# Supporting weight management services during the COVID-19 pandemic

# Phase I insights

LEEDS BECKETT UNIVERSITY

BDA The Association of UK Dietitians

UCL

BDA The Association of UK Dietitians
Obesity
Specialist Group

UNIVERSITY OF LEEDS

EASO
European Association for the Study of Obesity

Local Government Association

Royal College of Physicians

BOSS
BRITISH OBESITY & METABOLIC SURGERY SOCIETY

OBESITY EMPOWERMENT NETWORK UK

Obesity UK

# About Public Health England

Public Health England exists to protect and improve the nation's health and wellbeing, and reduce health inequalities. We do this through world-leading science, research, knowledge and intelligence, advocacy, partnerships and the delivery of specialist public health services. We are an executive agency of the Department of Health and Social Care, and a distinct delivery organisation with operational autonomy. We provide government, local government, the NHS, Parliament, industry and the public with evidence-based professional, scientific and delivery expertise and support.

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## Background

Societal changes required to manage the coronavirus (COVID-19) pandemic may have inadvertently promoted weight gain, due to the adverse impact on socio-economics, psychological health, and the resulting metabolic impact of elevated stress, emotional eating and physical inactivity. Evidence on the impact of COVID-19 has rapidly accumulated, to demonstrate that people living with obesity are at higher risk of severe illness from COVID-19 infection. It is therefore important to understand what is happening in terms of weight management practice to develop local and national thinking. This project will explore the impact of the COVID-19 upon the provision of tier 2 and 3 weight management services (WMS) in England during the lockdown period (phase I; March-June 2020); and determine what needs to happen in the future (phase II; September-November 2020). This report documents findings from phase I.

## Aims

The aims are to:

- evaluate the impact of COVID-19 on children, young people (CYP) and adults living with overweight and obesity during lockdown
- evaluate the impact of COVID-19 on the provision of WMS during lockdown
- explore with service providers, commissioners and service users how WMS need to adapt in response to the recovery strategy, and what measures are required to facilitate these changes

## Methods

A rapid mixed methods, collaborative, multi-stakeholder approach, that includes: surveys with service users, providers, commissioners and local authorities; local practice examples; insights from a series of regional webinars; and wider consultation with the Health & Wellbeing Alliance, patient and Black, Asian and Minority Ethnic (BAME) groups.

## Key findings

### The impact of COVID-19 on CYP and adults living with overweight and obesity

CYP and adults living with overweight and obesity are concerned about the increased risks associated with COVID-19 infection.

The COVID-19 pandemic has reduced access to WMS and support for CYP and adults many CYP and adults living with obesity were using food to manage their emotions during the COVID-19 lockdown.

COVID-19 has adversely impacted self-reported dietary and physical activity behaviours in many CYP and adults.

### The impact of COVID-19 on service provision, adaptation, and inequalities

Face-to-face WMS were suspended as a result of the COVID-19 pandemic the impact of remote provision on client engagement and uptake appears variable in England.

Some services have rapidly adapted to continue providing support through remote delivery, offered via a variety of different approaches including activity packs, telephone, social media and online support.

One-to-one telephone support services seem to be well received by clients most in need or without internet or IT access.

Remote services provide the potential to reach a large population and engage populations who cannot, or do not wish to engage with face to face groups or sessions, by removing travel barriers and providing an approach that can more easily fit around other commitments.

Online safety, reduced client engagement, resourcing issues, reporting of outcomes and evaluation were all identified as potential challenges to remote service provision the potential impact of service adaptation and impact on inequalities was frequently raised, with further work required to understand the impact on BAME populations, older adults, families living in deprivation and vulnerable communities.

There is no 'one size fits all' approach to adapted WMS provision: adapted services should be patient centred and tailored for individual circumstances.

There is a role for remote support, but as part of a range of different support methods, in order to serve the widest possible population and eliminate inequalities in access

there are many examples of emerging good practice. It is therefore important that all new service innovations and adaptations are evaluated to inform the evidence base and continue to share practice-based learning.

## The impact of COVID-19 on WMS commissioning

Insights suggest that the COVID-19 pandemic will impact future weight management commissioning.

It is important to ensure weight management remains a priority, and that learning from service adaptations informs the development of more resilient future services.

## Discussion

This rapid piece of research has informed national learning regarding the impact of COVID-19 on WMS: providing a comprehensive insight, and 17 local practice examples, to demonstrate how services have adapted to different remote delivery models. These insights have provided the following outputs documented in this report: 1) a set of guiding principles providing up to date guidance for WMS providers, commissioners and users, to help ensure continuity and equitable access of service provision during the recovery phase and redesign. See section 5 for details of these guiding principles. 2) a clear set of required research priorities and agreed actions for Public Health England (PHE) and phase II of this work programme.

# 1. Background

Societal changes required to manage the coronavirus (COVID-19) pandemic may have inadvertently promoted weight gain, due to the adverse impact on socio-economics, psychological health, and the resulting metabolic impact of elevated stress, emotional eating and physical inactivity[1]. Evidence on the impact of COVID-19 has rapidly accumulated, to demonstrate that people living with obesity are at higher risk of severe illness from COVID-19 infection[2]. It is therefore important to understand what is happening in terms of weight management practice and develop local and national thinking.

Whilst weight management services adapt to COVID-19, the environment in which we live also needs to change to support healthier behaviours. A local whole systems approach to obesity is a 'Health in All Policies' approach, which draws on local authorities' strengths, supports their priorities, and recognises that they can create their local approaches more effectively by engaging with their community and local assets[3]. The integration of weight management services and healthy lifestyle services coordinated by local authorities, NHS, PHE and the community, strengthens a whole system's approach by increasing the effectiveness in supporting people living with obesity.

WMS in England are offered at different 'tiers' or level of intervention: tier 1 provides health promotion (for example, Change4Life) to help prevent the development of excess weight; tier 2 provides multi-component behaviour change support for patients with overweight or obesity; tier 3 provides specialist multi-disciplinary WMS for patients with severe and/or complex forms of obesity, including those preparing for bariatric surgery which is provided in tier 4. At the beginning of the COVID-19 lockdown, NHS England advised that all behavioural WMS (tier 2 and 3) were to stop during this period[4,5]. This resulted in a variety of responses throughout England within tier 2 and tier 3 WMS. Although some services ceased entirely, many providers and local areas were still delivering support to service users, albeit in different formats. With England now emerging from the COVID-19 lockdown, public health teams are now discussing how and what to offer in the future. As approaches have adapted to ensure continuity of delivery, it was important to capture and share key learning and local practice to support the system, including exploring the experiences of service users, commissioners, and providers.

This project explored the impact of COVID-19 upon the provision of tier 2 and 3 WMS in England during the lockdown period (phase I; March-June 2020).

The focus of this research is predominantly from a public health perspective, looking at how community WMS, rather than clinical services have adapted. Tiers 2 and 3 were

subject to the guidance to cease behavioural weight management programmes during lockdown. Tier 2 services are commissioned by local authorities who are supported by PHE, whilst tier 3 services tend to be commissioned by Clinical Commissioning Groups (CCG's). However, in some areas tier 3 services have been jointly or solely commissioned by the local authority, so have also been included in this research alongside tier 2 services[6]. PHE accept the importance of tier 4 services although this was outside the scope of phase I of the report.

## Phase I aims

Phase I aims are to:

- evaluate the impact of COVID-19 on CYP and adults living with overweight and obesity during lockdown
- evaluate the impact of COVID-19 on the provision of WMS during lockdown
- explore with service providers, commissioners and users how WMS need to adapt in response to the recovery strategy, and what measures are required to facilitate these changes

## Phase I research questions 1-6

1. What have been the key issues for adults living with obesity and CYP living with overweight[i] and obesity (very overweight) in England during the COVID-19 lockdown (including impact of social distancing, food insecurity, shielding, mental wellbeing, and health related behaviours)?

2. What tier 2 and 3 WMS are currently running (including those commissioned by acute trusts and local authorities, and how did local authorities and acute trusts consider and act upon the guidance from NHSE&I to stop all behavioural WMS during the COVID-19 lockdown period?

3. What has been the impact of COVID-19 on commissioning/providing/accessing weight management support during lockdown at tier 2 and 3, and have there been any unintended benefits or challenges? How have services adapted to facilitate continued support? If services have not adapted, why, and what adaptations do they feel are required to enable them to resume service? Where adaptations to service delivery have been made, what has worked well, what has not worked well, for which populations and why (thinking particularly about the impact on inequalities).

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[i] As defined in UK90 BMI Chart, child body mass index centile classifications (clinical cut-offs) for overweight is ≥91st. Obesity or very overweight is ≥98th. Royal College of Paediatrics and Child Health growth charts are available from: www.rcpch.ac.uk/resources/body-mass-index-bmi-chart

4. What technology has been used to support service adaptation and delivery during the COVID-19 lockdown, and what have been the pros and cons of these?

5. How might the commissioning landscape change, in terms of current commissioning (are services still being commissioned), future re-commissioning and new commissions?

6. What support would be helpful to service users, commissioners and providers to ensure that weight management services can effectively adapt to ensure continuity of, and equitable access to service provision as we start to re-establish services for all populations in need? Who should provide this support, what measures and approaches do service users think need to be in place in the future, to make them feel safe when attending a face to face session, and what do service providers require to enable them to safely deliver services going forward?

# 2. Methods

A rapid mixed methods, collaborative, multi-stakeholder approach was undertaken to address the aims and research questions for phase I. These included:

- key interim findings from 2 adult surveys led by University College London (UCL), 1 for people living with obesity and 1 for service providers, and 2 child surveys led by University of Leeds (UoL), 1 for CYP living with obesity[ii] and 1 for service providers
- a comprehensive local authority survey led by Leeds Beckett University (LBU), and completed by local authority obesity leads and personnel with a responsibility of public health
- a series of regional webinars organised by PHE
- local practice examples collated from across England
- wider consultation with the Health and Wellbeing Alliance, patient & BAME groups

Links to all surveys were disseminated through the weight management working groups within PHE, UoL, UCL and LBU. This was in addition to wider distribution through email contacts, social media channels and blogs on university websites, and were available for participants to complete from 14 May to 31 July. More details on the dates each survey was open for is provided in the Appendices.

For the webinars, colleagues from a range of organisations were approached to attend the first webinar, held on 4 June, which outlined the proposed research and provided participants with the opportunity to offer changes/suggestions to the research questions and how to reach potential contributors. The list of the organisations who were invited and who attended are listed in Table 1.

**Table 1: Organisations who were invited and attended the first webinar**

| **Providers** | <ul><li>A better health (ABL Health)</li><li>Slimming World</li><li>WW (Weight Watchers)</li><li>MoreLife</li><li>Beezee Bodies</li><li>MyTime Active</li><li>LighterLife</li><li>Thrive Tribe</li></ul> |
|---|---|

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[ii] The CYP survey used the same terminology regarding a child's weight category that is used in the national child measurement programme (NCMP), when communicating to children and/or their parents, which is to use 'very overweight' instead of obesity. The NCMP operational guidance: www.gov.uk/government/publications/national-child-measurement-programme-operational-guidance

| | |
|---|---|
| | • Nutrition U* |
| **Organisations** | • World Obesity Federation<br>• Obesity UK<br>• NHS England and Improvement<br>• Huddersfield CCG<br>• Association for the study of obesity<br>• Rotherham Institute for Obesity<br>• National Institute for Health and Care Excellence*<br>• Association of Directors of Public Health*<br>• National Institute for Health Research, Obesity Policy Research Unit* |
| **Academics** | • Oxford University<br>• University of Liverpool<br>• UCL<br>• Sheffield Hallam University* |
| **Government and NHS** | • Local authorities<br>• NHS Foundation Trusts<br>• Primary care (GP)* |

*Organisations invited, although were unable to attend

Once the research questions were finalised, webinars were held within each PHE region, where regional PHE obesity and physical activity leads invited their local networks (obesity and physical activity leads, service commissioners and providers) to take part in the webinar, where they were provided with the opportunity to provide local insight into each of the research questions. These webinars took place between 10-29 June 2020.

Local practice examples were obtained via the initial webinar, regional webinars and directly asking organisations to provide contributions (for example, British Dietetic Association (BDA) and the Local Government Association (LGA)). The practice examples are not necessarily representative of all services available in England and come from interested individuals who had time to submit an example. There were cases whereby an example was offered but due to competing interests and other priorities, a final example was not submitted.

Ethical approval for this work was granted by the lead university for each workstream. For the surveys consent was obtained online from the participant after reading the survey information and agreeing electronically to participate. At the beginning of each

webinar participants were asked if they were happy for their comments to be recorded and included as part of the research.

The methodologies, number of participants and aligning research questions are shown in Table 2. Further information about the webinar and surveys is available in the accompanying appendices.

**Table 2: Phase I research methods and associated research questions 1-6**

| Research method and (n=completers) Research questions | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Adult service user survey (n=289 respondents) | X | X | X | | | |
| Child/young person service user survey (n=21 respondents) | X | X | X | | X | |
| Adult service provider/commissioner survey (n=104 respondents) | X | X | X | X | X | X |
| Child service provider/commissioner survey (n=41 respondents) | X | X | X | X | X | X |
| Regional webinars (n=8 webinars, n=200 delegates) | X | X | | X | X | X |
| Local authority survey (n=52 respondents) & supporting interview (n=1) | | | X | X | | |
| Local practice example (n=17) | | | X | X | | |
| Wider consultation with the health and wellbeing alliance, patient & BAME groups | X | | | | | |

# 3. Key findings

All data and findings from the surveys, alongside a summary of all webinar insights can be found in the appendices. The 17 local practice examples can be found in Appendix A. Key findings emerging from the triangulation of these data sources are summarised here.

## The impact of COVID-19 on people living with obesity

Triangulated findings from across the different methodologies are presented in Table 3. Although results from the CYP and adult surveys align, it is important to draw attention to the low response rate for the child/young person survey, which limits the representativeness of the child/young person survey data presented.

Key learning points. The impact of COVID-19 on people living with obesity

- CYP and adults living with overweight and obesity are concerned about the increased risks associated with COVID-19 infection.
- The COVID-19 pandemic has reduced access to WMS and support for CYP and adults.
- Many CYP and adults living with obesity are using food to manage their emotions during the COVID-19 lockdown.
- COVID-19 has impacted health related behaviours, including self-reported dietary and activity habits in CYP and adults.

**Table 3: Themes from across the methodologies that illustrate the impact of COVID-19 on CYP and adults living with overweight and obesity**

| Theme | Method | Evidence |
|---|---|---|
| Concern about the increased risks associated with COVID-19 infection when living with overweight and obesity | Adult survey[iii] | 60% of respondents felt they were at higher risk from COVID-19 infection due to their Body Mass Index (BMI). |
| | CYP survey[iv] | 67% of respondents felt they were at higher risk of COVID-19 infection, however, the same proportion also reported having other health conditions. |
| Reduced access to WMS and support | Adult survey[iii] | 61% of respondents reported that their tier 2 service had been cancelled or delayed, and 78% of respondents reported that their tier 3 service had been cancelled or delayed. Only 30% of respondents felt they have received enough support or information from their WMS during lockdown. |
| | CYP survey[iv] | 10% of tier 2 and 8% of tier 3 respondents reported that their child services had been suspended. |
| | Webinar insight | Knowing what WMS are available and how to access them may be a barrier for families without IT or internet access. |

[iii]Respondents were predominantly: female (90%), white ethnicity (95%), lived with severe obesity (67%) and had not experienced COVID symptoms (84%)

[iv]24% of respondents were young people 16-17yrs, the remainder were parents completing on behalf of their child. 38% of respondents were female and 10% of respondents experienced COVID-19 symptoms

| Theme | Method | Evidence |
|---|---|---|
| | Local authority survey | 21% of tier 2 and 17% of tier 3 respondents reported that their adult services had been suspended. |
| Changes to diet and physical activity habits | Adult survey[iii] | 72% of respondents reported to have used food to manage their emotions, 71% reported their diet had changed at least moderately, and 80% reported that their physical activity levels had changed a least moderately. |
| | CYP survey[iv] | 82% of respondents reported to have used food to manage their emotions during the COVID-19 pandemic, and all bar 1 respondent reported changes to their dietary intake. 82% of respondents also reported being less active. |
| | Webinar insights | <ul><li>the loss of routine/daily structure has resulted in some people baking and eating for boredom and comfort</li><li>the lack of peer support/social isolation, fear of going outside and constraints on physical activity choices (for example gym, swimming) and reduced opportunities for activity (for example access to outside for those in flats) has impacted negatively upon activity levels</li><li>increased stress/anxiety levels and poor mental health is impacting negatively on eating behaviours and engagement with weight management</li><li>the impact of food insecurity and access to healthy affordable food was raised frequently, with loss of income increasing food poverty, and reliance on food pantries/parcels which may not have appropriate dietary options to support weight management</li><li>school meals may be more nutritious than food prepared at home for some children living with overweight and very overweight.</li></ul> |

Regional webinar delegates (WMS providers, commissioners, and public health and obesity leads) also reported some positive outcomes of the changes that have occurred as a result of COVID-19. These included:

- increased reach of online and remote activities (particularly within rural areas and engaging people who do not engage in traditional face to face group sessions)
- restricted access to fast food, improved cycling and walking infrastructure; families supporting older adults in digital literacy; improved whole systems and partnership working; the ability to tailor online/remote support to client needs, when compared to tradition face to face group support
- alternative physical activity opportunities (for example, online classes)
- reduced time and environmental impact by not travelling to face to face sessions

There was consequently a desire amongst delegates to retain these positive attributes after the COVID-19 lockdown. This sentiment was also echoed from the patient insights.

## The impact of COVID-19 on service provision, adaptation, and inequalities

### Service provision

Almost all respondents to the child/young person and adult service provider surveys (100% and 99% respectively) reported that their service had been impacted by the COVID-19 pandemic. Insights from the regional webinars and local authority survey demonstrate a suspension of face to face WMS provision across England, with some services adapting to provide a remote delivery. There was however, a sense amongst webinar delegates that these adaptations were perhaps easier for adult tier 2 services. This finding was also reflected in the data collected in the local authority survey, shown in Table 4.

**Table 4: Responses to the local authority survey question: how has COVID-19 affected WMS in your locality?**

| Response option | Adult tier 2 % (n=52) | Adult tier 3 % (n=52) | Child tier 2 % (n=52) | Child tier 3 % (n=51) |
|---|---|---|---|---|
| There was no service pre-COVID-19 | 10 | 21 | 17 | 40 |
| Haven't changed | - | 2 | 2 | 2 |
| They have been adapted | 58[v] | 21[iii] | 42[iii] | 10[iii] |
| They have been suspended | 21 | 17 | 19 | 8 |
| I don't know | 11 | 38 | 19 | 38 |

## Service adaptation

**Changes to delivery format and use of technology**

Data from the child/young person and adult service provider surveys demonstrated that where services have been adapted, the vast majority were using some form of remote support provided by telephone or virtual interactions (see Table 5). This finding was reflected in the local authority survey, webinar and practice example insights, which reported a variety of adaptations to facilitate remote delivery. Specifically, these included: activity and wellbeing resources (practice examples 5, 13 and 17); telephone, email, social media, virtual platforms support (practice examples 1-3, 7, 9-12 and 16, 17); social media campaigns to promote activity (practice example 4) and encourage service uptake (practice example 6).

In terms of the technology deployed, this also varied widely from the use of social media platforms such as Facebook, WhatsApp, YouTube, Instagram; Apps such as Couch to 5K; and virtual meeting platforms such as Google Classroom, Skype, MS Teams, WebEx, StarLeaf and Zoom. Some organisations had security restrictions on using and/or encountered barriers to using certain platforms. Some services were adapted for existing users only, whilst others were also accepting new referrals to the adapted service.

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[v] Two participants stated that adapted services were only being offered to existing clients and new referrals were suspended

**Table 5: Service provider survey responses to how services have changed in response to COVID-19**

| Response option | Adult Services % (n=104) | Child Services % (n=41) |
|---|---|---|
| Reduced appointments to skeleton service | 25 | 7 |
| Telephone review | 77 | 34 |
| Virtual meeting platform for 1:1 appointments | 40 | 32 |
| Webinars | 20 | 4 |
| Virtual support groups | 23 | 15 |

NB: People were able to select multiple answers therefore percentages don't add up to 100%

Insights from the local authority survey and webinars suggest that client responses to remote provision were variable, with a general sense that telephone support worked better for those in the higher risk groups (including those without access to technology), with positive feedback from clients who received 1:1 telephone support. There was a sense that virtual services could work well for those who were already engaged in technology but may be challenging for those who were not previously using or did not have access.

Some services observed an increase in attendance and adherence with their digital service provision (for example: practice example 9), reporting that the virtual platforms provided greater access, flexibility and eased anxiety about joining group sessions. However, other services reported that some clients did not have access to, or did not want to engage with digital services, and deferred their engagement until face to face services resumed. Some services were starting to consider the logistics of restarting face to face support through garden or park visits, with children attending school or during talk and walk sessions (interview 1 and practice example 15).

Two local areas from the Midlands and Yorkshire were developing standard operating procedures to support a COVID-19 safe phased return to face to face weight management support.

Across all data sources there was a sense that learning from COVID-19 adaptations could inform future service delivery, with 69% of adult WMS provider/commissioner survey respondents stating that they felt their service would continue to use adapted delivery methods post-COVID-19 lockdown. This was similar to the 65% of commissioners who responded to the child/young person WMS survey who also felt services would continue to use new delivery methods post-COVID-19 lockdown.

**Challenges to adapted delivery methods**

The webinar insights, local authority survey data and supporting interview revealed several challenges to delivering adapted services (these were relatively consistent across service tiers and target age group), and included:

- safety concerns – online safety, data security and governance when using remote platforms, and safeguarding during remote delivery
- reduced engagement – greater reliance on client motivation; lack of space at home for private consultations; difficulty in building client rapport remotely; some families reporting digital overload and screen time concerns; some clients unable to engage due to other anxieties resulting from COVID-19; and reduced referrals due to COVID-19 related disruptions and or changes to referral pathways
- resourcing issues – some clients lacked access to required IT equipment, internet access and weighing scales to facilitate outcome measurement; reduced staff capacity due to furloughing or redeployment; staff isolation and delivery fatigue when operating remotely; some services reported a lack of staff confidence in using technology and an increase in resource intensity when transitioning from group provision to 1:1 remote consultations
- evaluation and reporting – concern was raised about the effectiveness of remote weight management provision, and how current key performance indicators (KPI's) can be met during remote provision and a reliance on self-reported outcome measures

## Impact of changes to service provision on inequalities

The potential impact of service adaptation and changes on inequalities was raised at each webinar, and in the local authority survey where 36 of the 50 respondents speculated that inequalities had increased as a result of WMS changes. Population groups that were thought to benefit most from further insight work were:

- BAME communities, for whom language may be a barrier – reports of increased difficulty in providing translation for online support, a need to work with existing community networks who speak different languages and appreciate the cultural implications required to raise awareness and provide access to new remote services

- older adults, where it was felt that digital promotion and the predominance of digital services may perpetuate inequalities for older generations who may not use digital platforms – however, one area did identify household intergenerational support as a means of helping to improve digital literacy in older adults
- families living in deprivation, who may be less able to engage in WMS due to other COVID-19 related stresses – these included, being more reliant on food pantry provisions which removes individual control in dietary choices; no weighing scales to monitor progress; not have access to outdoor space for exercise; and lack the technology or internet access required for online support (for example, in Wakefield between 5-10% of service users do not have a smart phone and for a service in the South West up to 40% of their clients do not have a smart phone)
- vulnerable communities such as people living with a learning disability or severe mental illness, for whom it was felt there was a lack of suitable WMS

Although most areas did not have, or had not yet assessed data to investigate the impact of their adapted services across all populations in need, the anecdotal reports captured do reflect findings from the recent Sport England survey which found that older people, people on low incomes, those living in urban areas or living alone were finding it harder to be active during the outbreak. This was also the case for people with long term conditions[7].

Evidence from the local practice examples (see Annex: Supporting weight management services during COVID-19: Phase 1) identifies some interesting emerging positive practice in terms of approaches which may help to address these inequalities, which include:

- developing activity and wellbeing support packs through community consultation and cross-sector working, to support vulnerable communities (adolescents living with a disability and vulnerable children and young people) in the North East (practice examples 13 and 17)
- developing new resources to support healthy and affordable cooking, active living at home and staying active and healthy during the pandemic, which were well received by families in Sunderland (practice example 17)
- providing a remote telephone and Microsoft (MS) Teams psychology led tier 3 service to support vulnerable patients with co-morbidities and from BAME communities in the South East and London – this is an approach that has improved attendance (due to remote provision providing flexibility and accessibility) and received positive client feedback (practice example 1)
- a tier-3 service in Medway, adapted to deliver support through telephone and MS Teams, found that clients preferred to face to face appointments, and played an important role in combating social isolation (practice example 7)
- adaptation of a WMS that targets families living in deprivation, 50% of whom are of Black African ethnicity, in Bexley, using pre-recorded virtual classes, social media,

and group programmes and cooking classes delivered via Zoom – outcomes were assessed using self-reported measures such as the Global Physical Activity Questionnaire and Food Frequency Questionnaire; the programme is being evaluated in a small number of families (practice example 3)

- a flexible model with online sessions and groups delivered by BeeZee Bodies, shows promise in targeting families on low incomes, and from BAME communities – this innovative co-production approach, involved working with vulnerable families and adults to provide remote holistic support, underpinned by user experience and behaviour support; initial feedback has been positive (practice example 2)

- supporting vulnerable young people in Sheffield through a tier 3 psychosocial-led service delivered through digital support, sports bubbles and COVID-19 secure counselling (practice example 11)

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Key learning points. The impact of COVID-19 on service provision, adaptation, and inequalities:

- Face-to-face WMS were suspended as a result of the COVID-19 lockdown.
- The impact of remote provision on client engagement and uptake appears variable in England.
- Some services have continued to provide support by rapidly adapting to provide remote delivery, offered via a variety of approaches including: activity packs, telephone, social media and online support.
- One-to-one telephone support services seem to be well received by clients most in need or without internet or IT access.
- Remote services provide the potential to reach a large population and engage populations who cannot, or do not wish to engage with face to face groups or sessions, by removing travel barriers and providing an approach that can more easily fit around other commitments.
- Online safety, reduced client engagement, resourcing issues, evaluation and reporting were all identified as potential challenges to remote service provision.
- The potential impact of service adaptation and change on inequalities was frequently raised, with further work required to understand the impact on BAME populations, older adults, families living in deprivation and vulnerable communities.
- There is no 'one size fits all' approach to adapted WMS provision: adapted services should be patient centred and tailored for individual circumstances.
- There is a role for remote support, but as part of a range of different support methods, in order to serve the widest possible population and eliminate inequalities in access.
- There are many examples of emerging good practice. It is therefore important that all new service innovations and adaptations are evaluated to inform the evidence base and continue to share practice-based learning.

## The impact of COVID-19 on WMS commissioning

Although most webinar delegates reported that it was too early to assess the long-term impact on commissioning, there was wide spread concern about the impact of funding cuts, and the importance of ensuring WMS remains a top health priority and is available to all populations in need. Delegates also suggested that new digital and remote offers might provide more resilient delivery models in the event of a second peak or local outbreaks.

Although only 6 commissioners completed the adult WMS survey, all of them reported that COVID-19 and the increased risk of obesity will have an impact on the commissioning of future WMS, and anticipated changes or challenges to weight management commissioning post COVID-19 lockdown. This compared to 5 of the 8 child weight management commissioners who felt WMS commissioning would be impacted, and 75% who anticipated changes or challenges to future commissioning.

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Key learning points. The impact of COVID-19 on WMS commissioning:

- Insights suggest that the COVID-19 pandemic will impact future weight management commissioning.
- It is important to ensure weight management remains a priority, and that learning from service adaptations informs the development of more resilient future services.

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**Table 6: Future support needs captured from across the methodologies**

| Support area | Method | Evidence |
|---|---|---|
| **Political support and funding** | Local authority survey | Eleven respondents commented on a need for more political support which included: support from PHE to make a renewed case for the importance of WMS; prioritisation and ring fencing of funding to increase capacity in the service provision; increased support for WMS for more complex and vulnerable populations living with obesity to decrease inequalities and increase life chances. |
| | Service survey: commissioner (C) responses | Comments included a need for more funding to support upscaling service to maximise reach |
| | Webinar insight | • political support in making technology and internet access available for all, and remove digital inequities, to support the remote delivery of WMS<br>• national support for making the case for WMS post COVID-19 lockdown, to help raise awareness and ensure continued commissioning during budget cuts. |
| **Research** | Local authority survey | Six respondents requested research to provide evidence: on the accessibility and effectiveness of online WMS among the most deprived communities; how clients with higher BMI's engage in technology and social media; and how population focus and challenges have changed following COVID-19 lockdown. |

| Support area | Method | Evidence |
|---|---|---|
| **Awareness raising and engagement** | Webinar insight | • advice on tackling stigma in terms of both weight management and support services (for example person first language and food pantries rather than food banks).<br>• a need for clear consistent national messaging around weight management and COVID-19, along the same lines as the quit for COVID-19 smoking campaign, but targeted so it reaches our BAME and high risk/most in need communities. |
| | Adult service user survey | 81% of respondents were not aware of any guidance relating to people with obesity and COVID-19 and would therefore benefit from clear national guidance[vi]. |
| | Local authority survey | Seven respondents requested support on raising awareness and enhancing engagement which included: a national awareness campaign providing clear population messages about the safety of returning to face to face weight management, the risks associated with COVID-19 and obesity, and the importance of weight loss. It was also felt that local areas should work to improve the promotion and marketing of current weight management support. |

[vi] Insights from new evidence on the relationship between excess weight and COVID-19 can be found at www.gov.uk/government/publications/excess-weight-and-covid-19-insights-from-new-evidence

| Support area | Method | Evidence |
|---|---|---|
| **Mental health and wellbeing** | Local authority survey | Four respondents requested support to ensure that there is sufficient mental health and wellbeing support available as part of weight management support. |
| | Webinar insight | Many participants felt that mental health support should be incorporated more into WMS to address these 2 interconnected conditions, with supporting psychometric outcome measures. |
| **Guidance / recommendations for service delivery** | Local authority survey | 23 respondents requested guidance and recommendations to support service delivery, which included: practice guidance on evidence-based remote weight management approaches; reset guidance to support the COVID-19 safe return of face to face weight management provision; collation of practice examples of adapted services; advice on KPI's to support the evaluation of remote delivery, that also considers clients that do not have access to scales or technology, and practice guidance on how to engage least heard communities (for example BAME communities, families living in socio-economic deprivation and people living with disabilities). |
| | Service survey: (C) responses | Commissioners responding to the survey requested guidance to support sensitively raising weight management concerns with the public and supporting continued use of services. |
| | Webinar insight | • KPIs for monitoring impact of remote services, and the limitations in numbers as a result of COVID-19 safe practices for those returning to face to face provision |

| Support area | Method | Evidence |
|---|---|---|
| | | <ul><li>an evaluation framework to share and learn from remote service delivery</li><li>COVID-19 reset guidance (supporting services continuity through recovery and redesign)</li><li>guidance on safe technology use and General Data Protection Regulation (GDPR) considerations</li><li>guidance on which approaches work best for which populations, with a particularly focus on BAME communities, populations from areas of socio-economic deprivation, older adults with poor digital literacy and people living with a learning disability.</li></ul> |
| | Interview | Update from the National Institute for Health and Care Excellence (NICE) providing advice on meeting this guidance during COVID-19. |
| **Training** | Local authority survey | Five respondents made requests for training to improve providers confidence and competence in using technology, social media and online platforms to effectively deliver weight management remotely. |
| | Webinar insight | Training to improve staff confidence in delivering WMS remotely. |
| **System wide change and partnerships** | Local authority survey | Six respondents requested support on delivering system wide change and partnership working, to facilitate: large scale infrastructure change eg physical infrastructure to support active travel/cycling ways/walk ways; digital infrastructure eg improving internet and technology access; integration of support systems and linking all professionals (from across sectors) who are responsible for offering support or signposting, to provide |

| Support area | Method | Evidence |
|---|---|---|
| | | a more joined up holistic wellbeing support; closer working relationships with community groups and organisations to improve access to and engagement with marginalised groups. |
| | Service survey: (C) responses | Comments included a need to be able to share learning, good practice and develop ideas. |
| | Webinar insight | An opportunity to share emerging good practice across the country, this could include a nationwide network for all key stakeholders (PHE, and weight management commissioners, providers and users) to share learning. |

# 4. Considerations and next steps for phase II

Although there were some limitations in terms of the number of responses to the child and young person's WMS user and provider surveys, limited socio-demographics of respondents within the adult service user survey, and potential duplication in the local authority survey respondents and webinar delegates, this rapid piece of research has provided a number of important learning points and supports findings from the emerging evidence base.

For example, the data from this research supports evidence to demonstrate the adverse impact of the COVID-19 lockdown on diet and physical activity behaviours from Sport England which demonstrate a reduction in activity levels during the outbreak [4]; a report on the nations plate which demonstrated that 90% of adults surveyed had changed their shopping or cooking habits, and 31% were eating less fruit and vegetables during lockdown[8]. In addition, a survey from the Food Foundation reported a rise in food insecurity from 5.7% pre-COVID-19 to 11.0% during COVID-19 lockdown amongst families with children[9]. The increase in snacking and alcohol consumption and decrease in physical activity and healthy dietary behaviours were reported in the COVID Symptom Study app. These changes in behaviours are also likely to have led to 29% of participants of the app also reporting to have gained weight during this time[10].

Findings from this research also mirror a recent report examining the use of digital health care during the COVID-19 lockdown in Leeds[11], in that it also reported: that digital and telephone access can be convenient: saving time, travel and providing flexibility to fit around other commitments. However, this research also found that digital approaches do not work for everyone and that some platforms work better for some people but not others, with safeguarding and staff training essential to effective remote delivery. The Leeds report identified poverty, age; literacy and communication preferences; skills and motivation; privacy; disability and specific condition; and trust in IT, as factors which may lead to digital exclusion[11].

Learning from phase I has informed the research questions in terms of understanding the impact of COVID-19 on service users, and service delivery: providing a comprehensive insight and 17 local practice examples to demonstrate how services have adapted to different remote delivery, support and communication models. Although the long-term impact on commissioning remains unclear, the insights gathered during this phase have provided a clear steer in terms of:

- the development of a set of guiding principles to provide up to date guidance for WMS providers, commissioners and users, to help ensure continuity of service provision (see section 5)
- identifying current evidence gaps and additional support needs, which are summarised in the next steps for policy, practice and research, which highlights research priorities, and agreed actions for PHE and phase II of this work programme

These insights will be further supported by the full analysis of the service user and provider surveys (peer review journal publications in preparation).

# 5. Guiding principles for WMS providers, commissioners and users during the COVID-19 recovery phase, developed from phase I insights

Given the unprecedented circumstances arising from the COVID-19 pandemic, it is important that services use pragmatic and innovative approaches to ensure continuity of service. Providing some form of continuity of care and support can help to provide reassurance to service users, however it is important to ensure that any new or adapted service is carefully monitored to ensure it does no harm and does not widen inequalities.

## Principles for service users

1. Service users may choose to visit their local authority website or seek advice from their local GP surgery or pharmacy to find out what WMS are available, and how to access them, as normal communication and referral routes may have changed as a result of the COVID-19 pandemic.

2. If service users do not have access to, or do not wish to use, the technology that a WMS is using, it is important that they let service providers know this, so alternative support (such as telephone support or printed materials) can be arranged.

3. When taking part in online sessions, service users should interact in a way that they feel most comfortable. For example, they should not have to switch on their microphone or video unless they wish to.

4. If service users are accessing a face to face service, they need to adhere to all the guidelines that the service provider will supply prior to their attendance. If service users have any concerns about attending a face to face session, they should discuss this with the service provider.

5. It is extremely helpful if service users provide honest feedback about the WMS. This is important because the service will have had to make rapid changes in response to the COVID-19 pandemic and will want to learn as much as they can about how accessible and useful the new or adapted service has been.

6. Service users can encourage friends and family members who would also like weight management support to contact the service provider. It is also important for service users to let their service provider know if there are members of their community who do not know about, or who do not want to access the service, as this will help the service make adjustments to meet the needs of the community.

7. Service users should be reassured that their service provider understands how difficult it has been to control weight during the COVID-19 pandemic. The service user should be assured that they will receive sensitive, practical support to help manage stress and any difficulties encountered in being active, finding healthy foods or tackling emotional eating.

## Principles for weight management providers

1. Ensure WMS take a person-centred approach, this should include:

- consulting with service users about preferred modes of delivery and support, and co-developing new services with target service users (including those from high risk groups for example BAME and deprived communities, older adults and people living with a disability)
- using non-stigmatising, person-first language[12]
- developing a menu of service delivery options to provide approaches that are tailored to individual needs and preferences, being aware that not all service users have access to, or may not wish to use technology or the internet
- maintaining multiple channels of communication to ensure all populations are aware of and can access the service – this includes working with under-served communities through community networks and champions, to ensure the correct communication channels are in place for all populations in need
- providing a range of options for physical activity, acknowledging that some service users may be concerned about accessing public facilities and may have limited indoor and/or outdoor space at home
- inviting, recording and acting upon service user feedback
- being aware that service users may not have easy access to healthier food options, so ensuring provision of advice and support on how to use low cost ingredients in preparing meals (also being mindful of cultural dietary preferences), and working with local food pantries to consider how emergency food provisions could be optimised for WMS users
- building on increased interest and skills in cooking from scratch[8], but being mindful that not everyone has built these skills or has the equipment available to action them. It may also be useful to consider the logistics of providing an equipment bank to help support home cooking
- when using virtual online platforms, ensuring that
  - timings provided to service users are flexible

- there is an awareness of individual interaction preferences (eg providing a choice of video, audio and/or messaging), and soft/hardware availability
- there is compliance with data security and local governance requirements
- consider offering taster sessions so service users can assess whether the delivery mechanism suits them

2. Given the impact of COVID-19 on mental health and wellbeing, it is important to ensure all WMS have comprehensive integrated psychological support (including support for emotional eating and stress management) and clear pathways to more specialised psychiatric/psychological services where required.

3. Ensure that all new and adapted services are comprehensively evaluated as this is essential to reaching all target populations, that services are not leading to unintended consequences, and shared learning with the wider community occurs.

4. When monitoring remotely delivered services, consider alternative outcome measures such as adult waist circumference or self-reported physical activity, wellbeing and dietary assessments for service users who may not have access to measuring equipment or technology at home.

5. Where face to face services are required ensure COVID-19 safe protocols are in place and the latest government guidance[13] is adhered to. For example, social distancing, personal protective equipment (PPE) requirements and cleaning protocols are met, and where possible utilise existing sports or educational bubbles. Provide service users with clear information about how the session will be run safely and what is required of them during their appointment. Where blood tests are required (for example to support tier 3 service support) consider use of community phlebotomists.

6. Be mindful of additional support and training requirements for staff adapting to a new service delivery model.

7. Share experiences, with commissioners, providers and service users, and learn from others (17 practice examples are provided to support this work programme).

8. Share the principles for service users with service users.

## Principles for weight management commissioners

1. Given the adverse impact of COVID-19 lockdown on dietary and activity behaviours, and the potential increased severity of COVID-19 infection in people living with obesity, ensure the commissioning of WMS across the life course is considered alongside other priorities in local decision making.

2. Ensure pragmatic evaluation is mandated in the commissioning and recommissioning of all WMS.

3. Ensure flexibility in approaches is built into all WMS specifications, including a clear continuity plan to ensure continued service provision in the event of subsequent waves of COVID-19 and future lockdown periods.

4. Encourage suspended services to adapt their service model to ensure WMS are routinely available for those who require them.

# 6. Next steps

Phase II of this research will focus on what is needed to support delivery of services moving into the recovery phase. This phase of work will build on learning from phase I and working with partners, PHE will explore what needs to happen in the future.

Some specific actions PHE will consider in phase II are:

- how to adapt the standard evaluation framework to support remote weight management service delivery
- adapting PHE KPI's for tier 2 services that support the remote delivery and COVID-19 compliant weight management practice, and work with NHS England to support tier 3 services
- continuing to support shared learning through the compilation of local practice examples (building on the practice examples supporting phase I)
- where available, sharing local standard operating procedures for delivery that have been identified in phase I
- providing evidence to support making the case for local WMS in light of the links between obesity and COVID-19 severity
- building on the whole systems approach tools, to demonstrate the importance of whole systems working during COVID-19 recovery and redesign
information gathered during phase I also points towards the need for further research in some areas, including
  - a systematic review of the current evidence on the accessibility and effectiveness of remote WMS across all populations
  - qualitative research to understand which remote approaches appeal to which populations and why (with a focus on BAME communities, populations living in socio-economic deprivation, and vulnerable communities such as people living with a disability)
  - further work to examine the impact of COVID-19, and recovery requirements in services for CYP and adults, that includes the voices of service users
  - mixed method research to examine the impact of food insecurity, access to healthy affordable food, and the appropriateness of food pantry supplies in populations in need of weight management support

# 7. Appendices

## Appendix 1: Key findings from regional webinars

Numbers attending each webinar: North West (NW): n=23; South East (SE): n=33; Midlands (Mids): n=22; North East (NE): n=17; Yorkshire and Humber (Y&H): n=21; South West (SW): n=24; East of England (EoE): n=19; London: n=41

The first webinar took place on 4 June, followed by the regional webinars which were hosted by PHE between 10 to 29 June 2020.

Key themes discussed under each research question:

1. What do you think have been the key issues for adults, children and young people living with obesity in England during COVID?

- The impact of food insecurity and access to healthy affordable food was raised frequently, with loss of income increasing food poverty, and reliance on food banks/parcels which may not have appropriate food for weight management.
- School meals may be more nutritious than food prepared at home for some children (some families lack the skills and or equipment to cook foods from scratch).
- The loss of routine/daily structure has resulted in people baking and eating for boredom and comfort.
- The lack of peer support/social isolation, fear of going outside and constraints on physical activity choices (eg gym, swimming) and reduced opportunities for activity (eg walking to school, exercising in school, access to outside for those in flats) has impacted negatively upon activity levels.
- Increased stress/anxiety levels and poor mental health is impacting negatively on peoples eating behaviours and engagement with weight management.
- Knowing what WMS are available and how to access them may be a barrier for families without IT or internet access.

2. In your area what tier 2 and 3 services are currently running and how did your local area consider and act upon the guidance from NHSE&I to stop all behavioural WMS?

- All face to face services across England have been suspended but many services have adapted to some form of remote delivery (there was a sense that more tier 3 services had been suspended when compared to tier 2, perhaps reflecting the most tier 3 services are NHS rather than local authority funded therefore would have been directly impacted by the NHSE&I guidance), and remote delivery was perhaps more challenging for children than adults). However, some services were only running services for existing clients where as others were also accepting new referrals.
- Some services have turned to phone calls to support vulnerable populations (NW, Y&H), whilst other have reached out through social media and online platforms.
- A small handful of services were offering or investigating the possibility of 1:1 sessions in gardens or parks. However, staff require PPE, and transport to meetings was also a consideration. Mids and Y&H were developing standard operating procedures to support a return to more face to face consultations.
- Several areas reported a disruption to the referral process, where pathways into WMS have been disrupted or cancelled due to COVID.
- Staff being furloughed or redeployed was also a barrier in some areas to service continuation.

3. What has been the impact of COVID-19 on service adaptations and inequalities – what has worked, what hasn't for whom and why (including use of different technologies)?

- Some positives outcomes of COVID-19 adjustments were discussed, these included alternative physical activity opportunities (eg online classes); increased reach of online and remotes activities (particularly within rural areas and engaging people who do not engage in traditional group sessions); lack of access to fast food, improved cycling and walking infrastructure; families supporting older adults in digital literacy; improved whole systems and partnership working; the ability to be able to better tailor online/remote support compared to larger face to face groups; time and environmental savings in not travelling to face to face sessions.
- In terms of how services were adapted varied considerably, and included educational booklets, activity resource packs, 1:1 telephone support with or without additional short messaging service (SMS), email or social media support, and interaction through social media platforms such as

Facebook, WhatsApp and YouTube, Instagram, Apps such as Couch to 5K, and virtual meeting platforms such as Google classroom, Skype, MS Teams, WebEx, StarLeaf and Zoom (although several areas had banned use of Zoom through concerns around hacking and GDPR). Some services were adapted for existing users only, whilst others were also accepting new referrals to the adapted service.

- There was a general sense that technology adaptations work well for those already using engaged with the technology used, but more difficult for new users.

- Response to remote provision was highly variable: there was a general sense that phone support worked better for families who were most in need, with clients from several services reporting to like the 1:1 phone support. However, in London virtual session attendance was better than usual face to face sessions, and both SE and NE ran Facebook live sessions that engaged a much large number of people than face to face services. Some areas had seen an increase in attendance and adherence to digital provision, as the virtual offer eased anxiety about group sessions, whilst other areas reported clients who either don't have digital access or prefer face to face being less engaged.

- Some concerns were raised about remote (particularly digital) services, these included: online safety, data security and governance when using remote platforms; greater reliance on personal motivation, lack of space at home for private conversations, staff confidence in using technology; having to rely on self-reported weight measures, and how KPI's are met, particularly when some homes don't own a set of scales (some have suggested using waist circumference instead for adults); impact of inequalities for those without access to IT equipment or internet access; difficulty in building rapport online; some families are reporting digital overload and screen time concerns with online home schooling; staff isolation when working remotely and the resource intensity of transitioning from group to 1:1 phone consultations which were longer and more intense than groups support.

- The impact of service adaptation on inequalities was a concern raised across all areas, particularly those living in socio-economic deprivation and from BAME communities, but also for older adults and those people living with a learning disability. However, most areas did not have, or had not yet assessed, the data to investigate this more fully. Particular concern was raised with regards to service users who don't have access to a smart phone or internet at home (for example in Wakefield this accounts for between 5-10% of service users; another service in the SW reported that up to 40% of service users didn't have a smart phone).

- Some areas had seen an increase in attendance and adherence to digital provision, as the virtual offer eased anxiety about group sessions.

- How do you think the commissioning landscape will change, thinking about: current commissioning (are services still being commissioned); future re-commissioning, and new commissions?
- Most areas felt it was too early to know the long-term impact on commissioning. However, several areas expressed concerns as to the impact of funding cuts and felt it was important that WMS remain at the top of the health agenda and are not cut as a result of the funding cuts. There was also a feeling that more digital/remote options might provide resilience, and these might influence future commissioning, should there be a second peak or new outbreak.

4. What support would be helpful to you to ensure local WMS can effectively adapt to accommodate all populations in need?

   Who should provide this support (PHE central, PHE regions, local authorities, others…)?

   What measures and approaches do you think service users and service providers require to enable the safe delivery and attendance of future WMS?

   The support measures discussed were:

- advice on tackling stigma in terms of both weight management (eg person first language and food pantries rather than food banks, given a general concern regarding increased weight across the population as a result of COVID=19 and a need to engage with sensitivity
- a need for better messaging around weight management and COVID-19, along the same lines as the quit for smoking campaign, and this needs to be targeted so it reaches our BAME and high risk/most in need communities
- more targeted support for children identified as overweight through the NCMP
- following the impact of COVID-19 on mental health, many felt that mental health support should be incorporated more into WMS to address these 2 interconnected issues, with psychometric measures of success
- new KPI's for monitoring impact of remote services, and the limitations in numbers as a result of COVID-19 safe practices for those returning to face to face provision
- training to improve staff confidence in delivering WMS remotely
- guidance on safe technology use and GDPR considerations
- an opportunity to share emerging good practice across the country, this could include a nationwide network for all key stakeholders (PHE, and weight management commissioners and providers) to share learning

- national guidance/campaign on making the case for weight management post COVID-19, to help raise awareness and ensure continued commissioning during budget cuts
- more evidence on the effectiveness of weight management digital services with benchmarked and evidence-based models of what new programmes can and should look like post COVID-19 (evaluation framework, so we can share learning)
- support in how technology and internet access can be made available for all
- guidance for providers on COVID-19 safe transit of services (North Yorkshire have provided an example)
- more work to understand which approaches work best for which populations, with a particularly focus on BAME communities, population from areas of socio-economic deprivation, older adults with poor digital literacy and people living with a learning disability

Useful links provided:

- www.livewelldorset.co.uk/covid-19-information/#weight
- www.activeblackcountry.co.uk/rainbow-hour/
- www.bda.uk.com/resource/covid-19-best-practice-sharing-to-support-paediatric-dietitians.html

## Appendix 2: Data and themes from local authority survey

Ethical approval for this survey and supporting interviews was gained from LBU. This survey was open between 8 June and 30 June 2020.

### Participants

**Table 7: Local authority survey participants (n=52 completed the survey)**

| Job role | % |
|---|---|
| Public Health Officer | (40) |
| Obesity Lead | (25) |
| Health Improvement Officer | (17) |
| Other (as documented) | (17) |

Job role as 'other': Health Development Manager; Lead Officer, Business and Community Support (Trading Standards); Senior Public Health Lead; Health Improvement Manager; Head of OPs for CIC delivering Lifestyle Service; CCG Clinical Advisor; Senior Public Health Principal; Senior Public Health Commissioning Manager; Consultant in Public Health

### Service delivery

Question: How has COVID-19 affected WMS in your locality?

**Table 8: Local authority survey response options to the question on service delivery**

| Response option | Adult tier 2 % (n=52) | Adult tier 3 % (n=52) | Child tier 2 % (n=52) | Child tier 3 % (n=51) |
|---|---|---|---|---|
| There was no service pre-COVID-19 | 10 | 21 | 17 | 40 |
| Haven't changed | - | 2 | 2 | 2 |
| They have been adapted | 58[1] | 21[1,2] | 42[1] | 10[1] |
| They have been suspended | 21 | 17 | 19 | 8 |
| I don't know | 11 | 38 | 19 | 38 |

[1] two participants stated that adapted services were only being offered to existing clients and new referrals were suspended
[2] one participant stated that bariatric surgery has been suspended

## Adult tier 2 and 3

**Table 9: Themes from the local authority survey for adult tier 2 and 3**

| Theme | Details |
| --- | --- |
| Change to delivery format | All adapted services have cancelled face to face 1:1 and group sessions.<br><br>Participants stated that sessions have been moved to a remote offer using a variety of mechanisms, including phone, Facebook groups, video conferencing (Skype, Zoom, WhatsApp, MS Teams). Three further participants stated they were planning to develop/offer an online service.<br><br>Two participants noted that the duration of offer had been extended "rather than receiving up to 12 x face to face sessions they were offered up to 24 x online sessions" and "the provider has given members an additional 12-weeks for those that attend a virtual group".<br><br>Telephone sessions were offered to those who did not have internet access.<br><br>Three participants stated they were also offering online exercise classes.<br><br>One participant stated they were offering video cooking/nutrition resources.<br><br>One participant indicated that "information packs have also been sent to patients". |
| Challenges | Participants indicated 5 areas: 1) the availability of resources[1], 2) reduced recruitment and referrals[vii], 3) reduced capacity to deliver services, 4) lower engagement, and 5) self-report data.<br><br>Reduced capacity to deliver services:<br>• "reduced opportunities for use of sub-contractors or local delivery which usually takes place face to face"<br>• "the service operated at reduced capacity as some staff were redeployed into the HIVE who is coordinating the community response to Covid-19 (food parcels, prescriptions, welfare checks etc." |

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vii Details of these challenges are provided in the next section.

| Theme | Details |
|-------|---------|
| | • *"seeing people 1-1 might have caused issues re: capacity of staff to accommodate numbers coming through but this hasn't been an issue so far."*<br><br>Lower engagement:<br>• "we had a number of clients that did not want to access the service online therefore our April group figures reduced from 30 to 14."<br>• "A number decided to pause their participation in weight loss - due to being overwhelmed with the covid situation - home school, furlough, stress etc"<br>• "a very sharp drop in clients accessing the weight management service"<br>• "uptake of online WW offer is very low"<br>• "those will lower engagement from clients report motivation, conflicting priorities, anxieties as being the main reasons for choosing to 'freeze' their engagement"<br>• "some clients have initially declined the digital offer."<br><br>Self-report data:<br>• "have had to rely on trust and patients measuring themselves"<br>• "challenges include reliance on self-report measure"<br>• "lack of accurate data as clients use their own scales"<br>• "relying on waist circumference measures in this case [where participants don't have scales]" |

## Child tier 2 and 3

**Table 10: Themes from the local authority survey for child tier 2 and 3**

| Theme | Details |
|-------|---------|
| Change to delivery format | All adapted services have cancelled face to face 1:1 and group sessions.<br><br>Participants stated that sessions have been moved to a remote offer using a variety of mechanism, including phone, Facebook groups, video conferencing (Skype, Zoom, WhatsApp, MS Teams). Two further participants stated they were planning to develop/offer an online service.<br><br>Telephone sessions were offered to those who did not have internet access. |

| Theme | Details |
|---|---|
| | Two participants stated they were also offering online exercise classes. |
| | One participant outlined the use of "support packages consisting of information". |
| | One participant stated they were offering "pre-recorded cooking sessions for families to download and watch in their own time [and] the provider has also signposted to online physical activity classes". |
| | Two participants discussed face to face plans:<br>• "possibility of one to one appointments face to face or at least the first and last appointment"<br>• "the tier 2 weight management service has continued though in these cases we have had to source PPE for dietitians to undertake face to face visits for morbidly obese children" |
| Challenges | Participants indicated 3 areas: 1) the availability of resources[1], 2) reduced recruitment and referrals[1], and 3) self-report data. |

[1]Details of these challenges are provided in the next section

## Impact on inequalities

Question: What impact have COVID-19 related WMS changes had on inequalities in your locality – thinking particularly about BAME communities, populations from our most deprived areas, and those classified as vulnerable?

**Table 11: Local authority survey response options for the question on the impact on inequalities (total responses, n=50)**

| Response option | (%) |
|---|---|
| Inequalities increased | (72)[1] |
| No impact | (24) |
| Inequalities reduced | (4) |

[1] When providing further details, 18 participants indicated that they had no evidence (data) to support their view. Several stated anecdotal evidence and others preceded their comments with statements such as "they felt that", "potentially", "might have" and "it is reasonable to assume"

Few participants explicitly stated groups; the ones that were mentioned are:

- BAME
- older population
- lower socio-economic status
- families living in deprived communities
- vulnerable families
- most deprived populations (which in our area includes a significant BAME population)

**Table 12: Key themes related to participants' perceptions of how COVID-19 related WMS changes have increased inequalities in their locality**

| Theme | Example statements |
|---|---|
| A reduction in services for those most in need (n=8) | "the education project targeted schools with highest obesity rates"<br><br>"unhealthy weight disproportionately affects these communities so the fact that there aren't any WMS available currently will exacerbate this situation"<br><br>"as we have a remit to target low income/vulnerable residents that they will be disproportionately negatively impacted"<br><br>"the tier 2 service is targeted at those from lower social economic areas therefore the cancellation of services will impact on this group the most"<br><br>"the fact that tier 2 services for adults and children have effectively stopped this will contribute to inequalities in access to support generally and specifically for the most vulnerable families and individuals"<br><br>"the children and families offer is limited to the core offer virtually this does not include the wider more holistic support the service would offer more complex and vulnerable families"<br><br>"translation can be more difficult through remote delivery (this was already a challenge for the service but has now become even more difficult)". |
| Reduced recruitment and referrals (n=7) | "recruitment with more vulnerable families is also reduced and referrals from health and social care decreased" |

| Theme | Example statements |
|---|---|
| | "more vulnerable families have been less able to engage with WMS due to having other priorities, lack of technology etc."<br><br>"seen a huge decrease in referrals from all professionals and self-referrals"<br><br>"less people accessing the service from more deprived areas. Service relied on community outreach and GP referrals for engaging people from more deprived areas which has become very difficult in the new circumstances"<br><br>"unable to target most deprived areas in our borough due to moving the group online. Previously we were based in community venues in these areas allowing us to link in with residents and other on the ground community groups" |
| The availability of resources (n=9) | "lots of promotion done digitally so perpetuating inequalities for older generations that may not use digital platforms as much"<br><br>"no scales and unable to afford"<br><br>"families living in deprived communities and/or on low incomes who do not have access to the internet so are unable to access virtual groups"<br><br>"as lots of support is now digital, this impacts on those who do not have access to this readily"<br><br>"familiarity with technology might be affected by age/preference/deprivation" |

## Support required

**Table 13: Key themes related to participants' views of the support their local area needs to ensure the safe, effective and equitable delivery of WMS as we transition through the recovery period, and who should be providing that support**

| Theme | Example statements |
|---|---|
| Political support and funding (n=11) | "support from PHE to make the case for importance of WMS"<br><br>"political support for the prioritisation of funding for children's WMS for more complex and vulnerable obese children and their families to decrease inequalities and increase life chances"<br><br>"a stronger national mandate for both prevention and WMS"<br><br>"ring fenced funding"<br><br>"awareness that local authorities will be facing huge financial challenges post covid and WMS will be vulnerable to cuts"<br><br>"stability of the workforce may be an issue and future commissioning budgets"<br><br>"funding to increase capacity in the service for both one-to-one support and community outreach groups"<br><br>"it would be good if we could lobby the government to have this as a priority with funding to pay for the service" |
| Research and information (n=6) | "more research on effectiveness and ability to access and make use of online WMS among our most deprived communities" |

| Theme | Example statements |
|---|---|
| | "an understanding of whether clients with higher BMIs are less likely to engage in video media would be particularly helpful"<br><br>"analysis support regarding the proportionate universalism approach for inequalities identified during COVID eg BAME, deprivation"<br><br>"clearer and more transparent understanding/ information of risk involved with COVID-19 for people with obesity"<br><br>"evidence of impact (on health) of COVID-19 on overweight children/young people"<br><br>"understand how the populations focus and challenges have changed"<br><br>"I have noticed a plethora of weight management programmes appearing on social media. It would be good to run a study to evaluate the efficacy of these plans, eg metabolic reset diet, hormone diet." |
| Awareness raising and engagement (n=7) | "support to give the population groups confidence that it is safe for them to return to WMS that is the risks associated with COVID have been considered and mitigated against"<br><br>"reassurance to service users that sufficient safety measures have been put in place, and they can be confident in attending group sessions/1:1 appointments"<br><br>"support around the importance and impact weight loss (long-term) can have across a range of other health outcomes, as there seems to be mixed messages/no clear steer"<br><br>"support to raise awareness of what is available locally - this is time intensive and it is very difficult to get info to people that might benefit from it" |

| Theme | Example statements |
|---|---|
| | "marketing and promotion locally"<br><br>"support to engage people in the service and make them and referrers aware that the service is available and the various support it can offer. Public Health can support with this via the CCG and other communication channels"<br><br>"the general public need to understand the obesity and COVID-19 related risks" |
| Mental health and wellbeing (n=4) | "the need to ensure that there is sufficient mental health and wellbeing support available now and as part of recovery is paramount"<br><br>"we are trying to raise the profile of support to manage wellbeing in an attempt to reduce some of the additional risks created by lockdown - on all kinds of factors including weight - however the reach of our communications is limited"<br><br>"considering the impact of COVID-19 on people with obesity - on mental health and eating behaviours, how will guidelines be adapted for delivery and outcomes for WMS - should the emphasis change?"<br><br>"It does feel like often traditional WMS traditionally avoid tackling any issues relating to mental health. However, in the current climate this is probably going to be necessary to help with lifestyle and health behaviours. Weight gain is likely to be caused by a number of issues - stress and depression probably playing a significant part, alongside access to things like usual physical activity, isolation from friends and family, lack of personal physical contact for those who are alone, which I think will be replaced by other forms of comfort. I think these are challenging and unusual times and any future weight management really needs to support people holistically and not shy away from such issues." |

| Theme | Example statements |
|---|---|
| Guidance / recommendations for service delivery (n=23) | "best practice for an evidence-based weight management approach offered remotely"<br><br>"clarification on what the expectation is for weight management groups"<br><br>"benchmarked and evidence-based models of what new programmes can and should look like post COVID-19"<br><br>"guidance on safe weight management provision so that services can be restarted in 1:1 and group format - probably from government and PHE"<br><br>"what could be done during this time to support weight management eg are online weight management and physical sessions successful in helping people lose weight or manage their weight? if so what is a good programme to use?"<br><br>"guidance on effective evidence-based service delivery via phone/digital for children and adults. If PHE can collate good practice on the above that will help us to move to recovery stage safely"<br><br>"guidance on when we should be considering restarting face to face delivery. Risk assessment information eg venues, hygiene etc. Guidance on vulnerable service users and whether they should come face to face, or wait longer"<br><br>"guidance on how to adapt delivery models - based on emerging research and evidence, learning from other areas who have adapted existing services. Evidence-based proxy measures that we can use. A mixture of colleagues from PHE, research teams, providers and also consult users"<br><br>"guidance on: access and continued support for shielded and high risk/clients that don't have access to scales/PPE requirements - reasonable adjustments / suitability of remote offer for different clients groups/risk assessments and adherence to guidance/phased approaches - |

| Theme | Example statements |
|---|---|
| | supporting providers to work through suggested delivery approaches and within suggested timeframes - flexible according to cases, guidance, local lockdown etc." <br><br> "it would be helpful to have some insight from PHE on how to engage with those people eg BAME communities that might benefit from WMS" |
| Training (n=5) | "training for providers to up skill their online offer" <br><br> "support and guidance around utilising new technology, social media tools/plug ins, website development, navigating social media platforms, YouTube, Instagram, guidance etc." <br><br> "understanding how we can still harness the power of the group and community for peer support (e. through Facebook) and how best this can be managed" <br><br> "support with platforms for virtual group delivery - some joint working across tier 2/3 providers nationally to share good practise" |
| System wide change and partnerships (n=6) | "opportunity for large scale infrastructure change eg physical infrastructure to support active travel/cycling ways/walk ways; digital infrastructure access improved for everyone eg home broadband speeds on line access. <br><br> "system wide approach to obesity is the only way forward. WMS need to be integrated with other support systems and health professionals all responsible for offering support or signposting" <br><br> "weight management needs to be everyone's business. Employers need to support and encourage their workforce to be active and engage in healthy behaviours. Wider infrastructure and environmental changes that support healthier lifestyles need to remain a focus - weight management service will not be able to support long term weight loss and management beyond |

| Theme | Example statements |
|---|---|
| | their 12-week programme of support without other changes to our obesogenic society. The opportunities presented by the funding for active travel improvements could support this long term - that would be welcome"<br><br>"collaborative efforts of service provider, public health and wider wellbeing stakeholders such as planning and transport. Further access to and links with marginalized groups either directly or via charity/organisation. Continuing to build on whole systems obesity approach and think of city wide picture when developing plans"<br><br>"full partnership engagement across localities. Effective engagement with communities"<br><br>"COVID-19 has highlighted the negative impact obesity has on lives. Think there is a good opportunity to raise awareness and tap into motivation to really tackle the issue through a system wide approach, led from the highest level of government" |

## Other insights captured outside these themes

It would be helpful to link specifically with other local authorities that didn't commission WMS pre-COVID-19, to have the opportunity to discuss whether there is now a stronger case to be made for re-commissioning these services and what others are doing to overcome the reasons why services were decommissioned or not in place in the first place.

Support for this will need to come from PHE, ideally in partnership with the Association of Directors of Public Health so that the challenges such as public health grant priorities are discussed with Directors of Public Health at the same time as, or prior to, healthy weight leads are also discussing with them.

The continued opportunity to engage with regional colleagues to share feedback and discuss issues.

Practical support for equipment such as PPE/hand sanitiser will be important to encourage people to attend WMS.

Food: as some people have lost their main source of income what practical advice can we give that is easy to make, but not expensive and is applicable to a range of the population eg BAME groups? Should we be considering advising about weight maintenance for people who are struggling to control their weight just now?

Physical activity: continue to support people to be physically active, as Sport England COVID-19 data suggests that those with the greatest health inequalities are being less active during this pandemic. However, we do not know what people want to do. Sport England have put together a range of online activities (www.sportengland.org/jointhemovement), however some groups eg some older residents do not use the internet.

Support with the backlog of tier 3 patients and those in tier 4 whose bariatric surgery had been cancelled.

Safeguarding and the obesity safeguarding pathway is priority. That needs support of social care and local Hospital Trust.

## Further insights

These additional further insights were provided:

 "A number of clients preferred face to face and didn't want to continue with remote support, at the time. Clients cited Zoom fatigue, lack of privacy, no technology amongst reasons for declining group based remote support."

 "We had spent 18 months on a 5-year whole system Healthy Weight Strategy, and we were about to launch that with the signing of the Food Active Healthy Weigh Declaration by our Chief Exec and senior leaders. It would have had huge profile and had over 70 partners on board, with a really clear plan for Manchester based on Food & Culture, Physical Activity, Environment & Neighbourhood and Prevention & Support. The strategy and declaration was due to be launched on 18th March when Covid overtook events. Lockdown was announced on 19th March. Have to build all of that up again."

# Appendix 3: Adult service user results supporting phase I (full results peer review publication in preparation)

## Patient with obesity survey

This survey was open between 14 May and 27 June.

**Block 1: Demographics**

Selected only English residents and BMI>30kg/m$^2$ (n=289/353)

Gender: Male 10.1%, female 89.9%, other, prefer not to say
Ethnicity: Standard answers
White 94.8%
Asian 0.7%
Black 1.7%
Middle Eastern 0.3%
Mixed Race 0.3%
Mixed Race other 1.4%
Other 0.7%

Do you identify as being a person living with obesity? Yes 95.2% No 4.2%

Do you have a BMI (BMI) of 40 or above? Yes 66.9% No 33.1%

**Block 2: Awareness, thoughts and actions relating to COVID-19**

1. Do you have any of the other health conditions below identified by the UK Government as having an increased risk of severe illness from COVID-19?

- aged 70 or older (regardless of medical conditions)
- under 70 with an underlying health condition listed below (that is anyone instructed to get a flu jab as an adult each year on medical grounds):
- chronic (long-term) respiratory diseases, such as asthma, chronic obstructive pulmonary disease, emphysema or bronchitis
- chronic heart disease, such as heart failure
- chronic kidney disease
- chronic liver disease, such as hepatitis
- chronic neurological conditions, such as Parkinson's disease, motor neurone disease, multiple sclerosis (MS), a learning disability or cerebral palsy
- diabetes: 19%
- problems with your spleen. For example, sickle cell disease or if you have had your spleen removed

- a weakened immune system as the result of conditions such as HIV and AIDS, or medicines such as steroid tablets or chemotherapy
- pregnant
- I have been diagnosed with another short or long-term health condition not listed above for example mental health, obstructive sleep apnoea, (please specify in the text box) 38.8%

2. Have you experienced COVID-19 symptoms? Yes 16% No; 84% I don't know what the symptoms are or only know some 0%

3. Do you believe that you are at higher risk of infection from COVID-19 due to your BMI being over 40kg/m$^2$? Yes 58.9%, No 41.1% (Display logic)

4. You identified that your BMI is greater than 30kg/m2 but less than 40kg/m2 which is not on the UK Governments criteria for higher risk of severe illness, do you still believe you are still at higher risk? Yes 60%, No 40% (Display logic)

**Block 3: Service provision**

Tier 2
1. Has COVID-19 outbreak resulted in your attendance to Tier 2 Weight Management (for example locally run slimming world) appointments being cancelled and/or delayed? Yes 60.6% No 39.4%

Tier 3
1. Has COVID-19 outbreak resulted in your attendance to Tier 3 Specialist Weight Management appointments being cancelled and/or delayed? Yes 78.3% No 21.7%

Standard questions for all stages of the pathway
1. Has been enough support or information from your weight management or bariatric service since the COVID-19 outbreak? Yes 30.3% No 49.5% Don't Know 20.2%
2. Since the COVID-19 outbreak, has the amount or type of communication you have had with your clinical service changed? Yes 59.2% No 40.8%
3. Are you aware of any guidance relating to people with obesity and COVID-19? Yes 18.9% no 81.1% if yes please stay which guidance

**Block 4: Impact on mental health, dietary and physical activity**

Validated Questionnaires**:** PHQ-9, Warwick Edinburgh

1. Has the way you shop changed since the COVID-19 outbreak? A great deal 48.8%, a lot 20.2%, a moderate amount 15.3%, a little 10.8%, not at all 4.9%

2. Has your diet changed since the COVID-19 outbreak? A great deal 15%, a lot 22.3%, a moderate amount 34.1%, a little 18.5%, not at all 10.1%
3. Have you used food to manage your emotions during the COVID-19 outbreak? Yes 71.6% No 28.4%
4. Has your physical activity changed since the COVID-19 outbreak? A great deal 25.9%, a lot 24.8%, a moderate amount 29%, a little 11.9%, not at all 8.4%
5. Has your sleep quality or quantity changed since the COVID-19 outbreak? Yes 67.1% No 32.9%

# Appendix 4: Adult service provider results supporting phase I (full results peer review publication in preparation)

## Weight management and bariatric surgery service survey

**Block 1: Demographics.** (n=104/156)

Do you work in a weight management service? Yes 100%, No – 0%.
Where is this based? Primary Care, 30.8% Secondary Care, 52.9% Other, 16.3%

1. Do you work in a bariatric surgery service? Yes, No, excluded
2. Do you commission adult WMS? Only 9 services completed this so not sure how you can take the data with 6 answering full data
3. If yes: please select all that apply: adult tier 2, 66.7% (n=6/9)/adult tier 3 acute 11.1% (n=1/9); LGA 0%/adult tier 4, 11.1% (n=1/9)
4. Where is your service located? England, Wales, Scotland, Northern Ireland, included only English patients,100%

**Block 2: Impact of COVID-19 on access to clinical service and service delivery**

Since the COVID-19 outbreak, has the weight management/bariatric surgery service been impacted (eg outpatient appointments, surgical lists, support groups)? Yes 99% No 1%

Commissioner specific questions: n=6 answered these questions so given relative answers according to number:

1. What has been the impact of COVID-19 on the weight management/bariatric services you have commissioned? (eg service suspended 0%, service has adapted 83.3%, no change 16.7%) n=6
2. Do you think COVID-19 and the increased risk of obesity will have an impact on the commissioning of future WMS (eg recommissioning and new commissioning activity)? Yes 100%/No 0%
3. Do you anticipate changes or challenges in weight management commissioning after COVID-19: Yes 100%/No 0%

Weight management specific questions:

1. You identified that your service has been impacted which of the following has been impacted. If they have please state what your service has done in the text box
   - New Appointments, 38.5%
   - Review Appointment, 38.5%
   - Medications advice, 9.6%

- Support groups, 35.6%
- Dietetic Support, 26.9%
- Psychology support, 19.2%
- Physical activity groups, 29.8%
- The manner in which the services are delivered, 41.3%
- Research, 6.7%
- Other (please specify in the text box)

2. You identified that you have changed the way in which you deliver care to your patients. In which of the following has it changed (multiple choice)
- Cancelled all appointments, 32.7%
- Reduced appointment to skeleton service, 25%
- Telephone review, 76.9%
- Virtual meeting platform for 1:1 appointments (eg Zoom, Microsoft Office), 40.4%

   Please specify which platform you are using?
- Webinars, 20.2%
- Virtual support groups, 23.2%
- Other (please specify in the text box)

Do you feel that following the end of the COVID-19 outbreak, your service will continue to use the new ways of service delivery? Yes, No, Not sure, it is too early to tell (Display logic answering yes to change in deliver of care) No = 4.9%; Yes =68.9%; Not sure, it is too early to tell = 26.2%

1. You identified that you have not changed the way in which you deliver care to your patients, what have been the reasons for not making these changes to new ways of service delivery? – Not answered with 1 person that said nothing has changed
- Lack of time available to redesign the service
- Virtual services are not available to offer virtual appointment/groups
- Redeployment of staff resulting in not being able to offer service
- Other (please specify in the text box)

2. Do you think that the COVID-19 outbreak will impact on the provision of WMS/bariatric surgery services nationally following the end of the pandemic? Yes 94.2% No 5.8% Please explained your answer in the box.

**Commissioning specific questions**

1. Would any central support be helpful to you, to ensure that WMS can effectively adapt in order to provide continuity of service provision during the recovery phase? Yes 83.3%/No 16.7%

If yes, please provide details as to what support you would like to see in place.

2. Would you be willing to share your experiences as a local practice example for Public Health England? Y/N

# Appendix 5: CYP service user results supporting phase I (full results peer review publication in preparation)

## CYP living with obesity

This survey was open between 9 June and 31 June 2020.

Numbers rather than percentages are provided given the low response rate.

1. Please select the option below that best describes you
   n=27 but responses from 21
   Young person (YP) aged 16-17 years n=5
   Parent of a child aged 4-15 years n=16

2. Gender
   YP - Male 3, Female 1, other 0 Prefer not to say 1
   Parent of – M – 8, F, 7, Other 0, Prefer not to say 1

   Do you identify as being a person living with overweight?
   Yes 5 No 0
   Parent of – Yes 15, No 1
   Combined

3. Do you have any of the other health conditions?
   YP: Type 1 diabetes 1, Type 2 diabetes 1, I have been diagnosed with another short or long-term health condition not listed above eg mental health, obstructive sleep apnoea, (please specify in the text box) n=3
   Parents of: Type 1 diabetes n=0, Type 2 diabetes n=1, I have been diagnosed with another short or long-term health condition not listed above eg mental health, obstructive sleep apnoea, (please specify in the text box) n=10

4. Have you experienced COVID-19 symptoms? 10% experienced symptoms
   YP: Yes and diagnosed n=0, Yes but not diagnosed n=1, No n=1, I don't know what the symptoms are or only know some n=1
   Parents of: Yes and diagnosed n=1, Yes but not diagnosed n=0, No n=14, I don't know what the symptoms are or only know some n=0

5. Do you believe that you are at higher risk of infection from coronavirus (COVID-19)?
   YP: Yes n=5, No n=0
   Parents of: Yes n=9, No n=5

Has been enough support or information from your weight management or bariatric service since the COVID-19 outbreak?
YP: Yes n=3, No n=0, Don't Know n=0
Parents of: Yes n=11, no=3

6.  Since the COVID-19 outbreak, has the amount or type of communication you have had with your clinical service changed?
YP: Yes n=2, No=1
Parents of: Yes n=10, No=4

7.  Has the way you shop changed since the COVID-19 outbreak?
YP: A great deal n=0, a lot n=2, a moderate amount n=1, a little n=1, not at all n=0
Parents of: A great deal n=4, a lot n=3, a moderate amount n=3, a little n=3, not at all n=1

8.  Has your diet changed since the COVID-19 outbreak?
YP: A great deal n=1, a lot n=2, a moderate amount n=0, a little n=1, not at all n=0
Parents of: A great deal n=1, a lot n=1, a moderate amount n=6, a little n=5, not at all n=1

9.  Has the amount of takeaway food you have eaten changed since the coronavirus (COVID-19) outbreak?
YP: A great deal n=0, a lot n=1, a moderate amount n=0, a little n=1, not at all n=0
Parents of: A great deal n=2, a lot n=2, a moderate amount n=3, a little n=5, not at all n=2

10. Has the amount of Sugar-Sweetened Beverages (drinks with added sugar such as soft drinks or fizzy pop) you have consumed changed since the coronavirus (COVID-19) outbreak?
YP: A great deal n=0, a lot n=0, a moderate amount n=1, a little n=0, not at all n=1
Parents of: A great deal n=2, a lot n=1, a moderate amount n=2, a little n=1, not at all n=8

11. Has the amount fruit and vegetables you have eaten changed since the coronavirus (COVID-19) outbreak?
YP: A great deal n=0, a lot n=0, a moderate amount n=1, a little n=1, not at all n=0
Parents of: A great deal n=1, a lot n=4, a moderate amount n= 2, a little n=4, not at all n=3

12. Have you used food to manage your emotions during the COVID-19 outbreak?
    YP: Yes n=2, No n=1
    Parents of: Yes n=12, No n=2

13. Have you used food banks during the coronavirus (COVID-19) outbreak?
    YP - Yes 1 No 1
    Parents of - Yes 2 No 12

14. Compared to before the coronavirus (COVID-19) outbreak, how has your use of food banks changed?
    YP: A great deal n=0, a lot n=1, a moderate amount n=0, a little n=0, not at all n=0
    Parents of: A great deal n=1, a lot n=0, a moderate amount n=0, a little n=0, not at all n=1

15. Has your physical activity changed since the COVID-19 outbreak? 14/17 less active
    YP: I am much less active n=2, I am less active n=1, It hasn't changed n=0, I am more active n=0, I am much more active n=0
    Parents of: I am much less active n=7, I am less active n=4, It hasn't changed n=1, I am more active n=1, I am much more active n=1

16. Has the type of physical activity you usually participate in changed since the coronavirus (COVID-19) outbreak?
    YP: Yes n=3, No n=0
    Parents of: Yes n=12, No n=2

17. Has your sleep quality or quantity changed since the COVID-19 outbreak?
    YP: A great deal n=2, a lot n=0, a moderate amount n=0, a little n=1, not at all n=0
    Parents of: A great deal n=3, a lot n=3, a moderate amount n=6, a little n=1, not at all n=1

# Appendix 6: CYP Service Provider Results supporting phase I (full results peer review publication in preparation)

## CYP WMS

1. Which of the following best describes you?

- Work in tier 2 or 3 WMS (n=32)
- Commissioner (n=9)

2. Since the COVID-19 outbreak, has the weight management/bariatric surgery service been impacted (for example outpatient appointments, surgical lists, support groups)? Yes 100% No 0%

3. You identified that your service has been impacted which of the following has been impacted.

   If they have please state what your service has done in the text box:

   - New Appointments, 13.1%
   - Review Appointment, 12.4%
   - Medications advice, 5.5%
   - Support groups, 12.4%
   - Dietetic Support, 11.0%
   - Psychology support, 8.3%
   - Physical activity groups, 13.1%
   - The manner in which the services are delivered, 15.2%
   - Research, 4.8%
   - Other (please specify in the text box), 6%

4. You identified that you have changed the way in which you deliver care to your patients. In which of the following has it changed (multiple choice):

   a. Reduced appointment to skeleton service, 7.4%

   b. Telephone review, 33.8%

   c. Virtual meeting platform for 1:1 appointments (Zoom, Microsoft Office etc), 32.4%

      please specify which platform you are using

   d. Webinars, 4.4%

   e. Virtual support groups, 14.7%

   f. Other (please specify in the text box), 7.4%

5. You identified that you have not changed the way in which you deliver care to your patients, what have been the reasons for not making these changes to new ways of service delivery?

Zero people answered this.

    a.  Lack of time available to redesign the service

    b.  Virtual services are not available to offer virtual appointment/groups

    c.  Redeployment of staff resulting in not being able to offer service

    d.  Other (please specify in the text box)

6. Do you think that the coronavirus (COVID-19) outbreak will impact on the provision of family WMS nationally following the end of the pandemic? Yes – 92.59%, No – 7.4%

**Commissioning Specific Questions (n=8 responded)**

1. What has been the impact of COVID-19 on the weight management/bariatric services you have commissioned? (eg service suspended 50%, service has adapted 50%, no change 0%)
2. Do you think COVID-19 and the increased risk of obesity will have an impact on the commissioning of future WMS going forward (eg recommissioning and new commissioning activity)? Yes 62.5%/No 37.5%
3. Do you anticipate changes or challenges in weight management commissioning after COVID-19? Yes 75.0%/No 25.0%
4. Would any central support be helpful to you, to ensure that WMS can effectively adapt in order to provide continuity of service provision during the recovery phase? Yes 75.0% / No 25.0%
5. Do you feel that at the end of the coronavirus (COVID-19) outbreak, your service will continue to use the new ways of service delivery? Yes, 65.5%, No, 6.9%, Not sure, it's too early to tell, 27.6%

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