08-Mar-2024
Adequate spending on obesity can only follow a reconsideration of our appraisal of interventions
BMJ-2023-077139.R1

Dear Dr. McLaughlin,

Thank you for sending us this revised paper and giving us the chance to consider your work. We sent it out for external peer review and discussed it at the Analysis manuscript committee meeting (present: Rachael Hinton, Richard Hurley, Smruti Patel and Paul Simpson).

We enjoyed reading this paper and we think it will be of interest to our readers. However, based on the comments from the editorial committee and peer reviewers, we believe this manuscript requires a major revision, particularly in terms of the overall framing and argumentation. We ask you to please revise your text in response to comments from the editors and reviewers and resubmit your manuscript within 4-6 weeks.

The reviewers' and editors' comments are at the end of this letter.

Along with the revised text, please provide a point by point response to our comments and those of the reviewers. We also ask that you keep the revised manuscript within the word count of 1800-2000 words.

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I hope you will find the comments useful and we look forward to your revised paper,.

Best wishes,
Rachael

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Associate Editor, The BMJ

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Editors' comments

Overarching comments:

1. Clarify the framing and argument

The committee felt the manuscript is well written and engaging, and the reviews offer very helpful commentary for strengthening the piece. In particular, we agreed with reviewer comments related to the focus and specificity of the argument. The committee felt that the piece seems to be coming at two broad and complex problems (obesity and how policy is made in the UK) without sufficient specificity. By the end we felt it was unclear what the piece is really asking for other than calling out the problem and asking for a substantial rethink. The title points to this (we need a reconsideration) and the key messages are similar e.g. the current situation is not improving so we need more investment and a different approach. But it is unclear what the new way is or how we would find the new investment.

Furthermore, at times the paper appears to be advocating for prevention vs treatment in places, which the committee found confusing as it feels a little out of kilter with the argument (which is a bit more holistic). In some parts, the paper seems to call for more investment in long-term rather than short-term interventions. In other parts, it is calling for different, more holistic ways to evaluate complex interventions. Yet in other parts, you seem to want to shift spending away from individual interventions towards more population-level programs or packages of interventions. The paper seems to be assuming that better, more holistic modelling/evaluation will mean that long-term and population-level interventions will always win out compared to individual and short-term solutions like drugs. This is far from certain and we think it muddles the argument.

Ultimately, the question for the committee was why focus on obesity when the major issue seems to be around UK systems of policy development? We felt the issue is not really about obesity, although it can be used as a hook to get into the topic, nor is it about investment in certain types of interventions (prevention vs treatment when there will always be both), but its really about the way we tackle these difficult questions and how government makes policy on these complex issues. What is an actionable way forward? We 'think' this is what you might be interested in but you haven't made the point clearly and this could be your chance to do that. The committee felt that responding to these issues would make for a stronger argument.

2. Related to the framing, clarify the context

- It seems the piece is suggesting NICE to have an expanded role, but this isn’t explained - how would this be achieved? The reviewers also point to some notable omissions re. the role of NICE and public health policy and evaluations that have happened.

- Please also clarify in the introduction why the focus is on the NHS (and then later NICE guidelines), and not a broader perspective. Bringing in other examples beyond NICE (to compare, contrast) could help to further build and illustrate your argument.

Additional comments:

- Introduction: To make the introduction more impactful for readers, we suggest you highlight the argument / stance you are taking at the end of the introduction rather than mid-way through (e.g. 98). It may be difficult for readers to understand why the piece is arguing for a different type of appraisal when the problem with the current approach hasn't been introduced for readers. Line 98 - 'health eco evidence through alterations in intervention appraisal' - this may also read as jargon and could be clarified for readers.

- Line 132: "To justify the higher investment in broader policies...." because the focus on short term interventions isn't well set up in the introduction, it is not clear what 'broader interventions' means or that they are supposedly more expensive.

- Section "Modelling could support decisions..." – please give readers a sense of what this modeling means in practice, who does it, when and how, its benefits etc. How can it better inform the decision-making processes? Including some concrete examples of the modelling that has been used, such as for other complex chronic diseases, would also help convince readers of why modelling is a necessary response.

- Please be more specific when describing research, guidance or reports for example: Line 128 recent eco analysis (please specify where and when, by who); Line 148 "latest govt briefing. (please specify when, which govt, briefing on what?) Line 209 "Guidance was published last year...." (from who, when, on what, for who?)

- Line 212 "Despite this, the use of models that fall short of these recommendations continues, leaving decision-making on health service design difficult " – please clarify the use of models by who? When? Are you able to provide any examples/evidence to back up the statements being made?

- Please remove the use of 'our' 'us' etc throughout and instead make the language more direct and specific. The rhetorical questions also could be made as statements or removed.

- We suggest using sub-headings to help break up the different sections and ideas for readers e.g. for the section on current systems perpetuate the focus on short terms intervention

- The committee wasn’t sure if comparing government responses to COVID in the conclusion is reasonable or valid considering the very different nature of the contexts.

- Please reconsider the title to make it a little more straightforward for readers

Reviewer: 1

Adequate spending on obesity

This paper makes the case for methodological improvement in the assessment of obesity interventions, notably to include longer term impacts and to broaden the scope and rigour of health economic analyses to inform policy.

The problem is well described in this paper: to tackle obesity, we need a systems approach that focuses on the determinants of population weight gain but in practice, we end up with short-acting ‘medicines’.

The solution, however, could perhaps be described more clearly, or more specifically. While I find it difficult to criticise this opinion piece, I did have the following thoughts while considering it, in the hope that some of this may help strengthening the paper.

Why limit the focus to obesity – isn't that too narrow? Or is it more an example of a broader issue in how population-wide preventive health interventions are assessed? The examples given are good: taxation on obesogenic foods, legislation on advertising, and structural and behavioural prompts such as better walking and cycling infrastructure. All have large non-obesity effects, on health and in other domains. Taxation and advertising restrictions are cheap (depending on whose perspectives you include in the analysis) but better walking and cycling infrastructure is not. I agree that modelling is part of the solution, but that extends beyond obesity and health. Yet the terms 'cost benefit analysis' or 'return on investment' are absent from this article. Should such models or analyses integrate the health impacts with impacts in other domains, to come to a holistic assessment, including, quantifying and valuing all costs and consequences?

Who should be doing this health economic modelling of the impacts of system-wide obesity interventions? We need modelling to estimate the long-term impact of obesity prevention, especially for interventions outside the health field. NICE's focus is narrowly on health interventions (or even 'medicines'), and the Green Book attributes higher values to QALYs. So why then argue for NICE to pick this up? The broader societal focus of the Green Book would seem better suited, also because obesity prevention often has beneficial effects in other areas (often termed "co-benefits" from a – somewhat narrow – health perspective). The use of the Green Book could also remove the responsibility from the Health Department, which could strengthen its intersectoral health policy capabilities but is still at the mercy of other departments for concrete action. And is NICE well-positioned to assess the impact of, say, the impact of changes in walking and cycling infrastructure on travel patterns, which are on the causal pathway to health outcomes? Should it be strengthened and equipped for this task, and if so, what other agencies might it collaborate with? Or is there (/can there be) a better agency to take up this task?

The example interventions also all have strong logic underpinning their causal pathways, but little direct evidence of effectiveness. "… economic modelling evidence will have to provide policymakers with robust assurance about value for money in upstream interventions" (Key messages). True, but it may struggle to do so by the standards of evidence-based medicine. These are policy level interventions and much of the evidence rests on observation evidence, often time series, or even… modelling, which pieces together various bits of evidence along lengthy causal pathways. That will be 'robust' by the standard in economics, where decisions are very often undertaken on little direct evidence of likely impact. But not by health standards. The authors could consider commenting on this question of what evidence should be considered strong enough for what decisions.

Specific comments

Line 111-112: 'this decision' refers back to something several sentences ago; not very clear to this reader.

Line 154: "Counter-views will attest to …" Counter-views to what, exactly? Was the argument to stop using NICE methods? Or to apply them better? Or to broaden the remit to include systemic preventive interventions outside the health care sector?

Line 163: "Early interventions and prevention measures cannot compete well in direct comparison with individual-level therapy over the short-term". Perhaps, but whereas the benefits of semaglutide are modelling only over the short term (and rightly so, given the lack of evidence for, and low likelihood of, longer term impacts), the guidelines do not mandate that all interventions are only modelled for short-term impacts?

Line 167-177: This paragraph asks "Who then should act on NICE's findings?" but this question is not really answered.

Line 172: If NICE’s valuation of health benefits is lower than that in the broader ‘Green Book’, would that not lead to more investment in upstream interventions, rather than less? Should NICE adopt the Treasury’s higher value for a QALY?

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Reviewer: 2

Comments:
Thank you for the opportunity to review the manuscript. This is a well-written manuscript which raises some interesting points.

My over-arching concern re some of the arguments in the paper (and the title itself) is that decisions on resource allocation are not borne solely on evidence of effectiveness and cost-effectiveness. Statements such as

"The required policy innovation will entail substantial new investment, for strategies far more diverse than short-term individual-level treatments, such
that economic modelling evidence will have to provide policymakers with robust assurance about value for money in upstream interventions"

suggests that no action can be taken until such time as evidence of cost-effectiveness supports it. In reality, resource allocation decisions and policy-making are far more complex – and many other factors (other than evidence of cost-effectiveness) influence spending decisions. Indeed, policies are enacted all the time without little or limited evidence of either effectiveness or cost-effectiveness.

In addition, the article does not mention any of the evidence that has been generated in terms of population level approaches to obesity prevention and/or treatment. Some of this evidence has been generated for the UK – there are also other examples in countries like Australia and the US.

Could the author's also elaborate more on why sustained impact of injectible pharmacological treatments is unlikely? Certainly there is limited evidence of the impact of sustained use of these products on effectiveness – due largely to their recency of use. We don't have good evidence – yet – of effectiveness over time. I was unaware that there was evidence suggesting the unlikely impact of these sorts of products over time, and would like to see this point elaborated a little more in the manuscript. Is the "unlikeliness" due to the decision-makers timelimits on subsidisation (rather than a lack of effectiveness, which is yet to be definitively ruled in or out)? If so, please be more explicit on this point.

The article does not elaborate enough on the policy level initiatives of the UK Government, and seems to skip over some of the nuance in these. For instance, it should be mentioned that the UK policy of restricting marketing of unhealthy foods to children was announced – and seemed to be a very positive step in the right direction. Of course, the implementation of this policy has been pushed back and pushed back. None of this nuance comes through in the manuscript, but has important bearing on the overall message of the manuscript. Another example would be the introduction of a ban on junk food advertising across the London transport network – also not mentioned. While I wholeheartedly agree that there are political drivers to cling to narratives of individual responsibility, there are some clear and distinct examples (like those given) where there is also some recognition of the need for upstream, population level approaches. Obviously much more needs to be done, but to miss this nuance doesn't tell the full picture of the story.

The authors state that "To justify the higher investment required for broader policies, decision-makers need assurance about their value for money and direct improvements to productivity and growth". Can the assertion that broader policies require higher investment (than what?) be referenced? Some population level approaches may in fact be more affordable than individual-level responses (like some programs for instance) delivered to large numbers of people, and this point should be stressed.

Finally, modelling a "package of interventions" would be the gold standard, however there are considerable challenges in doing so. The manuscript touches on this point, but I feel it needs a little more detail on exactly what some of these challenges are – and importantly, how could they be

overcome (or likely, what are the steps in the right direction of being able to overcome some of these large challenges).

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Reviewer: 3

Comments:
Thank you for asking me to review this analysis piece. It offers a helpful analysis of current economic and policy assessments in relation to the intractable problem of obesity in the UK. It is largely well-written and researched, and I have only minor comments.

1. Page 5, lines 121-4, gives examples of the lack of boldness of UK policymaking. However, firstly, it is incorrect to say that government has not legislated on food advertising. It has done so twice - the 2007 Ofcom regulation of TV advertising of HFSS foods to children, and the 2022 regulation of online advertising and TV advertising of HFSS foods before 9pm (although, it is notable that implementation of this legislation, together with that on price promotions in supermarkets, has been delayed due to the 'cost-of-living' crisis'). Secondly, as far as I know, there is very little evidence to suggest that walking and cycling infrastructure can reduce obesity.

2. Page 7, lines 148-85 - the discussion of the role of NICE here ought to acknowledge that public health was taken out of NICE's remit by government in 2010 and, since the disappearance of PHE and recent downscaling of OHID, there is now no equivalent organisation or mechanisms to conduct the appraisal that the authors propose. These were political decisions, meaning that since 2010 there have been no rigorous, systematic and transparent appraisals of public health policy interventions in the way they used to be done by NICE.

3. Page 8, lines 205-6 - the correct title of the 'sugar tax' is the Soft Drinks Industry Levy. Modelling of the health impacts of the SDIL, including on obesity, has been undertaken, although this is currently under review (although accessible in preprint here: https://www.medrxiv.org/content/10.1101/2023.10.05.23296619v1)

4. Page 9, line 242 - do you mean 'ensure' rather than 'allow'?

5. Page 10 - Reference 2 is not accessible at the link given

Martin White, 18/02/24

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