Independent Living’ (Canada) and ‘Nijmegen Falls Prevention Program’ (Netherlands)
- Observing the class teaching ‘Martial Arts Techniques’ to reduce falls severity (Nijmegen, Netherlands) and taking part in the ‘Adapted Physical Workshop for older people with dementia’ (Bordeaux, France)
- Learning about the ‘National Falls Free Initiative’ (USA), ‘ProFouND’ network (UK), the ‘Canadian Falls Prevention Curriculum’ and innovative integrated health and social care services in Paington (UK)
- Presenting the outcomes of Epworth Rehabilitation Falls Prevention Intervention Program C.A.R.E. to Massachusetts Falls Prevention Commission, at the Webinar in Simon Fraser University (Canada), at the AgeNet Seminar at the University of Hertfordshire (UK) and to staff of Sint Maartens Hospital (Netherlands)

Major Lessons and Conclusions: To effectively protect older Australians from falling following discharge from hospital falls prevention interventions need to be based on evidence-based research, need to include an effective exercise program and need to take into account perceptions, attitudes and needs of healthy older people and older people with dementia. It would be beneficial to Australia to further develop the capacity for a state and national falls prevention coalition or networks such as those operated in the USA and in Europe; to further address the issue of integrating falls prevention services for older people and to develop a national falls prevention curriculum. I will use the knowledge and experiences gained during my Churchill Fellowship trip to develop innovative resources and interventions addressing falls in older people after discharge from hospital. The knowledge and information I have acquired during the trip will be disseminated to the staff of Epworth HealthCare, to members of patient advocacy groups, senior citizens clubs and to health professionals through presentations and workshops as well as via media and in meetings with representatives from relevant state and federal health departments.
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Special and sincere thanks to my son Denis, mother Bertha, father Boris, sister Sveta and my whole family who supported me on my Fellowship journey.

I would like to dedicate this report to the memory of my brother in law who died following a fall. His death had an enormous impact on me and on my whole family. Most importantly, it ignited a passion in me to do everything possible to stop falls once and for all.
Introduction and Background to Topic

Falls represent a major problem for the growing population of older adults (7, 18). In 2009, the Australian Council on Healthcare Standards (NCSQHC) listed falls and fall-related injuries as the leading cause of morbidity and mortality in older people (20).

In the community, approximately 30% of people aged 65 years and older fall at least once every year and the frequency of falling increases with age and frailty (1, 2, 37). According to the literature, up to 1500 of older adults fell within 1 to 3 months after hospital discharge and up to 15% of unplanned hospital admissions are due to falls (21). According to a new study from Monash Injury Research Institute, home injuries due to falls surged nearly 40% between 2003 and 2012. In comparison, road injuries in Australia increased by 19% over the same time period (19). Falls and consequent injuries result in the decreased quality of life, loss of mobility, permanent disability and even in death in up to 75% of older adults (2, 5). In addition to the devastating individual effects of falls, there are also disturbing economic outcomes. In Australia, each 1000 falls cost our society $15,826,560 (7, 18). It is also estimated that by 2051 fall-related injury bill in Australia can reach $1.4 billion (20).

To effectively address the growing problem of falls and fall-related injuries in older people, the Australian government has developed and implemented many important policies, strategies and initiatives. The National Initiative of Falls Prevention for Older People was issued in 1989 (7, 18). Other important National falls prevention initiatives include the release of the National Falls Prevention for Older People Plan: 2004 onwards, the first (2005) and the second (2009) editions of Best Practice Guidelines for preventing falls and harm from falls in older Australians, formation of Australian and New Zealand Falls Prevention Society (2006) and the introduction of a quality standard addressing fall prevention initiatives in Australian hospitals (2008). The National falls prevention initiatives aim to prevent falls and fall-related injuries in older Australians and to build falls prevention capacity through facilitation of evidence-based best practices, collaboration and professional network development.

In Victoria, falls prevention was first identified as a priority in 1994 (7, 20). Key developments in the falls prevention area in Victoria include funding the ‘No falls program’ and the specialists falls clinics; formation of partnerships aimed to improve evidence-base dissemination of falls prevention activities to health practitioners and wider communities; working with Ambulance Victoria on improving follow up for older people who used
services following a fall at home, and the release of the State Guidelines for acute, sub-acute and residential care settings: ‘Minimising the Risk of Falls and Falls-Related Injuries’.

Falls are complex events that are caused by a combination of multiple factors (38). Understanding of those factors is vital for developing effective falls prevention initiatives for older people following their discharge from hospital. The aim of my Churchill Fellowship was to travel to the USA, Canada, Netherlands, UK and France in order to learn about the factors contributing to falls in older adults and to gain knowledge and experience in the four important areas of falls prevention: exercise programs for falls management, strategies for translation and implementation of falls prevention research evidence into practice, patients perception and uptake of falls prevention interventions and falls interventions for older people with dementia. I have chosen to divide my report into four chapters that will summarise and evaluate the best practices in each of those areas. At the conclusion of each section I provide key point summary.

**Exercise programs for Falls Management**

Strength, balance and flexibility exercises were proven beneficial in reducing the number and the rate of falls and fall-related injuries in older adults (30). To date, the most effective exercise programs for falls prevention include ‘Tai Chi’ (17), ‘Stepping On’ (8), ‘Falls Management Exercise Program’ (FAME) (29) and OTAGO (39) programs.

The ‘Tai Chi’ program was developed by Dr Fuzhong Li (17). The goal of the program is to improve strength, balance and mobility in older people 65 years and older. The program includes modified Tai Chi movements that help older participants to improve their breathing, weight shift, postural alignment, and coordinated movements during standing and during walking tasks. The ‘Tai Chi’ class runs for an hour, three times a week, for 26 weeks. This program is delivered by experienced Tai Chi instructors.

The ‘Stepping On’ program was developed in Australia by Dr L. Clemson and her colleagues (8). The aim of this program is to improve mobility, strength, balance and self-efficacy in older people 65 years and older. The ‘Stepping On’ program includes seven sessions. Each session addresses falls risk factors and empowers older participants and their families to make better decisions in relation to their safety in the community and in their homes. This program includes a home visit, followed by an hour long booster session three months later.
The ‘Stepping On’ program is delivered by trained Occupational Therapist, Physiotherapist and older volunteers.

‘Falls Management Exercise Program’ (FAME) was developed by Dr D. Skeleton and her colleagues (29). This program is very popular in UK. It aims at prevention of falls and fall-related injuries in people 65 years and older, and at improving their adherence to exercises. ‘FAME’ program consists of community-based and home-based specific and targeted exercises that address balance, strength and flexibility in older adults. The community-based component runs for one hour once a week, while the home-based exercise component runs for 20-40 minutes four times a week. The program duration is 36 weeks.

The OTAGO program was developed in New Zealand by Professor John Campbell and his colleagues (38). It is designed for older people 80 years and older living at home. The program aims to improve participant’s strength and balance and to maintain their confidence. The OTAGO program runs five times a week, twice a day, for a period of 15-20 minutes and is supplemented by a 30 minute walking program twice a week. In addition to the exercise component, the program includes four home visits, followed by booster visits and by follow up phone calls. The program is delivered by trained Physiotherapist or other health professionals.

Research and clinical evidence clearly demonstrates that strength, balance and flexibility exercises can reduce risk, number and rates of falls and fall-related injuries in older people. However to date there is no consensus yet on which factors determine the effectiveness of exercises for falls management. To explore this issue I travelled to the USA, Netherlands, and Canada.

**Visiting Dr Debra Rose and the Centre for Successful Aging (California)**

I travelled to California to meet with Dr Debra Rose, the Director of the Centre for Successful Aging. Dr Rose is a well-known expert in the areas of healthy ageing and falls prevention. She is a creator of the FallProof™, the innovative and the successful falls prevention program (26). Dr Rose also developed a training curriculum for students and healthcare professionals working with older adults. I was very interested to learn about the work of the centre, and about FallProof™, ‘Fit 4 Life’ and ‘Stay Well At Home’ falls prevention programs created by Dr Rose and her colleagues.
The Centre for Successful Aging was established in 1998. Its mission is to improve wellbeing and to reduce frailty and disability in older adults. The Centre for Successful Ageing is located in the Department of Kinesiology and Health Science at the California State University, Fullerton (24). The goals of The Centre for Successful Aging include conducting research on issues related to healthy aging, providing a range of programs and assessments for older people, collaborating with community agencies and organizations and acting as an advocate for public policies on healthy aging and falls risk reduction (24, 26, 27).

While visiting the Centre for Successful Aging, I was impressed by its resources, facilities and equipment. A state of art Lifespan Wellness Centre is a place where ‘Fit 4 Life’ and ‘Balance and Mobility’ programs take place. It is a 5,000sq feet facility equipped with the most modern resistance training and cardiovascular equipment.
The Centre also has new SwimEx pool facility where the properties of buoyancy are used for a broad range of balance, strength and cardiorespiratory rehabilitation exercises. The well-equipped Gordon C. & Dixie Resource Room offers participants and their families a wide range of research and community resources on topics of healthy ageing, falls prevention, balance and strength.
Dr Debra Rose and her team have a unique approach to falls prevention. All the programs created in the Centre of Successful Ageing are based on the three fundamental principles: whole-person wellness, benefits of physical activity in protection from falls, and a continuum of exercise programming.

The whole-person wellness principle involves six dimensions of wellness: emotional, intellectual, physical, social, spiritual and occupational wellness. Adopted from the model developed by Jan Montague, the idea behind this principle is that healthy ageing is achieved through integration of positive beliefs and meaningful activities. Whole-person wellness principle promotes the idea that healthy ageing is about finding balance in life and about the importance of self-efficacy in shaping one's health.

For many years, the benefits of physical activity in preventing falls in older people have been the topic of Dr Rose’s research (27). According to Dr Rose, being physically active helps older adults to maintain good health and functional independence. In Dr Rose’s opinion, daily exercises can successfully prevent older people from disability and falls.

Continuum of exercise programming is essential for the effectiveness of falls prevention interventions. To be successful, falls prevention interventions should include low and high impact exercises that will suit frail older people as well as healthy and fit older adults. The idea behind this principle is that the population of older adults is heterogeneous and only one type of exercise cannot be beneficial for everyone. In the Centre for Successful Aging, the
continuum of exercises is achieved through participation in a number of programs that address different levels of function, mobility, strength and balance of older adults.

The Programs

**FallProof™**

- The theory-driven program: the content and the principles of the program derived from the theories of motor control
- This program is for frail older adults at moderate-to-high risk for falls
- The goal is to promote functional independence and to decrease falls risk in frail older adults
- Program is delivered by Certified Balance and Mobility Specialist Instructors
- Includes individual and group activities
- Classes run twice a week
- Each session run for 60 minutes
- The program is conducted for the period of 24 weeks
- The program includes motor control, postural control, gait, strength, endurance and flexibility exercises
- There are 10-12 participants in a group
- FallProof™ program has been successfully implemented and sustained in the United States and Canada for the past 10 years.

**Balance and Mobility**

- Intermediate program for older people who graduated from FallProof™ Program but not ready yet for ‘Fit 4 Life’ Program
- Eases clients into a more fitness oriented exercise program
- Introduces older adults to resistance and cardiovascular equipment
- Introduces older adults to aerobic exercises
- This program includes group activities
- Classes run twice per week
- Each session run for 60 minutes
- There are 15 participants in each group

**Fit 4 Life**

- This program includes Individualised and group classes
- Health, fitness and mobility assessments are conducted before the program, following completion of the program and once every year
- This program is for healthy older adults and for older people who have graduated from both the FallProof™ and ‘Balance and Mobility’ programs
- This is a well-rounded physical activity program
- Classes held twice per week
- Each session runs for 90 minutes
- Program is conducted for the period of 10 weeks
- Program combines aerobic, machine based resistance training, balance, mobility and flexibility training
- Each exercise emphasises agility and speed of movement
- There are 25 people in each group

**Stay Well At Home Program (SWAH)**

- Newly developed home-based program
- This program includes four components: falls risk screening and assessment; an individually tailored progressive exercise program; home assessment and modification; and in-person and over the telephone guidance focused on changing the recipient’s falls prevention knowledge, attitudes, and behaviours
- The SWAH program is conducted by trained peer facilitators
- Individually tailored progressive exercises presented to participants by the expert instructor via DVD
- Program runs through the special scripts covering a variety of different topics about importance of regular physical activity, home safety, risk-taking behaviours, medications and footwear
- In-home safety assessments are conducted as part of the program and are followed by establishing an action plan and the initiation of a referral for follow-up home modification services
- Each visit runs for 90 minutes
• For the first month, peer facilitators visit participants twice a week
• For the second month, peer facilitators visit participants once a week and call them the following week
• For the third month, peer facilitators provide participants with two support phone calls a week
• For the fourth month, peer facilitators are on call and the participant can call them at any time

FallProof™, ‘Balance and Mobility’, ‘Fit 4Life’ and ‘SWAH’ programs provide older people with a continuum of exercises and with a continuum of care. They result in significant reduction in falls and in improvements in mobility, strength, balance and in functional independence of older adults (26, 27).

**Visiting Dr Vicky Scott in Vancouver, Canada**

I travelled to Vancouver, Canada to meet with Dr Vicky Scott, a well-known expert in the area of falls prevention to learn about the unique ‘Canadian Falls Prevention Curriculum’ and about the effective ‘Strategies and Action for Independent Living’ (SAIL) program.

Dr Vicky Scott is the Senior Advisor on Falls and Injury Prevention for the province of British Columbia (BC) and the Director of the Centre of Excellence on Mobility, Falls Prevention and Injury in Aging (CEMFIA). CEMFIA was founded in April 2009 within the Centre for Hip Health and Mobility (CHHM), and is located in the Vancouver General Hospital. CEMFIA represents a collaboration of researchers, health care providers and policy makers. The goal of this collaboration is to improve health, safety and independence, and to reduce the number and the rate of falls and fall-related injuries in older British Columbians (23). Dr Scott is also a chair of the BC Falls and Injury Prevention Coalition, principal investigator for the ‘Canadian Falls Prevention Curriculum’, and co-leader of a new project on healthy aging and falls prevention among older Aboriginal people. As a well-known expert in the area of falls prevention she assists the Ministry of Health Services in transferring knowledge from falls prevention research into policy development. Dr Scott is the author of the World Health Organization’s (WHO) background paper on falls prevention policy, research and practice, and a co-author of the WHO Global Report on falls prevention in older age. In 2007, Dr Scott was awarded the Canadian Institute of Health Research’s knowledge translation award.
In Dr Scott’s opinion, effective falls prevention interventions are multifactorial. They incorporate targeted, task-specific exercises, include individual risk profiles and require trained and certified personnel (32, 33). In addition to this, Dr Scott firmly believes that quality of falls prevention interventions largely depend on the rapport between health providers and their clients.

![Figure 5](image_url)

**Figure 5.** Dr Vicky Scott presents at the meeting of the Falls Prevention Coalition in Vancouver, Canada

**Canadian Falls Prevention Curriculum© (CFPC)**

To date, ‘Canadian Falls Prevention Curriculum©’ (CFPC) is the most comprehensive falls prevention education course in the world. This unique national educational program was developed to improve knowledge of health professionals, community support workers, carers and policy makers in the area of falls prevention. The ‘Canadian Falls Prevention Curriculum©’ can be completed through the workshops or through the e-learning course and is available in English and French.

The goal of the ‘Canadian Falls Prevention Curriculum©’ (CFPC) is to increase knowledge and understanding of various stakeholders working with older people on how to design, implement and evaluate a targeted individualised falls prevention interventions. The ‘Canadian Falls Prevention Curriculum©’ (CFPC) uses the public health approach to falls prevention and includes instructions on how to define a problem, assess the risk, examine
best practices, implement the program and to conduct the evaluation of the program’s effectiveness (33).

**Strategies and Action for Independent Living (SAIL)**

The multifactorial approach, education and wide engagement of community healthcare staff in falls prevention became the core elements of the ‘Strategies and Action for Independent Living’ (SAIL) program created by Dr Vicky Scott and her colleagues.

SAIL is a falls prevention program designed to promote safety and independence of older adults living in the community and receiving home support services. In this program, the home health case manager, community health care worker and the client work together to achieve safety and independence in their own homes. SAIL is a unique falls prevention program because it is conducted by community health care workers. Involvement in such an important program empowered the community health care workers to expand their roles to falls risk assessment, education, advice on home modifications and help with exercises. The outcomes of the SAIL program include reduction in falls, cost-efficiency and most importantly the improved involvement of older people and their families in self-management of their health and risk of falls. The evaluation of the SAIL program also demonstrated improved motivation and work morale among community health care workers due to enhanced purpose of their job requirements and due to better rapport with their clients and with health professionals.

The major components of the SAIL program include a training curriculum for community health workers (CHW) and home health professionals (HHP) and an 83-item Falls Prevention Checklist and Action Plan (C&A). The C&A plan directs community health care workers and their clients through a series of questions on falls risk. The answers might initiate actions for prevention. The C&A plan was designed in a special way, allowing community health care workers to fit the conversations with clients about their health and falls risks into daily routine of care and existing activities. Recommended actions following the completion of the C&A plan include education, exercises, various environmental and home modifications and facilitation of referrals through liaison with nurses or allied health professionals. SAIL interventions resulted in 44% reduction in the number and the rate of falls in frail older people (34).
Visiting Dr Vivian Weerdesteyn and the Sint Maartens Hospital in Nijmegen, Netherlands

I travelled to Nijmegen, Netherlands to meet with Dr Vivian Weerdesteyn. Dr Weerdesteyn is a well-known specialist in the areas of falls prevention and motor and balance control. She is a Physiotherapist, a Senior Research Fellow at the Sint Maartens Hospital and an Associate Professor at the Sint Radboud University Medical Centre in Nijmegen. Dr Weerdesteyn dedicated her research to understanding mechanisms that underline falls in older people and in people suffering stroke. I travelled to Nijmegen because I was very interested to learn about the ‘Nijmegen Falls Prevention Program’ and ‘Martial Arts Techniques’, two innovative interventions aimed at reducing falls severity in older adults.

The Sint Maartens is a rehabilitation hospital and a research centre specializing in the research and treatment of balance, movement and behavioural disorders in patients with various neurological pathologies, in patients with amputations and in children with cerebral palsy (25). In addition to the development of the ‘Nijmegen Falls Prevention Program’, the specialists from the Sint Maartens Hospital work on designing various falls prevention techniques, balance measurement equipment, balance testing protocols, questionnaires and clinical balance tests.

Delivery of rehabilitation services and falls prevention initiatives in Nijmegen is achieved through the collaborative network established between the clinicians and researchers from Sint Maartens Hospital, the Sint Radboud University Medical Centre, the Canisius Wilhelmina Hospital, the Rivierenland Hospital and the Maas Hospital. The goal of this collaboration is to achieve provision of the best health care through the integration of research and clinical practice (25).

The work of Dr Weerdesteyn and her colleagues represents the new approach to the development of falls prevention interventions. In Dr Weerdesteyn’s opinion, to reduce falls, exercise programs need to incorporate the framework for understanding balance dysfunction in older people and to safely challenge their balance system through the combinations of movements that are significantly more complex than general cardiovascular or strength training tasks. The basis of the framework for understanding balance dysfunction in older adults includes three fundamental principles: the interrelationship between intrinsic and extrinsic risk factors for falls, the knowledge that balance training is task specific, and that deficiency in postural adjustments to environmental perturbations might contribute to the increased number of falls in older adults.
According to Dr Weerdensteyn, it is important to understand the relationship between the intrinsic and the extrinsic falls risk factors. Among the intrinsic or person-related factors are muscle weakness, impaired vision and other medical pathologies. Extrinsic or environment-related risk factors associated with safe mobility include the ability to negotiate loose carpets, obstacles, stairs, and slippery floors. In Dr Weerdesteyn’s opinion, the falls risk increases accordingly to the number of intrinsic or extrinsic factors presented during daily activities. Thus, falls prevention programs need to reflect the complex interrelationship between intrinsic and extrinsic factors challenging balance in older people.

According to literature, the mechanism of falls is closely associated with changes in postural adjustments in response to various environmental perturbations (32, 36, 41). Postural adjustments that activate prior to the onset of perturbation are known as anticipatory adjustments (32, 36). Postural adjustments that start after the perturbation is encountered are identified as reactive adjustments (32, 36). In Dr Weerdesteyn’s opinion, it is important to understand the effects of ageing on anticipatory and reactive adjustments because daily functioning requires the timely ability to detect changes in environment and to plan adjustments to these changes (41, 42).

The knowledge that balance training should be task specific originated from the fundamental principles of motor control, and from research findings demonstrating that changes in postural adjustments in older people vary according to the type of perturbation encountered (32, 38). The major clinical implication of this principle is that falls prevention programs should not only concentrate on standing or sitting tasks, but need to include the wide range of complex functional daily tasks into balance training (36, 41).

The Nijmegen Falls Prevention Program
The goal of the Nijmegen Falls Prevention Program is to reduce the number and the rate of falls and fall-related injuries in the community dwelling people, 65 years and older. This low intensity program is conducted for the period of five weeks, twice a week with each class running for 1.5 hours. The program is delivered by trained and certified physiotherapists. The program aims at the improvement of balance, gait, strength and coordination in older people though the delivery of functional task specific exercises. The exercises include obstacle avoidance tasks such as stepping over doorways, walking over stepping stones, uneven pavement and over various kinds of ground surfaces. The other type of exercises includes reaching tasks during standing, sitting and walking. Walking tasks are performed at different
speeds and in various directions, whilst reciting stories or whilst carrying a tray with empty glasses. The participants are also trained on how to negotiate crowded environment and how to fall safely. The Nijmegen Falls Prevention Program decreased the number and rate of falls in older community dwelling participants by 46% (41).

**Martial Arts Techniques (MAT) to reduce falls severity**

To my knowledge, Dr Weerdesteyn and her colleagues are the first and perhaps the only specialists to introduce ‘Martial Art Techniques’ (MAT) and subsequently the practice of falling into the falls prevention programs. MAT practice teaches older people safe techniques of falling and the strategies of how to reduce severity of their falls. This training is based on Dr Weerdesteyn’s research that demonstrates safety and efficiency of the MAT technique. According to Dr Weerdesteyn’s research, the application of MAT resulted in the reduction of the hip impact force during falls by up to 30%. The reduction in the hip impact force is due to the ability to break the fall and to change it into the rolling movements. ‘Martial Art Techniques’ teaches older adults how to safely use compensatory trunk movements, how to react with their arms and how to change the direction of the impeding fall. The safety of MAT is ensured by having well-trained professionals guiding and assisting older participants with each techniques, by working one on one with the trainer, by practicing fall movements from kneeling positions and by using thick mats for protection (42).

![Figure 6. Practicing safe techniques for falling](image)
Summary of Findings

- Exercise programs are essential for preventing older adults from falls and fall-related injuries
- Falls prevention programs based on a continuum of exercises including low and high impact physical and balance activities benefit frail older people as well as healthy and fit older adults
- The development of national falls prevention curriculum is essential to successful implementation, delivery and evaluation of the falls prevention interventions among health professionals, community support workers, carers and other stakeholders working with older people
- The involvement of community health care workers in the delivery of falls prevention interventions might contribute to the cost-efficiency of interventions, to the increased adherence of older people to the programs and to the improved rapport between the community health care workers and their older clients
- Effective exercise programs for falls prevention should have the whole-person approach, incorporate the framework for understanding balance dysfunction in older people, should be task specific and should address the wide range of complex functional daily tasks

Strategies for translation and implementation of falls prevention research evidence into practice

Even though we have enough research evidence to what interventions can prevent and decrease falls in older people, there is still some uncertainty on the best way to translate and implement this evidence into practice in order to fully benefit older people at the time of their discharge from hospitals (6, 19). According to the literature, successful translation and implementation of research evidence into practice requires the capacity and the drive of coalitions and networks to encourage and to disseminate the best evidence-based programs and the ability of government structures to build integrated services providing the continuum of care for older adults (4, 19).

The National Council on Aging and State Falls Prevention Coalitions

To learn about the role of coalitions in dissemination and implementation of falls prevention evidence-based interventions, I travelled to the USA to meet with Kara Burke and her
colleagues from the New York State Department of Health, Albany NY; with Carlene Pavlos and Carla Cicerchia from the Division of Violence and Injury Prevention at Massachusetts Department of Public Health, Boston, MA; and with Lynn Beattie, Vice-President of the National Council on Aging from Washington DC.

After my meetings with the leads and the representatives from New York and Massachusetts Falls Prevention Coalitions, the members of Massachusetts Falls Prevention Commission and the Vice-President of the National Council of Aging (NCOA), I developed a greater awareness and enormous respect for the work and the passion of members of coalitions and NCOA in developing local leadership, encouraging relationships and combining the efforts of people with different skills in promoting and implementing the best interventions and strategies to address falls in older people.

Even though falls prevention efforts are unique to each state, falls prevention strategies implemented in each state are guided by the evidence-based recommendations outlined in the National Action Plan to prevent falls and are well supported and assisted by a national collaborative Falls Free © initiative and by the State Coalition on Falls Prevention Workgroup.

The National Action Plan to prevent falls was released following the Falls Free © Summit that was convened in Washington, DC in December 2004. The 36 major strategies outlined in the National Action Plan became the landmark evidence-based framework for falls prevention in the USA, and are a driving force behind the falls prevention initiatives undertaken by the state falls prevention coalitions (4).

The National Falls Free © Initiative has been started by the NCOA at the time of the National Action Plan release. Since then, the NCOA and state falls prevention coalitions work in partnership through the Falls Free © initiative to address the issue of increasing numbers of falls and fall-related injuries in older people. The goals of Falls Free © initiative are to heighten public awareness about the risk of falls; to improve education and training of people working with older adults; to promote and to disseminate the best evidence-based programs and interventions into various communities; and to improve access of older people and their families to the best falls prevention resources, tools and services (4).

The State Coalition on Fall Prevention Workgroup was established in 2006. The idea behind development of this workgroup was to encourage state leaders to guide and to mobilize
communities in taking action, in making and in sustaining true and positive change in the lives of older people. The State Coalition on Fall Prevention Workgroup is now involving leaders from 38 states who are working together to promote and to implement state-wide strategies to address falls (4, 40). With the support of NCOA, the State Fall Prevention Coalition Workgroup has formed the awareness, the advocacy and the evaluation committees. The work of the awareness and the advocacy committees contribute to falls policy and legislative initiatives. The evaluation committee facilitates and measures the impact of falls prevention interventions implemented by each state.

Following my visits to Albany, NY; Washington DC; and Boston, MA, I have learned about the major falls prevention initiatives undertaken by the New York and Massachusetts Falls Prevention Coalitions. These initiatives include:

- Fostering growth and development of community partnerships between aging and public health
- Promotion and implementation of ‘Preventing Falls in Older Patients’ Provider Resources Kit (STEADY ) for General Practitioners and other health care providers working with older people
- Celebration of Annual National Falls Prevention Awareness Day on September 22 to promote and to increase public awareness on how to prevent falls among older adults
- A survey, evaluation and implementation of the best evidence-based falls prevention programs such as ‘Tai Chi’, ‘Matter of Balance’ and ‘Stepping On’
- A social marketing campaign “Key to your independence” that aims to increase awareness in older people and their families about the importance of home and environmental safety, physical activity and healthy lifestyle
- A series of educational sessions for older adults and their families, promoting state-wide awareness of falls risk factors. The topics include medication mismanagement, physical inactivity, vision deficits, postural hypotension and cognitive impairment
- Working with city and state planners to implement environmental modifications to provide environmental safety for older adults

**The Prevention of Falls Network for Dissemination (ProFouND)**

To learn about the role of networks in dissemination and implementation of falls prevention evidence-based practices I travelled to Manchester, UK to meet with Chris Todd, the lead of the Prevention of Falls Network for Dissemination (ProFouND) (22).
Dr Chris Todd met me on a very cold, windy and rainy day at the University of Manchester. I flew to Manchester for the two hour meeting in appreciation of Dr Todd’s vast contribution to the area of falls prevention. Since 2001, Dr Todd worked at the University of Manchester as a Professor of Primary Care and Community Health, and until the end of 2013 he was a Director of Research in The School of Nursing, Midwifery and Social Work. He is a Chartered Psychologist and an Associate Fellow of The British Psychological Society. Dr Chris Todd wrote the World Health Organisation’s (WHO) policy synopsis on the prevention of falls amongst older people, was a co-author of the 2007 WHO Global Report on Falls Prevention and has been an author and co-author of more than 200 publications.

The meeting with Chris Todd was very inspiring. In our meeting we discussed some of the best evidence-based falls prevention interventions, including the programs developed in Australia. We talked about the future direction for falls prevention research, and about the work of the ProFouND network. I was impressed by Dr Todd’s passion and belief that falls should not be a part of the ageing process, by his faith in scientific evidence of randomised-controlled trials and by his tireless work in building and leading successful partnerships and collaborations to prevent falls in older people.

_What I have learnt about the ProFouND Network_

- The Prevention of Falls Network for Dissemination (ProFouND) is a new initiative aimed at the dissemination and the implementation of the best falls prevention evidence-based research and practice across Europe
- ProFouND brings together 21 partners from 12 countries, with associate members from 10 more countries
- The aims of ProFouND are to increase awareness about falls risks and about innovative falls prevention programs, and to disseminate and implement the best evidence-based fall prevention interventions amongst older people at risk of falls
- In collaboration with ‘Later Life Training’, ProFouND will introduce a new cascade model of training, using face to face and other e-learning approaches with the aim of establishing a team of accredited exercise trainers across Europe
- A free access resource library and a new ProFouND Falls Prevention Application (PFPApp) will be created to distribute falls prevention guidelines and information in many languages to various stakeholders working with older people
• ProFouND will also develop an “ICT for Falls Forum” that will run a number of meetings and events for various organisations across Europe with the aim of disseminating best practice guidelines and making falls prevention an important government agenda

• ProFouND includes eight work-packages (WP). According to the literature, ProFouND’s main work-packages are WP1, WP2, WP7 and WP8

• WP1 coordinates and monitors network activity

• WP2 produces the PFPApp and maintains the ProFouND website

• WP7 works with E-NOFALLS to promote the development of innovative falls prevention products, solutions and interventions though an Europe-wide ICT based forum

• WP8 supports and helps network partners to implement innovative fall prevention strategies across Europe (22).

**Integrated health and social care services in Paington: an innovative proactive case management model**

Another way to distribute and to implement research evidence into practice is through developing integrated services promoting continuum of high-quality care for older people (21, 29). I travelled to Paington, UK to meet with Tricia McConkey, one of the leads of the community integrated health and social care team and with Jane Reddaway, falls prevention lead from Torbay & Southern Devon Health & Care NHS Trust to learn about the model of integrated health and social care services known in the literature as the Mrs Smith’s model of care (28).

Even though I visited Paington during the early months of winter, I was quite impressed by the natural beauty of this small and friendly coastal town. Together with Torquay and Brixham, it forms the area of Torbay, a holiday destination known as the English Riviera. I was accompanied to Paington by Dr Victoria Goodwin. Dr Goodwin is a Chair of the British Gerontological Society’s falls and bone health section and a Senior Research Fellow at the University of Exeter. She is a passionate physiotherapist and a researcher, specialising in falls prevention in older people and in people with Parkinson’s disease. In addition to her research and teaching activities, she continues to have a clinical role with Torbay and Southern Devon Health and Care Trust.
Who is Mrs Smith?

Mrs Smith is a fictional 85 years old woman who lives alone and who suffers from a fragmented range of services. The story of Mrs Smith is the story of the services she required, and the difficulties and frustrations she faced in trying to navigate the local health and social care system. This story tells of Mrs Smith’s dissatisfaction and frustration from having many separate assessments, from repeating her story to many people, from needing to travel multiple times to meet with many health professionals, from delays in the transmission of information, and from the general complexity of the system.

The story of Mrs Smith struggling to navigate through the fragmented health care system influenced Torbay & Southern Devon health care leaders to develop an innovative integrated service model. The aims of this model were to provide co-ordinated and integrated health care services for Mrs Smith and other older people with complex health and social needs and to make the delivery of those services as simple and timely as possible (28).

The new integrated services in Torbay and Southern Devon brought together health and social care workers. The integrated teams consist of nurses, occupational therapists,
physiotherapists, social care workers, mental health care workers and hospital discharge coordinators. Mrs Smith’s/Torbay health care model pioneered community virtual wards across general practitioner’s (GP) practices. The aims of the virtual wards include proactive identification and management of patients at high risk of emergency and other hospital admissions; prompt referral of patients in crisis to hospitals and to community integrated health and social teams; provision of effective care and support to older people in community and following their discharge from hospital.

**Integrated Health and Social Care Community Team in Paignton**

I enjoyed attending a case management meeting of Paignton integrated health and social care community team. At this meeting I was introduced to the team members and took part in the discussions about the new referrals and about managing patients in crisis. The team is a tightly knit group of dedicated friendly professionals who work together to provide the best evidence-based health care for older people living in the community. I was impressed by the efficiency of the meeting, and in particular by the innovative use of the overhead projector in delivering the information from the electronic patient records. I learnt the following from the meetings in Paignton:

- The aims of an integrated health and social care services are to improve safety and independence of older people living in their homes, to reduce the rate of their hospital admissions, to improve continuity and quality of their care and to ensure that resources in the community are used efficiently by targeting additional services for those most at risk
- Therapists from Paignton integrated health and social care team visit patients in their own homes
- Therapists from Paignton team visit the patients at crisis on a daily basis
- The team operates from 8 am till 6 pm
- The team respond to referrals within 2.5 hours and/or as soon as the referrals arrive
- Usually patients are attended by two members of the team
- If a patient deemed to be unsafe at home, the patient is referred to the intermediate care placements where they continue to receive daily interventions
- Patients in crisis can receive intermediate care placement for 10-14 days only, followed by the discharge back home under the care of the integrated team
- On average the team provides a 30 minute visit every day for six weeks
• Paington team use evidence-based programs, implement multidisciplinary falls assessments, deliver falls prevention interventions, arrange appropriate equipment and/or gait aids, help with various activities of daily living, and arrange social services for older people living in the community

• Referrals to the team originate mostly from GP virtual wards but might also arrive from hospitals, the patient itself and from the members of patient’s families

Figure 8. Paington Integrated Health and Social Care Community Team

Introduction of the integrated health and social care in Paington significantly reduced hospital admissions and the number and the rate of falls and fall-related injuries in older people living in the community.

Summary of Findings

• The ability to translate research evidence into practice is essential for the delivery of effective falls prevention services for older people living in the community

• The National Council on Aging, Falls Prevention Coalitions and the Prevention of Falls Network for Dissemination (ProFouND) have a fundamental input in the successful dissemination, translation and the implementation of the best falls prevention research evidence in the USA and across Europe
• Coalitions and networks promote, disseminate and implement falls prevention research evidence into practice by increasing awareness of falls risks and interventions amongst older people, their families and other stakeholders

• Coalitions and networks improve access to fall prevention resources, tools and services, build falls prevention capacity through education and workforce development and develop partnerships between aging and public health organisations

• Integrated health and social care services promote holistic approach to patient’s needs and prevent fragmentation of their care through the application of the effective evidence-based programs, through the involvement of multidisciplinary teams and by the means of building partnerships among stakeholders addressing the needs of older adults

• Integrated health care services provide continuum of high-quality health care for older people living in the community

• Introduction of the integrated health and social care services have a significant impact on the reduction in the rate of hospital admissions and in the number and the rate of falls and fall-related injuries in older people living in the community

Older people’s perceptions and uptake of falls prevention interventions

Visiting Dr Angela Dickinson and her colleagues at The Centre for Research in Primary and Community Care (CRIPACC), Hertfordshire, UK

Older people’s poor participation and adherence to falls prevention interventions may contribute to the increased number of falls following hospital discharge. Among the factors influencing the low adherence of older people to falls prevention interventions is a belief that participation in an exercise program whilst in a hospital could be enough to sustain good balance and mobility for long periods of time; medical barriers such as pain, dizziness or weakness; low self-perceived risk of falling; and negative attitude to exercises or physical activity in general (10, 13, 14). To understand the factors influencing older people’s adherence to falls prevention interventions I met with Dr Angela Dickinson and her colleagues at the Centre for Research in Primary and Community Care (CRIPACC) in Hertfordshire, UK.

The Centre for Research in Primary and Community Care (CRIPACC) is a well-known provider of high quality, patient-focused research in four main areas: adolescent and child
health; older people’s health and complex conditions; patient experience; and evidence-based practice. I was very fortunate to meet with the director of the centre, Professor Sally Kendall and to learn about the work of the centre. In addition to the project exploring older people’s perception of falls interventions, CRIPACC focuses on research of care homes, on the evaluation of service delivery for community dwelling older people with complex needs, on health promotion and on prevention and management of falls in acute mental health care settings.

Dr Angela Dickinson is a Senior Research Fellow in the CRIPACC and one of the leads of the older people’s health and complex conditions program. She is the principal investigator in the study examining older people’s views and perceptions of falls prevention interventions. Dr Dickinson’s research interests include health, social care and well-being of older adults, including their nutrition and food choice. Dr Dickinson and her colleagues are among a few researchers who explored the factors that influence the adherence of older people to falls prevention activities and provided timely suggestions on the best ways to improve their participation in falls prevention interventions.

Following my meetings with Dr Dickinson and her colleagues, I have learned that the views of older people on ageing and falls are quite diverse and complex but can be combined into four distinct categories (10). The first category includes people trying to resist age and to be in control of life through positive attitude to exercises and through actively seeking treatment and interventions. The second category consists of people believing that falls are a combination of age and medical pathology. Older people who belong to the third category have a fatalistic approach to ageing and think that nothing can be done to prevent falls. Those people will try to avoid interventions and will only seek help for injuries following a fall. The fourth category includes older people resisting ageing in general. These people avoid interventions that are perceived to be associated with being seen as old and dependent. The knowledge of the older people’s views on ageing and falls became a foundation for the recommendations on how to facilitate their participation in falls prevention interventions (3, 10, 16). Those recommendations are as follows:

- A major public falls prevention campaign similar to campaigns focusing on stroke, diabetes and heart disease is required
- Older people need to perceive falls as preventable
- Interventions need to be appropriate and target the individual needs of older adults
• Uptake of interventions can be improved if interventions are recommended by a GP or other health professional
• GPs and other health professionals play a key role in the enhanced adherence to interventions through proactive and appropriate assessment, case management and follow-up in older adults
• Older adults need to have an access to information about falls prevention services, specialists and community-based falls prevention programs in their area.
• Information about the availability, location and the content of falls prevention interventions and services needs to be provide to older patients by their GPs and/or other health professionals
• Good rapport with GPs and other health professionals improves the positive attitude of older people to falls prevention interventions
• Services should be conveniently located with good accessibility for those using public transport
• All programs should be run during the day
• Falls prevention interventions should be culturally sensitive and appropriate with consideration given to specific issues of various ethnic groups
• Cost of interventions needs to be considered. Free sample lessons were thought to be a good way to improve the uptake of exercise programs
• Feeling the benefits from interventions and having noticeable improvements in strength, balance and mobility is important in the improvement of participation of older people in these interventions
• Adherence of older people to falls prevention interventions is improved when exercising in a group with people of a similar age and when interventions include food and social interactions

Understanding factors that influence older people’s participation in falls prevention interventions is vital to the benefits they receive from the interventions. This important knowledge enables health professionals to deliver effective falls prevention services and ultimately reduce falls in older adults (10).

**Raising awareness to falls risks in older people: “thinking outside of the box”**

Low self-perceived risk of falling is one of the major contributors to decreased adherence to falls prevention interventions and to increased number of falls in older adults (14, 15).
Traditional strategies to raise awareness to falls risks in older people include educational leaflets, falls risk identifiers, using a calendar to record falls at home and in the community, home audits and face to face interactions with health professionals (20). Despite the tireless effort to raise awareness of older people to the risk of falls, some older adults are reluctant to accept advice and might reject the idea that they are at risk. Some older adults might accept that they are at risk, but might feel that nothing can be done about it and that it is an inevitable part of ageing.

In search of the most positive and creative strategy to raise awareness to falls risks in older adults, I travelled to Vancouver, Canada to meet with Dr Fabio Feldman, the manager of the Seniors Falls and Injury Prevention for the Fraser Health Authority. In collaboration with Crystal Stranaghan and Izabela Bzymek, Dr Feldman created a picture book “Safety Superheroes: Preventing Grandparents from Falling” to help children and their families to learn how to keep their grandparents and other older adults safe from falls (36).

“Safety Superheroes” is a warm and funny story about children, Maya, Ana, Tomer, and their Grandfather getting the house ready for Grandmother’s return from a hospital. With an entertaining story, colourful pictures and many safety tips, this book is a great example of creativity and “thinking outside of the box” in encouraging and teaching young and old people how to prevent a fall. This book, now available in English, Chinese and French, includes a checklist for safety at home and a superhero challenge. The challenge includes asking readers to look at the picture of a messy house and to name 15 things they can change to make the house safer to prevent possible falls. This challenge can also be done online. Once readers have completed the challenge (on paper or electronically), they receive the certificate and are members of the Safety Superheroes falls prevention team.

The “Safety Superheroes” book is an innovative approach to raising awareness of older people and their families to falls risks and falls prevention interventions. It is aimed at all generations and delivers a very powerful message that encouraging a positive attitude to falls prevention might be instrumental to making falls prevention activities important and enjoyable part of older people’s life.
Summary of Findings

- Factors that affect participation of older people in falls prevention activities include lack of belief in the benefits of physical activity, medical barriers and low self-perceived risk of falling.
- Knowledge of factors influencing older people’s participation in falls interventions influences the successful implementation of those interventions.
- Older people’s views on falls prevention interventions are diverse and complex.
- Falls prevention programs should be individually tailored, cost-effective, culturally appropriate and give consideration to the specific issues of the various ethnic groups.
- Older people need to perceive falls as preventable and need to feel the benefits from interventions.
- Health Professionals play a key role in the initiation and maintenance of adherence to falls prevention interventions through proactive and appropriate assessment, management and follow-up.
• The book “Safety Superheroes” is an example of an innovative, creative and positive approach to raising awareness to falls risks and falls prevention interventions with older adults

• Encouraging positive attitude to falls prevention might be fundamental to making falls prevention activities an important part of people’s life

**Falls prevention interventions for older people with dementia**

Dementia represents a major health problem in older adults (15, 32). It is estimated that it affects 1.5 % of people aged 65 years, and is reaching a level of 22 % in people older than 85 years old (12, 32). Current literature demonstrates that older people with dementia are more likely to experience falls than those without dementia. It has been reported that around 40 to 60% of older adults with dementia fall once or more each year (11, 15). The key factors associated with the increased risk and the number of falls in this population includes behavioural disturbances and accelerated deterioration in their balance, mobility and strength (11, 12).

There has been increasing interest in the potential of various interventions to improve outcomes associated with the number and the rate of falls and fall-related injuries in people with dementia. Current research has shown the feasibility of these interventions and suggested that physical activities and cognition focused programs may lead to improvements in the behaviour, balance and mobility of older adults with dementia. The aim of my visit to the Xavier Arnozan Hospital in Bordeaux, France was to learn about the innovative program for older people with dementia and to provide preliminary evidence of the effects of this program on their function, mobility and general well-being.

*Adapted Physical Workshop for people with dementia*

Xavier Arnozan is a geriatric hospital located in Pessac, one of the suburbs of Bordeaux, France. Bordeaux greeted me with warm and sunny weather, great cuisine (varieties of chocolates, macaroons, cannels and crème brulé) and with the unique charm of a magnificent 17th century fairytale gothic-baroque inspired city.
The Adapted Physical Workshop for people with dementia is the innovative program created by the professor of gerontology, Isabelle Bourdelle-Marchasson, in collaboration with physiotherapists and occupational therapists from Xavier Arnozan Hospital. The aims of this program are to minimize the impact of hospitalisation on older people with dementia and to optimize and enhance their physical and cognitive recovery. The uniqueness of this program is in combining physical and cognitive interventions.

The combination of physical and cognitive interventions is known in the literature as a cognition-action approach (9). The theory behind this approach is that in humans, successful daily functioning requires a union between the mind (cognition) and the body (movement/action) (36). The strongest arguments in favour of a cognition-action method arrived from research demonstrating that exercise/physical interventions improved cognitive function and that cognitive interventions improved mood, facilitated complex movements and increased adherence to physical activity in older people with and without dementia (11, 12, 36).
The Adapted Physical Workshop for people with dementia is conducted twice a week with each session running for approximately one hour. A total of six patients with mild, moderate and severe dementia participate in this program. The workshop is led and monitored by a physiotherapist, occupational therapist and the patient’s carers if they are available. The workshop usually takes place in the patients lounge in the dementia unit of Xavier Arnozan Hospital.

I felt very lucky and privileged to take part in one of the sessions of the Adapted Physical Workshop. The opportunity to take part in a Workshop and to observe and to learn about cognition-action interventions in patients with dementia is one of the highlights of my Fellowship trip. To clarify the cognition-action components of the program, I would like to describe the progress of Mrs L, one of the Workshop participants. Mrs L has an advanced Alzheimer’s disease. She was hospitalised with mild aphasia, deterioration in mobility and with exacerbation of aberrant behaviour characterised by increased aggressiveness, use of repetitive movements, such as rocking backwards and forwards and sitting with her eyes open but not engaging in any activity.

The interaction between the patient and the therapists started in the first minutes of the session, with physiotherapist and occupational therapist introducing themselves and explaining what will happen during the Workshop. This was followed by the therapists asking the patients how they feel. This introductory communication was carried out independent of patient’s ability to understand and to answer. The aim of the communication is to develop trust and rapport with patients and to improve their motivation to participate in the group session.

Initially, Mrs L was not responding to therapists well. She was sitting quietly, rocking forwards and backwards. Following the introduction, therapists demonstrated the first exercise: lifting a ball up in the air. Some of the patients were able to repeat the exercise, however Mrs L refused to hold or to lift the ball. The next task was to pass the ball from participant to participant. Mrs L did not want to pass the ball to the participant next to her. However after listening to therapists complementing other patient’s performance, she agreed to pass the ball to the therapist. The praise of therapists brought a big smile on her face.

The ball activities were followed by a cognitive task, where the therapist asked participants what day of the week it was. Most of the participants answered the question, but Mrs L did not respond. However she was smiling more and started lifting her arms up and down.
copying other patients in the group. I could clearly see that as the session progressed, Mrs L’s mood gradually improved. She still refused to talk, but she was observing the participants more actively and started producing loud sounds. Her rocking movements stopped and she started taking part in exercises with the stick and in deep breathing exercises. By the end of the session Mrs L was fully engaged in the program. She told therapists her name and at the end of the session she waved everyone good bye.

The incredible progress of Mrs L is one of the achievements of the Adapted Physical Workshop. The other achievements of the Workshop included a 70% improvement in mobility and function in their participants and a 66% improvement in behaviour, including reduction in anxiety, aggressiveness and wandering. The results of Advanced Physical Workshop provide strong evidence that the provision of combined interventions might increase improvements in functional independence in people with dementia and can consequently decrease their behavioural and physical decline and their risk of falls.

Figure 11. An occupational therapist conducts an Adapted Physical Workshop for people with dementia, Xavier Arnozan Hospital, Bordeaux, France
Summary of Findings

- Advanced Physical Workshop utilize cognition-action approach in addressing physical and behavioural needs of patients with mild, moderate and severe dementia
- Combining physical and cognitive interventions might be an effective method to reduce falls risk, to improve functional independence and to prevent behavioural and physical decline in older people with dementia

Conclusion and Recommendations

Conclusion
The aim of my Churchill Fellowship was to gain important knowledge about new ways to develop and deliver multidisciplinary falls prevention interventions that can effectively protect older Australians from falls after discharge from hospital. The conclusion I have made following my Fellowship trip is that there is no single intervention, idea or factor that can be identified as a key facilitator in preventing falls in older people. Instead, the knowledge gained in the meetings with many leading specialists in the falls prevention area from the USA, Canada, Netherlands, UK and France pointed to a wide range of factors that influence development and implementation of successful interventions preventing older people from falling. Those factors include an effective exercise programs for falls management, successful translation and implementation of falls prevention research evidence into practice, consideration of older people’s perception and attitudes to falls interventions and tailoring falls prevention interventions to the needs of older people with dementia.

Recommendations
In formulating my final recommendations, I focused on how to utilize the knowledge and experiences gained during my Churchill Fellowship trip to prevent older Australians from falling following their discharge from hospital and also on what I believe would further improve falls prevention practices in Australia.

Recommendations for initiatives I can put into practice upon my return
Prior to my Churchill Fellowship trip, I developed and implemented a successful multifactorial falls prevention intervention program C.A.R.E. Introduction of this program resulted in the significant reduction in the number and rate of falls and fall-related injuries among older patients of Epworth Rehabilitation. However, the program on its own could not effectively protect older patients from falls after their discharge from a rehabilitation setting.
Thus, my current aim is to utilize knowledge and experiences gained during my Churchill Fellowship trip to develop resources, interventions and initiatives that will address falls in older people after hospital discharge.

The creation of a discharge kit for patients is one of those initiatives. This kit will include an innovative exercise program that will take into account cultural diversity of older adults and their perceptions of falls prevention interventions. This exercise program will be effective, but be simple and safe. Older people would be able to do exercises on their own or with the assistance of a family member, carer or a community health care worker. The newly developed exercise program will be task specific and will address falls risks, balance deficiencies, mobility and functional needs of older people following their discharge from hospital. A separate tailored exercise program will also be developed for older people with dementia and included in the kit. The discharge kit will also contain information about falls risks in older people’s homes and in the community. This information will be presented in an innovative, creative and positive way. Friends, family members, carers, community workers and health professionals will be actively involved in raising awareness of older people to falls risks following their discharge from hospital. The discharge kit will also include important information about the location, phone numbers and contact details of falls prevention specialists and community-based falls prevention programs in the patient’s area.

**Recommendations for improvements in Australia**

Development and implementation of strategies to prevent falls and fall-related injuries in older people is one of the major priorities for the Australian Government. To date, Australian researchers and clinicians have developed substantial evidence in the falls prevention area. This significant evidence contributed to the development of health policies and falls prevention interventions in Australia and across the world. Nevertheless, I believe that the following recommendations might further benefit falls prevention practices in Australia:

- It would be beneficial for each Australian state to further develop the capacity for a State and National Falls Prevention Coalition/Networks such as those operated in the USA and in Europe. The work of state and national coalitions will add to the fundamental input of NSW Falls Network and the Australian and New Zealand Falls Prevention Society in the successful dissemination, translation and implementation of the best falls prevention research evidence across Australia
• It is important for the Australian Government to further address the issue of integrating falls prevention services for older people. Introduction of integrated services similar to the one I observed in Paignton, UK might further enhance delivery of person-centred care and improve experience of patients and service users, ensuring older Australians receive a continuum of high-quality care

• The development of the national falls prevention curriculum of the same merit as the one created in Canada is essential to increase knowledge and understanding on how to design, implement and evaluate falls prevention interventions among health professionals, community support workers, carers and other stakeholders working with older people

**Plans for disseminating my Fellowship findings**

I am planning to disseminate the knowledge and the experiences I have gained during the Churchill Fellowship trip to the staff of Epworth HealthCare, to members of senior citizens clubs, to representatives from patient advocacy groups, to health professionals and to community health care workers through presentations, workshops and discussions. In addition to disseminating the knowledge and experiences acquired during the trip, these presentations, workshops and discussions will promote an effective dialogue and collaboration between older people, members of their families, health professionals and various other stakeholders working with them. I also plan to present my experiences and recommendations from the Fellowship trip at the 6th Biennial Australasian Falls Prevention Conference in Sydney (November, 2014). I would also like to organise meetings with representatives from relevant state and federal health departments to give them a copy of this report and to discuss the important knowledge and findings gained during the trip. In addition, I plan to submit the findings of the report for publication to the Journal of Gerontology and to other national and international medical journals.
References and useful web-based resources:


22. ProFouNd: Prevention of Falls Network for Dissemination
   [http://profane.co/2013/05/13/prevention-of-falls-network-for-dissemination/](http://profane.co/2013/05/13/prevention-of-falls-network-for-dissemination/)
23. CEMFIA: Centre of Excellence on Mobility, Fall Prevention and Injury in Ageing
   [http://www.hiphealth.ca/media/research_cemfia](http://www.hiphealth.ca/media/research_cemfia)
24. Centre for Successful Ageing
   [http://hdc.s.fullerton.edu/csa/default.htm](http://hdc.s.fullerton.edu/csa/default.htm)
25. Sint Maartens hospital
   [https://www.maartenskliniek.nl/](https://www.maartenskliniek.nl/)


