

Sport and leisure facilities and poverty; a look at the research

Low levels of physical activity are a major public health challenge, contributing to the national burden of non-communicable disease and demand on health and social care services. Regular physical activity is proven to help prevent and manage noncommunicable diseases (NCDs) such as heart disease, stroke, diabetes and several cancers. It also helps prevent hypertension, maintain healthy body weight and can improve mental health, quality of life and well-being.

There are also vast inequalities in levels of physical activity in the UK including the Yorkshire and the Humber (YH) region, and this is an important determinant of health. The <u>understanding and addressing inequalities in physical activity</u> report from 2021, identified a range of inequalities in individual's physical activity levels from different protected characteristic groups, and a bespoke resource has been created to support the reduction in physical activity inequalities for the YH region which can be accessed <u>here</u>.

With increasing financial pressures on local government exacerbated by the coronavirus pandemic, many councils are considering where savings can be made in order to continue key services, whilst at the same time dealing with the inequalities intensified by the pandemic, reducing poverty and "levelling up". The aim of this literature review report is to visit the potential for sports and leisure facilities to contribute towards reducing poverty and health inequalities and contributing towards the levelling up agenda. It will aim to summarise findings and present potential considerations for 'place'.

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1.0 Sport and leisure centres; poverty and inequalities

There is a lack of robust or published evidence that explores the links between free sports and leisure facilities and any contribution towards reducing poverty. There are however some limited studies that look at the link between free sports and leisure facilities and physical activity inequalities, with one systematic review and various other smaller studies. The following section of this report will detail said studies:

The only relevant systematic review, which included a meta-analysis, which this report could find was from the United States in 2021 based on financial incentives and physical activity. This review from Luong MN et al (2021) [1] found that although incentives may improve leisure time physical activity, particularly walking, in the short term, with small improvements once the incentive finishes, the evidence is limited and they summarised by saying that incentives for physical activity 'lead to little or no difference in kilocalories expended or minutes of PA. It is uncertain whether incentives change the likelihood of meeting PA guidelines because the certainty of the evidence is low' (p.236)



There are a range of other studies not covered in the systematic review which are worth noting. Perhaps the most prominent piece of research in this area is a quasi-experimental study performed in 2018 by Higgerson J et al. [2] This study aimed to investigate the impact of an intervention providing universal free access to leisure facilities alongside outreach and marketing activities in a deprived local authority (Blackburn and Darwen). The intervention was associated with a 64% increase in attendances at swimming and gym classes, and Sport England data showing a 3.9% increase in population participation in gym or swimming and an overall increase in moderate to vigorous physical activity of 1.9%. This was significantly greater for those from a more disadvantaged socioeconomic group. The study concluded by stating that 'removing user charges from leisure facilities in combination with outreach and marketing activities can increase overall population levels of physical activity while reducing inequalities' (p.252). However, the study didn't show whether removing user charges alone would have resulted in the same outcome.

There are a range of similar smaller studies which are summarised below:

- 1) A study looking at secondary analysis of statistic data from an intervention in Bristol in 2012 by Audrey S et al. [3] found that free leisure encouraged teenage children from more deprived areas to swim more frequently but that inequalities may be widened if more affluent users take more advantage of universal free schemes compared to those who are less well-off or if cost related barriers to access (e.g. distance to facilities) are not taken into account.
- 2) An economic analysis of a physical activity programme in Birmingham in 2014 by Frew E et al. [4] found that cost-benefit of an intervention focused on providing free access to gyms, pools and fitness classes during off peak hours and weekends after 1pm found that the interventions societal value was greater than the operation cost therefore was a net benefit to society. In fact as part of their proportionate universal approach a systemwide saving of £21 for every £1 invested was seen.
- 3) A case study review from 2016 by Verhoef et al. [5] on an intervention in London which aimed to provide free leisure centre membership for inactive people on state benefits found 'a positive influence on quality of life due to the mental health gain of physical activity' (p.616) and that if the intervention was successful in increasing physical activity levels for more than a year then the programme would be cost-effective given a willingness to pay for a QALY (Quality of Life Years) of £20,000.
- 4) Two studies from 2019 by Higgerson J et al. [6] and Ward F et al. [7] found that policies that include components of free access and ones that offer more flexible payment options are most likely to contribute to reducing inequalities in physical activity, and specifically facilities for children in disadvantaged areas.
- 5) Assessment of the Leeds Let Us Get Active programme (LLGA) [8] from 2020 found that 'non-negligible level of uncertainty regarding the effectiveness, and therefore, cost-effectiveness of a universal offer of free leisure centre-based exercise that targets hard to reach groups' (p.1)



However, an informal but more comprehensive review performed by Professor F Coatler in 2006 for NHS Health Scotland [9], looking specifically at free swimming, found a lack of robust and comparable information. The report summarised that:

'It is unlikely that abolishing entrance charges alone will lead to sustained increases in swimming among certain target groups. Charges are only one component of a complex set of factors. Attempts to increase swimming participation must be part of a broad and diverse strategy – more effective and more efficient targeting; a consideration of who best responds to, and benefits from, free swimming; an appropriate balance between free swimming and swimming lessons; systematic attempts to increase frequency and retain new participants; longer term strategies to move from free swimming/free swimming lessons to 'affordable swimming' (p.1)

2.0 Potential considerations

It is difficult to make any specific recommendations based on available published evidence; however consideration should be made into how removing user cost for sports and leisure facilities for specific subsets of the population i.e. people from a lower socio-economic group, when combined with wider outreach and behaviour change interventions, may help reduce the inequalities that exist in physical activity participation. This combined approach would follow the application of the COM-B model of behaviour change which details the three things that are needed for behaviour to change; Capability, Opportunity and Motivation [10]. Removing user cost could contribute towards one element of the COM-B model i.e. 'physical opportunity', so any future intervention utilising free sport/leisure facilities should consider how social opportunities, capability (physical and psychological) and motivation (automotive and reflective) are fundamental factors in changing behaviour.

A lack of evidence exists to be able to make any consideration around links to poverty or "levelling up". Nevertheless, it can be assumed that removing the burden of cost when accessing sport and leisure facilities may help contribute towards reducing poverty among people from lower socioeconomic groups. This should be considered alongside the more widely available evidence on the links between physical activity and cognition and learning [11][12][13] and with behaviour and social development [14][15], which may also play a contributing role in helping reduce poverty.

Further reading on this topic can be found in the 2021 "Proportionate Universalism" report by Martyn Allison, which summarises the wider impact of leisure centres, and reinforces the findings of this literature review report.



3.0 References

- [1] Luong M N et al. (2021) <u>The Impact of Financial Incentives on Physical Activity: A Systematic Review and Meta-Analysis</u>, American Journal of Health Promotion, 35 (2) p.236-249
- [2] Higgerson J et al. (2018) <u>Impact of free access to leisure facilities and community outreach on inequalities in physical activity: a quasi-experimental study</u>, Journal of epidemiology and community health, volume 72, issue 3, p.252-258
- [3] Audrey S et al. (2012) <u>Health promotion and the social gradient: the free swimming initiative for children and young people in Bristol</u>. Public Health 2012;126:976–81.
- [4] Frew EJ et al. (2014) <u>Cost-effectiveness of a community-based physical activity programme for adults (Be Active) in the UK: an economic analysis within a natural experiment, British Journal of Sports Medicine, Vol 48, P207-212.</u>
- [5] Verhoef et al. (2016) <u>Cost-effectiveness analysis of offering free leisure centre memberships to physically inactive members of the public receiving state benefits: a case study, BMC Public Health, Vol 16, p.616</u>
- [6] Higgerson J et al. (2019) The impact of free access to swimming pools on children's participation in swimming. A comparative regression discontinuity study, Journal of Public Health, Volume 41, P214-221
- [7] Ward F et al. (2019) <u>Leisure centre entrance charges and physical activity participation in England</u>, Health promotion international, volume 34, p379-388.
- [8] Candio P, Meads D, Hill A and Bojke L (2020) <u>Cost-effectiveness of a proportionate universal offer of free exercise: Leeds Let's Get Active</u>, Oxford journal of public health.
- [9] Coatler F (2006) Free swimming A need for a more strategic approach, Physical Activity and Health Alliance, Free swimming A need for a more strategic approach Physical Activity Health Alliance (paha.org.uk)
- [10] Michie S, van Stralen M M and West R (2011) <u>The behaviour change wheel: A new method for characterising and designing behaviour change interventions</u>, Implement science, 6:42.
- [11] Howie, E K et al. (2020), 'Associations between meeting sleep, physical activity or screen time behaviour guidelines and academic performance in Australian school children', BMC public health, Australia, article 520.
- [12] Ishii, K et al. (2020), 'Joint associations of leisure screen time and physical activity with academic performance in a sample of Japanese children', International Journal of Environmental Research and PublicHealth; International journal of environmental research and public health, 17, 757
- [13] Kohl HW III et al. (2013), <u>Physical Activity</u>, <u>Fitness</u>, <u>and Physical Education</u>: <u>Effects on Academic Performance</u>; Committee on Physical Activity and Physical Education in the School Environment; Food and Nutrition Board; Institute of Medicine.



[14] Chaput JP (2020), <u>2020 WHO guidelines on physical activity and sedentary behaviour for children and adolescents aged 5–17 years: summary of the evidence</u>; World Health Organisation, International journal of behavioural nutrition and physical activity, Article 141.

[15] Opstoel, K et al. (2019) Personal and social development in physical education and sports: A review study, SAGE Journals; Personal and social development in physical education and sports: A review study; European Physical Education review, Vol 24, issue 4, p797-813.



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