

University of Wollongong Better Balance

Falls Prevention Project

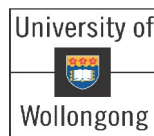
Final Submission for the Falls Prevention and Injury Prevention

Community Grants Program

16 June 2008

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Project Partners include



Australian Government
Department of Health and Ageing

Table of Contents	Page
Executive Summary	4
Recommendations	5
Proposal review	6
Section1:	
Develop, implement and evaluate a model of collaborative partnership for exercise prescription to reduce the incidence of falls in people over the age of 65 (over 45 for Aboriginal and Torres Strait Islanders) in the Illawarra and Shoalhaven regions.	
1a. Project Partners	7
1b. What is an Accredited Exercise Physiologist	8
1c. Structure of the BBP	8
1d. The Referral Process	9
1e. The Enhanced Primary Care Model	10
1f. A new referral pathway : Department of Veterans’ Affairs (DVA)	11
1g. Understanding DVA referral	11
1h. Physical Activity Mapping undertaken by SESIAHS	12
1i. SESIAHS role in addressing the gaps identified in provision of physical activity opportunities in the Wollongong and Shoalhaven regions	12
1j. History of the BBP	13
1k. Steps undertaken and facilitated within the BBP to address gaps in physical activity across the Illawarra and Shoalhaven	13
1l. Collaborative partnerships which have supported and assisted in the growth of the BBP	15
1m. Education, Support and Resource Initiatives of the BBP	15
1n. Summary of educational delivery strategies	22
1o. Evaluation of collaborative partnerships model	22
1p. Barriers to implementation and facilitatory behaviours of selected GPs	23
1q. Profile of GPs who referred to the BBP	32
1r. AEP experiences with providing bulk-billed Medicare services	33
1s. Partnership between Divisions of General Practice and the BBP (representative of AEPs)	36
1t. Partnership between SESIAHS and AEP	37
1u. Partnership between Aboriginal Vascular Unit and AEP	37
1v. Partnership between Aged Care facilities and AEP	38

1w.	Partnership between Specialist and AEP	39
1x.	Partnership between Pharmacist and AEP	39
1y	Sustainability	39

Section 2:

The implementation of standardised assessments for people living in the community, residing in supported living facilities or participating in chosen vascular health programs, referred by their GP to the BBP

2a.	POWMRI Physical Outcomes Screen	40
2b.	Senior's Fitness Test	41
2c.	Evaluation of Assessments	41

Section 3:

Evaluate the effectiveness of evidence based program of individualised exercise prescription to reduce falls in people with chronic and complex medical conditions.

3a.	Results of POWMRI Physical Outcomes Screen	43
3b.	Review of POWMRI statistical information	43
3c.	Results of the Senior's Fitness Test	46

Conclusion		48
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Executive Summary

The primary objective of the Better Balance Project was to evaluate the effectiveness of collaborative referral relationships between GPs and Accredited Exercise Physiologists (AEPs) to reduce the risk of fall injuries in the primary care setting.

The benefits of exercise interventions in reducing the risk of falls are already well established¹. AEPs are the most appropriately qualified health professionals for the delivery of exercise, and since January 2006 GPs can refer eligible patients to AEPs under the enhanced primary care program.

However it is not yet clear if the EPC model is effective at providing access to AEPs for people at risk of falls, nor whether the services of AEPs, provided within the constraints of the EPC model, are in fact effective at reducing the risk of falls.

The trial was set in a regional setting within the Illawarra and Shoalhaven Divisions of General Practice. The population of the Illawarra and Shoalhaven is 350,390 with a total of 48,229 over the age of 65. There are a total of 308 GPs within the two Divisions. The Better Balance project engaged at least one referral from 78 different GPs, there were 18 AEPs who participated and after screening, a total of 329 eligible participants took part.

The Better Balance Project (BBP) was an observational trial that evaluated a collaborative model of medical management of individuals with complex and chronic conditions, over 65 years of age, with a falls history or at increased risk of falls, using the enhanced primary care model. The BBP was conducted over 24 weeks, with 3 assessments of falls risk provided at no cost to the individual and all AEP services bulk-billed.

The trial found that AEP services were highly effective at reducing the risk of falls within the constraints of the EPC model. The findings suggested that Accredited Exercise Physiologists reduced the relative risk of 2+ falls per year by 51.6%. Our findings also suggest that the Exercise Physiologists may have achieved even better outcomes with the opportunity for more patient follow up, or rebatable group services. We also found that the Enhanced Primary Care model was not

¹ _ Lord SR, Ward JA, Williams P, Strudwick M. The effect of a 12-month exercise trial on balance, strength, and falls in older women: a randomized controlled trial. *Journal of the American Geriatrics Society* 1995; **43**:1198–206. [MedLine: 96046713].

effective for providing better access or equity for people at risk of falls to receive AEP services, but may have assisted in maintaining quality.

Recommendations

1. The use of Accredited Exercise Physiologists to reduce the risk of fall injuries in over 65 year olds is effective.
2. We recommend that a review of the EPC funding implement take place to reduce barriers to referral and improve access to allied health services that have been shown to reduce the risk of falls.
3. On the basis of our findings, consideration should be given to broadening the number of eligible individual services available for Accredited Exercise Physiologists, which is likely to further reduce the risk of falls and improve patient satisfaction with these services.
4. A number of previous studies have demonstrated effective outcomes using group-based interventions. We believe that group based interventions delivered by Accredited Exercise Physiologists may be a viable and effective option for preventing falls in some settings.
5. We believe that Divisions of General Practice provide the ideal infrastructure to facilitate greater collaboration, awareness, education and mutual respect between GPs and allied health to support these types of interventions. The role of Divisions should be expanded to engage allied health to a greater extent.
6. We recommend a review of state-based Area Health service policy to ensure that patients who have been admitted for a fall injury, or are at risk, are able to be referred to appropriate services in the community – particularly when Area Health services are non-existent or ineffective.
7. Since 72% of participants were female, we recommend that a review take place as to the reasons why services such as those provided in the BBP appear to be less frequently accessed by males, or males less frequently referred by GPs.

Proposal Review

Falls injury is a major cause of morbidity in older people in the Illawarra and Shoalhaven areas. In 2003/04 there were 4428 hospitalisations due to fall injury in people aged 65 years and over in South Eastern Sydney & Illawarra Area Health Service (SESIAHS), an age standardised rate of 2589 per 100,000 persons. Population trends show that between 2006 and 2016 there will be a large increase in the number of people aged 60 years and older in both Illawarra and Shoalhaven areas. Total direct costs to the health system for fall-related injury in the Illawarra and Shoalhaven areas are estimated to increase by 20.3% from \$18.395 million in 2001 to \$23.085 million in 2016.

Exercise programs targeting a combination of strength, balance and fitness have been shown to be effective in reducing falls among older people². AEPs are the most appropriately trained health professional to deliver safe and effective exercise interventions for people with chronic and complex medical conditions. AEPs have only recently been added to Medicare, allowing people with chronic and complex medical conditions to be referred from a GP to an AEP as part of an enhanced primary care plan. Until this point GPs had highlighted a gap in available referral options for patients at increased risk of falls. AEP inclusion under Medicare provides the opportunity for GPs and AEPs to co-manage individuals at increased risk of falls.

This innovative project has been designed to demonstrate the effectiveness of existing resources available in the health sector to respond to the needs of people with chronic and complex medical conditions who are at an increased risk of falls. The project involved the development of a referral model and of tailored exercise interventions designed by AEPs.

The aims of the project were to:

1. Develop, implement and evaluate a model of collaborative partnership for exercise prescription to reduce the incidence of falls in people over the age of 65 (over 45 for Aboriginal and Torres Strait Islanders) in the Illawarra and Shoalhaven regions.

² Campbell AJ, Robertson MC, Gardner MM, Norton RN, Buchner DM. Psychotropic medication withdrawal and a home-based exercise program to prevent falls: a randomized, controlled trial. *Journal of the American Geriatrics Society* 1999;47(7):850-3. [MedLine: 99331816].

2. Implement standardised assessments for people living in the community referred by GPs, people residing in supported living conditions, and for participants of selected vascular health programs operating throughout the region.
3. Evaluate the effectiveness of an evidence based program of individualised exercise prescription to reduce falls in people with chronic and complex medical conditions.

These 3 key project aims will make up the framework of this report.

SECTION 1

Develop, implement and evaluate a model of collaborative partnership for exercise prescription to reduce the incidence of falls in people over the age of 65 (over 45 for Aboriginal and Torres Strait Islanders) in the Illawarra and Shoalhaven regions.

Development of the Better Balance Project

1a. Project Partners

University of Wollongong (UoW): UoW housed the head office from which the BBP was managed. Representatives from the University of Wollongong sit on the BBP steering committee. These representatives were Project Head, Mr Owen Curtis and Project Manager Mr Andrew Richardson.

Accredited Exercise Physiologists: AEPs were the service providers who delivered the services by engaging with the GPs under the enhanced primary care (EPC) model. Mr Daryl Sadgrove (National Vice President of Australian Association for Exercise and Sports Science) was representing the 16 AEPs involved in the BBP on the steering committee.

Illawarra Division of General Practice (IDGP): IDGP involvement was primarily involved in facilitating access to GPs in the Illawarra. The IDGP did initially have a representative on the steering committee, however due to changes in staffing within the IDGP, this ceased at the beginning of 2008.

Shoalhaven Division of General Practice (SDGP): SDGP involvement was involved in facilitating access to GPs in the Shoalhaven. The SDGP was represented on the steering committee by Mrs Eve Craddock, Chief Executive Officer of the SDGP.

South Eastern Sydney Illawarra Area Health Service (SESIAHS): SESIAHS was responsible for facilitating linkages with key community care groups. SESIAHS was represented by a number of Illawarra based Health Promotion employees (Ms Amanda Bates, Ms Michelle Kershaw and Ms Polly Price) with an interest and expertise in falls, as well as a Shoalhaven based representative, Dr Simone Jones.

Department of Health and Ageing (DoHA): DoHA was represented by Ms Kylie Dunn for the majority of the project.

1b. What is an Accredited Exercise Physiologist?

Accredited Exercise Physiologists (AEPs) are 4-year university qualified allied health professionals who have either graduated from a course of study that has been accredited by the Australian Association of Sports and Exercise Science (AAESS) or have applied directly to AAESS for Accredited status. These allied health professionals specialise in the delivery of exercise, lifestyle and behavioural modification programs for the prevention and management of chronic diseases and injuries. AEPs provide physical activity and behaviour change support for clients with conditions such as cardiovascular disease, diabetes, osteoporosis, falls prevention, depression, cancer, arthritis, COPD and much more.

1c. Structure of the BBP

The design of the BBP was to link people over the age of 65 years, with complex and chronic conditions, and at increased risk of falls living in the community, with an AEP for a tailored physical activity program with a view to reduce the risk of future falls. The intervention was delivered over a 24 week period. The participants were assessed using the Prince of Wales Medical Research Institute (POWMRI) falls risk assessment to determine their falls risk and the Senior's Fitness Test (SFT) to determine functionality prior to entering the BBP. The participant then commenced a 12 week

physical activity program with the AEP. After 12 weeks the participant was then reassessed and given three choices:

1. Continue for the final 12 weeks with the supervision of the AEP at their own cost.
2. Continue with a home exercise program established by the AEP at no cost to the participant.
3. Be referred to an appropriate community based exercise program by the AEP with minimal cost to the participant.

At the completion of the 24 weeks the participant then underwent a final assessment.

All members of the team, ie. the GP, the AEP and the client receive copies of the results obtained at each assessment. A more detailed flow chart of this process can be seen in the Model of GP – AEP referral chart in appendix 1.

1d. The Referral Process

- The patient was identified by their GP as being at risk of falls, having complex and chronic medical needs and appropriate for inclusion in the BBP (see appendix 2 referral form).
- The GP then prepared a GP Management Plan for the patient outlining, history, goals and actions.
- The GP requested the acceptance of the allied health professionals to take part in the Team Care Arrangements.
- Once the acceptance was received, the GP then recalled the patient for a second visit to complete the Team Care Arrangements and provide the referral to the local AEP.
- Once the referral was received by the AEP, s/he notified the BBP Manager and a POWMRI falls risk assessment took place at a convenient location for the participant.
- The AEP assessed the participant's functional fitness using the Senior's Fitness Test.
- A report outlining falls risk was produced by the POWMRI software
- The AEP prepared an initial report to the GP, consistent with the EPC requirements, including the outcomes of the falls screen.

1e. The Enhanced Primary Care Model

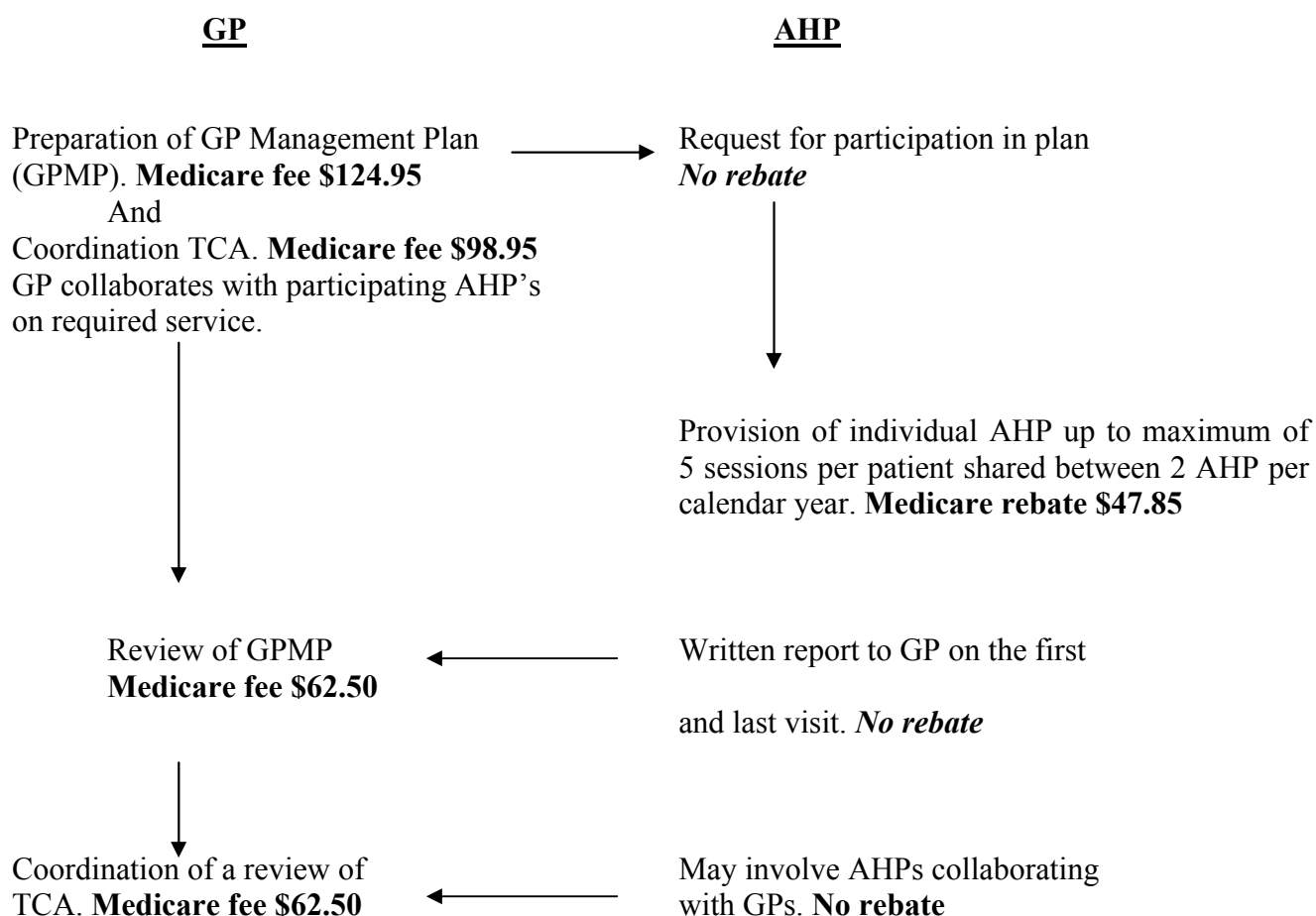
The EPC system of referral was established in 1999 to enhance the medical management of chronic disease in Australia. It was introduced to provide opportunities for GPs to access allied health practitioner expertise in the co-management of individuals with complex and chronic diseases.

Medicare Chronic Disease Management (CDM) items were introduced in 2004 to allow Medicare rebates to be paid for individual allied health services. Up to five allied health services can be provided in each calendar year.

On 6th September 2005, then Minister for Health and Ageing' Mr Tony Abbott announced the inclusion of Exercise Physiology services into the Allied Health Professional team, and from the January 1 2007 AEPs were included under the Medicare allied health scheme.

In this model the GP is the 'Gatekeeper' to access to allied health services. But to provide access to allied health services the GP must also complete a number of steps, complete several documents and liaise with multiple providers while coordinating the patient's care. If both of the AHPs are eligible for a Medicare rebate, they share the five available sessions. The allocation of the sessions is made by the GP who is responsible for determining the most appropriate mix of allied health services. The diagram below outlines the process of referral and reimbursement.

Allied health services under Medicare Chronic Disease Management items



1f. A new referral pathway Department of Veterans' Affairs (DVA)

The then Federal Minister of Veterans' Affairs, Mr Bruce Billson, authorised new measures to allow those allied health providers with a Medicare provider number to participate in the DVAs health care scheme and provide services for their members. In addition, from 13 August 2007 the changes allowed access to services provided by AEPs

1g. Understanding DVA referral

Referrals under the DVA health scheme can only be made to an AEP with a Medicare Provider number and who has been approved by DVA.

This scheme differs from the Medicare scheme.

1. The referrer may be a specialist, local medical officer, hospital discharge planner or a GP
2. A typical referral is required, not necessarily a detailed GPMP document
3. AHP reimbursement of the service is dependant on provision of a copy of the referral to Medicare, not administered by Medicare billing systems
4. The number of services provided is based on the clinical needs of the patient as determined by the AHP, and is not specified
5. The fees are slightly higher. The fees provided by DVA are 100% of the scheduled fee for the service, in contrast to 85% in Medicare.
6. Fees exist for home consultations at a slightly higher rate, as well as travel beyond 10kms
7. Group service fees are provided
8. No electronic billing systems are currently in place therefore all billing is via manual claims forms which experience human errors and incur cash flow delays for providers.

1h. Physical Activity Mapping undertaken by SESIAHS

SEZIAHS have performed a physical activity mapping process across its region. This mapping has allowed the development of a web link

http://www.sesiahs.health.nsw.gov.au/publications/health_Promotion/fun_and_fitness.asap

and the attached resource (see appendix 3). The BBP has used these resources to assist in offering participants a choice in their decision as to how to access continued support during the second 12 weeks of the program. The options for community based physical activity are listed in the SESIAHS resource.

1i. SESIAHS role in addressing the gaps identified in provision of physical activity opportunities in the Wollongong and Shoalhaven regions

The Health Promotion Service (HPS) currently supports 24 Registered Fitness Leaders (RFL) who conduct over 80 physical activity classes a week in the Wollongong and Shoalhaven area. The programs provided gentle exercise (low intensity classes) such as Heartmoves, Tai Chi and strength training.

The HPS is also aiming to increase the number of Heartmoves accredited leaders and the number of Heartmoves classes where there are gaps in exercise opportunities for older people. However there is no evidence that programs delivered by fitness leaders are effective in reducing the risk of falls and there are some concerns that fitness leaders do not have the appropriate skills or insurance to work with complex or chronic patients. There is some concern that these programs provided by the least credentialed individuals are being targeted at the individuals who are most at risk.

Implementation of the Better Balance Project

1j. History of the BBP

The formal implementation of the BBP took place with the appointment of the BBP Project Manager on the 29th January 2007. From this date, systems were developed and finalised, with the first participant entering into the BBP on the 20th April 2007. Since this time the project has evolved and adapted in an attempt to meet the demands of the key collaborative partners and the target populations.

1k. Steps undertaken and facilitated within the BBP to address gaps in physical activity across the Illawarra and Shoalhaven

- **Development of Legacy Classes:** This group was identified by one of the Wollongong AEPs as being a ‘naturally occurring group’ who would be at risk of falls. Furthermore the inclusion of AEPs onto the Department of Veterans Affairs “Gold Card” scheme allowed a new referral stream for the BBP, one targeting a group of people who are at increased risk of falls.
- **Development of further physical activity programs throughout the aged care facilities in the Illawarra:** prior to the commencement of the BBP low intensity gentle exercise classes were run in 3 Illawarra Retirement Trust (IRT) facilities and at Cordeaux Lodge (part of Unanderra Care aged care facility). Since the commencement of the BBP, falls reduction programs have been rolled out in the 3 IRT facilities plus an additional 3 as well as an

expansion into residents living in the self-care section within Retirement Village Unanderra Care.

- **Development of physical activity programs in the Kiama area:** It was the intent of the BBP to develop a physical activity intervention through the Kiama / Gerringong region in southern Wollongong as they have a high percentage of the community over the age of 65 years and not well served by AEP in the area. The BBP identified two AEPs willing to travel to Kiama to service the participants in the Kiama hospital (an agreement made through the BBP for access to appropriate rooms), however only four referrals were gained from the region. This initiative requires further energy to provide a service appropriate to the needs of the region.
- **Attempted linkages and referral from Aboriginal Medical Service (AMS) to established indigenous community care programs:** UoW (through Team Leader, Owen Curtis) have been assisting and facilitating the involvement of AEPs within the Illawarra and Shoalhaven aboriginal vascular health programs. Known initially as the “Aunty Jeans Good Health Team”, this program has now developed into Good Health Teams(GHT) in these regions. It was thought that linking with the Illawarra and Shoalhaven Aboriginal Medical Services would assist EPC referral for participants in these GHT which would fund individual assessments and provision of tailored activity interventions by the AEPs providing services within the GHTs. Although no referrals were gained from these programs, the BBP provided information and assessments to those participants in the GHTs interested in their own health and wellbeing, as part of awareness raising within the Indigenous Community.
- **Evidenced based falls education presentation to regional fitness leaders:**
Mr Curtis and Mr Richardson presented at the local Heartmoves reaccreditation day in June 2007 in an attempt to improve the knowledge of falls incidence and sequelae as well as providing information about falls risk lowering activities for these community physical activity leaders. Those RFLs in attendance were from the Illawarra and Shoalhaven and are conducting low intensity exercise classes, often in regional community centres. Their challenge is these classes are provided for people with cardiac and other health complications. It is thought by NSW Health that these Heartmoves leaders might be a logical next step for

those BBP participants who choose to exercise in the community following their initial 12 weeks with the AEP.

11. Collaborative partnerships which have supported and assisted in the growth of the BBP

- GPs (Divisions of General Practice in the Illawarra and Shoalhaven)
- Practice Staff -General Practice nurses / General Practice managers
- Accredited Exercise Physiologists
- SESIAHS community support services ie. HACC, CACP
- Aged care facilities, Illawarra Retirement Trust, Unanderra Care
- Aboriginal vascular unit through the Good Health Teams
- NSW Falls network
- General Public
- Department of Veterans Affairs and their constituents
- Rehabilitation Specialists employed with NSW Health
- Pharmacists who provide medication for possible participants and access to walking aids for those in need of them

1m. Education, Support and Resource Initiatives of the BBP

GPs Education / Support and Resources

The support of the IDGP and SDGP assisted in development, implementation and maintenance of the BBP through education of their membership and in provision of staff support to the initiative.

Education

- A focus group evening was conducted to assist in the development of the framework for the BBP.
- Interviews and discussions conducted as part of the GP survey development.
- The BBP was presented at education evening hosted by the IDGP in Wollongong on the 21st March 2007.

- The BBP presented at education evening hosted by the SDGP in Nowra and Milton on the 3rd May 2007.
- Dr Geoff Murray, Rehabilitation Specialist and author of the Cochrane report into falls, gave a detailed presentation of research relating to falls and of strategies for GPs to readily identify patients who are increased risk of falls at each of these education evenings.
- Falls education presentations developed by Mr Daryl Sadgrove and delivered at education evenings for members of the IDGP and SDGP in Illawarra and Shoalhaven.
- A GP education session was conducted for Kiama GPs by Mr Paul Netherclift (AEP).

Support

- The BBP employed an employee of the IDGP for 2 days a week for a 5 month period to assist in the development and implementation of a strategy to have the BBP more visible in General Practice (primarily linking with Practice Nurses). This staff member visited over 70 practices with two or more GPs working within them.
- GPs received a direct invitation from the IDGP to be part of a number of Exercise Physiology based interventions (including the BBP) being run in the Illawarra. These initiatives confirm the value local GPs place on well tailored physical activity for their patients.
- The guidelines for exclusion of individuals from physical activity/exercise classes from the ACC / AHA Guidelines for Exercise Testing 2006, initially considered to be of value in assisting GPs to determine who should and should not be referred to the BBP were replaced with the widely known ACSM Guidelines for Exercise Testing 2006 in order to streamline referral processes. The ACSM documentation is more readily accessible and better known by medical practitioners.
- Wollongong Practice visit conducted by Mr Daryl Sadgrove and Mr Andrew Richardson. The two BBP representatives met with and presented to a number of GPs from one the large medical centres in Wollongong.

Resources provided for Medical Practitioners

- A paper based copy of “How exercise physiologist can improve the quality of care for your patients” was placed into every education package that GPs and practices received. (Appendix 4)

- Summary fact sheet from Dr Geoff Murray including “risk factors” “quick assessment” and “management strategies” for those at increased risk of falls was placed into every GP education package. (Appendix 5)
- An Electronic folder developed through the IDGP, which contains all the information pertaining to the BBP and referral processes and available on their web site helped GPs to become familiar with the project. (Appendix 6)
- Promotions of the changes to DVA health scheme were promoted on the IDGP web page, with links to the BBP.
- An AEP registry for all local AEPs involved in the BBP was provided for all GPs. (Appendix 7)
- Education sheet on the addition of AEPs as a referral option for the DVA gold card scheme was developed and provided. (Appendix 8)
- A referral sheet was developed to assist in the referral and identification of people being referred into the BBP.
- A “Quick Falls Risk Checker” was developed to assist in the ease of identification of those patients at risk of falls. (Appendix 9)
- A quick review sheet of what BBP is about and how to refer was developed to assist GPs. (Appendix 10)

Resources developed and provided for Practice Staff

- A paper based copy of “How exercise physiologist can improve the quality of care for your patients”.
- The summary fact sheet including “risk factors” “quick assessment” and “management strategies” for those at increased risk of falls.
- A summary/reference sheet of the BBP and what it offers was placed into every GP information package.
- Practice staff education evenings were hosted by the IDGP and SDGP in Wollongong and Nowra for these important members of the GP Team
- AEP registry for all local AEPs involved in the BBP
- Falls education presentation developed by Mr Daryl Sadgrove (Appendix 11)
- Electronic folder developed through the IDGP which contains all the information pertaining to the BBP and referral

- Shoalhaven Practice Nurse Education day attended by Workfit representative (AEP involved in the project) and Project Manager.
- Four Shoalhaven practice visits were conducted by Workfit representative and Project Manager
- Project Head and Manager visited and number of practices through the Shoalhaven to discuss the take up of the BBP.
- Illawarra Practice visits conducted by Practice Staff Liaison Officer employed from within the IDGP. Link with more than 70 practices through the Illawarra
- Kiama Medical Practice and Kiama Community Hospital were visited by Mr Paul Netherclift and Mr Andrew Richardson to develop a referral base from the largest local practice and a location in which the physical activity intervention could run.

Support and involvement of Accredited Exercise Physiologists

- Direct invitation to be part of the BBP by the Steering and Management Committees
- Individual site visits and discussions conducted by the BBP Project Manager
- AEP workshops held at the beginning of the BBP at the University of Wollongong
- Self-Managed Change workshop for AEPs conducted early in 2007 to up-skill these professionals in strategies to assist their clients in introducing and managing change in their lifestyle to improve their health and wellbeing.
- AEP meeting at the end of 2007 to discuss the roll-out of the BBP to date
- Survey development and implementation for AEPs to provide insights into opportunities and challenges identified in their involvement in the BBP
- Continued contact with the AEPs by the BBP Manager over patient assessments and reports
- Over time, the interactions between the BBP Manager and local Medical Practitioners included the AEPs when presentations were being delivered by the BBP
- Supplying AEPs with latest research papers on falls prevention and physical activity
- Supplying AEPs with resources such as brochures, posters and falls prevention booklets to better inform their clients about falls, falls risk, and local physical activity opportunities
- Discussion with AEPs from around Australia at the National AAESS conference as to the barriers they believe GPs have in referring to AEPs, the challenges they face in meeting and speaking with GPs, and the various strategies they believed would be effective in addressing these.

South Eastern Sydney Illawarra Area Health Service

- SESIAHS is an integral part of the BBP steering committee
- Meeting was conducted within the Wollongong hospital with the SESIAHS Falls coordinator and Rehabilitation specialist to allow the development and streamlining of referral through SESIAHS pathways ie. From SESIAHS fall clinics to AEPs. (Appendix 12)
- Discussions with the Clinical Practice Improvement Unit's Quality and Accreditation Manager to allow the linking of the BBP into hospitals and aged care assessment team practices.
- Presentation to coordinators of HACC and CACP in the Kiama region in order to inform them both about the BBP and to consider referral pathways
- The Project Head and Manager attended and presented at the SESIAHS Forum on Falls in the Illawarra 2007.
- The Project Manager and AEP representative attended and presented at the SESIAHS falls prevention forum 2008
- The Project Head attended and held discussions with the Area Health Falls Prevention working party 2008.
- The Project Manager and AEP representative presented to discharge nurses and ward coordinators within the Shellharbour Hospital.
- AEP representative presented to all Shellharbour Hospital staff at a recent "chronic care" day.
- Project Manager presented to Southern Illawarra HACC and CACP staff
- Project Manager presented to Central Illawarra HACC and CACP staff

Aged Care Facilities in Illawarra

- The Project Head and Manager approached the manager of the aged care facilities to allow the roll out of the BBP within their facilities
- The Project Manager and the AEP assigned to deliver physical activity interventions in each of the aged care facilities presented to the residents' association to encourage participation
- Presentations were made to all new aged care facilities joining the BBP
- Posters and pamphlets were provided for general viewing and letter box drops
- A recommendation form was put together to allow aged care workers to recommend to residents and their GPs that the BBP might be appropriate.
- Referral pads and specific aged care pamphlets were distributed to independent living residents by the "Independent Living Liaison Officer", who will review and identify

individuals at risk of falls using the “Modified Falls Risk Quick Checker”. Recommendation for an individual to the BBP can then be made by Independent Living Liaison Officer with that recommendation being forwarded to the participant’s GP. (Appendix 13)

- A recommendation form for Aged Care workers such as the “Independent Living Liaison Officer” was developed to assist in referral. (Appendix 14)

Aboriginal Vascular Unit

- Appointment of an Accredited Exercise Physiologist to oversee the development and delivery of exercise interventions within each of the Good Health Teams.
- Education session conducted by Project Manager for the Aboriginal Vascular Units “Good Health Teams” operating in Wollongong and Nowra.
- A recommendation form for referral into the BBP was published, circulated and completed within the two programs to aid in the identification of those participants at risk of falls and suitable for the BBP. (Appendix 15, 16)
- BBP supported the tailoring of the group and individual exercises conducted as a normal component of the GHT activities so they could combat falls and reduce falls risk.
- Meetings were held with the local Aboriginal Medical Service (AMS) in both Illawarra and Nowra to assist in linkages between the two services and referrals in the BBP within the GHTs.
- Supplied AMS GPs with specific indigenous referral form. (Appendix 17)
- Continued linking with the groups through assessments and reports.
- Posters and pamphlets were developed and distributed in the AMS and indigenous settlements to encourage participation. (Appendix 18,19)

Allied Health Initiatives

- BBP linked with NSW Department Health Clinical Excellence Commission.
- BBP linked with Clinical Practice Improvement Unit.
- BBP was involved with the up-skilling of fitness leaders going through the reaccreditation process at the Dapto leagues club 2007.
- The BBP held discussions with Anglican Retirement Villages of Sydney relating to the roll-out of their own Better Balance Program.

General Public

- Brochures and poster were developed outlining the benefits and how to become part of the BBP. These were placed in GP practice waiting rooms. (Appendix 20)
- “Stay on your feet” home safety checklist. (NSW Health)
- “Don’t slip up on falls prevention” information booklet. (DoHA)
- Tailored information on falls will be delivered by the AEPs involved with the project.
- Local paper published an article on the BBP and how to become involved.
- Team Leader of the project went on ABC radio to talk about the BBP.
- 3 presentations were conducted throughout the Illawarra during Senior’s Week.
- Presentations were conducted at local community groups such as the Dapto Senior’s and Catholic Women’s League.
- Presentation to the general public at the Kiama Library by Project Manager and AEP representative.

Veterans

- Article in Veterans Affairs newspaper regarding the addition of Exercise Physiology services under their health scheme.
- Report in the Veterans newspaper on the BBP.
- Presentation to the local Wollongong RSL sub branch meeting in late April 2008.
- Local AEP was responsible for the development of a program especially for Legatees.
- AEP conducted mail out to all Legatees notifying them of the BBP and of the way in which they can gain access to it.

Rehabilitation Specialist

- A Specialist education session hosted by Dr Murray was conducted by the Project Head and Manager to inform RMOs and others about the BBP.
- Meeting held at the Wollongong hospital to allow the development of the recommendation form for Specialist to recommend to the GP for referral of their patient into the BBP.

Pharmacist

- A Wollongong pharmacy was approached to display BBP pamphlets and posters.
- The local “Pharmacy Co-ordinator” located within the IDGP, was contacted and utilised to promote to local Pharmacists and to those who might conduct “Home Medical Review” the

option of recommending referral to the BBP for those patients that had polypharmacy issues. This has yielded a small number of referrals, and has increased awareness amongst a group of allied health professional (Pharmacists) that have high acceptance within the older population, and regular access to them.

1n. Summary of educational delivery strategies

Educational information has been disseminated through a variety of forms:

- Educational evening – Powerpoint presentation
- Practice visits
- IDGP and SDGP website, newsletter and staff support
- Individual AEPs marketing
- Electronic folder available through the IDGP
- Print- posters and pamphlets
- Media releases both in local newspaper and radio
- Presentations to the public
- Letter box drops
- Mail out

1o. Evaluation of collaborative partnerships model

Overall, the BBP has been funded on the basis of the capacity of a large range of organisations to work together with a common aim – the identification of at risk members of the population and referral to an intervention to positively impact on falls risk in the primary care setting.

The BBP Manager and Team Leader provided both the strategy and the point of communication between the various members in the collaboration. The Project Team, which met on a regular basis, connected a number of representatives in the face to face, (or telephone linked) meeting.

The particular membership of the collaborative partners was on the basis of a history of involvement in exercise as an intervention, with the Project Leader, Mr Owen Curtis, and the students in the final years of their university degree providing the vision and the clinical/practical experience for the participants of the various projects that underpinned the BBP.

1p. Barriers to implementation and facilitatory behaviours of selected GPs

The BBP provided an opportunity to identify barriers to referral of patients with complex and chronic conditions to an AEP, for individuals on Team Care Arrangements through Enhanced Primary Care.

The process of engagement of the GPs has been outlined in this document (p11) and both a questionnaire and interviews were conducted to gain insights into barriers to referral.

The questionnaire process proved to be ineffective in gaining feedback from the GPs due to the poor response. The questionnaire was mailed to the doctor, with a self addressed, stamped envelope enclosed. four GPs completed and returned the questionnaire.

A focus group was formed early in this project, and the six GPs provided insights into their perceptions of the barriers to referral, which largely related to time pressures, the required paperwork, and patient resistance.

To supplement this information, the attitudes and work practices of GPs who referred most frequently to the BBP were identified through a face to face meeting with these GPs. Four Medical Practitioners were interviewed in a meeting lasting up to one hour each. These meetings provided valuable data related to work practices and general attitudes of GPs who referred most frequently to the BBP. These data are provided below.

What attitudes, work practices do the GPs possess who refer regularly to the BBP?

- GP aware of the role of Division of General Practice in informing them of initiatives.
- GP prepared to investigate further strategies to be able to implement new initiatives.
- Awareness by these GPs of the larger picture, of Federal and State Government opportunities and information – and these GPs were quite comfortable using computers for all aspect of their business.

Commitment to tackle complex and chronic conditions.

- A decision by the GP that their practice (personal or group) will engage with patients who have complex and chronic conditions.

- The engagement will extend to identification of appropriate Governmental or Medicare related opportunities to better meet the needs of patients with complex and chronic conditions.
- Preparedness to implement strategies that capitalise on these opportunities including relevant practice staff awareness and training.
- Development of strategies to identify patients eligible for targeted opportunities.
- Development and implementation of processes to manage effectively the complex and chronic conditions their patients experienced.
- Development of strategies to deal with acute medical matters – staff relieved/available for access from people off the street.
- Enthusiastic commitment to identification and implementation of most appropriate strategies for effective management of this population.

What did these Doctors do in the implementation phase of their transition to referral to the BBP?

- Differentiation of duties amongst any visiting GPs and of permanent and casual staff so as to maximize efficiency.
- Practice Nurse involvement in education related to, and support of the Care Plan, as a strategy to manage patients.
- Possible use of Item Number 10997 to support behaviour change related to ‘falls’, ‘medication management’, self management etc (Up to 5 occasions of service per year provided by the Practice Nurse).
- Use of Medical Director templates (and IDGP templates), with documentation completed rapidly, efficiently, and transferred through to the relevant AHP.
- Develop working relationship with AHPs – including housing them in the practice on a regular basis, providing and accepting feedback about management strategies.
- Practice Nurses considered for employment and government support identified and implemented.
- Staff trained to identify eligible patients.
- Staff and GP aware of appropriate clinical pathways for people with Complex and Chronic conditions.
- Staff and GP aware of AHP support AND of potential outcomes with involving AHPs.
- GP confidence in utilising services of AHPs AND of marketing their skills to patients.
- GPs prepared to provide education and support for patients who may be ambivalent about going to an AEP.

- Practice operations streamlined (skills and processes of staff – Practice Manager and Practice Nurses) for effective development of TCAs and for appropriate payment for these services.
- Develop strategies to overcome potential barriers including:-
 - Other GP involvement within the practice
 - Underskilled staff – providing education and time for upskilling
 - Lack of resources and staff such as Practice Nurses
 - Lack of knowledge by GP about best practice related to medical management
 - Patient resistance to Care Plan including education and support
 - Patient resistance to exercise including education, documentation and support

What general comments were gleaned through interview with several GPs who did not refer patients to the BBP?

- Perception of overload at work
- Perception of being time poor, too busy, too stressed
- Perception of not knowing what is going on in the medical environment and being overwhelmed with information from a range of sources including Federal and State Governments, Divisions of General Practice, Pathology Specific groups (ie. Diabetes Australia), Pharmaceutical companies and others
- Not aware about local initiatives offered through community sources, or even through the Division of General Practice
- Not aware of best practice related to exercise as an intervention, therefore lacking confidence that physical activity will in fact, improve the health and wellbeing of their patients
- Unaware of what AEPs do, in that AEPs have only recently been included in the Allied Health practitioner team, and indeed, some GPs identified that templates provided through Medical Director do not include AEPs as allied health practitioners eligible for inclusion in TCAs.
- Inefficient work practices reducing their capability to access relevant information, to reduce administrative load, and to increase efficiency when managing patients.

These perceptions were supplemented with information gained from a larger number of Accredited Exercise Physiologists, who provided information about what they considered to be barriers to referral from the GPs. This information was gathered in a two phase process, with 22 AEPs providing input at the Australian Association for Exercise and Sports Science annual conference conducted in

Melbourne, 2008, and the second phase being an invitation for local AEPs involved in the BBP to provide the project team with their perceptions.

These barriers to GP referral to Accredited Exercise Physiologists are noted below.

Some AEPs considered that there was lack of understanding of AEPs by GPs, and this is a general statement referring to the fact that AEPs are university graduates with knowledge, skills and competencies to provide safe and effective exercise interventions for wide range of populations including the frail aged, those with single pathologies and those with complex and chronic conditions. This is compounded by the fact that some AEPs are also unsure of the scope and role of AEPs in the medical setting – as this new profession continues to research and publish positive outcomes related to the impact of physical activity and exercise on wide ranging pathologies.

There appears to be general lack of knowledge about allied health professionals, AEPs and their role in the allied health team. This seems to have a greater impact if there is not an already established working relationship between the GP and the AEP.

There was concern that since the AEP is a very new member of the team, and that the AEP intervention is still 'very young', the GP may not be convinced of their effectiveness or that their interventions are safe. Furthermore, since GPs read professionally specific journals and the reported benefits for exercise in pathologies is unlikely to be published in GP specific journals; education of GPs about exercise benefits requires attention.

This can be confounded for GPs who, as a rule of practice, follow the Specialist opinion for management of treatment since Specialist awareness of the benefits of exercise may be less clear than that of the GP.

It seems that many GPs don't understand which pathologies are suited to clinical exercise intervention and therefore do not refer patients for an exercise intervention. Examples which were noted include Cardiac Rehabilitation (surprising given that the World Health Organisation has now made explicit the role of exercise in rehabilitation), cancers including breast cancer and prostate cancer, and chronic obstructive pulmonary diseases.

Many AEPs perceived that GPs are overwhelmed with respect to information and patient demand, and that GP awareness about making the link between the benefits of exercise AND the patient seated before them is difficult. This perception was confirmed through discussion with several GPs involved in the BBP.

The average age of GPs is 56 yrs, and many of these GPs have been practicing for 20 years or more, and have developed strategies, policies and staffing regimes that have failed to respond to current demands. New initiatives such as AEPs in the AHP team are difficult to incorporate into their primary care team, especially since their personal experience of AEPs may be quite limited.

There was a belief that some GPs do not understand how Care Plans can benefit their patients and reduce their demands in managing their patients. This belief was confirmed in discussions with a number of GPs who were less inclined to utilise Care Plans because of the nature and tedium related to administering them. Although there was a belief held by some GPs that they were adequately reimbursed for this medical managerial role, others did not consider the payment adequate.

Although some AEPs considered that 'Small Practices don't do Team Care Arrangements and the economics of current business models don't encourage or perhaps - allow change', this was refuted by a number GPs interviewed for this report, and indeed consisted of GPs who referred most frequently to the BBP.

There was a belief amongst some AEPs that the GPs lacked knowledge of a clear pathway to refer to an AEP, and this is reasonable if the AEPs and GPs had not developed a working relationship. During the BBP, a number of GPs were interviewed and these GPs not only demonstrated that they had a clear pathway of referral, they also demonstrated how effectively and efficiently they were able to refer a patient under TCAs and did so within an extremely short time frame.

There were comments both from AEPs, and indeed from participants interviewed for the BBP, that some GPs were 'not interested' in either TCAs as a patient management strategy, or in the process of referring to an AEP.

There was a belief in some AEPs, that the personal lifestyle habits of the GPs could influence referral to AEPs and that 'GPs who don't exercise themselves are less inclined to refer patients to exercise'.

Some AEPs in the AAESS group identified difficulties in gaining access and time to speak with the GPs. This experience was shared by the BBP Management Team who, despite members of the team having developed working relationships with GPs over many years, still found it difficult to gain ready access to GPs to discuss the BBP. In some cases, presentations to the Medical Team needed to be scheduled many months in advance.

Because AEPs training and education does not cover some aspects of professional performance such as identification and management of Gate Keepers in the health care system, some AEPs were unsure about the ‘best strategy’ to use in their approach to local GPs. Evidence is not available as to the most appropriate way to access GPs, neither is there an understanding amongst AEPs as to how other staff within the Practice, Receptionists, Practice Nurses and Practice Managers ought be approached.

There was a belief expressed by the AEPs that they need to learn and apply negotiation skills in order to more effectively meet the needs of GPs in co-managing their patients. Furthermore, it was felt by some AEPs that they do not have the necessary knowledge, skills or confidence to provide education about exercise and physical activity for GPs, or indeed the opportunity to provide this education.

The aspect of education of the target audience also occurred for patients, in that many AEPs believed the patients did not know about or understand the role of AEPs – a perfectly understandable belief. This lack of understanding provided a barrier to referral for the GPs. Furthermore, some GPs commented that patient resistance to referral to an AEP where the patient would be required to undertake increased physical activity, or even to exercise, was significant, particularly in some age groups and certain ethnic populations.

Poor public transport or absence of private transport presented a barrier mentioned by both the GPs and the AEPs. This made it more difficult for the patient to attend AHP appointments.

There were some AEPs who approached Practice Nurses in an attempt to increase referrals from GPs, and found that these Practice Nurses experienced confusion and frustration working out the pathways and administrative steps within the Medicare system. This was further compounded by the nature of the referrals that were to occur under the BBP, and time frames involved re AEP referrals (2 or more AEP referrals under EPC, of the 5 AHP appointments available within the calendar year).

A number of AEPs within the AAESS conference and within the BBP, as well as some GPs, commented on the 'time intensive' nature of the systems the BBP required them to work under.

Responses from AEPs providing services within the BBP confirmed many of the comments noted above, and also provided the following perspectives from personal experience. The BBP compounded the challenge of referral, as the BBP included up to 3 extra assessments, different from those provided by the AEP. Furthermore, there were occasions when these assessments might have been conducted at a venue different from that utilized by the AEP in provision of their services. Some of the participating AEPs noted that there was lack of understanding of what was required of the patient for them to be involved in the BBP OR what exactly they were involved in. Although the concept of referral to AEPs under TCAs may be understood by the Practice Staff (GP, Practice Nurse etc), the referral to the BBP seemed to cloud the issue for them. This occurred despite the various educational strategies used to inform all team members in the process.

The BBP developed referral pads to enable easier referral and completion of the documentation. However, it often transpired that people referred via BBP referral pad were not eligible for EPC (either their Dr was not wanting them to go, or that there were no AHP sessions available). This issue was also commented upon by one of the interviewed GPs who noted that people on holidays often had GPs complete TCAs for them while they were visiting doctors at their holiday destination, resulting in the allocated visits to AHPs having been completed while the person was on holidays. Other examples also occurred when their patients attended other medical practices at times their patient could not be attended by their usual GP, and GPs in that other medical practice arranged for TCAs to be established and the allocated 5 visits with the AHP being completed, WITHOUT the knowledge of their usual GP.

There were a number of referrals for AEP sessions where the person has already used their quota for AHP sessions in 12 month period. This often only became evident when the patient reported accessing the services of a podiatrist or physiotherapist earlier in their treatment, *or when Medicare summary came months later and rejected the claims. This despite the fact that the AEP had provided the service in good faith.*

Within the BBP, the opportunities for increasing physical activity to reduce falls risk was provided within supported care environments., such as Retirement Living premises. Information was brought

to the attention of residents, who then attempted to act on their enthusiasm to be involved in the BBP. One of the AEPs servicing these people identified that for some people living in the retirement village (Farmborough Grove) it was a HUGE effort for them to go back to their GP to inquire about being referred, establishment of an EPC. Transport or mobility challenges seemed insurmountable.

Other people within the supported care environment were inappropriately referred because the referring GP had not screened their patient effectively ie. they presented with (Alzheimers, Dementia, or being acutely ill/unstable illness). At that time it became difficult to communicate with that patient, the various procedures and safety measures built into the BBP program, of their ineligibility to participate in it.

The target population in the self managed care and hostel sectors, being over 65 years with complex and chronic conditions and at increased risk of falls, provided many challenges to the BBP. One of these was that potential participants did not understand what the BBP offered in terms of service. Some participants thought that the BBP would be a group exercise class with no other involvement (ie. EPC sessions). This resulted in confusion amongst potential participants and reduced the enthusiasm for involvement in the BBP. Notwithstanding the education and documentation related to the program, there were occasions of patient confusion about the two distinct components of the Better Balance program, ie. POWMRI testing, and then the AEP component. This confusion occasionally reduced enthusiasm for involvement.

Within this population, and also within the wider community, there were examples of referred patients not really wanting to be involved; they were only doing it under the encouragement of their doctor, suggesting they were not really provided informed consent to be involved in the EPC.

One very significant barrier faced by the AEPs in the BBP related to the paperwork necessary to receive payment for the delivery of their services. Administration associated with EPC was very timely, and thus costly for the AEP. The BBP required patients to be bulk billed. The bulk-billing services required an enormous amount of time with often repeated communications with Medicare, to ensure that the relevant forms were completed accurately. This particular barrier was commented upon by almost all of the AEPs involved in the project, and MUST be addressed if small businesses ie. AEPs and other AHPs are to be reimbursed effectively and appropriately for their involvement in co-managing the health and well-being of patients.

Further administrative costs were incurred in following up on paperwork required for participation on the BBP, chasing up of GPs, seeking the relevant Allied Health referral forms, occasionally requesting further medical information (Care Plan information), and having referral forms amended.

Some AEPs identified it was difficult in speaking directly with GP or getting information to or from GPs in a timely matter (re requests, concerns etc). Notwithstanding the fact they may have developed a close working relationship with the GP, this impediment to smooth business practices provided a significant barrier for some AEPs. In attempting to address this issue, some AEPs utilised the fax as the most effective strategy for reports and notifications – but commented if their communication goes into GP intray, it is not guaranteed the fax will get read in the short term (or read at all).

Within the BBP, there were occasions of patients expecting exercise physiology to be physiotherapy treatment. In other words, they were expecting to ‘be done to’ – a passive modality, rather than an active one, and these patients were not interested in exercise. These patients often sought what could be called a ‘quick-fix’ and they did not want to be involved for more than 1-2 sessions.

In the larger community, the particular target population, in and of themselves, provided significant challenges. This population was aged – over 65 years, with complex and chronic conditions, with an increased falls risk or a history of having falls, and often with caring responsibilities. This meant that every aspect within the process posed considerable challenges, including patient follow-up, and in some instances case management.

Follow-up was considered to be necessary however, to connect with individuals who may have been absent from sessions, to ensure motivation continued for those individuals who chose to have a home based exercise intervention during the second 12 weeks of the program, and for those who may have experienced an injury or illness.

There was no reimbursement for this professional responsibility. And fulfilling this responsibility could be quite onerous. The home based interventions were often provided to individuals who were less confident, isolated, did not or could not drive, and for whom the cost of face to face activity sessions were too expensive. Unfortunately it is these individuals who are most isolated and often, quite lonely, and the social interaction of an Accredited Exercise Physiologist intervention or group program could provide benefits above and beyond those resulting from the activity itself.

Administrative errors in referral forms presented further challenges within the Retirement Village, Farmborough Grove Village. Referrals were often made out to BBP or BBP Manager. This makes it difficult in forming communication lines in first place as there is often confusion as to who was making contact and how they were involved in the process.

For AEPs providing services within the Retirement Industry, access to suitable rooms/spaces for managing the exercise test and interventions designed to reduce falls risk, was often difficult. The one-on-one session was often conducted in quite small space and potentially compromised quality.

The Initial Assessment sessions provided real challenges for both the BBP and the AEPs, because this older population often has people who are quite frail, and performance of both the POWMRI falls risk assessment AND the Senior Fitness Test became quite demanding for them. Although the BBP attempted to address this, the fact that AEPs often only had 2 sessions under TCAs presented a challenge. These professionals were not keen to utilise valuable time in completing the Seniors Test as part of their first treatment sessions. This is compounded by the fact that there may be other functional tests specific to their individual needs to be conducted in the first session.

1q. Profile of GPs who referred to the BBP

- Total number of GPs who referred = 78
- Total number of GPs who referred 5 or more participants = 12
- Total number of GPs who referred 10 or more participants = 6
- Total number of GPs who referred 15 or more participants = 2
- Top referring GP referred = 22

1r. AEP experiences with providing bulk-billed Medicare services

Challenges for AEPs working within the Enhanced Primary Care model were compiled and are listed below:

1. The rebate of \$47.85 was consistently reported to not be sufficient by the AEP's. Many AEPs reported that their average session length was between 45mins and 75min which incorporated self management counselling, medical history reviews, exercise prescription and exercise

demonstration for complex and frail patients. They reported often feeling compelled to compromise quality and safety in services to ensure service viability.

2. The AEPs felt strongly that the current model which provides for a single rebate for all AHPs did not recognise the different types of work performed by different AHPs. The AEPs felt the current rebate (\$47.85) was designed on the basis of Physiotherapy and Podiatry services which have a session length between 15mins and 25mins, and who often see multiple patients at the same time, therefore providing a much greater earning capacity.
3. The AEPs felt that the rebates need to more accurately reflect the needs of patients, not just the type of service being delivered. Patients at risk of falls often have high and varied needs and may benefit from longer consultations, more services and rebates for home visits or travel expenses.
4. The AEPs did not understand the purpose in being required to 'accept' each and every referral by fax from the GP. All AEPs reported that it was unrealistic to be expected to make a clinical judgement about the appropriateness of the patient for their service on the basis of limited or no information from the GP and without first seeing the patient. They perceived this step in the process as 'red tape' that provided no benefit to the quality of the service as it reduced access and was the cause of confusion.
5. The AEPs felt that the TCA component of the EPC was generally unnecessary. In addition to feeling that the AHP should not have to 'accept' each referral, they also felt that patients should not be required to visit the GP twice simply to be referred. AEPs felt that many patients did not return to the GP on this second occasion and therefore the AHP service was never delivered. They felt the TCA also caused numerous billing errors by GPs, it was expensive and that the process of referral could be easily completed during the GPMP.
6. AEPs reported that the information contained in the allied health referral form could be simply merged into the GPMP templates, thereby requiring one less step and one less form.
7. Although the BBP required the AEPs to bulk bill, the majority of AEPs reported that they do not typically bulk bill for other services. AEPs reported that GP practices were frequently pressuring them to bulk bill or refusing to refer unless they did. The AEPs felt that this was

often occurring because other AHPs like podiatrists and physiotherapists were comfortable with bulk billing at this rate, AEPs felt that they were being placed at a competitive disadvantage to other AHPs. AEP service was, they felt more comprehensive, holistic and patient centred than other allied health services, and AEPs needed to charge a gap to support longer consultations.

8. Filling out bulk billing forms manually was seen as extremely time consuming and created high error rates and large administrative burdens, particularly when claims were rejected, large filing and storage requirements, and was unnecessarily repetitive.
9. One AEP used the Medicare system which he felt improved cash flow by reducing the time to payment, but he said it was still fraught with high error rates, particularly as he was not the primary person keying in the data. There is also no daily reconciliation function thereby leading to patients not being billed. He felt that when integration software was available with common allied health front desk systems, it may reduce keying errors and payment problems.
10. The AEPs felt that the expectation to phone Medicare on referral of every patient for confirmation that the care plan was active, is unreasonable. Unfortunately, where the AEP was unable to absorb this administrative burden, this often led to their claim being rejected, even though the error was on the part of the GP/ Practice. However the responsibility was then on the AEP to call GP practices, inform them that that they had billed incorrectly, wait weeks for a confirmation, contact patients to inform them that their services must be placed on hold or even not delivered, and absorb a downturn in cash flow. It appears logical that if the referral has been to made to an AEP with all of the appropriate documentation from the GP, the AEP should be paid for the delivery of the service without the need to address systemic billing issues along the referral chain that are often outside of their control.
11. Many AEPs felt that the remuneration attracted by GPs to complete the GPMP and TCA was exorbitant and would be better spent on delivering more allied health services.
12. At an administrative level. the patient's phone number does not seem to be included on the majority of GPMP templates or on the referral form. Therefore if the referral is faxed to the AEP but the patient does not make contact, the service was often not delivered, or the AHP

had to write or phone the GP practice and request that the practice contact the patient (which often did not occur). AHPs were often told the practice could not provide the patients' phone number to them because of "privacy reasons", which seems at odds with the fact the patient has already agreed to participate in the plan and be referred to the AHP and their entire medical history has been issued to the AHP. It seems that simply providing the patient's phone number on the referral template does not breach privacy laws and would simply reduce the administrative burden by all parties.

13. Where multiple AEPs were working in the same practice, the AEPs felt that the GP should have the option to refer to the 'Practice,' not only to individual practitioners. Similar to GP practices, AEPs experience a turnover of staff and GPs are not able to keep abreast of every staff members' name or change in that practice. If GPs are confident with the work provided by a particular practice, then they should be given the option of referring to the practice, without having to know every specific practitioner's name and details.
14. AEPs felt that the allocation of the 5 available services by the GP was often not appropriate. This was particularly apparent where AEPs were working in multidisciplinary allied health practises and the GP had allocated all of the 5 services to be provided by practitioners in that practice. These practices often felt that they had a better capacity to determine the most appropriate mix of allied health services than the GP, but were often constrained by the GPs allocation which appeared inconsistent with the patient's needs or desires. They reported GPs often contacting them confused about what mix to allocate, and the allied health professionals unable to comment without first seeing the patient.
15. AEPs felt that delivering individual services under the EPC was often not necessary, more expensive and often could be delivered in small or large group formats with similar levels of effectiveness. Appropriate payment for these services would need to be negotiated.
16. The AEPs felt that the requirement to provide reports on the first and last service provided for a patient compounded the administrative and financial burden on them and they felt they were not being remunerated adequately for their time. Average reporting times were 15-20mins, therefore if the AEP sees 10 patients per day that equates to 3 hours (200mins) of unpaid report writing.

1s. Partnership between Divisions of General Practice and the BBP (representative of AEP's)

The partnership between the BBP and the IDGP and SDGP, although regularly talked about and thought to be the gateway to engage, educate and motivate large numbers of GPs to take on evidence based services provided by AEP's, was not as successful as it might have been.

The Illawarra Division of General Practice was supportive of the BBP through access to staff, website assistance and organisation of initial GP and General Practice staff education evenings. Success of this strategy in informing and motivating the membership of the IDGP (246 GPs) was limited by the number of GPs who attended these information evenings.

The SDGP did support the BBP in the initial organisation and hosting of the GP and General Practice Staff evenings however continued energy in the support process was not forthcoming. This may have been due to the relatively limited relationship and history between the Team Leader, or indeed members of the Steering and Management Committee with the SDGP and its membership. Furthermore, it appeared that the work practices and staff ratios within the SDGP are very different from those in the IDGP, reducing opportunities for interactions either in a group format, or indeed, within the various practices and the BBP team.

The question at the centre of this issue is the influence and support that the Divisions of General Practice have from the GPs within their Division. It was reportedly common place for Divisions to run meetings / education sessions designed to assist GPs in keeping abreast of the ever changing medical/legislative landscape, only to have 10-15 GPs present, out of a possible 246 that practice within the Illawarra. Clearly if the Divisions do not have the support of their GPs, then there is little support that the Divisions can offer outside project or private enterprise looking to link with them.

1t Partnership between SESIAHS and AEP

The partnership between SESIAHS and AEP services would have seemed to be complementary and a perfect match. SESIAHS, being in control of local falls clinics that have significant waiting list (8-12 weeks) to provide acute Physiotherapy and Occupational Therapy service, and AEPs looking to establish long term community based falls prevention programs would, seemingly, provide an opportunity for seamless transition. This is especially so in an era of patient centred care. It may have

been that the referral pathway was cumbersome in that it required a referral from the patient's GP for entry into the BBP. The fact that very few referrals identified as being initiated from the SESIAHS run falls clinic occurred suggest that alternative processes need to be developed.

In an era of patient centred care and a hospital system under stress in NSW, seamless transition from the hospital clinics (Pulmonary, Cardiac, or falls) to suitably credentialed allied health practitioners in private practice must be developed. If Area Health Service staff are dissuaded from either referring or even recommending patients at need of support from attending private practitioners, then this needs to be revisited. Provision of the names and contact details of relevant allied health practitioners to patients in need of further intervention might well reduce the load on Area Health Service staff and facilities.

1u. Partnership between Aboriginal Vascular Unit and AEP

Involvement of AEPs within the Good Health Teams has been essential to ensure that exercise interventions provided for this at risk population is managed effectively and safely. It was considered appropriate that members of the GHT access referral to the BBP – which was being conducted within the GHTs in Wollongong and Nowra – through the AMS. Referral to the AEPs would provide opportunities for the participants to access the AEP for private consultation and personalised exercise intervention, while participating in the GHT programs.

Unfortunately, the AMS did not refer anyone to the BBP. In discussion with a Medical Practitioner within the AMS, he indicated he was not aware of the BBP, and he had not been approached to refer anyone to the BBP. This is difficult to understand as the participants involved in the GHT and photographed to promote the BBP and included in the promotional brochure were patients of the AMS, and indeed, patients of the GP.

It appears as though an approach that involves more visits, more meetings, more discussions, more buy-in by the medical and administrative staff is required within these organisations, for new initiatives to be acted upon. It is not sufficient for the GHT Leaders, the Aboriginal Health Workers involved in the GHT and the indigenous patients to be aware and involved. The medical staff and co-workers need to be aware and act.

It is interesting to note that the functional fitness and falls risk of the members of the GHT was much better than that of the members of the community at large. It seems likely that the activities conducted regularly within the GHTs by the AEP are providing enhanced functional fitness for these individuals.

1v. Partnership between Aged Care facilities and AEP

The partnership between the aged care facilities in the Illawarra and AEPs has been a success. The coverage of physical activity programs offered in aged care facilities involved has increased during the BBP. Individual programs have been delivered in additional IRT facilities and a group program has been established in Unanderra Care.

The cost of providing these services into the future may decrease their sustainability in the long term. As AEPs are not paid for travel to and from venues in which they provide exercise interventions, and with fuel costs continuing to rise, the individual sessions within the IRT could be under review in the near future. This is despite them being centrally located within a nearby facility. Furthermore, the group class is also threatened as, currently, there is no group payment under Medicare and the participants must pay privately. This would not be an issue if class numbers were constant. This population could be considered to be transient due to illness, holidays etc and covering costs for the AEP each week is difficult, unless the host organisation subsidises the provision of these services. Unfortunately, the provision of activity interventions with a falls emphasis is not under consideration at the moment within either organisation, despite the very evident benefits to the participants in both reduction of falls risk and in quality of life.

1w. Partnership between Specialist and AEP

The partnership between the Specialists (Rehabilitation and Geriatrician) and AEP is limited by the EPC system. For a person to be referred to an AHP, they must be referred under TCA which requires a GP Management Plan. As the name states, this documentation for referral can only be made by the person's GP not the treating Specialist. The Specialist is limited to recommending referral by the GP – with the GP retaining medical management responsibilities to their patient.

1x. Partnership between Pharmacist and AEP

The partnership between Pharmacist and AEP was trialled during the course of the BBP. This partnership could be something to further investigate in the future, but again it can only be a recommendation, not a referral that the pharmacists can make.

1y. Sustainability

There is no question that the assessments, programs and relationships developed through the BBP are sustainable into the future, particularly between the AEP and the GPs.

- Each of the AEPs will accept responsibility to maintain and develop their link with their local GPs to maintain and improve the referral base for this and other populations.
- Although the BBP is no longer an entity, GPs will still be able to refer to AEPs under Medicare, GPs are more aware of the skills and competencies (and insurance coverage) of AEPs, and of the positive outcomes resulting from referral of patients at risk of falls.
- Access to the POWMRI assessment kit (purchased through the BBP) will remain for AEPs. One of the kits will reside within the Illawarra region and the other in the Shoalhaven region. Passwords and access to the internet link will be passed onto the AEPs so they can access the data base compiled over many years at POWMRI and print off reports for patients and GPs who refer people at increased risk of falls to them.
- The 329 participants having been involved in the BBP should now be better equipped with self-management strategies so that they can effectively and sustainably self-manage their falls risk in the future.
- Changes to regulations or processes within SESIAHS may result in increased mobility of patients from the falls clinics to the privately practising AEPs within the community. This process will increase outcomes for the patients, reduce the demands on the falls clinics conducted within the hospitals in the Illawarra Regions, and increase opportunities for collaborative partnerships and research projects between the Physiotherapy Departments, largely responsible for falls management in the falls clinics, and the AEPs, the AHP who has gained considerable credibility in the support of individuals with complex and chronic conditions, and at increased risk of falls.

SECTION 2

The implementation of standardised assessments for people living in the community, residing in supported living facilities and chosen vascular health programs referred by their GP to the BBP.

The assessment phase for participants involved in the BBP is two fold. Firstly there is assessment of “falls risk” through the use of the POWMRI physical outcomes screen. Secondly, there is an assessment of function through the Senior’s Fitness Test. These processes were identified as appropriate for this population, quite easily conducted and they provide information that can both inform the design of an activity intervention and confirm the nature of changes in falls risk.

These tests have been shown to be appropriate for individuals with a wide range of functional fitness levels, and can be conducted reasonably quickly, efficiently, and with effective management of falls risk during the conducting of the tests.

2a. POWMRI Physical Outcomes Screen

This assessment was selected as the tests are acceptable to older people. They are non-invasive and do not require excessive effort, cause pain or discomfort. Nonetheless, the tests are challenging so as to discriminate between older people with and without sensorimotor and balance impairments. This screen was put together over 10 years by the POWMRI and has assessed over 4,000 subjects prior to its release.

The measurements obtained with the test have high criterion validity, that is, they are able to predict falling in older people. When combined in multivariate discriminate analyses, the measurements have been found to predict those at risk of falling with 75% accuracy in both community and institutional settings.

The POWMRI assessment was implemented and cost covered by the BBP.

2b. Senior's Fitness Test

The SFT evaluates the functional fitness performance of older adults. It was developed by researchers at California State University. The test is based on a functional fitness framework which points out that being able to perform everyday activities (e.g. personal care, shopping, house work) requires the ability to perform functional movements, such as walking, stair climbing and standing up; and that these functional movements, in turn, are dependent on having sufficient physiologic reserve (i.e. strength, endurance, flexibility, balance). One unique feature of the Senior's Fitness Test is that it measures physiologic parameters using functional movement tasks, such as standing, bending, lifting, reaching and walking.

This assessment was to be conducted by the AEP at entry into the project, at 12 and at 24 weeks.

2c. Evaluation of Assessments

The POWMRI Physical Outcomes Screen identified a statistically significant reduction in falls risk over the 24 week intervention. The SFT assessment was effective in determining improvements in function. There were difficulties however, in coordinating the two assessments. Both the assessments were to be carried out at 0, 12 and 24 weeks. However the 2nd and 3rd SFT's proved difficult to schedule as the AEP might have only 2-3 sessions with the participant before completing their paid time with the participant at the 4-6 week mark. This meant that the BBP assessment team was expected to perform the SFT at some point around the 12th week and again at the 24th week mark.

Understandably most participants did not wish to complete both assessments – POWMRI and Senior Fitness Test on the one day due to the physical demands and time they take to complete. The validity of results obtained when conducting assessments using both test batteries on a single day would also be questionable.

Furthermore, the need to complete **both** assessments often confused and frustrated the participants as, despite verbal communication, explanation, and documentation including signed release, they did not fully comprehend the assessment process nor the nature of all parties involved i.e. UoW/BBP team and private AEP. This confusion and frustration on occasion impacted on the client's relationship with the AEP. When this occurred, the 'soured' relationship had the potential to impact on the AEP's business, both currently, and in the future. For example, if the client withdrew from the BBP and told

their GP that it was *all too much*, the GP might be hesitant to engage with the BBP in the future, and may not refer to the/an AEP again.

To support AEPs in providing the safest, most effective intervention and to improve communication between AEP and GP, assessments and report writing must be rebated to allow the AEP to comprehensively assess the client throughout the intervention and to feed this information back to the referring GP. The current system does not support this comprehensive management process and related continuum of care.

SECTION 3

Evaluate the effectiveness of evidence based program of individualised exercise prescription to reduce falls in people with chronic and complex medical conditions.

Falls are the most common cause of accidental injury in older people, and frequently result in disability and handicap, emotional distress, and increased use of health and social services. Clinical trials have acknowledged that various components of health-related fitness are central to the maintenance of functional health with aging. For example, sarcopenia, low MET capacity, and poor balance contribute to the manifestation of low functional fitness. However, the effectiveness of these programmes is potentially compromised by the reluctance of many older people to take part, which can lead to low uptake rates and significant levels of dropout and non-adherence to appropriate activity interventions.

This section investigates the effectiveness of evidence based program of individualised exercise prescription to reduce falls in people with chronic and complex medical conditions.

3a. Results of POWMRI Physical Outcomes Screen

Table 1. below outlines the results from the POWMRI assessment for the maximum number of BBP participants to complete all three assessments. (Please note also that scores ≥ 1 indicate an increase risk of falls)

POWMRI	Assessment 1 Total Ax = 329 Total complete Ax = 304	Assessment 2 Total Ax = 142 Total complete Ax = 121	Assessment 3 Total Ax = 42 Total complete Ax = 39
Mean	0.8254	0.5300	-0.1133
Relative Falls Risk	0.8254 = 64% chance of having 2+ falls pa.	0.5300 = 53% chance of having 2+ falls pa.	-0.1133 = 31% chance of having 2+ falls pa.
STDEV	1.2849	1.219	1.2090
Statistical Significance	Ax1-Ax2 = 0.037		Ax2-Ax3 = 0.053

- **These results show the chance of having 2+ falls in a year has dropped from 64% on entry to 31% after 24 weeks, more than a 50% reduction.**
- Please note that an assessment may have been scheduled and undertaken but not be completed if the participant was deemed ‘unsafe’ or had a medical restriction that precluded completion of the testing session. By not completing a full assessment the participant was not awarded a “falls risk” score, and this individual’s results could be computed or used in the overall results

Table 2. below tracks the 39 BBP participants that completed all three assessments.

POWMRI	Assessment 1 39 Participants to complete BBP.	Assessment 2 39 Participants to complete BBP.	Assessment 3 39 Participants to complete BBP.
mean	0.6087	0.4297	-0.1133
STDEV	1.0855	1.1353	1.2089
Statistical Significance	Ax1 – Ax2 = 0.498		Ax2- Ax3 = 0.053

* Statistical significance between Ax1-Ax3 = 0.012

3b. Review of POWMRI statistical information

Profile of participants referred to the BBP

- Total number of participants = 329
- Total number of females = 239
- Total number of males = 90
- Average age = 70

Table 1 below, tracks the maximum number of participants that could be compared in each of the assessment phases. There is a statistically significant decrease in falls risk from Ax1 to Ax2 (0.037) and Ax3 (0.053). The average in the BBP was 77 years. This decrease in falls risk would result in the average participant reducing their risk of falls from borderline /moderate risk of falls at Ax1 to low risk of falls at Ax3.

Graphical representation of table 1.

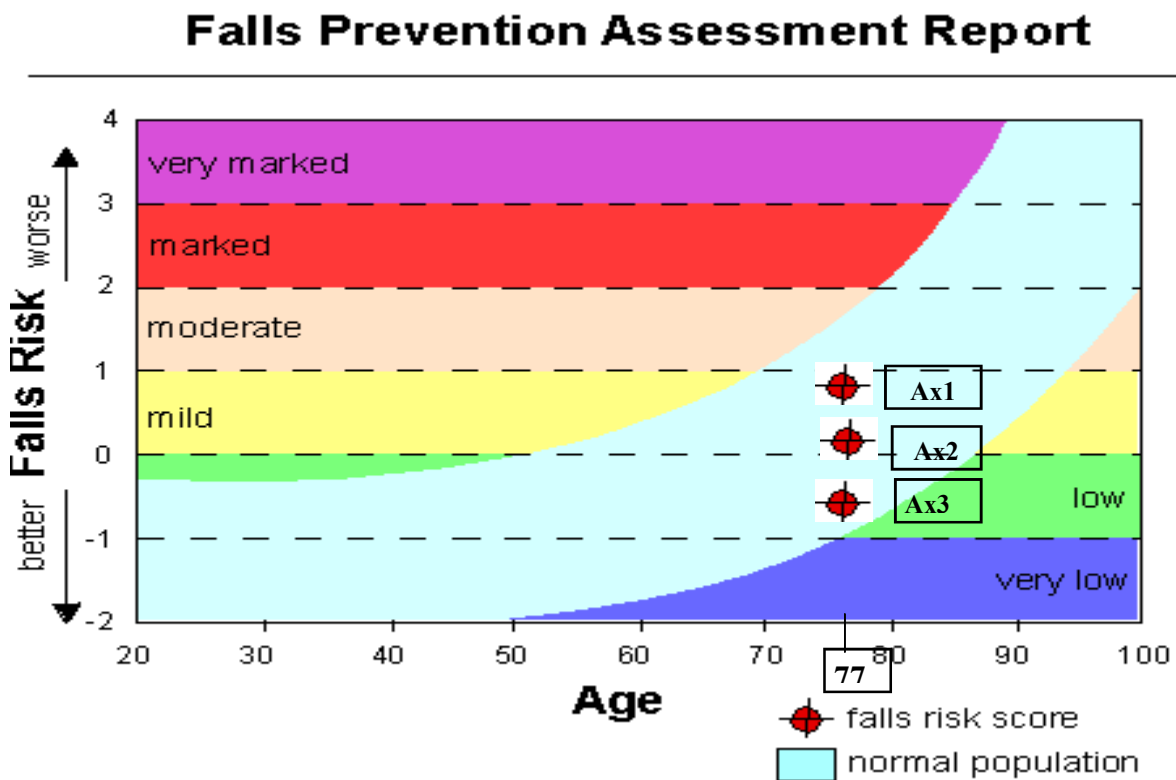


Table 2. tracks the changes of the 39 participants who completed the full 24 weeks with 3 POWMRI assessments. This shows that between Ax1 and Ax2 (0.498) there was not a statistically significant reduction in falls although it trended downwards. Table 2 also shows a statistically significant reduction (0.053) in falls between Ax2 and Ax3.

Table 2 shows a statistically significant reduction of 0.012 in falls across Ax1 to Ax3 which is the clearest indication that the BBP was a success in reducing falls risk across the Illawarra and Shoalhaven.

Participant adherence to the BBP

329 people were referred to the BBP by their GP, under TCAs and underwent 2 or more occasions of service provided by an AEP. Some (150) of the participants however withdrew from the BBP over the 6 month program. Given that the Project targeted individuals over 65 years of age with complex and chronic conditions and either with a falls history or at increased risk of falls, it is reasonable to assume some will not complete the 24 weeks of involvement in the project.

Participants were identified as being 'no longer in the BBP' at the time of contact for the reassessments at either week 12 or at week 24. It is important to realise that these individuals might not have had recent services provided by the AEP prior to our contact. In fact, there may have been 10 weeks without contact since entry into the project, and a similar period between Week 12 and the final assessment depending on the model of delivery they elected to undertake for the final 12 weeks of the BBP.

These individuals provided the following three most frequently occurring reasons for not wishing to return for follow-up assessments.

Health concerns = 40% where either their own health, or that of their spouse presented them with barriers to continuing in the project.

Health concerns refer to the complex and chronic conditions, with which they presented, as well as upper respiratory tract infections, and indeed, health concerns of their partners, husbands, wives etc. Some indicated an increase in the symptoms of their chronic conditions, and others indicated deterioration of general health.

No EPC documentation 26% where appropriate documentation was not forthcoming or was mismanaged between the various stakeholders, GP/GP practice, GP/AEP, GP/Medicare, AEP Medicare etc

The management of individuals under EPC documentation does provide challenges for all concerned in the process. That more than 26% of individuals who did not continue to the next assessment did so because of irregularities with their EPC documentation, suggests that more effective management of this process is essential. In essence, if the individual utilises the 5 allocated occasions of service early

in the calendar year, then no matter how promising or effective interventions could be later in the year, the patient will not be eligible to access these under Medicare.

No longer interested 21%

Involvement in the BBP required considerable energy, effective self management skills, access to transport, and often, support of a spouse or family members. Interestingly, a number of those participants who indicated that they were no longer interested in follow up assessment, informed the interviewer that they felt fine and did not see the reason for going through another assessment. They felt more ‘fit’, less at risk, and were improved health and wellbeing.

Note: At the time of presenting this report, there remain a significant number of participants still making their way through the BBP who cannot be counted in these results, as they have either not completed the 12 weeks of the first phase, or indeed, have completed the first phase and are moving towards the second phase assessment.

3c. Results of the Senior’s Fitness Test

The review of the data from the Seniors Fitness Test supports the findings of the POWMRI Physical Outcomes Screen that significant improvements in physical function were achieved. Below is a brief review of what was observed.

6 minute walk test (Cardiovascular Fitness)

(Result show meters walked within the 6 minutes)

SFT	Assessment 1	Assessment 2	Assessment 3
Mean	408.50	466.43	605

The trend shown by the 3 assessments is an increase in cardiovascular fitness of 48.1% over the 24 weeks.

8 foot up & go test (sec) Power based assessment

(Results show the time it takes in seconds to cover the 8ft up and back)

SFT	Assessment 1	Assessment 2	Assessment 3
Mean	9.73	7.28	4.85

The trend shown by the 3 assessments is an increase of 50.4% in power and agility crucial in the reduction of falls.

Sit to Stand (repetitions performed in 30sec) Functional leg strength assessment

(Results show the number of repetitions performed in 30 seconds)

SFT	Assessment 1	Assessment 2	Assessment 3
Mean	10.4	12.79	14.5

The trend shown by the 3 assessments is an increase of 39.4% in lower limb function

Conclusion

The Better Balance Project (BBP) demonstrated 51.6% reduction in the relative risk of 2+ falls per year for patients who were referred to an Accredited Exercise Physiologist by a GP for provision of services under TCAs over a 24 week period.

Previous studies have found 40% reductions in the relative risk of falls. One study by Lord (1996) demonstrated a 40% reduction in self reported falls in a community based exercise intervention conducted with 37 weekly sessions over 1 year. A second study by Campbell et al (1999) showed that 4 one-on-one physiotherapy services delivered in the home with telephone follow up for 2 years were effective at reducing the hazard for a falls by 37%.

On this basis it appears that outcomes of the Better Balance Program have been superior in reducing the risk of falls in this population. It is also worthy to note that the Accredited Exercise Physiologists in the BBP were only provided funding to deliver between one and five services (and 5 occasions of services were rare), with the AEPs often encouraging or referring patients to participate in a range of home based, community based or self funded AEP-supported after their early involvement.

On the basis of our findings, it is most likely that the Accredited Exercise Physiologists may have achieved a further reduction in the risk of falls if they were given the opportunity for more follow-up, provision of group services, home visits or even telephone follow-up. Further research needs to be conducted to determine the most appropriate level of servicing and types of services delivered by Accredited Exercise Physiologists in different contexts to provide services with optimal outcomes for this population.

Despite the effectiveness of the exercise intervention, the EPC model was seen as a significant limiting factor in providing access and equity for people at risk of falls to these services. GPs, AEPs and patients reported numerous barriers to referral and unnecessary 'red tape'. Furthermore, the project experienced poor referral rates from GPs, despite quite a significant co-ordinated effort to engage GPs.

In this trial, the Divisions were seen to provide the ideal infrastructure to facilitate greater collaboration, awareness, education and mutual respect between GPs and allied health to support

these types of interventions. However the engagement achieved from Divisions in this project would not be typical from other divisions around Australia, and in fact, the BBP funded a part-time role for an Illawarra Division staff member to support the goals of the BBP and inform GPs and practice staff about this initiative.

We would recommend a review of state-based Area Health service policy to ensure that patients who have been admitted for a fall injury, or are at risk, are able to be recommended for referral or referred directly to appropriate services available in the community upon discharge from falls clinics.