

## Tackling childhood overweight and obesity after the COVID-19 pandemic

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## **Tackling childhood overweight and obesity after the COVID-19 pandemic**

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## **Abstract**

**Childhood obesity is a serious public health challenge. Early findings indicate that interventions to curb the coronavirus disease 2019 (COVID-19) pandemic may be worsening the situation globally. Genuinely committed and sustained collaborative actions are urgently required to address childhood overweight and obesity and the complex underlying issues.**

Childhood obesity is a serious public health challenge. Globally, over 42 million children under 5 years are either overweight or obese, and based on current trends this is projected to increase to approximately 70 million by 2025.<sup>1</sup> Children who are overweight or obese often experience impaired physical and psychological health.<sup>1,2</sup> In the short term, these may be related to poor self-esteem and negative body image which may lead to reduced confidence, and an increased risk of being bullied at school.<sup>1</sup> They also have an increased risk of developing various non-communicable diseases and obesity in adulthood.<sup>2</sup>

Whilst essential, there are indications that interventions to curb the coronavirus disease 2019 (COVID-19) pandemic are worsening the childhood overweight and obesity crisis globally.<sup>3,4</sup> Restricted use of public spaces and play areas mean children have fewer opportunities to engage in physical activities. The closure of schools has compounded the situation as studies have shown that children are more likely to gain excess weight when they are out of school during holiday periods than during term time.<sup>3</sup> This may be due to the loss of the positive influence schools tend to have on key risk factors including mealtimes, physical activity, and sleep schedule.<sup>4</sup> Children now rely more on family members to make decisions, which may

not always have a positive effect on these risk factors potentially leading to unhealthy weight gain.<sup>5</sup> The excess weight gained by children during this pandemic may be difficult to reverse and might contribute to overweight and obesity adulthood.<sup>4</sup>

However, governmental policies do not often demonstrate an adequate appreciation of these complex issues or address them sufficiently.<sup>6</sup> The UK Government recently announced plans to re-start the National Child Measurement Programme (NCMP) in September 2021 and increase the frequency of weighing from twice to yearly during primary school education in its bid to address the crisis. While this will provide comprehensive data on trends, there are concerns that yearly weighing in schools could lead to undue focus on physical appearances among children. Such emphasis may intensify the existing bullying and stigmatisation and worsen the mental health of overweight and obese children.<sup>1,2</sup> As part of the Government's plan, information about children's weight categories will be provided to parents with the expectation that this will motivate them to make dietary changes for their children. In reality, the provision of such information, without appropriate support, will be insufficient motivation and may even be counter-productive. Efforts to tackle the situation need to go beyond its quantification and characterisation.

As a starting point, it is essential that there is a genuine acknowledgement of the complex nature of childhood overweight and obesity. Issues such as deprivation and parental obesity have been shown to be strongly correlated with childhood obesity in the UK.<sup>5</sup> The combined NCMP data from 2016 and 2017, shows that over a quarter of children with obesity in England are living in household where at least a parent is obese and approximately half of parents with obese children and over 85% of parents of overweight children think their child has a health weight.<sup>5</sup> The National

Health and Nutrition Examination Survey (NHANES) data collected from 1999 to 2018 for 6-11 year olds showed a significant change in prevalence of overweight and obesity among Mexican-American children alone.<sup>7</sup>

There is a need for a shift in governmental approach from one that is focused on personal responsibility and individual action, to a more empathetic one that recognises the influence of environmental, cultural, and socio-economic factors that contribute to childhood overweight and obesity especially as children have little or no control over them.<sup>8</sup> A whole society approach has been advocated where individuals (parents), businesses, schools, local authorities, health organisations and national government work together and take swift decisive actions to address the situation.<sup>8</sup> This would require sustained commitment from all stakeholders and a significant amount of resources in order to be successful.

It is also crucial that governmental policies and clinical guidelines are clear, actionable, and informed by high-quality evidence to ensure they are effective. However, a recent Cochrane Review of randomised controlled trials (RCTs) to treat overweight and obesity in children worryingly stated that the overall quality of evidence was either low or very low.<sup>9</sup> The review also reported substantial heterogeneity between the RCTs and significant variation in the duration of follow-up between the studies.<sup>9</sup>

Given the challenges associated with weight loss maintenance, it is necessary that future studies have longer follow-ups to determine which interventions provide the best long-term outcomes. Being overweight or obese affects children psychologically as well as physically. Therefore, these interventions should consider utilising patient-reported outcome measures (PROMs) to evaluate impact on dimensions such as

quality of life, anxiety and self-confidence in addition to measuring clinical parameters like body mass index (BMI) z score. Researchers also need to be aware and responsive to changes in the research landscape of obesogenic behaviours and environments due to the COVID-19 pandemic.<sup>10</sup> For instance, there is now a reduction in the influence of physical barriers such as travel distance on people's dietary choices.<sup>10</sup> Policy makers should be sensitive to these changes when considering evidence generated before the pandemic.

A recent report, estimated that the National Health Service (NHS) in England would save approximately £37 billion and the wider society £202 billion through improved productivity, reduced hospital admissions, and increased workforce participation if the government achieves its goal of halving childhood obesity by 2030 in the current cohort alone.<sup>8</sup>

Tackling childhood overweight and obesity post pandemic will not be easy and might require decades to fully reverse the current trends. Genuinely committed and sustained collaborative actions are urgently required to address childhood overweight and obesity and the complex underlying issues.

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## Contributor's statement

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### **Competing interests**

O.L.A declares personal fees from Gilead Sciences Ltd, Merck and GSK outside the submitted work. The remaining authors declare no competing interests.