WARNING: Aboriginal and Torres Strait Islander readers are warned that the following presentation may contain images of deceased persons
Acknowledgement
The Ironbark fall prevention program for older Aboriginal people: initial study outcomes

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3. Neuroscience Research Australia, UNSW
Between 1st July 2003 and 30 June 2009, the primary cause of hospitalisations from injury for Aboriginal people were falls (males 23.8%; females 24.5%).

The highest rates of hospitalised falls were among those aged 65+ in Aboriginal females and those aged 60-64 in Aboriginal males.

The proportion of Australia’s Aboriginal population aged 55+ years is predicted to double by 2021.
Background

Are mainstream falls prevention programs equally effective in Aboriginal populations?

Prevention strategies need to be different for Aboriginal people:

- differing views of health
- different community priorities
- varying household structures and environments

Important elements of success for Aboriginal programs include: locally owned community based programs, Aboriginal leadership and capacity, sustained and sufficient culturally appropriate resources

Aims

1. Determine what falls prevention services are currently available in NSW, and whether these are used by older Aboriginal people
   → Service audit

2. Explore the current status of falls prevention amongst older Aboriginal people from a health service perspective
   → Service provider interviews

3. Gain community input on the type of falls prevention program local Aboriginal communities would like to be involved in
   → Yarning circles

4. Develop a culturally appropriate and acceptable falls prevention program for older Aboriginal people, trialling it in community
Methods: 1. Service audit

• Developed a 1-page audit tool, circulated to Aboriginal and mainstream, health and community services in June 2014

• 131 respondents representing all metropolitan, rural & regional LHDs
Methods: 1. Service audit

- Developed a 1-page audit tool, circulated to Aboriginal and mainstream, health and community services in June 2014
- 131 respondents representing all metropolitan, rural & regional LHDs

3% of responding services provided a mainstream falls prevention program specifically to Aboriginal groups.

92% of respondents were unaware of whether there were any falls prevention services that specifically targeted Aboriginal people in their area.

82% of respondents were unaware if Aboriginal people attended mainstream falls prevention services run in the area.
2. Service provider interviews

- Interviewed **10 health service providers** experienced in working with older Aboriginal people in a healthcare environment

<table>
<thead>
<tr>
<th>Position</th>
<th>Sector</th>
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</thead>
<tbody>
<tr>
<td>Aboriginal outreach worker</td>
<td>Public</td>
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<tr>
<td>Manager of local Aboriginal Chronic Care unit</td>
<td>Public</td>
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<tr>
<td>Aboriginal healthcare coordinator</td>
<td>Public</td>
</tr>
<tr>
<td>Registered Nurse involved with Aboriginal aged care</td>
<td>Public</td>
</tr>
<tr>
<td>Accredited Exercise Physiologist</td>
<td>Private</td>
</tr>
<tr>
<td>Aboriginal services coordinator</td>
<td>Not for profit</td>
</tr>
<tr>
<td>Falls prevention program facilitator</td>
<td>Private</td>
</tr>
<tr>
<td>Occupational Therapist</td>
<td>Public</td>
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<tr>
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<tr>
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2. Service provider interviews

- Influence of health policy
- Services used by older Aboriginal people
- Fall prevention from the perspective of older Aboriginal people

## 2. Service provider interviews

### AIMS

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<tr>
<th>AIM</th>
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<td>To promote fall prevention to older Aboriginal people</td>
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2. Service provider interviews

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**DESIGN INTERVENTION**

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<th>INTERVENTION FUNCTIONS</th>
<th>PROMOTING INTERVENTION USE</th>
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<td>Intervention should be evidence-based, while remaining flexible in its content and delivery, allowing it to be tailored to the local community</td>
<td>The intervention should be fun, community-based and social, with an opportunity for participants to meet other people</td>
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2. Service provider interviews

**AIMS**

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To promote fall prevention to older Aboriginal people

**WHY?**
To decrease falls and fall related injuries amongst older Aboriginal people

**DESIGN INTERVENTION**

**INTERVENTION FUNCTIONS**
Intervention should be evidence-based, while remaining flexible in its content and delivery, allowing it to be tailored to the local community

**PROMOTING INTERVENTION USE**
The intervention should be fun, community-based and social, with an opportunity for participants to meet other people

**DELIVER INTERVENTION**

**MODE OF DELIVERY**
In partnership with Aboriginal communities, create a safe, culturally appropriate and welcoming environment that is easily accessible. Appropriately trained local Aboriginal staff deliver the intervention free of cost

**RELATED HEALTH POLICY**
Adequate resources are made available to services offering the intervention while communication occurs between other mainstream and Aboriginal- services to support and promote the intervention
3. Yarning circles

- 10 yarning circles held in Sydney, the Central Coast, Central West, and Illawarra Shoalhaven
- Total of 76 participants (16 males, 60 females)
3. Yarning circles

Yarning circles are traditionally used in Aboriginal communities and are central to:

- Learning from each other
- Yarning about fall prevention
- Preserving cultural knowledge
- Storytelling
- Building respect
3. Yarning circles

Key issues surrounding falls

- Loss of independence
- Unable to care for grandchildren
- Not being able to pass on cultural knowledge
- Loss of community connection
- Disconnection to kinship
- The shame of needing to rely on others
3. Yarning circles

Need for an Aboriginal specific program

“People tend to not go forward if they think they’re going to be judged. I feel so relaxed among these people, who are my people. I feel that I can’t do anything wrong, and if I do do something wrong one of them will let me know. Therefore I’m not being pulled up or jerked by somebody who is a superior being, I’m pulled up by my peers”

(Female, Gosford)
“This six weeks or this eight weeks thing, it’s just no good for the Koori community because people get sick. People drop out through winter. People drop out for various reasons… they [need to be able to] come back and pick up where they left off and continue on. You can’t offer Koori communities short term fixes because it doesn’t fix anything.”

(Female, Nowra)
3. Yarning circles

Want for a group-based intervention with social elements

“Well, if I could say, being part of the group just gives me that big uplift. It gives me the emotion to feel stronger, better and just all in all healthy and to feel confident in myself. I’m not the only one out there, or we’re not the only ones out there and it gives you the lift - seeing others improving”

(Male, Nowra)
Program development

• On-going program
• Delivered in Aboriginal community settings, overseen by local Aboriginal staff
• Free
• Delivered in a 1 x 1.5 hour class on a weekly basis
  • 45 minute ‘yarning both ways’ session – education component
  • 45 minute exercise session – based on Otago exercises
• Program materials developed with culturally specific images and photographs
• Program was trialed at 6 pilot sites for a 3 or 6 month period: Umina, Nowra, Mount Druitt, Windsor, Ulladulla, Redfern
The Ironbark tree is native to Australia and for the program, it represents strength and growth, with a deep root system symbolising life and staying grounded. This corresponds to the goals of the program which are to help Aboriginal Elders stand strong and tall as they age.
Program materials and resources

Level 1: use two hands

- Sit on a chair that is not too low
- Put your hands on the chair
- Bring your feet back under you
- Lean forward
- Push up with both hands to stand up
- Reach both hands back to the chair and sit down safely
- Repeat 3-6 times
Program materials and resources

Level 1: use two hands

- Sit on a chair that is not too low
- Put your hands on the chair
- Bring your feet back under you
- Lean forward
- Push up with both hands
- Reach both hands back
- Repeat 3-6 times

Remember; slow and steady wins the race!

As we get older, we have time to slow down - there is no reason to rush! Rushing is bound to cause a fall.

Here are some tips to help you:

- Have a night-light beside your bed
- Sit up and slowly put your legs over the side of the bed before standing up
- Walk slowly up or down stairs, hold on if you can, and watch out for the last step
- Take sure and steady steps when out and about
- Watch for spills in shopping areas
- Look out for where the gutter is while slowly making your way out of a car
- When gardening, look down at the ground for obstacles
Program materials and resources
Program materials and resources

Reduce the amount of caffeine you have each day and avoid caffeinated drinks after lunchtime.

Make sure your bedroom is not too hot or cold.

Avoid naps during the day. If you do nap, keep it to 20 minutes and before 3pm.

Ensure you are comfortable and your bedroom is quiet and dark.

Avoid heavy meals, exercise, smartphones or working on the computer in the evening.

Don’t stay in bed if you are awake for more than 20 minutes – go to another room and do something relaxing.
Evaluation

- Baseline, 3 and 6 month measurements by Aboriginal Research Assistants
- Physical measurements:
  - Timed sit to stand
  - Timed 4m walk
  - Standing balance tests
- Questionnaires
- Weekly feedback slips
- Facilitator and site manager weekly feedback forms
Aunty Jean’s Chronic Care Program – Nowra
Windsor
Aunty Jean’s Chronic Care Program – Ulladulla
Wyanga – Redfern
<table>
<thead>
<tr>
<th>Outcome</th>
<th>Baseline (n=77) mean (SD)</th>
<th>3 months (n=77) mean (SD)</th>
<th>Change between baseline and 3 months mean (SD), p</th>
<th>6 months (n=69) mean (SD)</th>
<th>Change between baseline and 6 months mean (SD), p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standing balance (out of 50sec)</td>
<td>43.3 (9.6)</td>
<td>44.8 (8.1)</td>
<td>1.44 (8.8), 0.16</td>
<td>46.8 (7.5)</td>
<td>2.28 (7.5), &lt;0.01</td>
</tr>
<tr>
<td>Sit to stand (sec)</td>
<td>15.4 (4.4)</td>
<td>13.3 (4.5)</td>
<td>-2.13 (2.8), &lt;0.01</td>
<td>11.2 (2.9)</td>
<td>-3.73 (3.6), &lt;0.01</td>
</tr>
<tr>
<td>4 meter walk (sec)</td>
<td>7.5 (4.1)</td>
<td>5.9 (3.0)</td>
<td>-1.61 (2.3), &lt;0.01</td>
<td>4.4 (2.9)</td>
<td>-3.29 (3.3), &lt;0.01</td>
</tr>
<tr>
<td>Gait speed (m/sec)</td>
<td>0.66 (0.3)</td>
<td>0.81 (0.3)</td>
<td>0.16 (0.3), &lt;0.01</td>
<td>1.07 (0.4)</td>
<td>0.42 (0.4), &lt;0.01</td>
</tr>
<tr>
<td>Short Physical Performance Battery Score (out of 12)</td>
<td>8.3 (2.0)</td>
<td>9.4 (2.1)</td>
<td>1.08 (1.5), &lt;0.01</td>
<td>10.7 (1.9)</td>
<td>2.25 (1.7), &lt;0.01</td>
</tr>
<tr>
<td>BMI</td>
<td>32.0 (7.7)</td>
<td>31.4 (7.5)</td>
<td>-0.56 (1.2), &lt;0.01</td>
<td>31.6 (6.9)</td>
<td>-0.61 (1.5), &lt;0.01</td>
</tr>
</tbody>
</table>
Outcomes

Changes to average participant sit-to-stand speed (5 repeats), over 6 month pilot period

- Baseline
- 3 months
- 6 months

Sites:
- Umina
- Nowra
- Mt Druitt
- Windsor
- Ulladulla
- Redfern
- All sites
Outcomes

Changes to average participant gait speed over 6 month pilot period

Measurement timepoint

Baseline          3 months          6 months

Gait speed (m/sec)

- Umina
- Nowra
- Mt Druitt
- Windsor
- Ulladulla
- Redfern
- All sites
Outcomes

Changes to average participant balance score (out of 50)

Measurement timepoint

Baseline 3 months 6 months

Balance score (out of 50)

Umina Nowra Mt Druitt Windsor Ulladulla Redfern All sites
## Outcomes

Study participant responses to final program evaluation questionnaire:

<table>
<thead>
<tr>
<th>Question</th>
<th>Reply</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Was the program relevant to your needs?</td>
<td>Yes</td>
<td>71 (92)</td>
</tr>
<tr>
<td>Did you enjoy the program?</td>
<td>Yes</td>
<td>77 (100)</td>
</tr>
<tr>
<td>What did you like about the program?1</td>
<td>Exercises</td>
<td>66 (86)</td>
</tr>
<tr>
<td></td>
<td>One-on-one attention from the trainer</td>
<td>63 (82)</td>
</tr>
<tr>
<td></td>
<td>Group discussion</td>
<td>70 (91)</td>
</tr>
<tr>
<td></td>
<td>Education</td>
<td>66 (86)</td>
</tr>
<tr>
<td></td>
<td>Aboriginal-specific</td>
<td>63 (82)</td>
</tr>
<tr>
<td></td>
<td>Socialising</td>
<td>66 (86)</td>
</tr>
<tr>
<td>Did you have time to come to every session?</td>
<td>Yes</td>
<td>64 (83)</td>
</tr>
<tr>
<td>If you chose no, could you please explain why?</td>
<td>Health problems</td>
<td>5 (38)</td>
</tr>
<tr>
<td></td>
<td>Weather</td>
<td>1 (8)</td>
</tr>
<tr>
<td></td>
<td>Doctors’ appointments</td>
<td>1 (8)</td>
</tr>
<tr>
<td></td>
<td>Hospitalisation</td>
<td>2 (15)</td>
</tr>
<tr>
<td></td>
<td>Family</td>
<td>3 (23)</td>
</tr>
<tr>
<td></td>
<td>No baby sitter available</td>
<td>1 (8)</td>
</tr>
<tr>
<td>Would you be willing to pay a small fee to keep the program running?</td>
<td>Yes</td>
<td>71 (92)</td>
</tr>
<tr>
<td>If you answered yes, how much would you be willing to pay per week?</td>
<td>$1</td>
<td>5 (5)</td>
</tr>
<tr>
<td></td>
<td>$2</td>
<td>55 (77)</td>
</tr>
<tr>
<td></td>
<td>$5</td>
<td>8 (11)</td>
</tr>
<tr>
<td></td>
<td>$10</td>
<td>3 (4)</td>
</tr>
<tr>
<td>Would you recommend this program to others?</td>
<td>Yes</td>
<td>77 (100)</td>
</tr>
</tbody>
</table>
Outcomes

“I enjoyed it, you learn so much. You go out now and stand tall, you feel confident and you don’t feel like a little old lady. It’s not just good physically, it is good mentally. I go around to others that live in my retirement village and move hazards. I never sit down at home and I like doing my exercises.” (Female, Nowra)

“I like the exercise. I meet different people, I get out of the house and I learn about culture. I have more confidence and I did not have much to begin with. The group is my family and I love our team leader.” (Female, Umina)

“The program meant a lot and I have learnt a lot. It was not rushed and you felt confident doing it. Gyms are full-on and here, you’re relaxing and knowing that you’re getting something out of it. It’s important to have an Aboriginal specific program as we feel welcomed here and we see our Auntie’s and sisters.” (Female, Mt Druitt)
Outcomes

“There are not many programs that are culturally appropriate for us, you know, like especially in this area. This is the only program around here for us. Yeah, it is very good and if we didn’t have it we would not have anything.” (Female, Ulladulla)

“This is a very good program because it is about respecting us as Elders, what our needs are. It’s good - really good - I like it. I have learnt to talk about things. You always think about things but talking is great.” (Female, Redfern)

“[The program was] terrific, wonderful. I got my strength back. I met new people and made new friends and got a life again. I could not move - I was a really old person - and now I feel young again. It gives me something to look forward and I need to keep the joints working.” (Male, Windsor)
Sustainability in embedding change

Despite the Ironbark pilot program finishing in March 2016 for the pilot sites, the program continues to run through each organisation. It is run by local employees of each service who have been trained over the course of the pilot to deliver the program, continuing the program in their community for their Elders.
The Ironbark Project is funded by the NSW Health Aboriginal Injury Prevention and Safety Promotion Demonstration Grants Program

**Partnering organisations:** Mingaletta Aboriginal & Torres Strait Islander Corporation, Aunty Jeans Chronic Care Program (Nowra, Ulladulla), Baabayn Aboriginal Corporation, Mt Druitt Health and Community Centre, Hawkesbury District Health Service, Wyanga Aged Care Program, Redfern

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