House of Lords Select Committee on a National Plan for Sport and Recreation. ***Submission from the MRC Epidemiology Unit and Centre for Diet and Activity Research (CEDAR), University of Cambridge***

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The MRC Epidemiology Unit is a department at the University of Cambridge. It is working to improve the health of people in the UK and around the world through understanding obesity, type 2 diabetes and related metabolic disorders, and finding strategies for their prevention. www.mrc-epid.cam.ac.uk The **Centre for Diet and Activity Research (CEDAR)** is studying the population-level influences on what we eat and how much physical activity we do. We are developing and evaluating public health interventions, and helping shape public health practice and policy. www.cedar.iph.cam.ac.uk

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Executive Summary

- If the goal is to increase physical activity, there should be a holistic national plan for active lives, not a separate one for sport and recreation. Any national plan should learn from the many inquiries, strategies and reports that have attempted to create change in this area. It should involve wider environmental and structural causes, not just target individuals.
- Research evidence for available interventions to create active lives is now extensive and should be better incorporated. Adequate data collection and evaluation are also crucial.
- Physical activity has wide-ranging benefits for children, but less than half of children meet current guidelines. Interventions for children need to involve schools, communities and families.
- School-based interventions should better acknowledge and accommodate the complexity, diversity, and different stakeholder perspectives of the education system.
- Family-based interventions should be tailored to the context in which they are delivered, most notably the ethnicity, motivation and time constraints of the family.
- Providing disadvantaged children and young people with equal access to affordable opportunities to engage in organised opportunities for physical activity should be a priority.

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1. Should there be a national plan for sport and recreation?

1.1. The Committee's broad view of sport and recreation, and interest in all activities that support an active lifestyle are welcome. Much physical activity (or 'exercise') is not achieved through sport, and recommended levels can be met through other means. For example, the average work commute is 28 minutes each way. Many commuters could meet recommended activity levels if they walked or cycled for at least part of their journeys.[1] **There should, therefore, not be a national plan for sport and recreation, but rather one for physical activity or 'active lives' – of which sport would an important but not exclusionary part.**

1.2. This holistic approach been recognised by a range of national bodies with an interest in health, physical activity and active transport, and has been adopted by Sports bodies themselves. For example, Sport Scotland present their work as supporting people to be active, develop physical confidence, develop active infrastructure and supporting communities: https://sportscotland.org.uk/media/3510/asof-infographic-final.pdf. And Sport England have a specific active travel resource www.sportengland.org/know-your-audience/demographic-knowledge/active-travel

1.3. **Any national plan or strategy must be proposed in a way that is implementable and evaluable, and learns the lessons from multiple previous inquiries, strategies and policies to effect change in this areas.** In the related field of obesity, a recent studies shows that from 1992-2020, UK governments published 14 strategies containing 689 policies to tackle obesity, but have not yet successfully and consistently reduced obesity. Many proposed strategies were similar or exactly the same over multiple years, often with no reference to previous initiatives. Policies were largely not proposed in a way that could readily lead to effective implementation. The largest proportion of all policies (29%) did not fulfil any of the seven implementation viability criteria, compared to just 8% of policies that fulfilled all seven. 91% of policies were proposed with no cost or budget and 76% were proposed with no details of an evaluation or monitoring plan.[2]

1.4. **Any national plan or strategy must focus on population and infrastructural solutions as well as individual behaviour.** The above policy study found that policies have largely relied on individuals making behaviour changes rather than shaping external influences such as the physical environment, economy, community and so on. These are both less likely to be effective on a population level, and also are less effective in reducing inequalities. Influences on behaviour change are also context and behaviour specific – e.g. influences on walking to work differ from those on cycling to work or walking for leisure. Therefore, strategies that target only a single aspect are unlikely to be successful: multiple barriers often need to be removed to achieve substantive change, and strategies need to be sustained rather than short term 'projects'.

1.5. **Adequate data collection and evaluation are crucial to a successful plan.** The CMO-appointed UK Physical Activity Expert Committee for Surveillance is shortly to report on their findings as to whether measurement of physical activity is fit for purpose. The broad conclusions are that, despite limitations in the surveys, the Active Lives Surveys and Health Survey for England provide important information in population trends over time in their current form. Nevertheless, greater emphasis should be placed on adequate measurement and evaluation of specific interventions, with appropriate outcomes and measures. An example of good practice is provided by the Active Scotland Outcomes Framework www.gov.scot/policies/physical-activity-sport/. Scotland has developed 6 high level outcomes that would contribute to overall activity levels. Within these outcomes there are various indicators supported by annual data collection to track progress.

1.6. **Research evidence for available interventions to create active lives is now extensive** so not discussed at length here. Two recent resources are worth highlighting:

- Moving Matters – Interventions To Increase Physical Activity (NIHR) evidence.nihr.ac.uk/themedreview/moving-matters-interventions-to-increase-physical-activity/
- Eight Investments That Work for Physical Activity (ISPAH) www.ispah.org/resources/key-resources/8-investments/

1.7. The rest of this submission focuses on childhood sport and physical activity, but the MRC Epidemiology Unit and CEDAR have researched physical activity extensively across the life-course. We are happy to provide further written or oral evidence if required.

2. How can children and young people be encouraged to participate in sport and recreation both at school and outside school, and lead an active lifestyle?

2.1. Regular participation in a variety of forms of physical activity is important for all young people's mental and physical health, and has additional benefits for social and academic development. The UK CMOs recommend that children and adolescents aged 5-18 years accumulate an average of 60 minutes of moderate-to-vigorous physical activity per day. The UK government recommends that 30 minutes of this is achieved in school. Evidence from the Sport England Active Lives survey suggests that only 44.9% of young people met the overall guideline before the COVID-19

pandemic. Children become less active when they move into adolescence[3], and this decline is most rapid in the out-of-school period[4]. Efforts to increase physical activity (or prevent its decline), should target multiple physical and social environments important to children. This includes schools, but also after-school activities, communities, and families.

2.2. While it may not be possible to provide indoor educational activities in school **during lockdown, schools could prioritise sport and physical activities that can take place outside.** This would also provide social time for children who may be suffering from a lack of social contact with friends, with its associated risk to wellbeing. Once schools reopen, they may be given the opportunity to prioritise outdoor sport and physical activity opportunities to support young people's return to school and their health and wellbeing. Evidence collated by the Youth Sport Trust suggests that in September 2020 schools were largely restricting sport and physical activity opportunities, with less than 1 in 5 schools offering the same extracurricular provision as pre-COVID.[5] This may give rise to increasing inequalities, with anecdotal evidence suggesting a more limited impact on extracurricular provision in private schools.

3. Promoting physical activity in schools

3.1. Schools have been identified as ideal settings for physical activity promotion, and many research trials have been conducted over the past decades to identify effective school-based strategies. As indicated by Dame Prof Marteau in recent oral evidence to the committee[6], we reviewed the best available evidence on the effect of school-based physical activity interventions on young people's physical activity across the whole day.[7] We also recently completed the largest ever study of a secondary school-based physical activity intervention in the UK – the GoActive Study (www.mrc-epid.cam.ac.uk/research/studies/goactive/).[8]

3.2. **Despite the promise of schools being the ideal environment for influencing young people's health behaviours, the available evidence suggests current efforts are failing.** Across the literature review and the GoActive study, we found that well-designed programmes were ineffective in changing the amount of physical activity school children did across the day – compared to children in control schools. Breaking down the data, we found no evidence of effectiveness among girls or boys, or for children from different socioeconomic backgrounds.

3.3. One reason for the lack of effectiveness could be that the programmes may not have been implemented as intended in schools. Physical activity programmes often include many components and depend on a range of (already busy) school staff implementing them in a particular way. From the studies in the above review it was difficult to establish to what extent this happened. In the GoActive project we examined the extent of implementation and showed that few schools were implementing all components: more than 75% of students in the GoActive schools had either no or a very limited exposure to essential elements of the programme. This shows that **well-developed and promising programmes, co-designed with young people, fail due to challenges with effective implementation within the educational system**.

3.4. A variety of factors likely contributed to this low implementation: the complexity of the intervention and the ambiguity of the roles teachers and older mentors played within programme delivery; overall engagement of the students; a lack of institutional support (e.g. a lack of resources and facilities, competing school priorities, lack of senior leadership buy-in); and further school-level constraints (e.g. uniforms not suited to activity participation, staff turnover).[9] While schools might provide significant reach to adolescents, there are multiple other factors that create challenges – for example, competing priorities, resource and time constraints, teacher/student rapport, or school culture around physical activity. **For effective implementation, future school-based programmes should acknowledge and accommodate the complexity and diversity of the**

educational system. This should also include challenging the current value that is put on physical activity and sport within schools, the national curriculum and the wider educational system, including OFSTED.[10]

3.5. **Involvement of relevant stakeholders (including young people) in intervention identification and development is critical.** In the DHSC-funded Creating Active School Environments (CASE) project (www.mrc-epid.cam.ac.uk/research/studies/case/), we worked with a range of stakeholders to identify the most promising physical activity strategies to be implemented and evaluated in secondary schools. Stakeholders (including teachers and students) showed a consistent preference for introducing 'active lessons' in secondary schools, an approach only tested in primary schools to date.[11] Our subsequent pilot study showed that training teachers to deliver active lessons in secondary school is acceptable and feasible, and leads to a measurable change in teaching practice. However, there was a lack of preliminary evidence of effectiveness on adolescents' time spent sitting and levels of activity, suggesting that other approaches are needed.[12]

3.6. The CASE project also provided insight into what these key stakeholders considered the most important outcomes of physical activity promotion. Those looking to promote, deliver, and/or evaluate programmes to reduce sedentary time or increase physical activity in secondary schools should **emphasise the potential benefits to mental health and wellbeing in their efforts to engage schools and students**.

4. Promoting physical activity in families

4.1. There is anecdotal evidence that whole-family engagement in physical activity (particular walking and cycling for leisure) has increased during the COVID-9 pandemic. In an extensive review of the published evidence we have shown that family-based physical activity promotion is effective in increasing young people's activity levels, and that engagement in family-based physical activity benefits all family members' activity levels.[13] The combination of goal-setting and reinforcement appears particularly effective in changing young people's physical activity levels. Importantly, it also showed that **family-based interventions should be tailored to the context in which they are delivered, most notably the ethnicity, motivation and time constraints of the family.**

4.2. In addition, a novel finding was that **focusing an intervention on something other than physical activity for health or weight loss may also be a valuable approach.** Effective studies in this review highlighted spending time with family, developing movement skills or improving self-esteem rather than weight loss or other physical health indicators as desirable outcomes for intervention. The review also identified that, despite evidence that education was effective in changing physical activity knowledge, **education alone (e.g. studies providing mail-based information about physical activity) was insufficient in changing behaviour**.[13] This is important in the context of the UK Government's Change4Life campaign, which is largely information-based.

4.3. A recent UK example of a family-based physical activity promotion approach is the Families Reporting Every Step to Health (FRESH) programme.[14] www.mrc-epid.cam.ac.uk/research/studies/fresh/ In FRESH, we provided families with pedometers for all family members. Families also received access to the FRESH website, allowing participants to select step challenges to 'travel' to target cities around the world, log their steps, track progress and receive rewards as families virtually globetrot. This approach was shown to be engaging, acceptable and feasible for families. Although preliminary evaluation identified no evidence for effectiveness on children's physical activity levels, it did show preliminary evidence of impact on parents', and particular fathers', physical activity and weight.

5. Physical activity opportunities to support disadvantaged children and young people

5.1. When promoting increases in physical activity, it is important to recognise that physical activity is a complex behaviour, consisting of different types of activities undertaken in different settings and social circumstances (such as PE, sports participation, active commuting, leisure walking). Individual preferences, peer norms, available opportunities locally and logistical and financial resources all influence young people's activity choices.

5.2. We have shown in a large representative sample of UK children that, **although children of different socio-economic backgrounds engage in comparable levels of overall moderate-to-vigorous physical activity, this is made up of different activity intensities.**[15] Specifically, children from more advantaged backgrounds engage in relatively more vigorous intensity physical activity than those from more disadvantaged backgrounds. This suggests that children have different sources of activity, with children from more advantaged backgrounds likely to engage in more organised sports activities and children from more disadvantaged backgrounds engaging in more utilitarian or free play activities, probably due to unequal access and costs. This observation mirrors parallel inequalities in rates of childhood obesity in the UK. **Providing disadvantaged children and young people with equal access to affordable opportunities to engage in organised activities should therefore be a priority.**

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[6] Parliament TV, 20 January 2021 https://parliamentlive.tv/event/index/2ed1c125-08a8-4508-bfe7-61036821fe08?in=15:27:09

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