

The impact of outdoor gyms on park use and physical activity

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Outline

- **Background**
- **Literature review**
- **Expert consultation**
- **Promotion and marketing**
- **Evaluation**
- **Key factors for success**
- **Future directions**



What is an outdoor gym



“...a gym built outside in a public park, with the all-weather construction of its exercise machines somewhat modelled on playground equipment.”

Wikipedia, cited 2 April, 2012



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Outdoor gyms: potential for physical activity

**A bit of Venice
Beach finds its
way to Liverpool**
The Sydney Morning Herald 27 June
2011

**Not too old to pump a
little iron**

Southern Courier 25 November 2010

**Exercise in peace at Kalgoorlie's new outdoor
gym** ABC 3 May 2011

**Keen to
play at
Chipping
Norton's
outdoor
gym**

Liverpool Leader
19 May 2011

**Marrickville Council
investigates
playground for its
pensioners**

The Daily Telegraph 29 June 2010

**NEVER TOO OLD TO
PLAY** THE SENIOR NEWS, QLD
AUGUST 2010



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Project origin

Are outdoor gyms an effective falls prevention strategy for older adults?



Can outdoor gyms impact on population physical activity levels?



Literature review



Experts

Project origin (continued)

- Council installing outdoor gym designed for older adults
- Beachside park location close to amenities including:
 - Children's playground
 - Toilets and showers
 - Kiosk
 - Walking paths
 - Public transport / car parking
- Council sought advice on outdoor gym design and equipment suitable for older adults



Reviewing the evidence: questions on outdoor gyms

- Are they effective in increasing people's physical activity levels?
- Who uses them?
- Are they suitable for / acceptable to older people (50+y)?
- Which types of equipment are used more often?
- What additional strategies might encourage their use?



Methods

- Published literature search conducted March - April 2012

Articles published after 1970

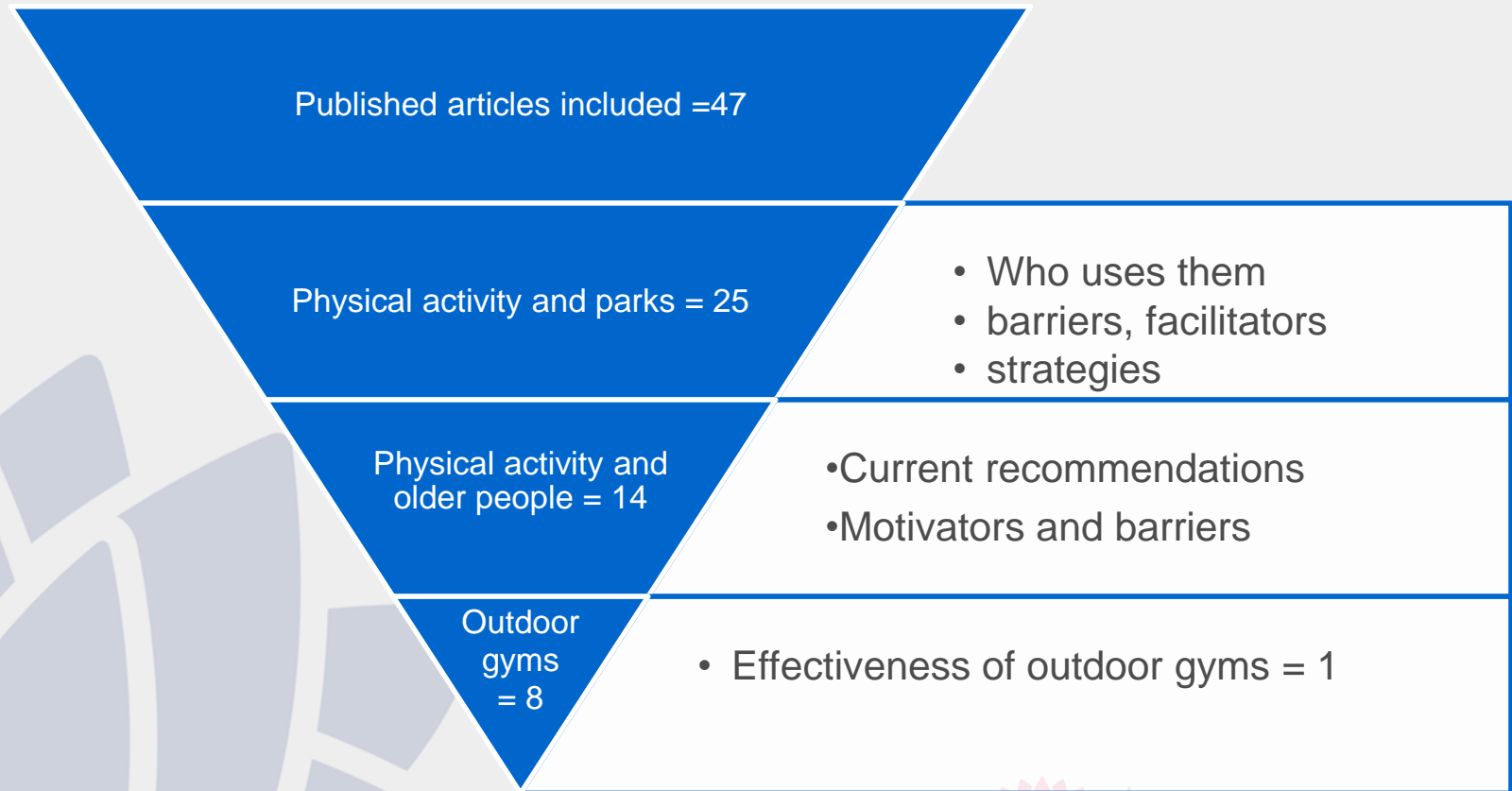
- Grey literature:

Websites, theses, research reports, government reports, planning guides, community consultations, plans, recommendations, recreation statistics, planning guides, policy statements, issues papers, fact sheets, media articles



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Published literature: results



Grey literature: results

Large volume of grey literature:

- Research reports (n=4)
 - audit (Sydney, 2010)
 - feasibility study
 - qualitative study
 - trial

- Context-relevant documents:
 - creating, maintaining and improving parks and open spaces to increase people's physical activity levels in NSW (n=10)
 - older Australian's physical activity participation: amount, type, benefits, recommendations, barriers and facilitators (n=8)



Physical activity and older Australians

- Improves physical and mental health, reduce risk of falls
- More than half insufficiently active for good health
- Physical activity recommendations for older Australians (65+y)

“...active every day in as many ways as possible, doing a range of physical activities that incorporate fitness, strength, balance and flexibility”

“...accumulate at least 30 minutes of moderate intensity physical activity on most, preferably all, days”

(Australian Government Department of Health and Ageing, 2009)



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Environmental change and physical activity

- Create, maintain and improve parks and open spaces to increase people's physical activity levels in NSW
- Wide reach
- Multidisciplinary and multi-sectoral collaboration between parks, recreation and public health professionals
- support physical activity programs for older people that include fitness, strength, flexibility and balance exercises

Australian Local Government Association (2006)



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Who uses parks?

- US literature:
 - Less likely to use parks = older people (2-5% park users), females (one third of park users), ethnic minority groups and lower-income families
 - one third to two thirds of park users sedentary
 - older people more likely to partake in sedentary activities in parks
- Australian study:
 - For adults aged 45+ : Parks/ovals more popular venues for active recreation than beaches, rivers or formal recreation facilities

(McCormack et al, 2006)



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Fitness zones: Cohen et al, 2012 (US)

- Who uses outdoor gyms?
- Why?
- Most used equipment pieces?
- Are outdoor gyms effective in increasing people's physical activity levels?
 - Some evidence of increased use and more new users in the short term
 - Little evidence that outdoor gyms can increase park use and physical activity levels in the long term

Are outdoor gyms suitable for older people? (unpublished literature)

Barriers and facilitators to using outdoor gyms:

- Barriers: safety (risk of injury, perceived safety of the area), embarrassment, lack of time
- Internal facilitators: already active
- External facilitators: placed in a controlled, supervised environment, such as through the provision of supervised group activities or a playground attendant, well-maintained aesthetic environment

(Mitchell, 2007)

Acceptance of outdoor gyms:

Feasibility and community acceptance of several offered initiatives (in order of preference):

1. walking (52%)
2. outdoor gyms (30%) (concerns: vandalism, looking silly, weather)
3. group activities (25%)

(Vaga Associates, 2010)



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Barriers and facilitators to physical activity/park use (published literature)

- **Internal barriers:** age, health problems, fear of injury or falling, low health expectations, lack of time
- **External barriers:** cost, lack of access or transport, unsafe environments and culturally inappropriate programs, inadequate facilities or poor maintenance of those facilities, lack of information about parks, lack of companions, stigma, sex stereotypes
- **Internal facilitators:** high exercise self-efficacy, a history of exercise, good health, functionally independent
- **External facilitators:** pleasant surroundings, social opportunities, proximity or access, features or amenities, condition or maintenance, aesthetics and safety



What strategies would increase use of outdoor gyms?

Key factors for success:

- Location
- Safety
- Support – social and environmental
- Targeted marketing
- Providing a variety of physical activity types
- Community consultation and engagement



Expert consultation: process

Limited published evidence on suitability of outdoor gyms for older adults



Consult outdoor gym suppliers



Identify experts



Consult exercise professionals



Recommendations

Expert consultation: outcomes

- Outdoor gym design:
 - Soft rubber groundcover
 - Fence the perimeter of the outdoor gym
 - Shade cloth
- Eight pieces of outdoor gym equipment recommended:
 - Balance
 - Lower and upper limb strength
 - Cardiovascular fitness



Aerobic cycle: aerobic/strengthening



Builds lower body strength, increases aerobic capacity, non-weight bearing

Elliptical trainer: aerobic/strengthening



Builds whole body strength, increases aerobic capacity, simulates walking and running without weight bearing

Chest press; Pull down: strengthening



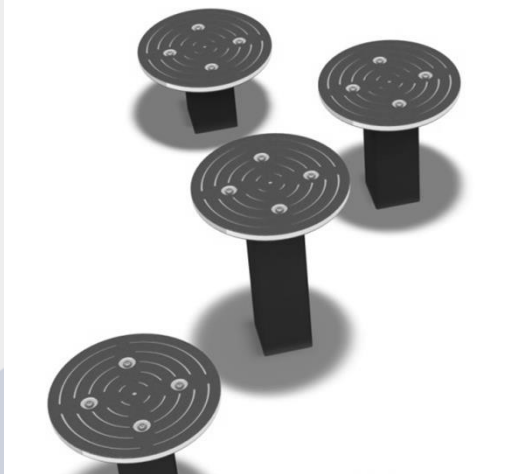
Builds upper body strength, accommodates movement limitations

Leg press: strengthening



Builds lower body strength,
accommodates movement limitations

Stepping stones; Zig zag: balance



Improves balance

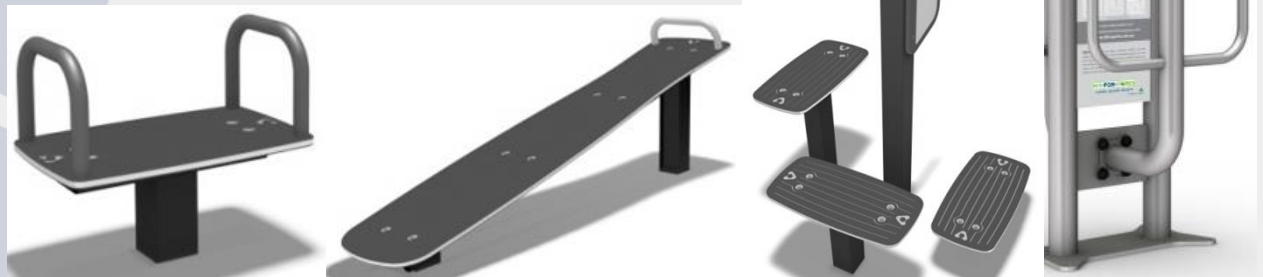
Parallel bars: strengthening/balance

Provides support while performing strength and balance exercises



Equipment installation

- Council accepted recommendations and installed all eight pieces of equipment.
- Council installed other pieces of equipment that may appeal to a broader audience:
 - Step Up
 - Incline Sit Up Bench
 - Triceps Dip
 - Stretch Station



Promotion and marketing

- Promotion and marketing are integral to the success of outdoor gyms in increasing park use and physical activity
- Communication and Marketing Plan:
 - Raise awareness of the outdoor gym among local residents
 - Encourage outdoor gym usage
 - Increase knowledge of the community on correct and effective use of the outdoor gym



Come and Try Day

- Hosted by Health Promotion Service in partnership with Council
- Target group: local residents aged 50-65+
- Scheduled during National Seniors Week
- Opportunity to try the outdoor gym, ask questions etc.
- Exercise physiologist attending event



21 MARCH 2013
9-11AM ARTHUR BYRNE
RESERVE OUTDOOR GYM,
MAROUBRA BEACH

COME AND TRY DAY

a **FREE** event

HAVE YOU EVER WANTED TO TRY A GYM BUT WERE PUT OFF BY THE COST OR LOCATION? WHY NOT CHECK OUT SYDNEY'S NEWEST AND FREE OUTDOOR GYM LOCATED AT BEAUTIFUL MAROUBRA BEACH.

South Eastern Sydney Local Health District Health Promotion Service, in partnership with Randwick City Council will be holding a FREE 'Come and Try' demonstration and workshop with an exercise professional on site to help answer your questions and provide advice on the best techniques to use.

If you would like further information and want to come along to our Come & Try day, register your attendance by calling Amy Hannigan on 02 9382 8641 or just turn up on the day.

 Health South Eastern Sydney Local Health District  Randwick City Council
a sense of community

Outdoor Gym Exercise Resource

- Designed for adults of all ages and fitness levels
- Developed by an exercise physiologist
- General exercise routines using outdoor gym equipment
- Correct use of equipment
- Graded exercise modifications



HOW TO USE AN OUTDOOR GYM

If you have a medical condition, are overweight, aged over 40 years or haven't participated in regular exercise in the last 12 months please consult with your doctor for a medical check-up before starting any new exercise program.

WARM UP



DESCRIPTION

- ✓ Hold hand grips and place feet on platforms
- ✓ Operate the hand grips and foot platforms alternately in a walking/cycling motion
- ✓ Maintain smooth, forward motion

BEGINNER	INTERMEDIATE	ADVANCED
1 - 2 mins	3 - 5 mins	6 - 10 mins

TRAINING TIPS

- GENERAL** Increase the rate of movement for a greater challenge

 **Warning:** Not suitable for people with balance concerns

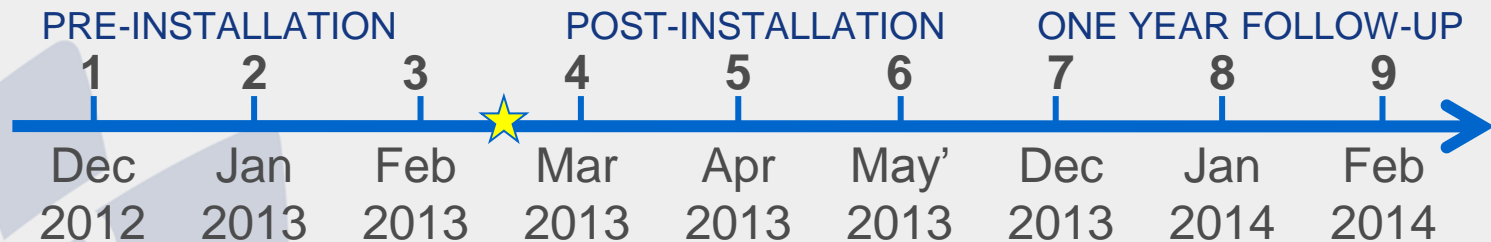
General promotion and marketing

- Posters
- Flyers
- Websites
- Media release
- Local newspaper
- Council communications
 - Local newspaper
 - Facebook
 - eNewsletter



Evaluation

- Time series study design December 2012 – February 2014
 - Observations
 - Intercept interviews
 - Feedback from outdoor gym exercise sessions



Key factors for success

- Working in partnership
- Marketing and programming essential
- Community consultation and engagement
- Location:
 - Accessible
 - Safe and visible area
 - Close to facilities and amenities
- Equipment:
 - Suitable for target group
 - Variety



Future Directions

- Community feedback/suggestions about improving the park and outdoor gym
- Develop community engagement strategy to utilise the outdoor gym
- Use this project as a pilot to work with other Local Governments
- Provide evidence on the impact of outdoor gyms on park use and physical activity of park users in Australia



Key references:

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- Planning Institute of Australia. Healthy Spaces & Places, A national guide to designing places for healthy living: An overview. Kingston, ACT: Planning Institute of Australia, August 2009 [cited 2012 Apr 30]. Available from: <http://www.healthyplaces.org.au/userfiles/file/HS&P%20An%20overview.pdf>
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