Discussion paper: NHSE&I Procurement of Digital Weight Management Services

Background

With nearly two-thirds of adults in England identified as overweight or obese, the challenge of obesity management is a major public health concern. The Global Burden of Disease (GBD) study,[1] which quantifies and ranks the contribution of various risk factors that cause premature death in England, places both poor diet and obesity in the top five risk factors. Inequalities in the prevalence of obesity exist in relation to deprivation, ethnicity, gender, geography and mental illness. The cost of obesity-related health problems borne by the NHS is estimated at £6.1bn a year. In 2017/18, 711,000 admissions to NHS hospitals recorded obesity as a primary or secondary diagnosis.

The National Institute for Health and Care Excellence (NICE) advocates a tiered approach to weight management with Tier 1 providing universal services such as health promotion, Tier 2 which focuses on lifestyle interventions, Tier 3 which concentrates on specialist weight management services (WMS); and Tier 4 focusing on bariatric surgery provision.

Long Term Plan commitment

The NHS Long Term plan committed to providing "a targeted support offer and access to weight management services in primary care for people with a diagnosis of type 2 diabetes and/ or hypertension with a BMI of 30+ (adjusted appropriately for ethnicity)". In order to meet this commitment, NHS England and Improvement now aims to procure digital weight management services (Tier 2 services) in the form of a digital Weight Management Innovation Platform, with a particular focus on supporting those from Black Asian and Minority Ethnic (BAME) and more deprived communities to access weight management interventions. Through offering digital WMS to people living with obesity plus diabetes and/or hypertension, we aim to support weight loss in those at highest risk of complications arising from obesity.

A digital approach to weight management

Traditional Tier 2 services have typically been delivered as face-to-face interventions, but these can be inconvenient or undesirable for some participants, which may reduce uptake and increase attrition. Evidence from the published trial data on take up of weight management services suggests under-representation of men[2] and people from BAME[3] and more deprived communities[4] in these services.

There are numerous commercially available digital weight management products, which offer additional options for how people can access support at a time and place of their own choosing.

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[1] https://www.thelancet.com/gbd?source=post_page

[2] Elliott, M., Gillison, F. & Barnett, J. Exploring the influences on men's engagement with weight loss services: a qualitative study. BMC Public Health 20, 249 (2020). https://doi.org/10.1186/s12889-020-8252-5

[3] https://onlinelibrary.wiley.com/doi/epdf/10.1111/j.1467-789X.2010.00829.x A. M. El-Sayed, P. Scarborough and S. Galea Ethnic inequalities in obesity among children and adults in the UK: a systematic review of the literature

[4] Data from: The equity impact of brief opportunistic interventions to promote weight loss in primary care: secondary analysis of the BWeL randomised trial

Additionally, social distancing during COVID and shielding advice mean that there are risks involved in delivery of face to face services during the pandemic which have added to the case for better understanding the effectiveness of different digital models, delivered at scale.

Interactive digital technologies with the potential for low-cost scalability can be a means to enable health systems to better manage a population with an increasing prevalence of obesity-related co-morbidities. Emerging evidence from the NHS Diabetes Prevention Programme (commissioned by NHS England and Improvement) suggests that some digital providers can perform as well as face to face services, with benefits in reaching a younger cohort and offering increased flexibility of access, although there can be significant variation in weight loss achieved through different products.

Emerging evidence also supports the positive influence that targeted coaching support can have for some recipients of weight loss interventions and their subsequent long-term weight management. As an addition to a self-guided digital weight management intervention, it is anticipated that interventions including direct human support may have increased effectiveness and/or take up from specific groups. There is also evidence from the NHS Digital Diabetes Programme which suggests that programmes that provide human provide contact time with a healthcare professional, or a lay health coach may be associated with greater weight loss.[5] An additional systematic review[6] specifically concluded that trials that incorporated text messaging or email (feedback, encouragement or coaching) showed a significantly greater weight loss in participants who received this component.

However, the relative effectiveness of different delivery models has yet to be fully evaluated. We anticipate that a single, national procurement will act as a mechanism to stimulate an emerging market and ensure that comparable data on the relative effectiveness of different services is gathered.

NHS England and Improvement digital Weight Management Innovation Platform

NHS England and Improvement intends to procure weight management services, delivered through a digital Weight Management Innovation Platform. This will deliver digital weight management services at scale to the specific cohort identified in the NHS Long Term Plan (those with obesity and diabetes and/or hypertension), to prevent health complications arising from their obesity and co-morbidities – with additional support available for those from BAME and more deprived communities. It is also our intention to build the evidence base around the effectiveness of different digital products and ‘what works and for whom’ to inform the future delivery and implementation of digital weight management services taking account of the needs of different population groups.

This is not a replacement for Local Authority commissioned services - the proposed new digital Weight Management Innovation Platform will increase the range of weight management services on offer for the eligible cohort. Our aim is to supplement existing Local Authority commissioned weight management services, to expand overall capacity and to offer alternatives with additional flexibility in how weight management services are accessed for people with obesity and specific co-morbidities. Local Authorities have expertise in understanding the needs of their local populations and in many cases the services they commission are tailored to meet the specific needs of local communities. We recognise that digital services will not be suitable for everyone and therefore it will remain essential that Local Authorities continue to invest in existing weight management services for their communities. NHS patients with obesity will continue to be able to access Local Authority commissioned weight management services where the new digital services are inappropriate for

[5] In a multivariate model of National Diabetes Prevention Programme outcomes, which controlled for baseline weight and included features of interventions as predictors of 6 month weight change score, having access to peer support, wearables and a website and telephone service was associated with significantly greater reduction in weight compared to not having access to these features.

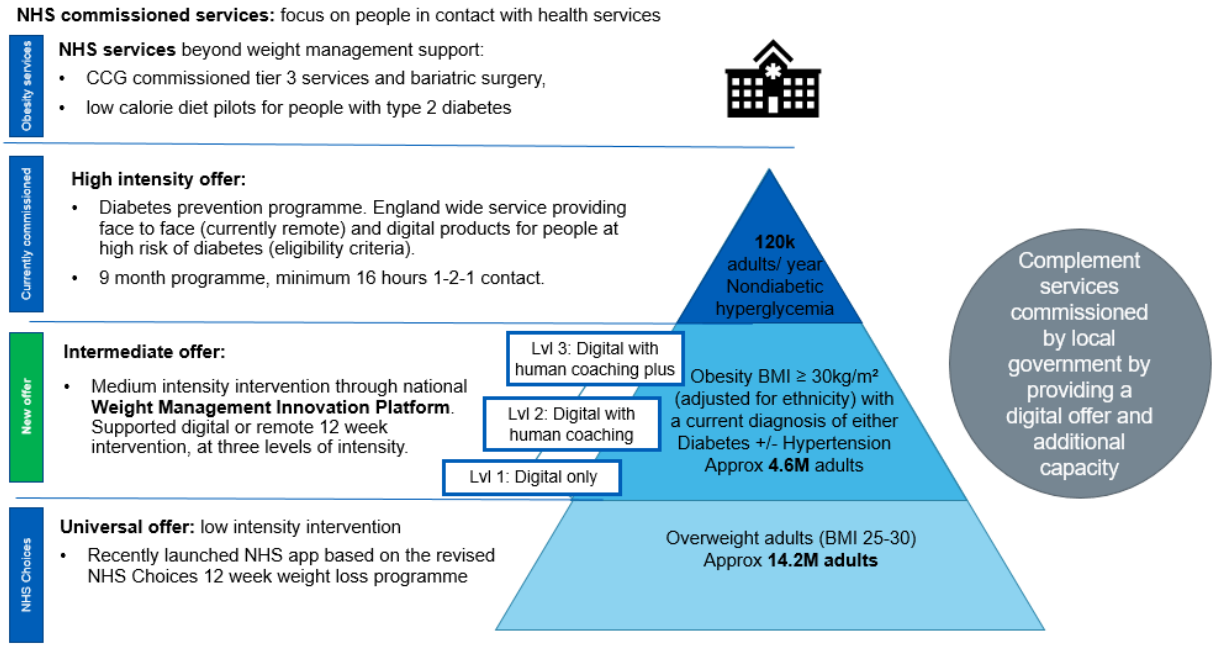
[6] Allen, J. K., Stephens, J., & Patel, A. (2014). Technology-assisted weight management interventions: systematic review of clinical trials. *Telemedicine journal and e-health : the official journal of the American Telemedicine Association, 20*(12), 1103-1120. doi:10.1089/tmj.2014.0030

their needs and Primary Care can refer patients to whichever services are the most suitable for an individual.

The proposals outlined here and the inclusion and exclusion eligibility criteria have been developed by the NHS England and Improvement Obesity Expert Reference Group who have provided clinical and academic advice. The Obesity Expert Reference Group is an integral part of the NHS England & Improvement prevention programme governance structure.

High Level Description of the Proposed Platform

The Weight Management Innovation Platform will be free to patients and local services and it will provide a central access point for accessing 12 week digital weight management interventions, delivered across three levels of intensity:



Level 1 – access to digital content only.

Level 2 – access to digital content, plus access to around 50 minutes of human coaching, which is intended for participants with motivation to change and lose weight, but who may benefit from additional human coaching to support them to complete programmes; and

Level 3 – access to digital content, plus access to around 100 minutes of human coaching, and additional features such as supported on-boarding and gamification. We would expect services in this category to demonstrate tailoring to groups which are less likely to successfully complete a weight management programme.

At each of the levels, the products on the framework will provide access to digital content and enable individuals to work through programmes independently, at a time and place of their choosing. The programme material will allow participants with different levels of knowledge and different approaches to learning to progress at different paces. The delivery mode may incorporate motivational content, digital peer support groups, nutrition, cooking advice and recipes combining differing religious, cultural and health needs. In addition, they may promote physical activity/active travel and general health education.

Services will be expected to be delivered in a way which is culturally sensitive and to be flexible enough to meet the needs of participants from diverse backgrounds – particularly at Levels 2 and 3. Approaches to maximising engagement with and retention on interventions for men and people from BAME and more deprived communities are a key focus for the delivery and reach of the planned services.

The identification and referral of people to the new services will be the responsibility of local healthcare providers and local authorities. Access to the Weight Management Innovation Platform will be via GP or alternative healthcare professional referral through an NHS England & Improvement commissioned front-end 'referral hub'. The referral hub will act as a single point of contact for all potential participants, facilitating their triage and allocation to the most appropriate level of intervention within the Platform. Where local single points of access for community services exist, then these will be able to signpost people to the new digital services and/or support them to access them.

People accessing the referral hub will be asked a small number of questions about their age, ethnicity and where they live to enable stratification, or triaging of people to the most appropriate level of support. The triage system, developed utilising the extensive data and information gathered through the National Diabetes Prevention programme, will provide a weighted score based on identified characteristics associated with lower likelihood of completion of a weight management programme (i.e. younger age, non-White ethnicity, male gender, and greater deprivation). It should therefore allow stratification into the appropriate level of intervention and the most suitable service providers. The intention is that those less likely to complete the programme would be eligible for a level 2 or 3 intervention, which would provide human coaching and additional features such as support during the on-boarding phase (level 3). This approach will be kept under review during implementation and is intended to ensure that those people who less likely to complete the programme receive additional support to access weight management services.

A standardised data-set, combined with centralised access and performance monitoring, will ensure that comparable outcomes data are collected, broken down by demographics. The data-set will allow assessment of the effectiveness of different digital services for different groups of people in our communities.

Requirements that sit across each of the three intervention levels:

The digital services that we intend to procure will:

- Support participants to achieve weight loss over a 12-week period;
- Be delivered digitally via a mobile phone app, a web-based platform, or both;
- Empower people who meet the inclusion criteria to take a leading role in instituting and maintaining long-term behaviour changes towards achieving and maintaining a healthy weight;
- Aim to ensure equitable access by all participant groups with a view to reducing health inequalities and promoting inclusion for people with protected characteristics under the Equality Act 2010;
- Provide information to the participant to support them to achieve calorie deficit through a healthier balanced diet, support behavioural and lifestyle changes to reduce and manage their weight, improve their health status and their quality of life and support achievement of the England Chief Medical Officer's (CMO) physical activity recommendations and a reduction in sedentary behaviour;

- Collect weight measurements through participant self-reporting;
- Be underpinned by a common minimum data set and collect information on participants at specific points in the 12-week programme. This will include engagement information and participant outcomes;
- Encourage and facilitate peer to peer input and support where opportunities to do so arise and are suitable for the participant.

Proposed Eligibility Criteria

Inclusion criteria

Individuals who:

- are aged eighteen years or over;
  and
- are resident or registered with a GP practice in England;
  and
- have a BMI ≥ 30kg/m² (adjusted to 27.5kg/m² in people of black African, African-Caribbean and Asian origin);
  and
- have a current diagnosis of either Diabetes +/- Hypertension.

Exclusion Criteria

Individuals who:

- do not meet the eligibility criteria as defined above;
- are aged under eighteen years;
- have severe/moderate frailty as recoded on a frailty register;
- are pregnant;
- have a diagnosed eating disorder;
- would benefit from more intensive clinical management from a Tier 3 service;
- have a significant unmanaged co-morbidity;
- have had bariatric surgery in the last two years.
- For those people over the age of 80 years, testament that the programme would be beneficial to the individual will be required from the referring GP.

Proposed payment model

We are proposing a simple payment model based on a single payment according to engagement throughout the programme. We envisage that payment would be linked to weight being recorded at four times at specific intervals (at weeks 0, 4, 8 and 12) during the 12 week programme. There will be one payment made to the Provider at the end of the programme (week 12) based on capturing 3 or more of the recorded weights. This payment mechanism is based on the hypothesis that weight recording will provide a good indication of ongoing engagement and it is intended to ensure that outcomes are appropriately recorded.

Providing feedback on the emerging proposals

NHS England & Improvement is seeking focused feedback on these proposals. Please respond to the points made in this discussion paper in writing by using the form below. Please note that at this stage information will be used solely to inform the intended population to be served, access route and delivery approach. We are particularly interested in feedback on the following areas including

where you may have existing evidence from service delivery. These questions are designed to act as a guide but please include any broader comments in the final section of the template.

Question / Topic	Comments
1. Delivery Models – 'Levels'	
a) Are there any specific interventions or actions you can identify which may enable more personalised provision, at scale, to deliver against the unmet need of specific population groups? If yes, please detail which unmet need is being addressed and how the benefit would be realised.	A key concern for us is that appropriate language and culturally tailored interventions are needed to reach these hard-to-access groups. In our view it would be useful to ascertain from members and/or community leaders within these groups what the barriers are, how they can be overcome and what sorts of interventions would be most appropriate. In addition, it is important to clarify whether there is recognition within these groups of the importance of a healthy weight; if they do not recognise it as a health issue, and one which is personally relevant, they are unlikely to engage with any intervention, no matter how it is delivered.
b) Are there any existing digital weight management services which tailor provision to ensure that the needs and circumstances of specific groups are met? If yes, please provide details, including how the services are tailored to these groups.	There are a number of digital options that allow advice on diet and nutrition to be personalised and tailored to specific audiences, including (but not limited to): • myfood24 - this online tool has been developed by an academic team with rigorous underpinning validation. Initially developed as a robust research tool. It is now being tested in Tier 3 weight management service patients and other clinical groups. The app includes a diet optimisation feature which provides guidance for the user at an individual level, towards meeting guideline intakes based on the smallest reasonable changes to their current diet • Oviva - already used as an NHS service (thorough GP referral) giving detailed tailored advice for patients with Type 2 diabetes who need to lose weight. This is of direct relevance to those participants included who have T2D and could probably be adapted to suit the needs of all participants eligible for inclusion in this programme.
2. Access and Referral route	
a) Are there any specific measures that you feel that we should consider to ensure equitable access for specific population groups? If there are please explain your rationale and the beneficial outcome to the patient group that would be expected.	We agree that engagement with face-to-face weight management services is low in some groups, and that the addition of digital weight management interventions may benefit some. We are glad to see that it is not proposed that the digital services should replace face-to-face provision, but rather will complement it. Unfortunately, face-to-face provision differs significantly between local authority areas, and therefore some population groups do not have equitable access to non-digital support. This should be considered as part of the commissioning of these services. We need to see a clearer articulation of how NHSE/I will ensure that no local authorities reduce or decommission services in response to the creation of these digital services provided by the NHS. We recommend a community development approach, including a needs assessment to properly investigate and address issue such as equitable access, rather than just assuming these are already fully known and/or understood.

	Covid-19, whilst placing restrictions on face-to-face contact and group meetings, also exposed a significant national digital divide and we have concerns in relation to this. Vulnerable groups may lack or have limited access to suitable equipment and/or may lack the financial wherewithal to use internet payment plans to access services. This would reduce the opportunity for deprived communities to participate. In addition, vulnerable groups may have little or no access to suitable IT facilities. We also have concerns that the specific groups being considered may have language needs and/or lack the health literacy to avail themselves of such services. Services and resources must be made available in a variety of languages appropriate to local needs. There may be a need for interpreters due to language difficulties. Within the BAME community, there is wide heterogeneity which needs to be reflected in the information, materials and language used. In addition, the information on diet and physical activity needs to be culturally and sensitively appropriate. A high degree of motivation will be required in order for individuals to engage with the material at all levels, and there is a risk that those who are struggling more with motivation will be further disadvantaged by provision of another service that requires a high degree of self-motivation. Individuals who are signposted to level 1 should be readily moved to level 2 or 3 support or more specialist support if they fail to achieve weight loss or find themselves unable to complete the programme due to lack of support. Individuals should be able to access services on multiple occasions.
b) We anticipate that the NHS annual health check will provide a referral opportunity for many patient groups. Can you identify any further opportunities where an opportunity for BMI calculation and appropriate referral may take place that we should consider?	We note that local healthcare providers and local authorities will be the referring agents. It is unclear how local authorities will make referrals (although they will commission services locally based on local population needs). All healthcare professionals should be able to refer into these services based on either weights and BMI they have recorded at any appointment, or based on conversations about weight they have had with individuals (ideally plus recorded weights and BMI). Dietitians for example, will be ideally placed to make such a referral. Pre- and post-natal visits could be a key point for referral. Weight gain during and after pregnancy is common and could be a key time for intervention. People living with obesity who require surgery or other significant health interventions for unrelated matters should be eligible for referral to this programme. This can be a key means of achieving improved outcome post-procedure, and could also reduce the number of cancelled surgeries. If individuals could self-refer to the service (if they observe their own weight changes and have concerns about it for example), that could increase referrals into the service (but would have the disadvantage of being entirely based on self-reported weights).

	It is our view that weights should be routinely recorded by any healthcare professional annually, and if this were in place, referrals to these services would be both based on objective weights and would happen reasonably quickly after weight changes. In addition, any healthcare contact with secondary care represents a potential opportunity to refer into the services. Secondary care should routinely be checking BMI and be able to refer or signpost without going back via the GP.
c) Are there any specific considerations you feel should be taken into account during the participant registration process, conducted by the Provider through the online platform, in relation to specific service user groups?	Language **-** resources should be available in different languages appropriate to the needs of specific communities. The type of language used and information structure should consider those with low educational attainment. Local authorities will have information on the specific needs locally. Clearly data security measures will be vital at registration. A high degree of clarity will be needed to ensure that participants are clear about the extent of their own involvement and the need for self-motivation throughout. Providers must make provision for those who may lack digital literacy or have inadequate access to IT facilities.
3. Inclusion and Exclusion Criteria	
a) Considering the proposed inclusion and exclusion criteria are there changes that you would suggest to optimise the reach of the programme and if so why?	We note that only those already diagnosed with either hypertension or type 2 diabetes and either overweight or obesity are eligible for services. However, this will miss out a large group who may be at high risk of developing one or both of those conditions but have not yet done so. We would advocate either the diagnosis of hypertension of type 2 diabetes, a family history of one or both of these conditions, any instances where a healthcare professional believes there is a risk of either of these or similar obesity/weight related health conditions (e.g. a diagnosis of pre-diabetes) and for women the inclusion of previous gestational diabetes. We would encourage the inclusion of CVD as a referral criterion as well and these conditions are all common co-morbidities of obesity. Access and ability to use digital technology within these groups needs to be explored otherwise a large section of the vulnerable groups may be excluded.

4. General Comments a) Please provide any comments on the general approach and any other responses.	Thank you for the chance to comment. In addition to the points above, we have these further comments: 1. It is unclear who will be developing these services. It should be a requirement that any successful provider includes registered dietitians or registered nutritionists and appropriately qualified activity specialists within their team, all with evidence of behaviour change expertise. This will be of importance for all resources developed but particularly so for levels 2 and 3, where human participation will be involved. 2. Consideration should be given to commissioning a suite of existing services and tools from a range of contractors so that the best elements, with the most development and previous evaluation can be commissioned. Expecting one company to provide all elements may be a tall order, and may result in a system which is not fit for purpose. 3. We support the proposal to offer services at three levels, depending on the needs of the individual. We would like more clarity about how this will be done, including what specific questions will be asked in order to signpost individuals to Levels 1, 2 or 3. It must be based on individual responses, rather than assumptions about who is most likely to benefit from specific levels. 4. Equally, while it is beneficial that a 12-week programme is proposed, there should be more flexibility within this system, and there is no clarity about support at the end of the programme. Some individuals may require a longer period of support, and the system should not be so rigid as to withdraw support at the end of 12-week period. Those completing the programme at all levels should be offered longer term support. It will be important consider for how long, what it will involve and how it will be delivered. The weight maintenance phase is often more difficult than the weight loss phase, and we would strongly advocate for weight maintenance to be added to the proposal. 5. We have concerns that while behaviour change and diet will be included in the digital programmes, physical activity only 'may' be. Since physical activity and reduced sedentary behaviours are recognised as key in weight maintenance and illness prevention, it is our view that the inclusion of physical activity should not be optional. 6. We also note that weight will be reported at four time points throughout the programme but will be self-reported. If the aim of the programmes is to 'support weight loss' (as stated), it is unclear how there will be any objective evidence of weight loss as a result. We also know that there is a likelihood that those with obesity or overweight may inaccurately self-report. Without objective evidence of at least baseline and final weights, the payment plan proposed will not necessarily represent value for money. 7. We also advocate for longer term reporting of weight status, beyond 12 weeks, again using objective measures. 8. We note that peer-to-peer input and support will be encouraged and would like to know what support and resources will be in place for such peer mentors to ensure that they can provide accurate and appropriate support. We have seen from existing online support networks associated with the NHS 12 week plan that mentors and moderators

	provide information that was directly in contradiction to advice 9. We need to see a clearer articulation of how these digital services will be integrated with existing local authority provision to ensure they are complementary. Given the standardised approach being used across England for the NHS services, this may prove challenging with the significant difference between local provision. It is important that individuals who struggle with digital options can be quickly referred/transferred to face to face provision and vice-versa. 10. Clarity is needed about the aim of the programme. As mentioned earlier, weights need to be measured objectively at least at some of the timepoints. However what degree of weight change will be considered successful? Will other changes be measured (e.g. improvements to diet, reduction in sedentary behaviours, increased levels of physical activity, improved wellbeing, reduced use of medication?). 11. We support the intention to gather data about what works. We would also advocate collection of data on what does NOT work, to ensure that future innovations are evidence-based. 12. What resources will be made available for specialists to use to support the coaching sessions? 13. The membership of the expert obesity group is unclear and in our view it should be transparent. 14. How will impact on hypertension and type 2 diabetes be captured? 15. It is not clear how user feedback will be captured. 16. Who will oversee that the content of the programme is suitable for the user group in terms of language, culture, social situations?