

## 4. Addressing inequity to increase participation among socially disadvantaged groups

**Section authors:** Tracy Nau, Ben Smith, John Evans, Rona MacNiven, Justin Richards, Justin Varney.

**Suggested citation:** Nau L, Smith B, Evans J, MacNiven R, Richards J, Varney J. Addressing inequity to increase participation among socially disadvantaged groups; in: Bellew B, Nau T, Smith B, Bauman A (Eds.) Getting Australia Active III. A systems approach to physical activity for policy makers. The Australian Prevention Partnership Centre and The University of Sydney. April 2020.

### 4.1 What is the supporting rationale for increasing participation among socially disadvantaged groups?

As described briefly in [Chapter 1.2](#), people who are affected by circumstances that place them at greater disadvantage in terms of access and ability to participate in PA, including poverty, gender, disability, Indigenous status, ethnic background or rural location (or the intersect of these factors), show disproportionately higher levels of physical inactivity in Australia. These forms of disadvantage not only contribute to greater chronic disease risk, and decreased life expectancy<sup>1-4</sup> but also reduce opportunities to experience the psychological and social benefits associated with PA participation. These include mental and emotional wellbeing, community belonging<sup>5</sup> and, among young people, teamwork skills, school attendance and academic achievement.<sup>6,7</sup> Research suggests that the largest health gains are derived from inactive individuals becoming more active (Figure 32).<sup>8</sup> Addressing efforts towards encouraging and supporting even small increases in activity in inactive individuals (which disproportionately include socially disadvantaged groups) could benefit population health and lead to broader community and economic gains. Part of this involves allocating resources according to need to differentially improve inequalities in PA, so that those experiencing greater social disadvantage are able to increase their activity levels to a greater extent than those who are more advantaged and already active.<sup>9</sup>

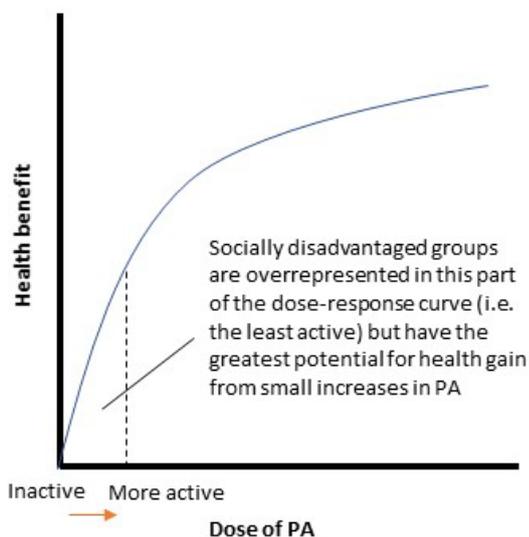


Figure 32. The dose response associated with increasing physical activity among those who are least active

Disparities in PA participation largely reflect inequities in opportunities for PA, in terms of access to safe, accessible, affordable and appropriate spaces and places to be active.<sup>10</sup> For example, some low socioeconomic status and rural communities have less access to quality open space, well-maintained facilities for sport and recreation, and regular and reliable public transport services. In addition to environmental barriers, there are obstacles associated with sociocultural norms and lack of social support, economic factors (e.g. financial constraints, inflexible working

hours), perceived or real risks to safety, and individual factors associated with motivation, self-efficacy, perceived barriers and PA history and skills.<sup>10,11</sup> For instance, people living with disabilities may experience barriers due to discrimination and discouragement, through the attitudes of service providers and the wider community, as well as limited availability of accessible facilities and inclusive activities.<sup>12,13</sup> Being of female gender may interact with other aspects of social disadvantage to exacerbate PA disparities. For example, women of Muslim background may be discouraged from participation by inflexible dress requirements, unsuitable activities or facilities, and lack of family support for PA.<sup>14,15</sup> Similarly women with disabilities who seek to participate in sport and recreation settings may be subject to dual barriers, from disability and gender discrimination.<sup>16</sup>

For Aboriginal and Torres Strait Islander peoples, traditional active lifestyles were forever disrupted by the dispossession associated with European colonisation in the past two centuries.<sup>17</sup> As a consequence, PA became a separate Westernised concept<sup>18</sup>, rather than a traditional holistic activity, and sedentary lifestyles became common. Among Aboriginal and Torres Strait Islander peoples today, individualised health behaviours like PA can be viewed as being for personal benefit, and of lower priority than activities carried out for collective, family or community benefit.<sup>19</sup> Intergenerational trauma since colonisation and subsequent dispossession, poor treatment, exploitation and cultural fragmentation have contributed to current social disparities and marginalisation experienced by Aboriginal and Torres Strait Islander peoples.<sup>20,21</sup> Socioeconomic disparities also contribute towards inequalities in the opportunities that Aboriginal Australians have to be active.<sup>22</sup>

Addressing disparities in PA is a key underlying principle of GAPPA and is endorsed as a policy priority because it is consistent with Australia's commitment (together with other UN member nations) to reduce health inequities across the life course and valuing health as a universal right. It also contributes towards empowering and promoting social and economic inclusion, ensuring equal opportunity, and reducing health and social inequalities.<sup>23</sup> Events such as the Annual Aboriginal Rugby League Knockout Carnival in NSW have for example, facilitated important social and cultural benefits to Aboriginal and Torres Strait Islander communities.<sup>24</sup> This multiplicity of benefits to individuals and broader society provides a sound rationale for focusing on the most inactive and investing resources appropriately to address disparities in PA and health outcomes.

## 4.2 How do the different domains contribute to increased physical activity among socially disadvantaged groups?

Effective responses must prioritise policy actions that address the barriers which limit the opportunities and abilities of priority groups to be active, while protecting and enhancing those factors which enable and encourage participation.<sup>23</sup> This requires a combination of upstream approaches targeting wider socioecological conditions (including societal values, economic factors and physical environments) and downstream approaches targeting individual knowledge, attitudes and behaviours.

Opportunities for PA include structured activity that may occur as part of participation in community programs and organised sport and recreation, and incidental and unstructured PA associated with active transport (AT) and use of natural and built environments. Potential strategies to promote PA therefore span multiple sectors including sport and recreation, urban design and infrastructure and transport and environment. Efforts should be directed at settings and providers that are most likely to engage with disadvantaged groups such as social, faith based and other community services, schools, primary care, and local government. Strategies to increase safe, accessible, affordable and appropriate opportunities for PA, also need to be linked with targeted and appropriately tailored public education campaigns and programs to raise awareness and knowledge of these opportunities and related health and other benefits, shift dominant social and cultural norms related to PA, and promote uptake of available opportunities.

Where possible, the goals and objectives of policies to promote PA in socially disadvantaged groups should be aligned with the agendas and core business of other sectors that may already support certain subgroups, to improve their engagement and contribute to program implementation.<sup>25</sup> See the next section for the types of policy approaches that can be adopted by each domain to reduce inequities in PA.

### 4.3 What are the recommendations for investment and action?

A comprehensive PA policy should aim to reduce PA inequity and increase population-level PA; the two goals are not mutually exclusive.<sup>26</sup> It follows that targeted and universal strategies can be complementary and build on each other. Broadly, there are four types of policy approaches which can help to reduce health inequities, which are described in Table 24 for the purposes of illustrating their application to PA.<sup>27</sup>

Table 24. Typology of four policy scenarios to reduce inequity, categorised according to focus of reduction and extent of benefits, illustrated by physical activity relevant examples

	Focus of inequity reduction	
	Gap	Gradient
Benefits to subgroups		
<i>Selective</i>	<p>1. targeted approaches which focus on improving PA among the most disadvantaged groups</p> <p><i>e.g. PA programs that are created for particular sub-groups</i></p>	<p>2. redistributive policies which are not expected to confer any benefit to the most advantaged groups</p> <p><i>e.g. means-tested discounted rates for accessing sports and recreation facilities</i></p>
<i>Universal</i>	<p>3. universal approaches that contain additional actions aimed at closing the gap between the most disadvantaged and most advantaged groups</p> <p><i>e.g. increasing the overall availability of quality greenspace, concentrating most of them in disadvantaged communities</i></p>	<p>4. proportionate universalism, where actions are universal but delivered at a scale and intensity proportionate to the level of disadvantage. Two main types:</p> <p>(a) universal policies that allocate proportionately greater resources to sub-groups with greater needs</p> <p><i>e.g. needs-based allocation of investment in urban renewal programs to improve neighbourhood walkability</i></p> <p>(b) universal policies have the effect of benefiting those who are less advantaged to a greater extent than those who are more advantaged, but without making any special provisions for disadvantaged groups</p> <p><i>e.g. flat-rate sports vouchers that have the effect of subsidising a greater proportion of PA participation costs for lower income vs higher income families</i></p>

Source: Adapted from Benach et al 2013.<sup>27</sup>

Examples of policies and strategies that can be used to address social disparities in PA, as informed by the literature and reports of good practice, are shown in Table 25 below (see end of 4.1.4). These are organised according to the 'best investment' domain and GAPP priority that they align with and can be seen to fall across a range of approaches outlined above. There is no single policy type that is 'best'; determining the most appropriate response will depend on the potential effectiveness and efficiency of the proposed solutions for any given context.<sup>27</sup> Such decisions can be guided using principles of 'subsidiarity', i.e. through engagement with the level of government or organisations that are closest to understanding the needs of particular communities or subgroups (typically, local governments and non-government organisations).<sup>28</sup>

Policy actions should address equity over the life course, recognising the cumulative effect of past experiences, attitudes and social, cultural and economic factors on PA throughout life, as well as the needs of groups across different stages of their life.<sup>29</sup> In general, positive patterns and experiences with PA should be established as early as possible to enhance the chances of these being sustained later in life and throughout key transition stages.<sup>29</sup> An overarching principle for the development of strategies to address inequity in PA is the importance of co-design – the process of engaging individuals and communities to actively participate in the planning, design, governance and delivery of policies and interventions that affect them.<sup>23,30,31</sup> Purposeful planning and community engagement with disadvantaged populations is required to avoid perpetuating health inequities associated with infrastructure investments that may attract those who are already active and have greater socioeconomic advantage.<sup>32</sup> The Active Living by Design (ALbD) Community Action Model provides an evidence-informed ecological framework for increasing active living in diverse communities using integrated and multilevel, cross-sectoral strategies, with an intentional focus on health equity (for further details about ALbD, see [Chapter 3.6 – Figure 29 and Table 20](#)).<sup>33,34,35</sup>

It should be noted that in facilitating engagement in socially disadvantaged communities, it is important to make it as easy as possible for engagement to occur, as community members may not have the skills, knowledge and social networks to participate through the usual structures and processes. This requires working with community and non-government organisations to identify and address barriers to involvement, use appropriate methods of communication, and provide support for people to get involved.<sup>31</sup> Further guidance can be obtained by referring to resources such as Public Health England's '*Guide to community-centred approaches for health and wellbeing*' which outlines a range of practical and evidence-based, community-centred approaches broadly grouped according to the following distinct strands although in practice, elements of each approach can be combined (Figure 33).<sup>36</sup>

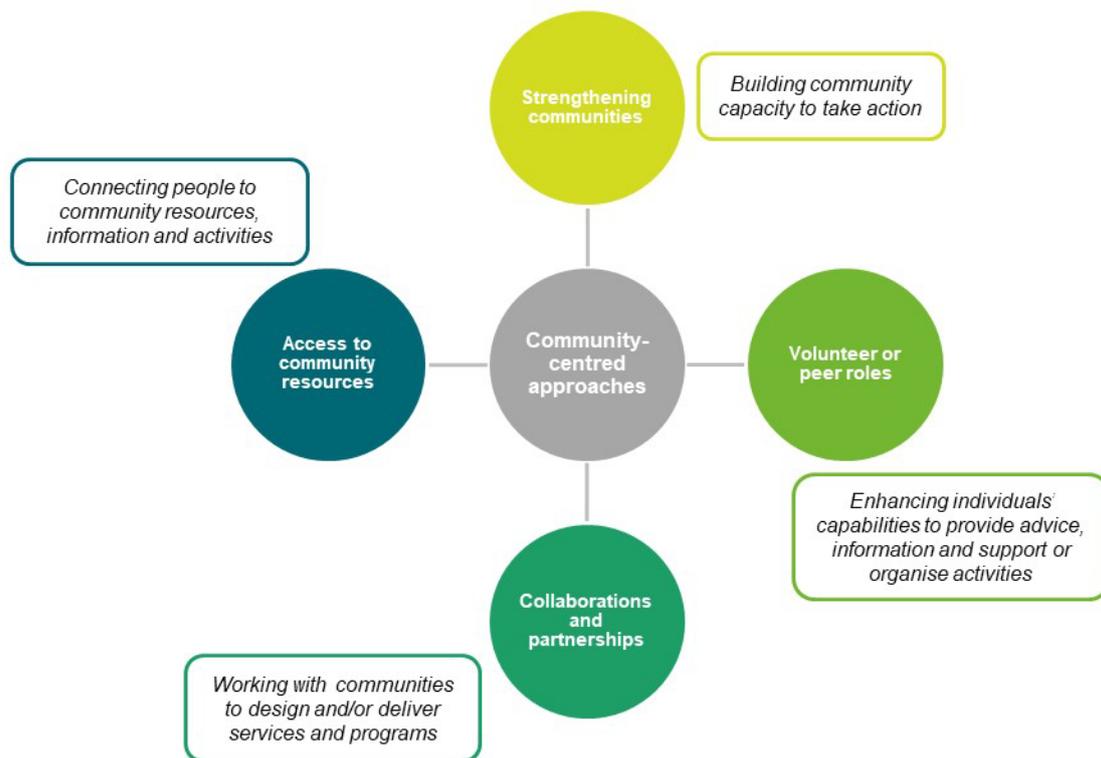


Figure 33. Community-centred approaches for health and wellbeing

Source: Adapted from Public Health England 2015.<sup>37</sup>

Co-design and participatory approaches are particularly important in the Indigenous context, not only to afford due respect for Indigenous knowledge and processes<sup>37,38</sup>, but also because community engagement is a critical determinant of the effectiveness of health programs for Aboriginal and Torres Strait Islander peoples<sup>39,40</sup> and key to closing the gap in health outcomes between Aboriginal and non-Aboriginal people.<sup>41,42</sup> The NSW Knockout Health Challenge is one example of where a community-led approach has been used to develop an effective weight loss and healthy lifestyle program model for Aboriginal communities.<sup>43</sup> Some practical tips and frameworks are available that may assist policy makers to effectively and respectfully engage in co-designing PA initiatives with Indigenous communities.<sup>37,38</sup>

Alongside and in support of these actions, there is the need to continue strengthening the evidence base around effective strategies for increasing PA participation among priority groups. This requires surveillance measures that can provide data about the availability, accessibility, quality and usage of PA opportunities, spaces, and places for specific population groups, to inform the development of targeted interventions.<sup>44,45</sup>

This is one limitation of population surveys; they may not have sufficient sample sizes of some population subgroups to accurately monitor trends. The evidence base can also be expanded through opportunistic investment in the evaluation of new projects and developments, which can be supported by closer collaboration between policy makers, practitioners and research teams, and earlier engagement of research teams in the planning process.

Measurable PA-related goals and objectives for target groups should be clearly specified in policies along with realistic timeframes for achieving them over the short, medium and longer term.<sup>25</sup> These can provide strong drivers for developing effective interventions, and securing sustained and proportionate resourcing and funding for their implementation and maintenance.<sup>25</sup>

A commitment is also needed to evaluate and monitor the differential effects of policies on subgroups to ensure inequalities are not widened, such as where the policy encourages greater improvements to PA among the more advantaged and already active groups, compared to the more disadvantaged and inactive groups.<sup>47</sup> This requires developing or adapting PA monitoring systems to enable the disaggregation of data to reflect different aspects of social disadvantage.<sup>25</sup>

For Aboriginal and Torres Strait Islander peoples, it is vital that action is taken to build capacity through training and mentoring of community members who can develop and lead PA policies and programs, and their evaluation. Additional recommendations for investment and action to increase PA among Aboriginal and Torres Strait Islander peoples are:

- Develop affordable, accessible and culturally relevant PA opportunities<sup>47</sup>
- Co-design and develop PA programs with local Aboriginal and Torres Strait Islander communities<sup>47</sup>
- Implement culturally relevant gender and age specific programs, including group-based programs<sup>48,49</sup>
- Enable and support traditional physical activities such as hunting, fishing, land and resource management<sup>50</sup> and traditional Aboriginal and Torres Strait Islander games<sup>51</sup>
- Invest in sport initiatives that promote PA for health and broader social benefit.<sup>47,52</sup>

## 4.4 What are the implications for policy?

Policy should aim to reduce PA inequity and increase population-level PA as complementary goals. Effective responses should prioritise actions across the best investment domains and GAPPA priority areas that address barriers to PA, while protecting and enhancing those factors which enable and encourage participation among socially disadvantaged groups. A combination of upstream and downstream approaches is needed to expand opportunities for PA and promote awareness and uptake of those opportunities across the life course. Policy makers should consider partnering with a broader range of sectors and organisations to better understand and address the needs of subgroups. Community engagement is paramount although it is important to provide support for communities to readily participate in these processes. Finally, policies need to set out clear and measurable PA-related targets for subgroups and ensure monitoring systems can evaluate progress towards these targets.

- **PA policy should aim to reduce inequity and increase population-level PA as complementary goals, using a combination of upstream (environmental) and downstream (awareness raising and education) approaches**
- **Table 24 describes the four types of policy approaches which can help to reduce inequity in PA. Table 25 provides practical guidance and examples of recommendations for action and investment across the 'best investment' domains and GAPPA action areas**
- **Policy actions should address equity across the life course. Co-design with communities is essential for strategy development**
- **Policy should specify clear and measurable PA-related targets for subgroups and be supported by monitoring systems that can evaluate progress.**

Table 25. Recommendations for investment and action

Best investment domain and GAPPA policy priority <sup>a</sup>	Guidance and examples for policy makers
<b>Community-wide programs</b>	
<p>1.3 Implement regular mass-participation initiatives in public spaces, engaging whole communities, to provide free access to enjoyable and affordable, socially and culturally appropriate experiences of PA</p> <p>3.6 Implement whole-of-community initiatives, at the city-, town- or community-levels, that stimulate engagement by all stakeholders and optimise a combination of policy approaches, across different settings, to promote increased participation in physical activity and reduced sedentary behaviour by people of all ages and diverse abilities, focusing on grassroots community engagement, co-development and ownership</p>	<ul style="list-style-type: none"> <li>• Target these towards areas of high disadvantage and low participation</li> <li>• Involve a range community partners</li> <li>• Link with existing community events</li> </ul> <p><b>Examples:</b></p> <ul style="list-style-type: none"> <li>• Whole city-wide or municipality-level programs that target all groups in the community</li> <li>• Temporary road closures such as Play Streets, Open Streets and Ciclovias which can provide safe and accessible opportunities for PA in communities with limited access to safe and/or well-maintained parks or playgrounds<sup>53</sup></li> <li>• <i>Parkrun</i> – a free, mass-running initiative that occurs weekly in community settings (generally public parks) that may help to reduce financial and geographic barriers to PA in low socioeconomic groups and appeal to less active groups such as women, older adults and overweight individuals.<sup>54</sup> Cross-sectoral partnerships and targeted investment may help to enhance parkrun’s reach in less active or disadvantaged groups.<sup>55</sup></li> </ul>
<b>Communication and public education</b>	
<p>1.1 Implement best practice communication campaigns, linked with community-based programs, to heighten awareness, knowledge and understanding of, and appreciation for, the multiple health benefits of regular PA and less sedentary behaviour, according to ability, for individual, family and community wellbeing</p> <p>1.2 Conduct national and community-based campaigns to enhance awareness and understanding of, and appreciation for, the social, economic, and environmental co-benefits of physical</p>	<ul style="list-style-type: none"> <li>• Feature a more diverse range of individuals in public education campaigns and promotional materials to address sociocultural barriers, improve societal attitudes and help shift norms in support of PA regardless of age, gender, ability, and cultural background.<sup>13,55,56</sup></li> </ul> <p><b>Example:</b></p> <ul style="list-style-type: none"> <li>• ‘This Girl Can – Victoria’ is a three-year VicHealth campaign inspired by the Sport England campaign. It features voices and stories of diverse women across Victoria, including Aboriginal and Torres Strait Islander women, women from culturally diverse backgrounds, women with disabilities, from across the LGBTBI community, with lower income or education levels, and women living in regional and disadvantaged areas.<sup>58</sup></li> </ul>

Best investment domain and GAPP policy priority <sup>a</sup>	Guidance and examples for policy makers
<p>activity, and particularly more walking, cycling and other forms of mobility involving the use of wheels (including wheelchairs, scooters and skates), and thereby make a significant contribution to achievement of the 2030 Agenda for Sustainable Development</p>	
<p><b>Sport and recreation</b></p>	
<p>3.3 Enhance provision of, and opportunities for, more PA programs and promotion in parks and other natural environments (such as beaches, rivers and foreshores) as well as in private and public workplaces, community centres, recreation and sports facilities, cultural spaces and faith-based centres, to support participation in PA, by all people of diverse abilities</p> <p>3.4 Enhance the provision of, and opportunities for, appropriately tailored programs and services aimed at increasing PA and reducing sedentary behaviour in older adults, according to ability, in key settings such as local and community venues, health, social and long-term care settings, assisted living facilities and family environments, to support healthy ageing</p> <p>3.5 Strengthen the development and implementation of programs and services across various community settings, that engage with, and increase the opportunities for, physical activity in the least active groups, as identified by each country, such as rural and Indigenous communities, and vulnerable or marginalised populations, embracing positive contributions by all people</p>	<ul style="list-style-type: none"> <li>• Provide support and incentives for local and state governments, and community organisations, to develop and promote PA programs in areas of high disadvantage and low participation and involve active engagement from under-represented groups in their development.<sup>58,59</sup> Evaluate pilot projects and ensure they are sustainable and scalable once pilot funding ends.<sup>60</sup></li> <li>• Support program managers with training and guidance on targeting, marketing and monitoring participation among socially disadvantaged groups, and modifying the sporting offer to appeal to different groups.<sup>60</sup> (See also <a href="#">Chapter 3.8 Sport and recreation</a>)</li> <li>• Support sport and recreation organisations to build effective partnerships with other agencies (e.g. schools, health providers, migrant resource centres, local councils) to raise awareness and foster referral pathways and outreach, provide accessible information about sport and recreation opportunities, and improve accessibility to organised PA opportunities (such as via shared facility arrangements, free/low-cost transport assistance, and addressing access issues to venues and facilities).<sup>56</sup> (See also <a href="#">Chapter 3.8 Sport and recreation</a>)</li> <li>• Provide public investment and sector wide schemes to encourage and support: <ul style="list-style-type: none"> <li>- The development and delivery of inclusive sport and recreation opportunities (including practitioner training to deliver suitable and inclusive activities and environments, and address stigma/attitudinal barriers)</li> <li>- Modifications to sports and recreation facilities, programs and equipment, that are suitable and affordable for people with different needs, particularly from low SES, CALD with specific cultural requirements and those who have a disability<sup>56,61,62</sup></li> <li>- Removal of user charges to leisure facilities. Offering universal free access to leisure facilities alongside community outreach and marketing activities has been shown to increase participation in swimming and gym activities and overall levels of PA, the effects being greatest in the most disadvantaged groups.<sup>63</sup></li> </ul> </li> </ul>

Best investment domain and GAPP policy priority<sup>a</sup>

Guidance and examples for policy makers

- Enforce policy and commitment by sporting organisations and facilities to the national Disability Discrimination Act and their stated disability action plans.<sup>56,64,65</sup>

Examples:

- The Victorian Indigenous Surfing Program which has been running for more than 20 years, is one of the longest running Aboriginal engagement programs in Australia, and is reported to attract 600 participants annually.<sup>66,67</sup> The program uses surfing to connect Aboriginal Victorians with the ocean and develop new skills, water safety knowledge and healthy habits. An evaluation of Aboriginal surfing programs in Australia has found they have substantial potential to foster important connections (to community, expertise and country) that can enable participants to learn and develop in meaningful ways within and beyond surfing.<sup>68</sup>
- Access for All Abilities (AAA) is a Victorian Government program coordinated by Sport and Recreation Victoria that funds state sporting associations, regional sports assemblies and other organisations to assist and support clubs and associations to provide more inclusive sport and recreation opportunities for people with a disability.<sup>69</sup> The program also funds AAA Play, a free information and referral service delivered by ReLink Australia to connect Victorians with a disability with inclusive sport and recreation opportunities.<sup>70</sup>

Transport and environment

2.2 Improve the level of service provided by walking and cycling network infrastructure, to enable and promote walking, cycling, other forms of mobility involving the use of wheels (including wheelchairs, scooters and skates) and the use of public transport, in urban, peri-urban and rural communities, with due regard for the principles of safe, universal and equitable access by people of all ages and abilities, and in alignment with other commitments

- Encourage use of public transport services and create or enhance access to places for PA by:<sup>58,71</sup>
  - Ensuring reliability (particularly in rural areas where services may be more limited)
  - Making information about services accessible to people with visual and hearing impairments (e.g. provide spoken and visual announcements about stops/destinations on board and at stops/stations)
  - Making public transport physically accessible to everyone by adopting inclusive mobility principles.
- For people living in rural/remote areas, promoting AT (walking or cycling) can be achieved by addressing first and last mile challenges such as improving bicycle/public transit integration<sup>72</sup>, and any environmental (e.g. crime/safety, street lighting, and traffic patterns)<sup>73</sup> and individual barriers (e.g. low skills, self-efficacy or experience with cycling). Bike share programs can help expand access for low income groups and have been shown to increase AT both independent of, and in support of public transport use.<sup>74,75</sup>

Best investment domain and GAPP policy priority<sup>a</sup>

Guidance and examples for policy makers

2.4 Strengthen access to good-quality public and green open spaces, green networks, recreational spaces (including river and coastal areas) and sports amenities by all people, of all ages and of diverse abilities in urban, peri-urban and rural communities, ensuring design is consistent with these principles of safe, universal, age-friendly and equitable access with a priority being to reduce inequalities and in alignment with other commitments

- Engage individuals and groups from different sociodemographic backgrounds in neighbourhood environment planning processes, such as through policies that incorporate qualitative and quantitative assessment of the built environment in the planning of PA supportive communities.<sup>76</sup>
- Enforce policy and commitment by transport agencies to the national Disability Discrimination Act and their stated disability action plans.<sup>56,64,65</sup>

- Involve community groups and volunteers in decisions on how to design and manage public open spaces including trails and footpaths.<sup>31,71</sup>
- Enhance the accessibility, quality and appeal to users of local open spaces (in particular, green and blue spaces) to increase their use, focusing particularly on socially disadvantaged communities who may not currently use them. Strategies may include providing:<sup>71,77,78</sup>
  - Facilities that help people of all ages, cultures/backgrounds to feel safe and welcome
  - Lighting and other measures (inside and along routes to open spaces) to prevent/reduce antisocial behaviour such as maintaining vegetation
  - Clear signs that can be understood by everyone, including people with visual impairments or learning disability
  - Seats with arms and backrests at frequent intervals
  - Accessible toilets, clean, well maintained and unlocked in daylight hours
  - Footpaths with even, non-reflective, anti-glare surfaces and tactile paving
  - Access by public transport, on foot and by bike (including cycle parking)
  - Fitness equipment/playground equipment.

Example

- In Victoria, a new playscape area was installed in a socioeconomically disadvantaged suburb in an area that was once open space with no features or amenities, and included play and climbing equipment, landscaping, and a nature play area. The impact and cost effectiveness of the installation was evaluated in the Recording and Evaluating Activity in a Modified Park (REVAMP) study. The study provides preliminary evidence of the cost effectiveness of playscapes in facilitating greater levels of PA in low SES communities.<sup>79</sup>

Best investment domain and GAPP policy priority<sup>a</sup>

Guidance and examples for policy makers

Urban design and infrastructure

2.1 Strengthen the integration of urban and transport planning policies that prioritise the principles of compact, mixed land use, at all levels of government as appropriate, to deliver highly-connected neighbourhoods that enable and promote walking, cycling, other forms of mobility involving the use of wheels (including wheelchairs, scooters and skates) and the use of public transport, in urban, peri-urban and rural communities

2.3 Accelerate implementation of policy actions to improve road safety and the personal safety of pedestrians, cyclists, people engaged in other forms of mobility involving the use of wheels (including wheelchairs, scooters and skates) and public transport passengers, with priority given to actions that reduce risk for the most vulnerable road users in accordance with the safe systems approach to road safety, and in alignment with other commitments

2.5 Strengthen the policy, regulatory and design guidelines and frameworks at the national and subnational levels, as appropriate, to promote public amenities, schools, health-care, sports and recreation facilities, workplaces and social housing, that are designed to enable occupants and visitors with diverse abilities to be physically active in and around the buildings, and prioritise universal access by pedestrians, cyclists and public transport

- Improve streetscapes and AT infrastructure in areas of disadvantage by addressing multiple streetscape components for walking or cycling, including: crosswalk and sidewalk improvements, improved and covered bike parking, installation of traffic calming features (raised platforms, zebra crossings) and parking bays; creating safe places to walk; bike boulevard/lane installation; new greenways; traffic-free bridges and boardwalks.<sup>78</sup>
- In developing and reviewing local strategies, policies and plans, use community engagement approaches to respond to the views and needs of people with limited mobility who may be adversely affected by the design and maintenance of streets, footpaths and urban/rural public open spaces. Include those with limited mobility in accessibility audits and in the planning process.<sup>71,80</sup>
- Develop and implement policies to ensure people with limited mobility can safely move along and across streets and in public open spaces. For example, ensure that policies address the following:
  - that there are enough pedestrian controlled crossings and that they all incorporate accessibility features
  - that signal-controlled crossings allow enough time to cross the road safely
  - the correct use and maintenance of tactile paving and dropped kerbs
  - provision of step-free access or where not possible, clear signposting of accessible alternatives.<sup>71</sup>

Best investment domain and GAPP policy priority<sup>a</sup>

Guidance and examples for policy makers

Primary and secondary healthcare

1.4 Strengthen pre- and in-service training of professionals, within and outside the health sector, to increase knowledge and skills related to their roles and contributions in creating inclusive, equitable opportunities for an active society

3.2 Implement and strengthen systems of patient assessment and counselling on increasing PA and reducing sedentary behaviour, by appropriately trained health, community and social care providers, as appropriate, in primary and secondary healthcare and social services, as part of universal healthcare, ensuring community and patient involvement and coordinated links with community resources, where appropriate.

- Provide information and training for primary care practitioners in relation to:
  - Delivery of brief advice for groups that are particularly likely to be inactive (e.g. older people, people with a disability, people from certain culturally and linguistically diverse groups)<sup>81</sup>
  - Motivational interviewing for groups more likely to be inactive (such as people with disabilities) and to promote self-efficacy and awareness about suitable local opportunities for PA<sup>56,62,81,82</sup>
  - Needs assessment and understanding of equity considerations from a socioecological perspective (i.e. the broader societal, environmental and policy factors that may present PA barriers for different groups).

Examples:

- In England, a whole system educational approach is being used to embed PA promotion into clinical practice, through the integration of PA education into undergraduate and postgraduate curricula and continuing professional development.<sup>83</sup>
- In Australia, the South Eastern Sydney Local Health District (SESLHD) has developed a lifestyle intervention program, 'Keeping the Body in Mind' (KBIM), for people experiencing severe mental illness. KBIM uses multidisciplinary teams to provide individualised support for patients to adopt changes to diet, exercise, smoking, sleep and stress as part of their mental health treatment.<sup>84</sup> Self-reported PA was found to increase significantly among patients participating in KBIM.<sup>84</sup> A separate lifestyle intervention program was offered to mental health staff prior to the rollout of KBIM to improve staff culture/attitudes towards using PA interventions in mental health and enhance the likelihood of successful implementation.<sup>85</sup>

Education

3.1 Strengthen provision of good-quality physical education and more positive experiences and opportunities for active recreation, sports and play for girls and boys, applying the principles of the whole-of-school approach in all pre-primary, primary, secondary and tertiary educational institutions, to establish and reinforce lifelong health and physical literacy, and promote the enjoyment

- Ensure mandated levels of quality physical education (PE) are delivered at all schools, including those with a high proportion of disadvantaged students. This may involve policy or curriculum changes to:<sup>86,87</sup>
  - Mandate minimum time allocations for PE in the curriculum across all year levels
  - Require appropriate tertiary qualifications for delivery of scheduled PE and organised school sport activities<sup>88,89</sup>
  - Allocate a minimum amount of activity time at recess and lunchtime<sup>89</sup>

Best investment domain and GAPP policy priority <sup>a</sup>	Guidance and examples for policy makers
<p>of, and participation in, physical activity, according to capacity and ability</p> <p>3.3 Enhance provision of, and opportunities for, more PA programs and promotion in early childhood, school and university settings to support participation in PA, by all people of diverse abilities</p>	<ul style="list-style-type: none"> <li>- Clearly specify monitoring and accountability measures to strengthen compliance and implementation by schools.</li> <li>• In partnership with health, education and childcare sectors, implement parent-focused, family-based programs to support PA in preschool children. The following features have been associated with effectiveness in improving PA among preschool children from socioeconomically disadvantaged backgrounds: intensive interventions, high parental engagement, group-based sessions, educational approaches, use of behaviour change techniques, skill building and links to community resources to support PA.<sup>86</sup></li> <li>• Develop travel plans and safe routes to school, ensuring that they are accessible for infants, children and young people with limited mobility or disabilities.<sup>90</sup></li> </ul> <p><b>Example:</b></p> <ul style="list-style-type: none"> <li>• Play.Sport is an initiative designed to improve the quality and quantity of PA experiences in schools. It focuses on improving the skills and confidence of teachers and providers of PE and active recreation opportunities during and after school (including PE). After being piloted in schools of two regions in New Zealand from 2017 to 2019, it has subsequently been replicated in two more regions from 2019 and will soon be rolled out to 40% of primary and intermediate schools across New Zealand, with a particular focus on lower socioeconomic areas.<sup>91</sup></li> </ul>
<p><b>Workplace</b></p>	
<p>3.3 Enhance provision of, and opportunities for, more PA programm and promotion in private and public workplaces, to support participation in PA, by all people of diverse abilities</p>	<ul style="list-style-type: none"> <li>• Additional resources or support may be needed to encourage or enable participation among lower income or lower status industries and workers, and address disparities in program accessibility and acceptability across worker populations.<sup>92</sup> These disparities may arise due to:<sup>92</sup> <ul style="list-style-type: none"> <li>- Ineligibility or inability of low-income workers to participate (e.g. due to part-time or temporary job status; financial constraints; or lack of management support due to perceived 'lack of value' proposition)</li> <li>- Limited readiness or capacity to deliver or support workplace programs among small-mid size organisations or those in low income industries.</li> </ul> </li> </ul>

<sup>a</sup> GAPP policy priorities are as set out in the WHO *Global Action Plan on Physical Activity 2018–2030* (GAPP) (see [Appendix 4](#) for an overview of GAPP).<sup>93</sup>

## References

1. Wen CP, Wai JPM, Tsai MK, et al. Minimum amount of physical activity for reduced mortality and extended life expectancy: a prospective cohort study. *Lancet* [Internet] 2011;378(9798):1244–1253. doi:10.1016/S0140-6736(11)60749-6
2. Department of the Prime Minister and Cabinet. Closing the Gap 2019 Report. Canberra: Department of the Prime Minister and Cabinet [Internet] 2019 [cited 2020 Mar 2]. Available from: <https://ctgreport.niaa.gov.au/>
3. Australian Institute of Health and Welfare (AIHW). The health and welfare of Australia's Aboriginal and Torres Strait Islander peoples. Canberra: AIHW [Internet] 2015 [cited 2020 Mar 2]. Available from: [www.aihw.gov.au/reports/indigenous-health-welfare/indigenous-health-welfare-2015/contents/table-of-contents](http://www.aihw.gov.au/reports/indigenous-health-welfare/indigenous-health-welfare-2015/contents/table-of-contents)
4. Australian Institute of Health and Welfare (AIHW). Australian Burden of Disease Study: impact and causes of illness and death in Aboriginal and Torres Strait Islander people 2011. Canberra: AIHW [Internet] 2011 [cited 2020 Mar 2]. Available from: [www.aihw.gov.au/reports/burden-of-disease/australian-bod-study-2011-indigenous-australians/contents/table-of-contents](http://www.aihw.gov.au/reports/burden-of-disease/australian-bod-study-2011-indigenous-australians/contents/table-of-contents)
5. Eime RM, Young JA, Harvey JT, Charity MJ, Payne WR. A systematic review of the psychological and social benefits of participation in sport for children and adolescents: informing development of a conceptual model of health through sport. *Int J Behav Nutr Phys Act* [Internet] 2013;10(1):98. doi:10.1186/1479-5868-10-98
6. Sandford RA, Duncombe R, Armour KM. The role of physical activity/sport in tackling youth disaffection and anti-social behaviour. *Educational Review* [Internet] 2008;60(4):419-435. doi:10.1080/00131910802393464
7. Spruit A, Assink M, van Vugt E, van der Put C, Stams GJ. The effects of physical activity interventions on psychosocial outcomes in adolescents: A meta-analytic review. *Clin Psychol Rev* [Internet] 2016;45:56–71. doi:10.1016/j.cpr.2016.03.006
8. Ekelund U, Ward HA, Norat T, Luan J, May AM, Weiderpass E, et al. Physical activity and all-cause mortality across levels of overall and abdominal adiposity in European men and women: the European Prospective Investigation into Cancer and Nutrition Study (EPIC). *Am J Clin Nutr* [Internet] 2015;101(3):613–621. doi:10.3945/ajcn.114.100065
9. Egan M, Kearns A, Katikireddi SV, Curl A, Lawson K, Tannahill C. Proportionate universalism in practice? A quasi-experimental study (GoWell) of a UK neighbourhood renewal programme's impact on health inequalities. *Soc Sci Med* [Internet] 2016;152:41–49. doi:10.1016/j.socscimed.2016.01.026
10. Ball K, Carver A, Jackson M, Downing K. Evidence review: Addressing the social determinants of inequities in physical activity and related health outcomes. Carlton South: VicHealth. [Internet] 2015 [cited 2020 Mar 2]. Available from: [www.vichealth.vic.gov.au/fairfoundations](http://www.vichealth.vic.gov.au/fairfoundations)
11. National Heart Foundation of Australia. Blueprint for an Active Australia. [Internet] 2019 [cited 2019 Nov 19]. Available from: [www.heartfoundation.org.au/for-professionals/physical-activity/blueprint-for-an-active-australia](http://www.heartfoundation.org.au/for-professionals/physical-activity/blueprint-for-an-active-australia)
12. Rimmer JH, Riley B, Wang E, Rauworth A, Jurkowski J. Physical activity participation among persons with disabilities: Barriers and facilitators. *Am J Prev Med* [Internet] 2004;26(5):419–425. doi:10.1016/j.amepre.2004.02.002
13. Martin Ginis KA, Ma JK, Latimer-Cheung AE, Rimmer JH. A systematic review of review articles addressing factors related to physical activity participation among children and adults with physical disabilities. *Health Psychol Rev* [Internet] 2016;10(4):478–494. doi:10.1080/17437199.2016.1198240
14. O'Driscoll T, Banting LK, Borkoles E, Eime R, Polman R. A systematic literature review of sport and physical activity participation in culturally and linguistically diverse (CALD) migrant populations. *J Immigr Minor Health* [Internet] 2014;16(3):515–530. doi:10.1007/s10903-013-9857-x

15. Taylor T, Toohey K. Behind the Veil: Exploring the Recreation Needs of Muslim Women. *Leisure/Loisir* [Internet] 2001;26(1-2):85–105. doi:10.1080/14927713.2001.9649930
16. Blinde EM, McCallister SG. Women, Disability, and Sport and Physical Fitness Activity: The Intersection of Gender and Disability Dynamics. *Res Q Exerc Sport*. [Internet] 1999;70(3):303–312. doi:10.1080/02701367.1999.10608049
17. Reynolds H. *Frontier: Aborigines, settlers and land*. St Leonards, NSW: Allen and Unwin; 1996. 234pp.
18. Saggers S, Gray D. *Aboriginal health and society: the traditional and contemporary Aboriginal struggle for better health*. North Sydney: Allen and Unwin; 1991. 232pp.
19. Gray C, MacNiven R, Thomson N. Review of physical activity among Indigenous people. *Australian Indigenous Health Bulletin* [Internet] 2013;13(3) [cited 2020 Mar 2]. Available from: [healthbulletin.org.au/articles/review-of-physical-activity-among-indigenous-people](http://healthbulletin.org.au/articles/review-of-physical-activity-among-indigenous-people)
20. Carson B, Dunbar T, Chenhall R, Bailie RE. *Social determinants of Indigenous health*. Crows Nest, NSW: Allen and Unwin; 2007. 336pp.
21. Marmot M. Social determinants and the health of Indigenous Australians. *Med J Aust* [Internet] 2011;194(10):512–513. doi:10.5694/j.1326-5377.2011.tb03086.x
22. Australian Bureau of Statistics (ABS). 4704.0 – The Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples, Oct 2010. Canberra: ABS [Internet] 2011 [cited 2020 Mar 2]. Available from: [www.abs.gov.au/AUSSTATS/abs@.nsf/lookup/4704.0Chapter200Oct+2010](http://www.abs.gov.au/AUSSTATS/abs@.nsf/lookup/4704.0Chapter200Oct+2010)
23. World Health Organization (WHO). The global action plan on physical activity 2018-2030: more active people for a healthier world. Geneva: WHO [Internet] 2018 [cited 2020 Mar 2]. Available from: [www.who.int/ncds/prevention/physical-activity/gappa](http://www.who.int/ncds/prevention/physical-activity/gappa)
24. Norman H. A modern day Corroboree – the New South Wales Annual Aboriginal Rugby League Knockout Carnival. *Sport Soc*. 2012;15(7):997–1013. doi:10.1080/17430437.2012.723370
25. World Health Organization (WHO) Regional Office for Europe. Physical activity promotion in socially disadvantaged groups: Principles for action. Policy summary. Copenhagen, Denmark: WHO Regional Office for Europe [Internet] 2013 [cited 2020 Mar 2]. Available from: [www.euro.who.int/en/publications/abstracts/physical-activity-promotion-in-socially-disadvantaged-groups-principles-for-action.-policy-summary-2013](http://www.euro.who.int/en/publications/abstracts/physical-activity-promotion-in-socially-disadvantaged-groups-principles-for-action.-policy-summary-2013)
26. Whitehead M, Dahlgren G. Concepts and principles for tackling social inequities in health: Levelling up Part 1. Copenhagen, Denmark: WHO Regional Office for Europe [Internet] 2007 [cited 2020 Mar 2]. Available from: [www.euro.who.int/\\_data/assets/pdf\\_file/0010/74737/E89383.pdf](http://www.euro.who.int/_data/assets/pdf_file/0010/74737/E89383.pdf)
27. Benach J, Malmusi D, Yasui Y, Martinez JM. A new typology of policies to tackle health inequalities and scenarios of impact based on Rose's population approach. *J Epidemiol Community Health* [Internet] 2013;67(3):286–291. doi:10.1136/jech-2011-200363
28. Carey G, Crammond B, De Leeuw E. Towards health equity: a framework for the application of proportionate universalism. *Int J Equity Health* [Internet] 2015;14(1):81. doi:10.1186/s12939-015-0207-6
29. Hirvensalo M, Lintunen T. Life-course perspective for physical activity and sports participation. *Eur Rev Aging Phys Act* [Internet] 2011;8(1):13–22. doi:10.1007/s11556-010-0076-3
30. O'Mara-Eves A, Brunton G, Oliver S, Kavanagh J, Jamal F, Thomas J. The effectiveness of community engagement in public health interventions for disadvantaged groups: a meta-analysis. *BMC Public Health* [Internet] 2015;15:129–129. doi:10.1186/s12889-015-1352-y
31. National Institute for Health and Care Excellence (NICE). NICE guideline [NG44] Community engagement: improving health and wellbeing and reducing health inequalities [Internet] 2016 [cited 2020 Mar 2]. Available from: [www.nice.org.uk/guidance/ng44](http://www.nice.org.uk/guidance/ng44)

32. Goodman A, Sahlqvist S, Ogilvie D. Who uses new walking and cycling infrastructure and how? Longitudinal results from the UK iConnect study. *Prev Med* [Internet] 2013;57(5):518–524. doi:10.1016/j.ypmed.2013.07.007
33. Bussell JB, Leviton LC, Orleans CT. Active living by design: Perspectives from the Robert Wood Johnson Foundation. *Am J Prev Med* [Internet] 2009;37(6 SUPPL. 2):S309–S312. doi:10.1016/j.amepre.2009.09.019
34. Voices for Healthy Kids Action Centre. Active Living By Design Releases New Model for Healthy Community Change. [Internet] 2016 [cited 2019 Nov 21]. Available from: [www.voicesactioncenter.org/inside-track-april-21-16-e](http://www.voicesactioncenter.org/inside-track-april-21-16-e)
35. Stasi S, Spengler J, Maddock J, McKyer L, Clark H. Increasing Access to Physical Activity Within Low Income and Diverse Communities: A Systematic Review. *Am J Health Promot* [Internet] 2019;33(6):933–940. doi:10.1177/0890117119832257
36. Public Health England. Health and wellbeing: a guide to community-centred approaches. PHE publications gateway number: 2014711. [Internet] 2015 Feb 11 [cited 2019 Nov 21]. Available from: [www.gov.uk/government/publications/health-and-wellbeing-a-guide-to-community-centred-approaches](http://www.gov.uk/government/publications/health-and-wellbeing-a-guide-to-community-centred-approaches)
37. Dreise T, Mazurski E. Weaving knowledges. Knowledge exchange, co-design and community-based participatory research and evaluation in Aboriginal communities. Literature Review, Case Study and Practical Tips [Internet] 2018 [cited 2019 Nov 21]. Available from: [www.aboriginalaffairs.nsw.gov.au/pdfs/new-knowledge/Weaving-Knowledges-codesign-report-FINAL.pdf](http://www.aboriginalaffairs.nsw.gov.au/pdfs/new-knowledge/Weaving-Knowledges-codesign-report-FINAL.pdf)
38. Oetzel J, Scott N, Hudson M, Masters-Awatere B, Rarere M, Foote J, et al. Implementation framework for chronic disease intervention effectiveness in Māori and other indigenous communities. *Global Health* [Internet] 2017;13(1):69. doi:10.1186/s12992-017-0295-8
39. Rowley KG, Daniel M, Skinner K, Skinner M, White GA, O'Dea K. Effectiveness of a community-directed 'healthy lifestyle' program in a remote Australian Aboriginal community. *Aust N Z J Public Health* [Internet] 2000;24(2):136–144. doi:10.1111/j.1467-842X.2000.tb00133.x
40. Schembri L, Curran J, Collins L, et al. The effect of nutrition education on nutrition-related health outcomes of Aboriginal and Torres Strait Islander people: a systematic review. *Aust N Z J Public Health* [Internet] 2016;40(S1):S42–S47. doi:10.1111/1753-6405.12392
41. Council of Australian Governments. National Partnership Agreement on Closing the Gap in Indigenous Health Outcomes. Canberra: Council of Australian Governments; 2008. 27p. Available from: [www.federalfinancialrelations.gov.au/content/npa/health/archive/ctg-health-outcomes/national\\_partnership.pdf](http://www.federalfinancialrelations.gov.au/content/npa/health/archive/ctg-health-outcomes/national_partnership.pdf)
42. Aboriginal Health and Medical Research Council of NSW. Strategic Plan 2018-2020. Sydney: Aboriginal Health and Medical Research Council; 2018 [cited 2020 Mar 9]. 20p. Available from: [www.ahmrc.org.au/publication/2018-2020-ahmrc-strategic-plan/](http://www.ahmrc.org.au/publication/2018-2020-ahmrc-strategic-plan/)
43. Passmore E, Shepherd B, Milat A, Maher L, Hennessey K, Havrlant R, et al. The impact of a community-led program promoting weight loss and healthy living in Aboriginal communities: the New South Wales Knockout Health Challenge. *BMC Public Health* [Internet] 2017;17. doi:10.1186/s12889-017-4955-7
44. Braubach M, Egorov A, Mudu P, Wolf T, Ward Thompson C, Martuzzi M. Effects of Urban Green Space on Environmental Health, Equity and Resilience. In: Kabisch N, Korn H, Stadler J, Bonn A, eds. *Nature-Based Solutions to Climate Change Adaptation in Urban Areas: Linkages between Science, Policy and Practice* [Internet]. Cham: Springer International Publishing; 2017. p337. [Chapter 11]. Available from: [link.springer.com/book/10.1007%2F978-3-319-56091-5](http://link.springer.com/book/10.1007%2F978-3-319-56091-5)
45. Commonwealth of Australia. Sport – More Than Just A Game: Contribution of sport to Indigenous wellbeing and mentoring [Internet]. Canberra: The Parliament of the Commonwealth of Australia; 2013 [cited 2020 Mar 9]. Available from: [www.aph.gov.au/Parliamentary\\_Business/Committees/House\\_of\\_Representatives\\_Committees?url=atsia/sport/report.htm](http://www.aph.gov.au/Parliamentary_Business/Committees/House_of_Representatives_Committees?url=atsia/sport/report.htm)

46. Lorenc T, Petticrew M, Welch V, Tugwell P. What types of interventions generate inequalities? Evidence from systematic reviews. *J Epidemiol Community Health* [Internet] 2013;67(2):190. doi:10.1136/jech-2012-201257
47. Macniven R, Canuto K, Wilson R, Bauman A, Evans J. Impact of physical activity and sport on social outcomes among Aboriginal and Torres Strait Islander people: a scoping review protocol. *JBI Database System Rev Implement Rep* [Internet] 2019;17(7):1305–1311. doi:10.11124/JBISRIR-2017-004023
48. Lukaszyc C, Coombes J, Sherrington C, et al. The Ironbark program: Implementation and impact of a community-based fall prevention pilot program for older Aboriginal and Torres Strait Islander people. *Health Promot J Austr* [Internet] 2018;29(2):189–198. doi:10.1002/hpja.25
49. Canuto K, Cargo M, Li M, D'Onise K, Esterman A, McDermott R. Pragmatic randomised trial of a 12-week exercise and nutrition program for Aboriginal and Torres Strait Islander women: clinical results immediate post and 3 months follow-up. *BMC Public Health* [Internet]. 2012;12(1):933. doi:10.1186/1471-2458-12-933
50. Clifford A, Pulver LJ, Richmond R, Shakeshaft A, Ivers R. Smoking, nutrition, alcohol and physical activity interventions targeting Indigenous Australians: rigorous evaluations and new directions needed. *Aust N Z J Public Health* [Internet] 2011;35(1):38–46. doi:10.1111/j.1753-6405.2010.00631.x
51. Edwards K. Traditional Games of a Timeless Land: Play Cultures in Aboriginal and Torres Strait Islander Communities. *Australian Aboriginal Studies*. 2009;2:32–43.
52. Macniven R, Elwell M, Ride K, Bauman A, Richards J. A snapshot of physical activity programs targeting Aboriginal and Torres Strait Islander people in Australia. *Health Promot J Austr* [Internet] 2017;28:185–206. doi:10.1071/HE16036
53. Umstatt Meyer MR, Bridges CN, Schmid TL, Hecht AA, Pollack Porter KM. Systematic review of how Play Streets impact opportunities for active play, physical activity, neighborhoods, and communities. *BMC Public Health* [Internet]. 2019;19(1):335. doi:10.1186/s12889-019-6609-4
54. Wiltshire G, Stevinson C. Exploring the role of social capital in community-based physical activity: qualitative insights from parkrun. *Qual Res Sport Exerc Health* [Internet] 2018;10(1):47–62. doi:10.1080/2159676X.2017.1376347
55. Bopp ME, ed. *Physical activity in diverse populations: evidence and practice* [Internet]. Abingdon, Oxon: Routledge; 2017 [cited 2019 Nov 24]. p310. doi:10.4324/9781315561264
56. Comella A, Hassett L, Hunter K, Cole J, Sherrington C. Sporting opportunities for people with physical disabilities: Mixed methods study of web-based searches and sport provider interviews. *Health Promot J Aust* [Internet] 2019;30(2):180–188. doi:10.1002/hpja.31
57. VicHealth. This girl definitely can in Victoria. [Internet] 2018 [cited 2019 July 5]. Available from: [www.vichealth.vic.gov.au/media-and-resources/media-releases/this-girl-definitely-can-in-victoria](http://www.vichealth.vic.gov.au/media-and-resources/media-releases/this-girl-definitely-can-in-victoria)
58. VicHealth. Promoting equity in physical activity. An evidence summary [Internet]. Carlton: VicHealth; 2015 [cited 2019 Nov 24]. p24. Available from: [www.vichealth.vic.gov.au/-/media/ResourceCentre/PublicationsandResources/Health-Inequalities/Fair-Foundations/Summary/Health-Equity\\_Summary\\_PhysicalActivity.pdf?la=en&hash=253342CE2532365EC0F3425694AA0D6C8837199B](http://www.vichealth.vic.gov.au/-/media/ResourceCentre/PublicationsandResources/Health-Inequalities/Fair-Foundations/Summary/Health-Equity_Summary_PhysicalActivity.pdf?la=en&hash=253342CE2532365EC0F3425694AA0D6C8837199B)
59. Smith BJ, Thomas M, Batras D. Overcoming disparities in organized physical activity: findings from Australian community strategies. *Health Promot Int* [Internet] 2016;31(3):572–581. doi:10.1093/heapro/dav042
60. Cavill N, Foster C, Richardson D. Can sport reach inactive people? A review of literature and practice in the UK. *J Sci Med Sport* [Internet] 2012;15:S346. doi:10.1016/j.jsams.2012.11.842
61. National Institute for Health and Care Excellence (NICE). Public health guideline [PH17]: Physical activity for children and young people. [Internet] 2009 (updated July 2018) [cited 2019 Nov 19]. Available from: [www.nice.org.uk/guidance/ph17](http://www.nice.org.uk/guidance/ph17)

62. Bloemen MA, Backx FJ, Takken T, Wittink H, Benner J, Mollema J, et al. Factors associated with physical activity in children and adolescents with a physical disability: a systematic review. *Dev Med Child Neurol* [Internet] 2015;57(2):137–148. doi:10.1111/dmcn.12624
63. Higgerson J, Halliday E, Ortiz-Nunez A, Brown R, Barr B. Impact of free access to leisure facilities and community outreach on inequalities in physical activity: a quasi-experimental study. *J Epidemiol Community Health* [Internet] 2018;72(3):252. doi:10.1136/jech-2017-209882
64. Fortune N, Madden R, Almborg A-H. Use of a New International Classification of Health Interventions for Capturing Information on Health Interventions Relevant to People with Disabilities. *Int J Environ Res Public Health* [Internet] 2018;15(1):145. doi:10.3390/ijerph15010145
65. Australian Human Rights Commission. Register of Disability Discrimination Act Action Plans. [Internet] Updated 2019 May 8 [cited 2019 Nov 19]. Available from: [www.humanrights.gov.au/our-work/disability-rights/register-disability-discrimination-act-action-plans](http://www.humanrights.gov.au/our-work/disability-rights/register-disability-discrimination-act-action-plans)
66. Surfing Victoria. Victorian Indigenous Surfing Program. [Internet] [cited 2019 July 12]. Available from: [surfing-au-phase2.herokuapp.com/states/vic/p/VISP](http://surfing-au-phase2.herokuapp.com/states/vic/p/VISP)
67. Australian Sports Foundation. Victorian Indigenous Surfing Program. [Internet] [cited 2019 July 12]. Available from: [asf.org.au/projects/surfing-victoria/victorian-indigenous-surfing-program/](http://asf.org.au/projects/surfing-victoria/victorian-indigenous-surfing-program/)
68. Rynne S, Rossi T. The Impact of Indigenous community sports programs: the case of surfing: research report [Internet]. Brisbane: Australian Sports Commission and University of Queensland; 2012 [cited 2019 July 12]. Available from: [healthbulletin.org.au/articles/the-impact-of-indigenous-community-sports-programs-the-case-of-surfing-research-report/](http://healthbulletin.org.au/articles/the-impact-of-indigenous-community-sports-programs-the-case-of-surfing-research-report/)
69. Sport and Recreation Victoria. Access for All Abilities. [Internet] 2019 [cited 2019 Jul 29]. Available from: [sport.vic.gov.au/our-work/participation/inclusive-sport-and-recreation/access-all-abilities](http://sport.vic.gov.au/our-work/participation/inclusive-sport-and-recreation/access-all-abilities)
70. Reclink Australia. Access for All Abilities Play. [Internet] [cited 2019 Jul 29]. Available from: [aaavic.org.au](http://aaavic.org.au)
71. National Institute for Health and Care Excellence (NICE). NICE guideline [NG90]: Physical activity and the environment. [Internet] 2018 [cited 2019 Jul 12]. Available from: [www.nice.org.uk/guidance/ng90](http://www.nice.org.uk/guidance/ng90)
72. Wang R, Chen L. Bicycle-Transit Integration in the United States, 2001–2009. *J Public Trans* [Internet] 2013;16(3):95–119. doi:10.5038/2375-0901.16.3.6
73. Tilahun N, Thakuria P, Li M, Keita Y. Transit use and the work commute: Analyzing the role of last mile issues. *J Transp Geogr* [Internet] 2016;54:359–368. doi:10.1016/j.jtrangeo.2016.06.021
74. Martin EW, Shaheen SA. Evaluating public transit modal shift dynamics in response to bikesharing: a tale of two U.S. cities. *J Transp Geogr* [Internet] 2014;41:315–324. doi:10.1016/j.jtrangeo.2014.06.026
75. Shaheen SA ME, Cohen AP, Chan ND, Pogodzinsk M. Public Bikesharing in North America During a Period of Rapid Expansion: Understanding Business Models, Industry Trends and User Impacts. MTI Report [Internet] 2014 [cited 2020 Mar 4];12(29). Available from: [transweb.sjsu.edu/project/1131.html](http://transweb.sjsu.edu/project/1131.html)
76. Salvo G, Lashewicz MB, Doyle-Baker KP, McCormack RG. Neighbourhood Built Environment Influences on Physical Activity among Adults: A Systematized Review of Qualitative Evidence. *Int J Environ Res Public Health* [Internet] 2018;15(5). doi:10.3390/ijerph15050897
77. Levy-Storms L, Chen L, Loukaitou-Sideris A. Older Adults' Needs and Preferences for Open Space and Physical Activity in and Near Parks: A Systematic Review. *J Aging Phys Activity* [Internet]. 2018;26(4):682–696. doi:10.1123/japa.2016-0354
78. Smith M, Hosking J, Woodward A, Witten K, MacMillan A, Field A, et al. Systematic literature review of built environment effects on physical activity and active transport – an update and new findings on health equity. *Int J Behav Nutr Phys Act* [Internet] 2017;14(1):158–158. doi:10.1186/s12966-017-0613-9

79. Lal A, Moodie M, Abbott G, Carver A, Salmon J, Giles-Corti B, et al. The impact of a park refurbishment in a low socioeconomic area on physical activity: A cost-effectiveness study. *Int J Behav Nutr Phys Act* [Internet] 2019;16(1):26. doi:10.1186/s12966-019-0786-5
80. Eisenberg Y, Bouldin ED, Gell N, Rosenberg D. Planning Walking Environments for People with Disabilities and Older Adults. In: Mulley C, Gebel K, Ding D, eds. *Walking. Connecting Sustainable Transport with Health*. Vol 9. Emerald Publishing Limited; 2017:187–209. doi:10.1108/S2044-994120170000009012
81. National Institute for Health and Care Excellence (NICE). Public Health Guideline [PH44]: Physical activity: brief advice for adults in primary care. [Internet] 2013 [cited 2019 Jul 12]. Available from: [www.nice.org.uk/guidance/ph44](http://www.nice.org.uk/guidance/ph44)
82. Hardcastle S, Blake N, Hagger MS. The effectiveness of a motivational interviewing primary-care based intervention on physical activity and predictors of change in a disadvantaged community. *J Behav Med* [Internet] 2012;35(3):318–333. doi:10.1007/s10865-012-9417-1
83. Brannan M, Bernardotto M, Clarke N, Varney J. Moving healthcare professionals – a whole system approach to embed physical activity in clinical practice. *BMC Med Educ* [Internet] 2019;19(1):84. doi:10.1186/s12909-019-1517-y
84. Curtis J, Watkins A, Rosenbaum S, et al. Evaluating an individualized lifestyle and life skills intervention to prevent antipsychotic-induced weight gain in first-episode psychosis. *Early Interv Psychiatry* [Internet] 2016;10(3):267–276. doi:10.1111/eip.12230
85. Rosenbaum S, Watkins A, Ward PB, Pearce D, Fitzpatrick K, Curtis J. Psychiatry heal thyself: a lifestyle intervention targeting mental health staff to enhance uptake of lifestyle interventions for people prescribed antipsychotic medication. *Eur Psychiatry* [Internet] 2016;33:S619. doi:10.1016/j.eurpsy.2016.01.2314
86. Craike M, Wiesner G, Hilland TA, Bengoechea EG. Interventions to improve physical activity among socioeconomically disadvantaged groups: an umbrella review. *Int J Behav Nutr Phys Act* [Internet] 2018;15(1):43. doi:10.1186/s12966-018-0676-2
87. Stylianou M, Walker JL. An assessment of Australian school physical activity and nutrition policies. *Aust N Z J Public Health* [Internet] 2018;42(1):16–21. doi:10.1111/1753-6405.12751
88. Active Healthy Kids Australia (AHKA). Is sport enough? 2014 Report Card on Physical Activity for Children and Young People [Internet]. Adelaide: AHKA; 2014 [cited 2019 Nov 5]. Available from: [www.activehealthykidsaustralia.com.au/report-cards/](http://www.activehealthykidsaustralia.com.au/report-cards/)
89. Active Healthy Kids Australia (AHKA). Physical Literacy: Do Our Kids Have All the Tools? The 2016 Active Healthy Kids Australia Report Card on Physical Activity for Children and Young People [Internet]. Adelaide: AHKA; 2016 [cited 2019 Nov 5]. Available from: [www.activehealthykidsaustralia.com.au/report-cards/](http://www.activehealthykidsaustralia.com.au/report-cards/)
90. National Institute for Health and Care Excellence (NICE). Quality standard [QS183]: Physical activity: encouraging activity in the general population. [Internet] 2019 Jun [cited 2020 Mar 9]. Available from: [www.nice.org.uk/guidance/qs183](http://www.nice.org.uk/guidance/qs183)
91. Sport New Zealand. *Play.sport evaluation of year 2 (2017)*. Wellington: Sport New Zealand; 2018 Jun. p2.
92. Stiehl E, Shivaprakash N, Thatcher E, Ornelas IJ, Kneipp S, Baron SL, et al. Worksite Health Promotion for Low-Wage Workers: A Scoping Literature Review. *Am J Health Promot* [Internet] 2018;32(2):359–373. doi:10.1177/0890117117728607
93. World Health Organization (WHO). The global action plan on physical activity 2018-2030: more active people for a healthier world. Geneva: WHO [Internet] 2018 [cited 2020 Mar 2]. Available from: [www.who.int/ncds/prevention/physical-activity/gappa](http://www.who.int/ncds/prevention/physical-activity/gappa)