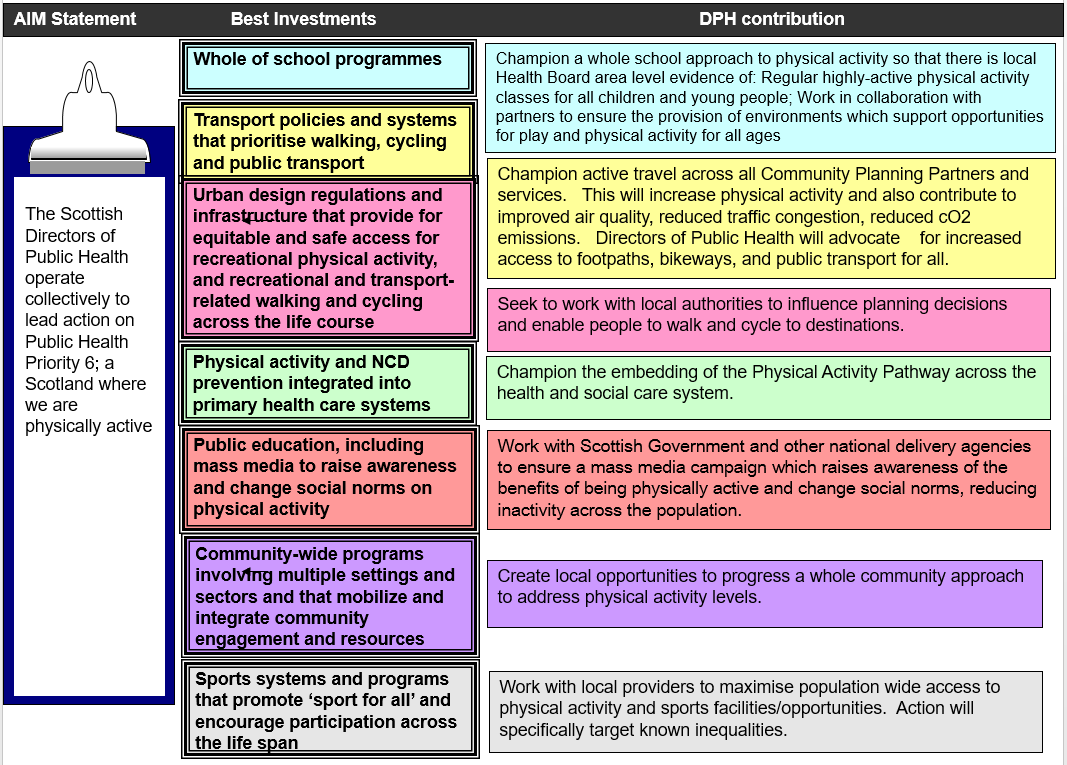
**Physical Activity and Public Health –**

**Public Health Priority 6**

**DRAFT**

**A Delivery Plan from the Scottish Directors of Public Health and Scottish Health Promotion Managers**

**SDsPH Public Health Priority 6: Physical Activity Driver Diagram**



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1. Situation
   1. The Scottish Government and COSLA have embarked on an ambitious programme of [public health reform](https://publichealthreform.scot/) advocating a whole system approach to improve population health and reduce health inequalities. As part of this programme, a set of [Public Health Priorities for Scotland](http://www.gov.scot/Resource/0053/00536757.pdf) was published in June 2018[[1]](#endnote-1). The public health value of physical activity features directly within Public Health Priority 6 and is a key element of all six priorities.
   2. This delivery plan sets out the contribution of the Scottish Directors of Public Health (SDsPH), Scottish Health Promotion Managers (SHPMs) and Public Health Scotland to a whole system approach to address physical activity levels across the population. The whole systems approach, supported by [Health in All Policies](https://www.who.int/healthpromotion/frameworkforcountryaction/en/) (WHO 2014) and Public Health Scotland, will enable the multiple concurrent actions that are required to influence physical activity and its determinants at a national and local level. The paper focuses on aspects of physical activity where the most significant gains to population health can be achieved.
   3. Physical inactivity or low physical activity is the fourth leading risk factor for premature death from any cause in the UK, contributing to one in six deaths[[2]](#endnote-2). Reducing physical inactivity is recognised as a “best buy” in relation to the cost-effectiveness of interventions to prevent and control non-communicable diseases[[3]](#endnote-3), with even small increases in physical activity among the least active bringing health benefits[[4]](#endnote-4). The evidence base supporting the physical and mental health benefits of physical activity has grown significantly in recent years, with the publication of a number of evidence reviews[[5]](#endnote-5),[[6]](#endnote-6),[[7]](#endnote-7). In addition to its contribution to general health and wellbeing, physical activity, particularly walking and cycling, also contribute to multiple social, environmental and economic outcomes[[8]](#endnote-8),[[9]](#endnote-9),[[10]](#endnote-10). The evidence base of effective interventions to increase physical activity is similarly robust[[11]](#endnote-11).
   4. Despite the evidence, the [Global Action Plan on Physical Activity 2018-2030](http://apps.who.int/iris/bitstream/handle/10665/272722/9789241514187-eng.pdf) (WHO 2018) states that “Global progress to increase physical activity has been slow, largely due to lack of awareness and investment”. It refers to “the need for a whole-of society response to achieve a paradigm shift in both supporting and valuing all people being regularly active, according to ability and across the life course”[[12]](#endnote-12).

The [Global Action Plan on Physical Activity](http://apps.who.int/iris/bitstream/handle/10665/272722/9789241514187-eng.pdf) advocates a systems-based approach to increasing physical activity levels, through the four strategic objectives of creating active societies; active environments; active people and active systems. This integrates physical activity into the settings where people live, work and play and combines upstream policy and legislative actions related to the social, cultural, economic and environmental factors that support physical activity with community and individually focused approaches.

* 1. The UK [CMOs Physical Activity Guidelines](https://www.gov.uk/government/publications/physical-activity-guidelines-uk-chief-medical-officers-report) (Dept of Health and Social Care, 2019) set the minimum recommendations of physical activity for good health[[13]](#endnote-13).
  2. The Scottish Government published its first physical activity strategy, Let's Make Scotland More Active: A strategy for physical activity, in 2003. However major gains in population physical activity levels are still to be realised. Significant challenges exist including an ageing population, an increasingly sedentary working environment, technological advances, changes in transport systems and the resource required for infrastructure development and behaviour change. NHS funding in particular is challenged by the increasing demands of the ageing population[[14]](#endnote-14),[[15]](#endnote-15).

[The Health and Social Care Delivery Plan](https://www.gov.scot/publications/health-social-care-delivery-plan/) (Scottish Government, 2016), provides the blue print for transformational change across NHS Scotland and recognises the role of physical activity in supporting people to live longer, healthier and independent lives.

* 1. Being healthy and active is one of 11 national outcomes within the revised [National Performance Framework](http://nationalperformance.gov.scot/), with four relevant national indicators:
* Access to Greenspace
* Increase in physical activity
* Increase people’s use of Scotland’s outdoors
* Increase the proportion of journeys made to work by public or active travel

The Active Scotland Outcomes Framework (Scottish Government, 2014) describes the six key outcomes for sport and physical activity in Scotland.

* 1. [A More Active Scotland: Scotland’s Physical Activity Delivery Plan](https://beta.gov.scot/publications/active-scotland-delivery-plan/) (ASDP) (Scottish Government, 2018) identifies the actions by which people in Scotland will become more active more often. The ASDP is built on the principles of the WHO Global Action Plan for Physical Activity and advocates a rights-based, life-course approach, with specific mention of the [United Nations Convention on the Rights of the Child.](https://www.unicef.org.uk/what-we-do/un-convention-child-rights/) It focuses on equity and reducing inequality, delivered through joined up policy, multi-sectoral partnerships and empowerment of individuals and communities.
  2. Other policy frameworks directly related to Public Health Priority 6 are [A Healthier Future – Scotland’s diet and healthy weight delivery plan](https://www.gov.scot/publications/healthier-future-scotlands-diet-healthy-weight-delivery-plan/) and [Framework for the Prevention, Early intervention and Early Detection of type 2 Diabetes](https://www.gov.scot/publications/healthier-future-framework-prevention-early-detection-early-intervention-type-2/) [Health and Social Care Delivery Plan](http://www.gov.scot/Resource/0051/00511950.pdf) (Scottish Government, 2018). However these are limited in the extent to which they reflect the true value and contribution of physical activity to health and wellbeing.
  3. The broader policy landscape influencing the determinants of physical activity is complex and currently does not consistently promote or prioritise active environments. These include policy and legislation in planning[[16]](#footnote-1), land reform[[17]](#footnote-2), climate change[[18]](#footnote-3),[[19]](#footnote-4), transport[[20]](#footnote-5),[[21]](#footnote-6), active travel[[22]](#footnote-7),[[23]](#footnote-8),[[24]](#footnote-9),, road use,[[25]](#footnote-10) and community empowerment[[26]](#footnote-11).
  4. Specifically for children and young people, relevant legislation and policies include those in early learning and care, education and play[[27]](#footnote-12),[[28]](#footnote-13),[[29]](#footnote-14).
  5. A recent review of the current Scottish Health and Social Care landscape to enable delivery on the public health priorities (unpublished) identified Public Health Priority 6 as the priority best placed in relation to staffing and resource allocation. However this refers to priority 6 as a whole and does not distinguish the resource dedicated to physical activity separately from that allocated to healthy weight.

1. Background
   1. Benefits of physical activity
      1. Play and physical activity support child well-being and contribute to physical, cognitive and social development[[30]](#endnote-16), mental well-being, learning and attainment[[31]](#endnote-17). Children are more active if their parents/ carers are also active[[32]](#endnote-18). Active play outdoors in greenspace, with its risks, enhances the benefits of play and physical activity[[33]](#endnote-19) and is associated with less screen time[[34]](#endnote-20).
      2. Physical activity, particularly walking and cycling, has multiple benefits in adults. It promotes health and wellbeing and contributes to the prevention and management of over 20 chronic conditions including coronary heart disease, type 2 diabetes, mental health problems and breast and colon cancer[[35]](#endnote-21),[[36]](#endnote-22),[[37]](#endnote-23),[[38]](#endnote-24).
      3. Physical activity promotes mental health and well-being, prevents mental health problems, and improves quality of life through reducing social isolation, improving self-esteem, mood and sleep quality, and by reducing anxiety[[39]](#endnote-25),[[40]](#endnote-26). Physical activity can also reduce the risk of dementia and Alzheimer’s disease[[41]](#endnote-27). The evidence supporting its impact on depression is particularly strong in relation to both reduction of risk[[42]](#endnote-28) and treatment[[43]](#endnote-29) and there is a positive association between physical activity and reduced risk of suicide ideation[[44]](#endnote-30).
      4. Recent evidence suggests for adults, sedentary behaviour is associated with all-cause and cardiovascular mortality, and risk and survival from cancer, with prolonged sitting being harmful even in those who meet recommended physical activity levels[[45]](#endnote-31). In children, sedentary behaviour is associated with cardiovascular fitness and obesityibid.
      5. Participation in physical activity supports other lifestyle changes including smoking cessation[[46]](#endnote-32) and there is developing evidence highlighting the positive impact of physical activity when seeking to address substance misuse (alcohol, drugs and smoking)[[47]](#endnote-33).
      6. The evidence base on the connections between adequate access to green and natural spaces and health and wellbeing is growing and includes positive associations with physical activity, mental health and stress reduction, social cohesion and, specifically in children, with cognitive development[[48]](#endnote-34). There are differential health benefits linked to adequate greenspace access in specified population groups**[[49]](#endnote-35)**. Additional benefits include the promotion of social ties in older adults and health benefits in adulthood as a consequence of access to greenspace in children ibid. The health benefits from greenspace access may be strongest among the lowest socioeconomic groups, including minority ethnic groups ibid.
      7. Active travel has a positive impact on both individual and population health and wellbeing, including physical and mental wellbeing, social cohesion and the environment[[50]](#endnote-36). While the quality of evidence is variable, the direction of travel suggests that positive changes in the physical environment and to public transport increase physical activity[[51]](#endnote-37).

* 1. The economics of physical inactivity and activity
     1. Physical inactivity impacts negatively on the health and wellbeing of individuals and communities, in turn placing financial strain on health and social care services. In developed countries, it accounts for 1.5% –3.0% of total direct healthcare costs[[52]](#endnote-38). In Scotland, it has been estimated to cost the NHS more than £77 million a year i.e. £14.60 per person[[53]](#endnote-39). These costs are associated with five non-communicable diseases for which a physical activity Population Attributable Fraction (PAF) exists (Coronary Heart Disease, diabetes, stroke, colo-rectal and breast cancer) and do not include conditions such as hip fractures, dementia, mental health or obesity, thus underestimating the real direct and indirect economic cost of inactivity including the cost of absenteeism.
     2. Long-term conditions are more prevalent in older people and in more deprived groups[[54]](#endnote-40),[[55]](#endnote-41) and in England, these are estimated to account for £7 in every £10 of health care expenditure, 70% of hospital bed days and half of all GP appointments[[56]](#endnote-42). In Scotland, in 2017, 45% of adults aged 16 and over reported living with long-term conditions[[57]](#endnote-43), equating to approximately 2 million people[[58]](#endnote-44).
     3. There is a growing body of evidence that investing in a physical infrastructure that supports physical activity through improving streets, places and walkability generates economic activity and has benefits for the local economy[[59]](#endnote-45).
  2. Prevalence of physical activity
     1. There are differences in the physical activity levels of adults according to age, gender and socio-economic status. In 2017, 65% of adults met the guidelines for Moderate or Vigorous Physical Activity (MVPA), compared with 62% in 2012[[60]](#endnote-46). However men are more active than women and for longer, and MVPA reduces with age, while conversely, very low levels of physical activity increase with age ibid. Those living in areas of higher social deprivation are less likely to meet MVPA guidelines ibid. Walking is an important contributor to reducing inequalities in physical activity across population sub-groups. When walking participation is not included in sports and exercise participation figures, inequalities between groups are wider[[61]](#endnote-47).
     2. Differences are also apparent in the levels of physical activity in children and young people in relation to age, gender and socio economic status. In 2016, 45% of children age 2-12 years participated in active play for at least 30 minutes or more every day of the week, however this falls from 63% of children aged 2-4 yrs to 28% of those aged 11-12 yrs[[62]](#endnote-48). Although 98% of schools meet the target for PE provision[[63]](#endnote-49), only 33% of children aged 5-15 met the guideline of at least 60 minutes physical activity on each day of the previous week[[64]](#endnote-50). This declines with age, from 45% of 5-7 yr olds meeting the guidelines compared with only 18% of those between 13-15 years. A different approach to collecting these measurements was used in the 2017 survey so these estimates are not comparable with previous years. Although there is no significant variation by deprivation in physical activity levels for children aged 5-15, this is not the case for sport where in the least deprived quintile, 82% of children aged 2-15 participated in sport in the last week compared to 50% in the most deprived quintile ibid. Participation in sport was lowest for teenage girls (45% of those aged 13-15) ibid.
     3. Availability of data for physical activity levels among population sub-groups is variable[[65]](#endnote-51). While data are available for age, gender and socioeconomic status, there is a lack of data on participation related to ethnicity, sexual orientation, pregnancy, religion and disability ibid. Those data that are available suggest that those at risk of being physically inactive include the elderly, those with limiting conditions or disabilities, those with lower socio-economic status, teenage girls and women of Asian origin ibid.
     4. Ill health and disability has an impact on participation, with 40% of individuals with a long term limiting health condition being physically active, compared to 89% of those with no condition[[66]](#endnote-52). However disability and long term health conditions are combined as a single response in the Scottish Health Survey[[67]](#endnote-53), limiting understanding of the impact on different population groups. Other sources indicate that disabled people are half as likely to be physical active as non-disabled people[[68]](#endnote-54). Very limited data on people with learning disabilities suggest many have very low physical activity levels[[69]](#endnote-55).
  3. Environmental factors
     1. Access to services (including leisure services) has been identified by the Equalities and Human Rights Commission (EHRC) as one of seven significant inequalities in Scotland[[70]](#endnote-56). Satisfaction is related to levels of use of leisure services, with increased use being associated with increased satisfaction ibid. There are particular issues with use and satisfaction amongst disabled people, those aged over 60 years, ethnic minorities, people identifying with non-Christian religions, LGBT groups and people on low incomes ibid.
     2. Factors influencing use of greenspace include ease of access and proximity. In Scotland in 2017, most adults (65%) live within a five minute walk of their nearest area of greenspace, with those living closest being more likely to use it more frequently[[71]](#endnote-57). Those living furthest away (at least 11 mins walk) are twice as likely not to use greenspace as those living within 5 mins walk ibid. Just over half of adults (52%) visited the outdoors at least weekly, however this is socially patterned in relation to both use and proximity ibid. Adults living in the most deprived areas are less likely to have made any visits to the outdoors in the past twelve months (20%) compared to those in the least deprived areas (6%) and a greater proportion of adults in deprived areas live at least an 11 minute walk away from their nearest greenspace (18%) compared to those in the least deprived areas (12%) ibid.

* + 1. As well as its contribution to physical activity levels, active travel can contribute to reductions in air pollution and to addressing transport poverty. However in 2017, only 30.1% of journeys to work were by public or active travel, with 12% walking and 3% by bicycle[[72]](#endnote-58), while 49% of children travelled actively to school, 42% by walking[[73]](#endnote-59). In Scotland, 61% (810) of the data zones with potentially high risk of transport poverty are areas where services can be accessed by cycle within 10 minutes[[74]](#endnote-60). However access to bikes is socially patterned: only 16% of households with an income up to £10,000 have access to one or more bikes, compared with 60% of households with an income of £40,000 or more[[75]](#endnote-61).
  1. Physical Activity – what works?
     1. The most significant health gains will be achieved by targeting those who are least active[[76]](#endnote-62). Determinants of physical activity and inactivity include family context, societal values, traditions, and economic and physical environments as well as individual characteristics, knowledge and personal preferences[[77]](#endnote-63). Social, economic and environmental determinants of physical activity shape the equity of opportunities for physical activity that contribute to reducing inequalities in physical activity, health status and well-being[[78]](#endnote-64).
     2. The UK [CMO Physical Activity Guidelines](https://www.gov.uk/government/publications/physical-activity-guidelines-uk-chief-medical-officers-report) (Dept of Health and Social Care, 2019) stress the importance of adapting physical activity to the needs of people at different life stages, including during pregnancy and post-partum and for disabled adults[[79]](#endnote-65), with periods of transition associated with reductions in participation in physical activity[[80]](#endnote-66). Updated guidelines suggest a pragmatic approach to achieving the recommended levels of physical activity and emphasise the need for all age groups to participate in a range of activities including strength and flexibility, with balance exercises being particularly important in older adults.
     3. [Non-communicable disease prevention: Investments that Work for Physical Activity](http://www.globalpa.org.uk/investments/) (ISPAH, Global Advocacy for Physical Activity April 2014) identifies the seven best investments for physical activity that are supported by evidence of effectiveness.

1. **Communication and public information** – consistent public education, including use of mass and social media
2. **Transport and the environment** – transport policies and systems that prioritise walking, cycling and public transport
3. **Urban design and infrastructure** – provide safe and equitable access for recreation and physical activity
4. **Healthcare** – ensure assessment and advice about physical activity is a routine part of healthcare service
5. **Education** – make regular physical activity in schools and places of learning normal
6. **Community-wide programs** – work with communities to provide appropriate local solutions, aiming to mobilise large number of people
7. **Sport for All** - Sport systems and programs that promote “sport for all” and encourage participation across the life span
8. Assessment of the physical activity landscape in Scotland

Achieving population level change in physical activity levels in an equitable way requires improved co-ordination of action at national and local level across different sectors and settings. Adopting a whole system approach is therefore vital.

In order to address unequal outcomes that result from physical inactivity, and ensure all parts of the population benefit from public investment, population-based policy with a focus on creating environments that support physical activity should be prioritised but linked to improvements at scale in access to services and facilities, taking account of the needs of those least active and at greatest risk of poor health outcomes. Walking is especially important for both its contribution to health outcomes, in particular for those in areas of highest social deprivation, and also for the environmental co-benefits.

At local level, active environments and the provision of services and facilities supporting physical activity are primarily the responsibility of local authorities, planning authorities and communities, therefore much of the improvement in physical activity levels will be delivered by partners in community planning, through community planning structures and within communities themselves.

As outlined in the [Investments that work for physical activity](http://www.globalpa.org.uk/pdf/investments-work.pdf), investment in seven areas, if at sufficient scale, will increase population levels of physical activity.

* 1. Whole of school programmes
     1. Delivery of physical activity is supported within the education setting through local authority Quality Improvement Officers in Health and Wellbeing. However changes of remit and resourcing have led to inequity of allocation across local authority areas.
     2. Within Curriculum for Excellence, experiences and outcomes on physical education, physical activity and sport are incorporated in Health and Wellbeing curricular area, underpinned by benchmarks setting out what children and young people need to know and be able to do at each level of the curriculum.
     3. Physical Education should inspire children to be more active more often and find physical activity and sport pathways that led to life-long engagement. The Scottish Government expects schools to provide at least two hours/two periods of good quality physical education for every child, every week.
     4. A number of school-based programmes such as i-bike, bikeability and WOW, promoting active travel and cycling confidence, are delivered through third sector organisations. However individual local authorities and schools decide on children’s learning and experience based on local needs, so programmes are not delivered across all schools in Scotland.
     5. The Daily Mile is similarly an opt-in whole school programme. The “Daily Mile Nation” receives corporate sponsorship and concerns have been raised in implementation about fidelity to the original intervention.
     6. The increase in Early Learning and Care hours has a strong focus on play and children experiencing learning outdoors, increasing opportunities for active, outdoor play.
     7. The Active School Programme supported by sportscotland, is in place across the majority of local authority areas. However budget constraints have resulted in local authorities reviewing Active School co-ordinator posts, which are provided through a match-funding model. The programme delivers sport and physical activity opportunities before school, during lunchtime and after school, establishing pathways between schools and sports clubs in the local community. Subsequent uptake of such opportunities is dependent on the financial, physical and cognitive barriers experienced by individual families. The active school programme does not include children of early learning and care age, although there is occasional local variation.
     8. The school estate is not just for formal sport provision. Local examples exist of it being used as a community asset, accessed out-with school hours, with half of all community sports hubs being situated in the school estate.
  2. Transport policies and systems that prioritise walking, cycling and public transport
     1. The most recent Scottish Government planning and transport legislation, frameworks and strategies coupled with a commitment to investment in active travel provide an opportunity to integrate walking, cycling and public transport more effectively.
     2. Active travel is one of the themes in The Strategic Transport Project Review and within the National Transport Strategy 2 consultation document, the Sustainable Travel Hierarchy, which prioritises walking and cycling, is embedded in decision-making to inform development planning, management and budget allocation[[81]](#endnote-67).

* + 1. The [Active Travel Taskforce Delivery Plan](https://www.transport.gov.scot/active-travel/developing-an-active-nation/)[[82]](#endnote-68) and associated walking[[83]](#endnote-69),[[84]](#endnote-70) and cycling action plans[[85]](#endnote-71) outline specific interventions. However there is no requirement on named organisations to deliver on their commitments, and separate plans for different strands contributes to a cluttered active travel landscape. The changing policy landscape provides an opportunity for this to be better co-ordinated.
    2. Collectively, these mechanisms should contribute to a whole system approach to place making at local level, which will involve communities and provide more robust governance of delivery partners and local authorities. However despite strategic intent, the impact will be determined by regional and local interpretation and implementation.

* + 1. The commitment to active travel funding is for the life-time of this parliament only and is not an on-going agreed percentage of the transport budget. Direct Scottish Government funding in active travel does not reflect equivalent funding in other European countries where active travel is better integrated. The requirement for match-funding at local area level may result in unequal delivery of active travel infrastructure.
    2. Local NHS Boards and Integrated Joint Boards have a role in promoting active travel both internally and in local communities. The forthcoming NHS Scotland Sustainability Strategy includes a transport and active travel theme that will support the development of local NHS Health Board active travel plans and contribute to and be part of reporting on the Scottish Greenhouse Gas emissions reductions targets under wider influences, as required by the Scottish Public Bodies Climate Change Reporting.
  1. Urban design regulations and infrastructure that provide for equitable and safe access for recreational physical activity, and recreational and transport-related walking and cycling across the life course
     1. Opportunities to influence the development of a more active infrastructure come firstly through the expectation that the national and local Public Health workforce will work with partners on the new Public Health Priorities as they relate to community planning across Scotland[[86]](#endnote-72) and secondly through the Planning (Scotland) Act 2019[[87]](#endnote-73). Within the National Planning Framework, consideration of population health needs and the health impact of proposed developments will be required, while Local Development Plans should take account of population health and health needs. This provides an opportunity to include physical activity as part of the population health needs assessment and also to interrogate the impact of developments on the active environment and physical activity opportunities.
     2. The Planning Act also requires planning authorities to produce open space strategies, including green networks, offering the potential to connect with the active travel infrastructure. However a clearer understanding of quality of greenspaces and greenspace access is required, along with its relationship to social deprivation.
     3. Planning authorities must also conduct a play sufficiency assessment when preparing the evidence reports for local development plans. This supports the Scottish Government Play Strategy review in relation to active environments and safe outdoor spaces that facilitate active play. However its link to the open space strategy development is still to be established.
     4. Additional measures are required to develop a more strategic approach to increasing accessibility of streets and public spaces[. Designing Streets: A Policy Statement for Scotland](https://www2.gov.scot/Publications/2010/03/22120652/12) (Scottish Government, 2010), currently being updated, identified “easy to move around” as one of the six qualities of successful places, however this is not a statutory document. Neighbourhood level interventions leading to road closure (permanent or temporary) that facilitate access to schools, community events and street play are limited by complicated road closure processes that may have costs attached. Lack of Scottish Government support for The Restricted Roads (20 mph Speed Limit) (Scotland) Bill means this will need to be addressed at local authority level.
     5. Development and maintenance of greenspace is not consistently prioritised within the NHS. NHS Scotland’s Property and Asset Management Strategy (PAMS) does not refer to the NHS estate as a health promoting asset for staff, patients, visitors or the local community and opportunities to create and maintain access and utilisation of greenspace, walkability or active travel infrastructure are missed. NHS Greenspace for Health demonstration projects demonstrate good practice within most health board areas, however the approach is not integrated into to all new build and redesign of NHS estates. The NHS Lothian Greenspace and Health Strategic Framework adopts a system wide approach to greenspace and active travel across the NHS estate.
     6. Both the forthcoming NHS Sustainability Strategy and the Planning (Scotland) Act 2019 provide opportunities to integrate the NHS Estate more effectively as a community greenspace asset.
  2. Physical activity and Non-Communicable Disease prevention integrated into primary health care systems
     1. The Health and Social Care Delivery Plan commits to addressing inequalities in physical activity across Scotland, with a requirement to refocus resources. However rapid progress is required to improve equity of access to the programmes and services that support physical activity. Service improvement work and Healthcare Improvement Scotland’s Improvement Hub (ihub) have a role in supporting this.
     2. A number of opportunities exist to integrate physical activity in clinical and social care. The Scottish Government National Falls Strategy is an opportunity to link the contribution of physical activity to wellbeing in older people, with Care Inspectorate Care About Physical Activity (CAPA) Improvement Programme and Scottish Government Active Independent Living Improvement Programme (AILIP) providing examples of good practice. However funding of these programmes is time-limited and if not addressed may not allow the time required for upscaling and sustainability.
     3. The National Physical Activity Pathway supports healthcare professionals to encourage the people in their care to be more active and to link to community–based physical activity programmes. This has not been funded centrally and primary and secondary care implementation is inconsistent across Health Board areas. Community Link Worker posts have the potential through social prescribing to improve signposting in primary care however a change in focus means these posts are no longer directly aligned to areas of highest social deprivation.
     4. A review of exercise referral programmes across Scotland has highlighted inconsistencies in quality and provision and work is ongoing to identify the core components of a quality assurance framework. There are many examples of effective local delivery addressing equity of access but without resource to upscale these.
     5. The prescribing movement resources in Moving Medicine will increase professional confidence in recommending physical activity for adults with long-term conditions. Health Scotland and sportscotland are collaborating with Faculty of Sport and Exercise Medicine to develop a similar resource for children and young people.
     6. The Universal Health Visiting Pathway offers 12 contact points with parents and carers from pre-birth to pre-school, providing opportunities to help families understand the importance of active play, the development of fundamental movement skills, and the parental role in supporting this.
     7. The Best Start: five-year plan for maternity and neonatal care recommends that NHS Boards should promote and improve early access to high quality antenatal education. The core syllabus to support education for pregnancy, birth and early parenthood includes specific and practical advice about being physically active during and after pregnancy.
  3. Public education, including mass media to raise awareness and change social norms on physical activity
     1. The benefits of physical activity and cost of physical inactivity seems relatively undervalued in Scotland. Messages about physical activity are less well represented than other actions that promote and protect health, while local financial and workforce investment in physical activity and its determinants is variable. There is an ongoing requirement to make the case for the importance of physical activity and the factors that determine it.
     2. Creation of an active society requires challenging existing social norms and beliefs about physical activity and the value placed by society on its contribution to wellbeing across the life-course, regardless of ability. It also requires creating the necessary environments.
     3. There is a gap in social marketing promoting physical activity, green exercise and outdoor play in Scotland. The current Scottish Government proposals to include physical activity within a social marketing campaign emphasising mental health and wellbeing supports this. However this will not specifically address some of the population sub-groups most likely to be physically inactive.
     4. Communication of changes to the updated CMO guidelines on physical activity provides an opportunity but this will require co-ordination nationally and locally to develop consistent, relevant and targeted messages for the public. There is a potential negative impact of mass communication on health inequalities without additional local support. Working through education and community and leisure trusts offers an opportunity to adopt a more systematic approach to messaging across the public sector.
     5. The forthcoming Scottish Government proposals to enshrine the United National Convention on the Rights of the Child within Scottish Law, (Article 31 being the Right to Play), and Scotland’s Outdoor Play & Learning Coalition Position Statement provide robust messages around the importance of active play. However to ensure children and young people have opportunities to play freely outdoors, there is a need to change societal understanding of its importance, including the provision of safe, unsegregated outdoor spaces and risk-taking.
     6. There is a need for more consistent messaging around the environmental factors including transport and planning that determine physical activity levels and its wider contribution to sustainability and climate change. This provides an opportunity to identify shared agendas and shared outcomes across community planning partners.
     7. Existing attitudes to transport and the car culture undermine active travel. This is relevant for politicians and policy makers at national and local level, within professional groups responsible for infrastructure and service development and delivery and within communities themselves. There is a need for an expert voice on the health benefits of investing in active environments, and in supporting actions that may be politically and locally unpopular.
  4. Community-wide programs involving multiple settings and sectors and that mobilize and integrate community engagement and resources
     1. A whole system approach to physical activity at local level provides a framework for a place-based approach to physical activity with Community Planning Partnerships having a role in bringing partners together.

* + 1. The Community Empowerment (Scotland) Act 2015 provides local communities with the ability to influence locality planning, however local policies that promote active environments can be contentious and may not be supported within those communities. The Place Standard tool and Place Standard leads within each local authority area provide an opportunity for community engagement in the planning, design and review of active environments. The Planning (Scotland) Act 2019 includes the requirement for children and young people to be involved in the development of Local Development Plans, which will be supported by the forthcoming Place Standard tool for children and young people.
    2. Examples such as the community sports hub model, bringing sport and community organisations together, provide a practical example of integrating physical activity and sport into community development, while ‘Changing Lives Through Sport’ approach uses sport and physical activity as a tool to achieve both increased participation and wider social outcomes.
    3. Our Natural Health Service demonstrates how green exercise and access to the natural environment helps to tackle physical inactivity within communities. The Greening the NHS Estate demonstration projects show how the NHS estate can be used as a community asset for staff, patients and the community. Similarly, opening access to the school estate provides an additional community resource. The Green Health Partnerships broaden this approach, working across health, local authority and communities to maximise the contribution of the natural environment to wellbeing.
    4. Within the workplace, the recent review of the Healthy Working Lives Award provides an opportunity to support employers to embed physical activity and active travel and to address transport poverty.
    5. Community Health Exchange (CHEX) supports and promotes community development approaches to improving people's health, providing networking for community groups with common interests including physical activity.
  1. Sports systems and programs that promote ‘sport for all’ and encourage participation across the life span.
     1. Sport for Life, the new sportscotland corporate strategy, promotes a sport for all system, underpinned by participation and inclusion. However there is a tension between the development of accessible and inclusive services for those in the least active population sub-groups and delivering population level changes in physical activity levels.
     2. The majority of investment provided by sportscotland utilises a partnership approach with local authorities and sport governing bodies, with 90% of investment in public sector being delivered through local authority provision, either via the education sector or through culture and leisure services. Similarly, the majority of the sporting estate in Scotland is owned or under the control of local authorities.
     3. Across local authority areas, culture and leisure services are provided through different delivery models, the majority being delivered through Arm’s Length External Organisations (ALEOs). This has potential consequences for participation and equality of access if the cost of accessing services has or does increase, with the role of community sports hubs within the school estate being more important in ensuring financial accessibility.
     4. Inclusion of such ALEOs in Community Planning Partnerships is variable and involvement of ALEOs offers the opportunity to increase the momentum around physical activity.
     5. Engagement with Community Leisure UK – Scotland, whose members provide the majority of Scotland’s publicly funded leisure and cultural facilities, offers an opportunity for further sharing of effective practice across LA areas.

* 1. Active Systems to support delivery
     1. Creating the systems to support improvements in physical activity levels requires a co-ordinated approach to leadership and advocacy, to the development of the workforce and the development of effective information and governance systems, alongside appropriate levels of funding.
     2. The public health reform whole systems approach requirement to establish consistent strategic connections between all relevant government departments and policies is at an early stage. The Active Scotland Delivery Plan has an established infrastructure for national delivery and governance and links to the public health reform work should be strengthened. The “early adopter” model offers an opportunity to explore barriers and facilitators of a locally based whole system approach but would require appropriate resourcing.
     3. Building on the Active Scotland Outcome Framework, development of intermediate outcomes are required to translate national policy into coherent and consistent local policy, implementation and governance.
     4. At local level, physical activity and its environmental determinants are frequently not prioritised and are consequently under-represented in Local Outcome Implementation Plans, Locality Plans and Health and Social Care Delivery Plans. The existing national infrastructure does not provide levers that enable influence at local level and local governance systems are needed to demonstrate progress.
     5. The leadership for improvement approach to physical activity adopted in Dumfries and Galloway is an example of how to secure senior leadership across the local authority and NHS Board area.
     6. To support a Health in All Policies approach, there is a need to address the different understanding of hierarchy of evidence of community planning partners. This includes providing evidence of both the health and wellbeing and health economic impact of physical activity interventions and the impact of local planning, transport and active travel decisions on physical activity levels.
     7. A national monitoring system is in place to support the Active Scotland outcome framework, however there are limitations associated with survey data. The Active Scotland Outcome Indicator: Local Authority Analysis is drawn from national surveys and there are gaps in national survey data on some population sub-groups who are identified as “at risk” in relation to physical activity levels.
     8. Lack of local data, of a common core data set and of agreed local monitoring systems limits understanding and may impact on effective action on inequalities in this area. ISD Local Intelligence Support Teams (LIST) is a local resource that could support work in this area. Good practice exists in other home countries such as [Public Health England Physical Activity Tool](https://fingertips.phe.org.uk/profile/physical-activity) linking physical activity data directly with local data on health and wellbeing outcomes[[88]](#endnote-74).
     9. There is a need to influence investment in physical activity within the health and social care setting and the financial contribution of community planning partners. Funding for physical activity interventions within Health and Social Care Services varies across Integration Joint Boards. This is in part because there is no dedicated funding specifically within the Effective Prevention Funding of the NHS Board Outcome Framework Funding to support the implementation of physical activity interventions. Within Local Authorities, current financial constraints have led to variation in physical activity service provision between areas, with some funding for commissioned services being reduced. Best Investments for Physical Activity in Dumfries and Galloway provides an example of a local approach to assessing existing provision[[89]](#endnote-75). Available tools to inform local decision-making include Health Inequalities Impact Assessment tool, and the WHO Health Economic Assessment Tool (HEAT) for walking and cycling.
     10. Much local activity supports increased levels of physical activity but there are few opportunities for communication across health boards and local authority areas, potentially undermining the ability to upscale effective approaches and interventions. Given the diverse professional groups involved in creating an active society, there is a need to share the learning of “what works” in practice. The role of existing communication channels such as Actify and the Physical Activity and Health Alliance require clarification.
     11. The emphasis in the Active Scotland Delivery Plan on developing workforce skills and capacity and update to the CMO physical activity guidelines is an opportunity to improve consistent integration of active play, physical activity and understanding of physical literacy within preparation and continuing professional development programmes of relevant health and social care, education and culture and leisure service professionals.
     12. The ongoing work on the wider public health workforce as part of the public health review provides an opportunity to build capacity in professional groups involved in the design of active environments and greenspace, such as engineering, architecture, transport and urban planning. This includes those employed within NHS and Social Care Estates.
     13. There is a need to continue to develop the body of evidence on effective interventions to increase physical activity levels. These include the impact of technological advances and increasing automation on physical activity and sedentary behaviour and the effectiveness of fiscal instruments to promote physical activity as a way of life.

1. Recommendations
   1. National Governance and Leadership
      1. The Active Scotland Development Group should lead the construction of a Scottish system map for physical activity and work with key stakeholders to progress a whole system approach to increasing physical activity levels in Scotland
      2. The Active Scotland Development group should adopt a simple logic model for Scotland which incorporates the four strategic objectives outlined in the Global Action Plan for Physical Activity, the six Active Scotland Outcomes and the seven best investments for physical activity (an example is given in Appendix 1).
      3. Using the simple logic model the Active Scotland Development Group should identify the specific contribution required from each of the main stakeholders (i.e. the inputs - see local governance and leadership below) to deliver the seven best investments and identify a lead agency for each of the seven investments to coordinate activity and report on progress.
      4. These lead agencies should then form the core membership of the Active Scotland Delivery Group.
   2. Local Governance and Leadership
      1. Each of the seven best investments will require a wide and varied mix of stakeholders to work together to have the impact required. Directors of Public Health and Health Promotion Managers/Heads of Health Improvement will provide a critical local leadership role for physical activity through Community Planning Partnerships, Integrated Joint Health and Social Care Boards and partnership working with national agencies and third sector organisations by overseeing a whole system approach to physical activity aligned to Scotland’s Public Health Priorities. The following identify the recommended contribution of the Scottish Directors of Public Health (SDPH) and the Scottish Health Promotion Managers.
2. SDPH & SHPM Contribution to the Seven Best Investments
   1. Whole of school programmes
      1. Each of the seven best investments will require a wide and varied mix of stakeholders to work together to have the impact required. The following identify the recommended contribution of the Scottish Directors of Public Health (SDPH). Schools can provide physical activity for the large majority of children and are an important setting for programs to help students develop the knowledge, skills and habits for life-long healthy and active living. A ‘whole of school’ approach to physical activity involves prioritizing: regular, highly-active, physical education classes; providing suitable physical environments and resources to support structured and unstructured physical activity throughout the day (e.g., play and recreation before, during and after school); supporting walk/cycle-to school programs and enabling all of these actions through supportive school policy and engaging staff, students, parents and the wider community.

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| **Stakeholder** | **Potential Contribution** |
| DPHs | Champion a whole school approach to physical activity so that there is local Health Board area level evidence of:   * Regular highly-active physical activity classes for all children and young people * Work in collaboration with partners to ensure the provision of environments which support opportunities for play and physical activity for all ages |
| SHPM | Develop and support curricular and non-curricular whole school and community embedded interventions and programmes that promote and engage children and young people to be physically active. These programmes will address: active and safe travel to school, and support schools and the community to easily access opportunities for physical activity that are affordable and embedded in the environment and rhythm of the school community. *Ensure some dedicated health improvement support and funding to provide and support these ambitions.* |

* 1. Transport policies and systems that prioritise walking, cycling and public transport
     1. ‘Active transport’ is the most practical and sustainable way to increase physical activity on a daily basis; and increased active transport will achieve co-benefits such as improved air quality, reduced traffic congestion, and reduced CO2 emissions. Increasing active transport requires the development and implementation of policies influencing land use and access to footpaths, bikeways and public transport, in combination with effective promotional programs to encourage and support walking, cycling and use of public transport (e.g. trains, trams and buses) for travel purposes. This combination of strategies can shift mode choice away from personal motorised vehicles and increase physical activity.

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| **Stakeholder** | **Potential Contribution** |
| DPHs | Champion active travel across all NHS facilities and services. This will increase physical activity and also contribute to improved air quality, reduced traffic congestion, reduced cO2 emissions. Directors of Public Health will advocate for increased access to footpaths, bikeways, and public transport for all. |
| SHPM | Promote and support the principles and benefits of active travel both within the NHS structures but also to the wider Community Planning Partners by ensuring that it features as a target in the Community Plan (LOIP) and other local partnership plans. Provide local support to facilitate active travel to key partnership meetings and venues. Ensure that it links to other key partners ambitions around the wider requirements for CO2 reduction and reduced traffic congestion. *Ensure some dedicated health improvement support and funding to provide and support these ambitions.* |

* 1. Urban design regulations and infrastructure that provide for equitable and safe access for recreational physical activity, and recreational and transport-related walking and cycling across the life course
     1. The built environment provides opportunities for or barriers to safe, accessible places for people to be involved in recreation, exercise, sports, walking and cycling. National, regional, and local urban planning and design regulations should require mixed-use zoning that places shops, services, and jobs near homes, as well as highly connected street networks that make it easy for people to walk and cycle to destinations. Access to public open space and green areas with appropriate recreation facilities for all age groups are needed to support active recreation. Complete networks of footpaths, bikeways, and public transit support both active travel and active recreation.

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| **Stakeholder** | **Potential Contribution** |
| DPHs | Seek to work with local authorities to influence planning decisions and enable people to walk and cycle to destinations. |
| SHPM | Actively support our local Greenspace Partnership Strategy and action plan with key partners to deliver on the ambitions of our Natural Health Service. Ensure that this features in key plans such as the LOIP and the Partnership Sustainability Plan. *Ensure some dedicated health improvement support and funding to provide and support these ambitions.* |

* 1. Physical activity and NCD prevention integrated into primary health care systems
     1. Doctors and health care professionals are important influencers of patient behaviour and key initiators of NCD prevention actions within the health care system and can influence large proportions of the population. Health care systems should include physical activity as an explicit element of regular behavioural risk factor screening for NCD prevention, patient education and referral. Positive messages about physical activity are important for primary and secondary prevention. Opportunities for NCD prevention should be integrated with communicable disease management systems, tailored to the context and resources available. The focus should be on practical brief advice and links to community-based supports for behaviour change. Most countries will require additional training of health professionals to build competencies in NCD prevention through behavioural risk factor modification and physical activity

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| **Stakeholder** | **Potential Contribution** |
| DPHs | Champion the embedding of the Physical Activity Pathway across the health and social care system. |
| SHPM | Use the target set within The Health and Social Care Delivery plan and local Strategic Commissioning plans to ensure traction in delivering that healthcare and community and care settings have physical activity as part of all care pathways in and out of acute and primary care. Ensure key funds and strategies are linked for synergy and best value to support this. Ensure that the funding for key outcomes such as healthy weight and type 2 diabetes are connected to achieve best value and delivery, and promote and support physical activity. *Ensure some dedicated health improvement support and funding to provide and support these ambitions.* |

* 1. Public education, including mass media to raise awareness and change social norms on physical activity
     1. Mass media provide an effective way to transmit consistent and clear messages about physical activity to large populations. In most countries, physical activity promotion is absent from mass media. Both paid and non-paid forms of media can be used to raise awareness, increase knowledge, shift community norms and values and motivate the population to be more active. Public education can involve print, audio and electronic media, outdoor billboards and posters, public relations, point of decision prompts, mass participation events, mass distribution of information as well as new media such as text messaging, social networking and other uses of the internet. Combinations of approaches, supported by community-based events and community engagement and which are sustained over time, are most effective in building health literacy and changing community values.

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| **Stakeholder** | **Potential Contribution** |
| DPHs | Work with Scottish Government and other national delivery agencies to ensure a mass media campaign which raises awareness of the benefits of being physically active and change social norms, reducing inactivity across the population. |
| SHPM | Work with PHS and the SG and also local and national communications leads to agree key simple messages around activities that support and promote health. At Local Board level ensure that there is a key link to the national timetable and messages to ensure synergy and timing to support local activity. *Ensure some dedicated health improvement support and funding to provide and support these ambitions.* |

* 1. Community-wide programs involving multiple settings and sectors and that mobilize and integrate community engagement and resources
     1. Whole-of-community approaches to physical activity across the life course will be more successful than a single program to increase population levels of physical activity. Using key settings, such as cities, local governments, schools and workplaces provides the opportunity to integrate policies, programs and public education aimed at encouraging physical activity. Whole-of-community approaches where people live, work and recreate have the opportunity to mobilize large numbers of people. There are good examples of success from high and middle income countries.

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| **Stakeholder** | **Potential Contribution** |
| DPHs | Create local opportunities to progress a whole community approach to address physical activity levels. |
| SHPM | Establish lead and support a local multi-agency partnership and strategy to support and promote a whole system approach to physical activity. This should be under the auspices of Community Planning and linked to the LOIP outcomes and also have a focus on inequalities. It could be the umbrella for the whole school work, active travel and the Greenspace action plans as a minimum. *Ensure some dedicated health improvement support and funding to provide and support these ambitions.* |

* 1. Sports systems and programs that promote ‘sport for all’ and encourage participation across the life span
     1. Sport is popular worldwide and increased participation in physical activity can be encouraged through implementation of community sport or ‘Sport for All’ policy and programs. Building on the universal appeal of sport, a comprehensive sport system should be implemented that includes the adaption of sports to provide a range of activities to match the interests of men and women, girls and boys of all ages, in addition to well-coordinated coaching and training opportunities. However, providing enjoyable physical activity needs to be an explicit priority of sports programs. Implementation should involve partnerships between International Sports Federations, National Olympic Committees and national/regional sporting organizations along with community-based clubs and other sports providers. The sport and fitness industries are large worldwide businesses and a potentially influential communication medium. Sports stars can act as role models and promote participation, but such promotional initiatives are not sufficient in themselves. Organizations can promote physical activity through supportive policies and programs that reduce social and financial barriers to access and participation, and increase motivation to be involved, including in individuals with mental or physical disabilities.

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| **Stakeholder** | **Potential Contribution** |
| DPHs | Work with local providers to maximise population wide access to physical activity and sports facilities/opportunities. Action will specifically target known inequalities. |
| SHPM | Ensure that in all our key interventions there is signposting and support for relevant and appropriate connections to sports hubs and the systems that support sport. Work with partners to support environments and access issues for those least able or likely to access sport such as those with disabilities or low income. *Ensure some dedicated health improvement support and funding to provide and support these ambitions.* |

Appendix 1. A simple PA logic model for Scotland

Active Scotland Indicators

Additional Indicators

National Performance Framework Indicators

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