Call for Evidence: Halting the rise in Type 2 Diabetes in under 5 years
Response from the Preconception Partnership

About the Preconception Partnership

The preconception period is a time in the life course when health, behavioural, and environmental exposures can have far-reaching consequences, not only for pregnancy outcomes but also for health across generations. The Preconception Partnership was established to articulate and take forward an action plan to improve preconception care in England, translating the evidence presented in the 2018 Lancet Series[1] on this topic through policy and practice and normalizing the concept of preparing for a healthy pregnancy.

We are a coalition of diverse stakeholders and our members represent different aspects of preconception health in women and their partners, including the Royal College of General Practitioners, the Royal College of Obstetricians and Gynaecologists, the Faculty of Sexual and Reproductive Healthcare, Public Health England, Tommy's Charity, and academics in reproductive and sexual health, obstetrics and gynaecology, population health and epidemiology, nutritional sciences, behavioural sciences, and primary and secondary education.

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Response to questions for consultation

Questions

A. Product Reformulation:

1. **Should Government require further reformulation of food and drink products focused on sugar content?**

Yes

a. If yes, what other types of products should be targeted for reformulation?

The current strategy would benefit from a strong focus on reduction in marketing and consumption of extrinsic sugars (those added to products for taste and marketability). Reducing calorie content is also essential. These measures should be part of a stepwise approach to lower content in all proprietary foods and drinks.

2. **Should new reformulation measures be based on the Soft Drinks Industry Levy as a model?**

Yes.

The model adopted with the Soft Drinks Levy where there was clear signalling to industry of the direction of travel for policy, with set dates for mandatory compliance and no flexibility around these deadlines, has made it easier for industry to plan and deliver reformulation. This approach should be emulated for other product reformulation, however the voluntary compliance lead-in time should be shorter.

a. If not, why and what alternative measures would you recommend?

B. Marketing and Advertising:

1. Is the current advertising and marketing regulatory framework fit for purpose for encouraging healthier choices?

No

a. If not, how should it be changed?

There is overwhelming evidence [2,3] that marketing affects food choices and that behaviours established during childhood and adolescence influence lifelong health.[4] Children receive advertising input from multiple source including social media, websites, on-demand TV platform banner ads and YouTube. The OfCom's proposal of a watershed' of 9.00pm which is currently in consultation, although a start, is insufficient in this context – all modes of advertising should be addressed.

2. What improvements could be made to target less regulated areas of marketing and advertising such as: packaging and labelling, advertising around schools, online and elsewhere?

The practices that occur in the in-store environment of retail and food service outlets including the prominent placement of foods high in fat, salt or sugar are less regulated. There is a need to introduce legislation to ensure a level playing field in terms of placement. Non-food items in these prominent locations in retail outlets could be considered.

There is substantial opportunity here for creating a positive influence through social media, advertising and billboard messaging. VIP champions can also be included to spread the message on healthy eating and improved physical activity.

C. Keeping Fit and Healthy:

1. Is current public health advice sufficient to shift the Type 2 trajectory and the rise in obesity?

No

If not, how could it be improved?

Consideration of this by The Preconception Partnership produced the following recommendations:

i. Current public health advice is wholly inadequate to prevent obesity and its consequences. There is rightly an emphasis on weight or Body Mass Index, but there also need to have a strong focus on physical fitness: one can be thin but unfit. This message is particularly important for adolescents and young people. The current healthy eating guidelines recommended by the government is unattainable for many people in society due to issues which include financial constraints and cultural factors. [5]

ii. An analysis of the sugar reduction programme (BMJ 2019)[6] suggests that if targets are met in full, the baseline population of children with obesity would decrease by only 5.5%. Thus, more fundamental measures are needed to achieve the government's commitment of 50% reduction by 2030. **We call for a strategy that adopts a long-term vision, by tackling issues from early in life – this should include achieving a healthy weight and improving nutrition and lifestyle before, during and after pregnancy, through population-level programmes.**

iii. Public health programmes to improve diet should focus on overall diet quality, not just calorie reduction

iv. For public health, - there are many conflicting messages and information being passed on to the public especially through media and social media. Health promotion practice and research has shown repeatedly that providing information is not enough to bring about behaviour change. Creating an environment that supports healthy eating, addressing health literacy, cultural diversity and improving people's self-efficacy and confidence in order that they can control their eating and drinking are key. Public health messages should emphasize that worrying about choosing a "diet" is not really important; what matters is an understanding of a healthy balanced diet and physical fitness.

v. Low levels of income and education are associated with unhealthy diets. Unhealthy food environments further exacerbate these inequalities.[7,8] Inequalities in childhood obesity[9] show that factors causing these disparities should be considered when developing interventions/ policies.

2. What are the systemic barriers to high quality nutrition and regular exercise? And how can we overcome them?

Many barriers exist in multiple domains:

Nutrition - advertising; content of sugars and saturated fat in processed foods that are easily available and cheap; the food environment; industry and marketing; the density of takeaway outlets in deprived areas are highest making food choices for disadvantaged groups difficult; cheap takeaways outside schools; lack of cooking skills

Physical activity: availability of safe spaces for playing; lack of options for active transport; the cost of gym memberships.

An integrated approach is essential that includes collaboration between fiscal, regulatory, education, health, and local town planning, and environmental domains. This must address ethnic diversity in local populations. These collaborations are needed to recreate our food environments in a way that promotes sustainability and better health of the population. This requires interventions by local and

national government which work together and allow for suitable local flex to take account of community differences across the country.

<u>To overcome systemic barriers, we suggest:</u>

1) Programmes for individual behaviour change

- Encouragement for reducing intake of unhealthy and ultra-processed foods, while increasing intakes of vegetables, fruit and whole grains. Affordable alternatives to healthy options should also be provided.
- Cooking skills: - Encouraging a new wave of innovative cooking and popular cookery TV programmes. These might build on the vegetarian and low meat cuisines of the world, and use locally sourced produce to enhance sustainability of diets, though there is as yet little data on how this might best be done.
- Programmes to teach cooking skills in schools and for young parents on how to cook weaning foods and avoid ready-made baby jars will widen food preferences among children.
- Provision of opportunities to engage in physical activity for children in all schools and for families in communities.
- A national programme to train physical activity coaches in communities.
- Students in schools should be engaged in co-creating a healthy food environment through media, posters and other activities.

2) Health care sector

- Encouraging health care professionals (HCPs) to start conversations about risk of diabetes/ obesity and nutrition, and providing adequate training for supporting HCPs them through programmes such as Healthy Conversation Skills.[10]
- Facilitating more extensive discussion and support of diet and exercise in pregnancy and infant feeding as part of antenatal care. Midwives and maternity support workers can reach women and new parents through health visitors.
- In primary care, training for health professionals on the prevention of risk factors for diabetes is needed and communication between these health care professionals should be promoted. The current systems collect and record data in silos, leading to inadequate information on the effectiveness of programmes. Monitoring BMI, for example, is key for the monitoring and evaluation of preventive public health interventions.

3) Fiscal and environmental strategies

- Restrictions on marketing of unhealthy foods (discussed above).
- Controlling product placement strategies used by retail outlets to limit promotions of unhealthy foods and enhance prominent placement of healthy or non-food items.
- Limiting of price promotions on unhealthy products and marketing of unhealthy foods. Advertising of junk food should be banned for all age groups, not just children.
- Restrictions on the density of takeaway outlets in deprived areas of the UK.
- Extending the remit of the free school meals programme and providing access to free or subsidised healthy foods during school holidays.

4) **School-based strategies**

- Introducing measurement of food and nutrient intake in schools as part of the national curriculum at both primary and secondary levels.

Targeted interventions are helpful, however, we also need to focus on population-level integrated programmes which engage with communities and their diverse ethnic groups considering disparities in risk factors that affect different age groups. The overall message should not be only about diabetes prevention, but how to achieve optimum health, physical fitness, and nutrition.

D. Regulation and Incentives:

1. What new regulation, taxation, and/or subsidies should Government consider to help shape a healthier food and drinks market?

Application of equivalents of the Soft Drinks Industry levy on particular manufactured products that are high in fat, salt, sugar should be considered as should the prospect of subsidising fruit and vegetables.

2. Are the current measures for ensuring good quality nutrition for children sufficient?

No

a. If not, how could they be improved?

i. A child is already on a high-risk trajectory for obesity if the mother was overweight/ obese before[11] and during pregnancy – the risk is even higher in children of diabetic mothers. Though early childhood interventions are important (e.g. in their effect on development of food preferences and physical activity levels), this needs to be supported by programmes for couples and women preparing for pregnancy, and for pregnant women to avoid excess weight gain during pregnancy and after pregnancy in preparation for future pregnancies. Prevention and management of diabetes during pregnancy is also key in preventing the transmission of risk of obesity and diabetes in the next generation. [12]

ii. Programmes during the early years should consider training tastes from infancy; these include early childhood programmes, targeting women during pregnancy, recent parents, and young people before pregnancy. This is especially true of weaning foods. Pregnancy is a time when women are highly motivated to do the best for their baby; higher rates of smoking cessation are seen during this period. Antenatal programmes, and offering better care between pregnancies is also essential as this platform provides the opportunity to support lifestyle change in women, with effect on families as well.

iii. Addressing health behaviours in families is essential for preventing childhood obesity, this can be done through community and school-based programmes that include parents. Supporting parents to train tastes in infancy can help children develop healthier food preferences.

iv. Working with Jamie Oliver's school meals initiative.

v. Modifying the Healthy Start Programme to optimise delivery and uptake, extend to early years care and cover the life course.

References:

1. Stephenson J, Heslehurst N, Hall J, Schoenaker DA, Hutchinson J, Cade JE, Poston L, Barrett G, Crozier SR, Barker M, Kumaran K. Before the beginning: nutrition and lifestyle in the preconception period and its importance for future health. The Lancet. 2018 May 5;391(10132):1830-41.
2. Hawkes C. Reducing sugar—major supermarkets should start competing on health. The BMJ Opinion: BMJ, 2018.
3. Gustafson A, Hankins S, Jilcott S. Measures of the consumer food store environment: a systematic review of the evidence 2000-2011. *Journal of Community Health* 2012;37(4):897-911. doi: 10.1007/s10900-011-9524-x [doi]
4. Hanson M, Bustreo F, Godfrey K, et al. Pre-conception health. In: Annual Report of the Chief Medical Officer - The Health of the 51% Women. 2015.
5. Affordability of the UK's Eatwell Guide Courtney Scott, Jennifer Sutherland, Anna Taylor September 2018 available at: https://foodfoundation.org.uk/wp-content/uploads/2018/09/Affordability-of-the-Eatwell-Guide_Final_Web-Version.pdf
6. Chamnan P, Simmons RK, Khaw KT, Wareham NJ, Griffin SJ. Estimating the population impact of screening strategies for identifying and treating people at high risk of cardiovascular disease: modelling study. Bmj. 2010 Apr 25;340:c1693.
7. Burgoine T, Forouhi NG, Griffin SJ, Brage S, Wareham NJ, Monsivais P. Does neighborhood fast-food outlet exposure amplify inequalities in diet and obesity? A cross-sectional study. The American journal of clinical nutrition. 2016 May 11;103(6):1540-7.
8. Black C, Moon G, Baird J. Dietary inequalities: what is the evidence for the effect of the neighbourhood food environment?. Health & place. 2014 May 1;27:229-42.
9. National Child measurement programme 2017-18 Available at: https://digital.nhs.uk/data-and-information/publications/statistical/national-child-measurement-programme/2017-18-school-year
10. Lawrence W, Black C, Tinati T, Cradock S, Begum R, Jarman M, Pease A, Margetts B, Davies J, Inskip H, Cooper C. 'Making every contact count': evaluation of the impact of an intervention to train health and social care practitioners in skills to support health behaviour change. Journal of health psychology. 2016 Feb;21(2):138-51.
11. Voerman E, Santos S, Golab BP, Amiano P, Ballester F, Barros H, Bergström A, Charles MA, Chatzi L, Chevrier C, Chrousos GP. Maternal body mass index, gestational weight gain, and the risk of overweight and obesity across childhood: An individual participant data meta-analysis. PLoS medicine. 2019 Feb 11;16(2):e1002744.
12. Hanson M, Barker M, Dodd JM, Kumanyika S, Norris S, Steegers E, Stephenson J, Thangaratinam S, Yang H. Interventions to prevent maternal obesity before conception, during pregnancy, and post-partum. The Lancet Diabetes & endocrinology. 2017 Jan 1;5(1):65-76.

Further reading

- Scarborough P, Kaur A, Cobiac L, Owens P, Parlesak A, Sweeney K, Rayner M. Eatwell Guide: modelling the dietary and cost implications of incorporating new sugar and fibre guidelines. BMJ open. 2016 Dec 1;6(12):e013182.
- Barker M, Dombrowski SU, Colbourn T, Fall CH, Kriznik NM, Lawrence WT, Norris SA, Ngaiza G,

Patel D, Skordis-Worrall J, Sniehotta FF. Intervention strategies to improve nutrition and health behaviours before conception. The Lancet. 2018 May 5;391(10132):1853-64.

- Vogel C, Ntani G, Inskip H, et al. Education and the Relationship Between Supermarket Environment and Diet. *Am J Prev Med* 2016 doi: 10.1016/j.amepre.2016.02.030