Chapter 6
Ensure Healthy Lives and Promote Well-being for All, at All Ages (SDG 3)

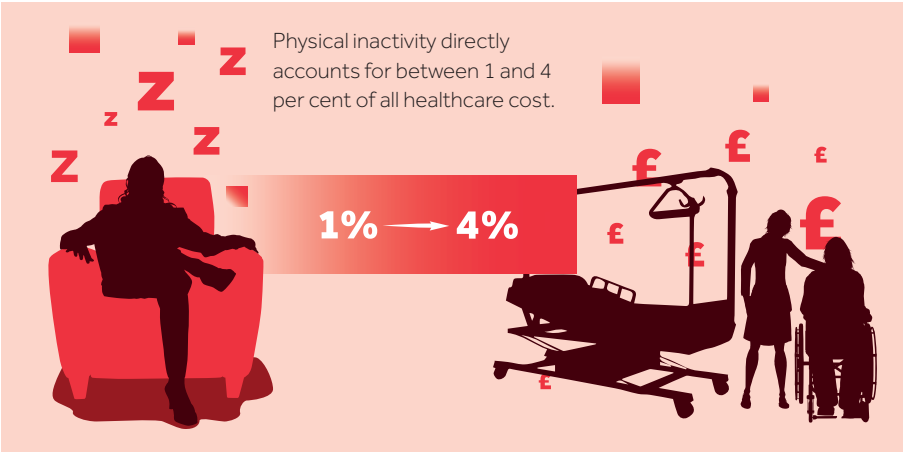
6.1 Introduction

Universal and holistic conceptions of health and well-being are at the forefront of the *2030 Agenda for Sustainable Development* and are collectively prioritised across the Commonwealth (Commonwealth Secretariat 2015). The paradigm shift from the more specific focus of the MDGs on child mortality, maternal health, HIV/AIDS, malaria and tuberculosis recognises the immense significance of global health threats that have risen to prominence in the interim. Non-communicable diseases now account for 38 million deaths per year, of which 28 million are in low- to medium-income countries (WHO 2015a). Mental illness is expected to account for 15 per cent of the global burden of disease by 2020, with young people disproportionately affected (Biddle and Asare 2011).

Policies that can contribute to increasing participation in sport and active recreation can reduce inactivity and, in so doing, significantly contribute to SDG target 3.4, which seeks to address non-communicable diseases and promote mental health and well-being.

Physical inactivity has become one of the most significant health issues of the twenty-first century. Inactivity is the fourth greatest risk factor for global mortality, causing approximately 3.2 million deaths per year (WHO 2010). Consistent international data indicate that inactivity directly accounts for between 1 and 4 per cent of all healthcare costs (Davis *et al.* 2014), with indirect consequences of physical inactivity for economic productivity being substantially higher (see Figure 6.1). Policies that can contribute to increasing participation in sport and active recreation can reduce inactivity and, in so doing, significantly contribute to SDG target 3.4, which seeks to address non-communicable diseases and promote mental health and well-being (see Box 6.1). Furthermore, there is now also a significant history of sport-based approaches being used as part of health promotion and education strategies. Enhancing and expanding those initiatives that are currently effective at contributing to the prevention of communicable diseases, including those associated with sexual health, and the reduction of drug and alcohol abuse, can support the achievement of SDG targets 3.3, 3.5 and 3.7.

Figure 6.1 Cost of physical inactivity



Source: Davis *et al.* (2014)

Box 6.1 Enhancing the contribution of sport to Sustainable Development Goal 3: Key policy implications

- Participation in sport and active recreation can make a substantial contribution to reducing physical inactivity, preventing associated non-communicable diseases, and improving health and well-being.
- Popular engagement with sport makes it a valuable environment for communication and education to address various health challenges and outcomes.
- Policies that enable the alignment and integration of sport-based approaches with multi-sectoral implementation strategies can leverage significant benefits for improved health and well-being.
- The collection of disaggregated data on engagement in sport and physical activity enables improved policy development, targeting of resources and well-designed initiatives.
- Sport-based approaches must be accessible and inclusive, taking into account and seeking to address wider social, economic and environmental factors that affect health and well-being.

6.2 Analysis of sport and specific SDG targets

Target 3.4 By 2030, reduce by one-third premature mortality from non-communicable diseases through prevention and treatment, and promote mental health and well-being.

Evidence clearly indicates that regular physical activity, including sport and active recreation, helps to address a variety of non-communicable diseases through contributing to the

prevention of obesity, and the reduction of the risks of heart disease, stroke, diabetes and some forms of cancer. Young people can benefit from increased physical fitness, reduced body fat, positive cardiovascular and metabolic disease risk profiles, and enhanced bone health (WHO 2014b). The World Health Organization (WHO) produces clear guidelines for the recommended levels of physical activity for health across all age groups (WHO 2010) (see Box 6.2 and Figure 6.2).

Box 6.2 World Health Organization recommendations on physical activity for health

Children aged 5–17 years

1. Children and youth aged 5–17 should accumulate at least 60 minutes of moderate- to vigorous-intensity physical activity daily.
2. Amounts of physical activity greater than 60 minutes provide additional health benefits.
3. Most of the daily physical activity should be aerobic. Vigorous-intensity activities should be incorporated, including those that strengthen muscle and bone, at least three times per week.

Adults aged 18–64 years

1. Adults aged 18–64 should do at least 150 minutes of moderate-intensity aerobic physical activity throughout the week, or do at least 75 minutes of vigorous-intensity aerobic physical activity throughout the week, or an equivalent combination of moderate- and vigorous-intensity activity.
2. Aerobic activity should be performed in bouts of at least ten minutes' duration.
3. For additional health benefits, adults should increase their moderate-intensity aerobic physical activity to 300 minutes per week, or engage in 150 minutes of vigorous-intensity aerobic physical activity per week, or an equivalent combination of moderate- and vigorous-intensity activity.
4. Muscle-strengthening activities should be done involving major muscle groups on two or more days a week.

Adults aged 65 and above

1. Older adults should do at least 150 minutes of moderate-intensity aerobic physical activity throughout the week, or do at least 75 minutes of vigorous-intensity aerobic physical activity throughout the week, or an equivalent combination of moderate- and vigorous-intensity activity.
2. Aerobic activity should be performed in bouts of at least ten minutes' duration.

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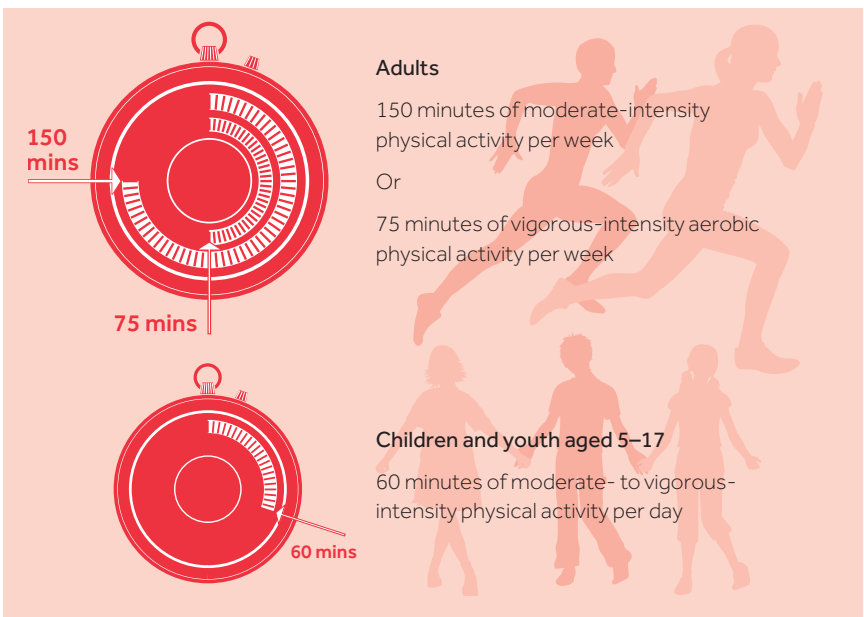
Box 6.2 World Health Organization recommendations on physical activity for health (*cont.*)

3. For additional health benefits, older adults should increase their moderate-intensity aerobic physical activity to 300 minutes per week, or engage in 150 minutes of vigorous-intensity aerobic physical activity per week, or an equivalent combination of moderate- and vigorous-intensity activity.
4. Older adults with poor mobility should perform physical activity to enhance balance and prevent falls on three or more days per week.
5. Muscle-strengthening activities, involving major muscle groups, should be done on two or more days a week.
6. When older adults cannot do the recommended amounts of physical activity because of health conditions, they should be as physically active as their abilities and conditions allow.

Regular physical activity is also positively associated with aspects of psychological and social health, although evidence of causal effects is more limited. Reviews have indicated that choices to participate in enjoyable, organised team sport can be especially likely to lead to well-being benefits (Eime *et al.* 2013a). Commonly cited benefits among young people

Figure 6.2 Recommended levels of physical activity



Source: WHO (2010)

include lower social anxiety, lower social isolation, better social self-concept and improved self-esteem (Eime *et al.* 2013). Psychological outcomes, including reduced stress and distress, are more commonly reported among adults (Eime *et al.* 2013). Studies also indicate the potential value of carefully designed and implemented sport-based initiatives for reducing mental health problems among adults and young people (Biddle and Asare 2011). The potential of sport-based approaches to contribute to well-being in respect of aspects of social inclusion is further considered through SDGs 4, 5 and 16.

Despite these potential benefits for physical and mental health and all aspects of well-being, WHO data from 2010 indicate the worrying scale of inactive populations: globally, 20 per cent of adult males and 27 per cent of adult women do not fulfil recommended levels of physical activity. Equivalent data for young people aged 11–17 years are especially concerning, with 78 per cent of boys and 84 per cent of girls being insufficiently active in respect of age-appropriate recommendations (WHO 2014b). Comparative levels of inactivity are lower in low- and middle-income countries, standing at 12 per cent and 24 per cent of adult males and females, respectively. However, policy impetus in such countries remains important, as comparatively higher levels of occupational, domestic and transport-related physical activity are threatened by prominent economic, social and environmental changes (Kohl *et al.* 2012; WHO 2015b).

Greater policy alignment, co-ordination and learning across different sectors, including sport, are advised to address the multi-faceted causes of physical inactivity and achieve population-level change.

In general, public health and other policy responses to physical inactivity have previously not received the same priority as other factors linked to non-communicable diseases: tobacco, alcohol and diet (Kohl *et al.* 2012). The WHO estimates that around 80 per cent of countries had policies and plans to address physical inactivity in 2013, but there is common recognition of significant weaknesses in implementation (Kohl *et al.* 2012; WHO 2015b; GoPA [n.d.]). Greater policy alignment, co-ordination and learning across different sectors, including sport, are advised to address the multi-faceted causes of physical inactivity and achieve population-level change (Heath *et al.* 2012). Addressing disparities in health outcomes also requires co-ordinated action, given that various risk factors affecting health and well-being – including access to sport and active recreation (Nicholson *et al.* 2010) – are linked to broader economic and social inequalities that cut across a number of SDGs.

Effective national policy development specifically needs to be informed by appropriate evidence. Internationally recognised survey tools are available for the collection of disaggregated data on physical activity (WHO 2008; Bull *et al.* 2009). However, across many countries, resources for continuous monitoring of population-level physical activity are limited (Hallal *et al.* 2012). In response to this need, and with the support of the WHO, the Global Physical Activity Observatory was instigated in 2016 to offer a hub for validated, country-specific physical activity statistics (Hallal *et al.* 2014). The Observatory also seeks to address the current lack of academic research that may specifically inform physical activity policies in low- and middle-income countries (Khoo and Morris 2012; Hallal *et al.* 2014).

Enhanced data and evidence can improve differentiation within policy responses. For example, interventions for people with a disability need to be based on clear understanding of the particular barriers and varying levels of participation that can be found among those with specific impairments. Differentiated policy is also required to contribute to improving physical activity across the life-course. Education policies that ensure that all children acquire fundamental movement competencies are important, given that physical inactivity and sedentary behaviours among children can track through to adulthood (Biddle *et al.* 2010). However, there should be no complacency that participation among young people will automatically translate into lifelong physical activity habits (Green 2014). There is a specific need to enable continued participation over periods of transition across the life-course (Allender *et al.* 2008), and recognition of the importance of harnessing social networks, especially among older-age adults, to encourage physical activity (King and King 2010; Shaw *et al.* 2010).

Education policies that ensure that all children acquire fundamental movement competencies are important, given that physical inactivity and sedentary behaviours among children can track through to adulthood.

Incentivising active lifestyles for communities and work places

Botswana

Ministry of Youth Empowerment, Sports and Culture Development
Government of Botswana

The health cost and impact of non-communicable disease in Botswana is steadily increasing. Non-communicable diseases are now estimated to account for thirty-seven percent of mortality in Botswana (WHO 2014c). Physical inactivity is one of the main risk factors for non-communicable disease. In Botswana, 33 per cent of women and 28 per cent of men over the age of 18 do not undertake sufficient levels of physical activity (GoPA 2014).

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Incentivising active lifestyles for communities and work places (*cont.*)

In response, the government of Botswana, through its Ministry of Youth Empowerment, Sports and Culture, has taken a step towards promoting active lifestyles beyond just setting policy and carrying out advocacy. Acting in line with its National Sport and Recreation Policy and the Botswana National Fitness Policy, as well as with a view to contributing to SDG target 3.4 on reducing premature mortality from non-communicable disease, the government of Botswana is incentivising sport participation and physically active lifestyles.

It is doing this by devoting at least two hours of business time every last Friday of each month to workplace physical activity. Under this programme, all employees of the public sector (who represent the majority of the labour force in Botswana) are released to participate in workplace-organised sport or physical activity without any loss of income or adverse consequences. Government departments and agencies also have the flexibility to choose the day or week of the month in which they wish to dedicate time to this activity.

To implement this, suitably qualified wellness officers and volunteers are being engaged to develop suitable programmes for their workplaces.

In addition in line with national policy, the government has recently deployed officers in all ten districts that make up local government in Botswana, to mobilise private sector and community stakeholders to emulate the government in the promotion of active lifestyles and in other, youth-related, empowerment programmes. To this end, the government, through its departments and agencies, will provide, free of charge, its facilities, such as stadiums, gyms, halls and open spaces, for this and related programmes.

To complement existing policies and programmes, the government is also supporting sporting associations and schools sport organisations to develop targeted age-specific sport and physical activity frameworks as part of its Long-Term Athlete Development Strategy, which is the country's model for advancing long-term, sustainable participation in sport and physical activity, as well as sporting success.

More generally, policies that span sport, physical activity, and public and mental health should take strong account of the variety of social, cultural and environmental factors that may contribute to physical inactivity among particular groups.

More generally, policies that span sport, physical activity, and public and mental health should take strong account of the variety of social, cultural and environmental factors that may contribute to physical inactivity among particular groups (Bauman *et al.* 2012). Existing initiatives that have proved to be locally effective in adopting targeted approaches can provide valuable lessons that may be more broadly replicated. At the other end of the spectrum, and in those countries subject to rapid urbanisation, creating appropriate physical infrastructure can make a widespread contribution to engagement in physical activity (Kaczynski and Henderson 2007), with policy options to do this further considered in relation to SDG 11.

Evidence also supports the efficacy of communication and information campaigns to promote engagement in sport and physical activity that have, as yet, mainly been implemented in medium- and high-income countries (Heath *et al.* 2012). Targeting messages at particular population groups remains most effective as part of high-intensity, cross-sectoral campaigns that utilise a range of communication media (Heath *et al.* 2012). High profile sport events can provide particular opportunities for population-level communication. As recent examples indicate (Weed *et al.* 2015), event-based communication to increase awareness and motivation needs to be well-integrated into broader strategies to ensure that associated opportunities for participation are readily accessible.

Target 3.3 By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases, and combat hepatitis, water-borne diseases and other communicable diseases.

Target 3.5 Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol.

Target 3.7 By 2030, ensure universal access to sexual and reproductive healthcare services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes.

Many existing sport-based initiatives seek to educate and empower participants to contribute to the prevention of a range of health problems. The global spread of such initiatives reflects the flexibility of the sport-based approaches that have been used to address different communicable diseases, sexual and reproductive health, and substance abuse. Although evidence remains inconclusive on the preventive efficacy of all sport-based approaches, a systematic review found that sport-based initiatives that sought to contribute to AIDS prevention increased specific knowledge and reported condom use, at least in the short term (Kaufman *et al.* 2013).

The particular contribution of many initiatives commonly rests on the popularity of sport among important population groups. Sport can be a way of attracting and engaging young people who may otherwise suffer from various forms of exclusion, and so may not be reached by traditional forms of health education. More generally, sport-based approaches may be particularly valuable in contexts where growing populations of young people are often at higher risk of communicable and sexually

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transmitted diseases (WHO 2014a). Involving girls and young women and ensuring inclusion more broadly can also contribute to addressing the stigmatisation commonly associated with AIDS and other communicable diseases.

Engaging in sport in itself may act as a diversion from contexts which are associated with health-risk behaviours. However, the limitations of diversion-effects in isolation are emphasised, given that sport can be an opportunity for both alcohol and drug abuse. Sport-based approaches that also seek to enable social and community development have therefore been widely recognised as having greater potential (Mwaanga and Banda 2014), especially where they provide safe spaces in which young people can discuss health and social problems with peers and trusted coaches. Numerous curricula have now been developed to inform scaled-up training in sport-based active learning for health and other social issues (Cronin 2011). However, care must be taken by all stakeholders to ensure that the implementation of sport-based curricula is contextually relevant and does not solely individualise responsibility for health behaviour (Forde 2014).

Empowerment for disease prevention, therefore, depends on multi-layered approaches that also address contextual and structural barriers that inhibit behaviour change (Jeanes 2013). This calls for the alignment of particular sport-based initiatives with broader policies and cross-sectoral implementation. Reciprocal contributions by sport and health agencies can enhance the delivery of specific initiatives. Examples point to the valued input of health practitioners to sport-based education and, conversely, delivery by sport practitioners that supports engagement in health initiatives (Lindsey and Banda 2011). Such synergies can be further enabled, enhanced and expanded through working towards well-aligned policies across different and relevant sectors at both national and local levels.

The implementation of policy options, including those for sport-based approaches, needs to address issues of scale and enable differentiated responses where appropriate.

6.3 The means of implementation: Policy options for Sustainable Development Goal 3

SDG 3 relates to population-level health problems that, equally, can have a profound impact upon particular individuals and groups. Therefore, the implementation of policy options,

including those for sport-based approaches, needs to address issues of scale and enable differentiated responses where appropriate. The need for differentiation is further emphasised, as contributions to aspects of health can be made through both participation in and through sport. Implementing at scale requires appropriate financial resources, but can also use information- and communication-based policy instruments to contribute to health education. Improved data and information is also important to inform the effective targeting of some sport-based approaches. Similarly, implementation towards capacity-building can contribute to scaled impact but also enhance specifically targeted initiatives.

Table 6.1 Policy options to enhance the contribution of sport to SDG 3

	Government-led Implementation ⟷	Structured implementation partnerships ⟷	Complementary Implementation ⟷	Autonomous Implementation
Country-leadership and policy coherence	Communicate clear national statement of the role of sport- and physical-activity-based approaches in promoting health and well-being that serve as a focus for a range of organisations and encourages wider-scale engagement			
	Use guidance and incentives to ensure that inclusivity is a key consideration in the design of interventions of every scale that seek to increase participation in sport			
			Identify and communicate priority health problems, target population groups and gaps in existing provision to which well-designed, decentralised and participatory sport-based approaches can be orientated	
		Develop cross-sectoral communications strategies for public health that include consistent and targeted messages that encourage engagement in sport and physical activity		
			Lever the widespread popularity of sport among particular population groups to enhance engagement of participants and spectators with health-based information, education and services	

(*Continued*)

Table 6.1 Policy options to enhance the contribution of sport to SDG 3 (*cont.*)

	Government-led Implementation ⟷	Structured implementation partnerships ⟷	Complementary Implementation ⟷	Autonomous Implementation
Mobilising financial and human resources	Draw on evidence of strong alignment among sport, health and well-being to maximise and collectively lever financial resources from both sport and health sectors, and from across public, private and civil society funders			
	Identify priorities for investment in sport-based infrastructure and activities that offer the greatest potential impact on health and well-being for particular population groups and geographical areas			
		Create and develop accessible forums to share practice, learning and experience between sport- and health-based practitioners		
		Enhance capacity-building among sport-based practitioners that develops expertise in working to address physical and mental health issues among specific population groups		
Country-specific and disaggregated 'measures of progress'	Examine current national systems for health data and measuring physical activity to establish integrated or stand-alone measures of participation in sport and other forms of active recreation			
			Promote recognised and standardised tools to measure physical activity for use in the evaluation of any sport-based initiative	
	Utilise and encourage further contextually relevant research on sport, physical activity and health to inform policy development and the design of specific initiatives			

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