



Public Health  
England

Protecting and improving the nation's health

# National mapping of weight management services

Provision of tier 2 and tier 3 services in England



Royal College  
of Physicians

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# Glossary

**Table 1: Glossary of terms**

<b>Term</b>	<b>Abbreviation</b>
Association of Directors of Public Health	ADPH
Body mass index	BMI
Children and young people	CYP
Clinical commissioning group	CCG
Directors of public health	DsPH
Local Authority	LA
National Child Measurement Programme	NCMP
National Health Service	NHS
National Institute of Health and Care Excellence	NICE
Public Health England	PHE
Royal College of Physicians	RCP
Standard evaluation framework	SEF
Voluntary, community and faith sector	VCFS
Weight management	WM

## Executive summary

England is facing an obesity epidemic. By the time children enter primary school, 1 in 5 is already overweight or obese and, by the time they leave primary school, that figure increases to 1 in 3 (1). In adults, an estimated 62% of the population are overweight or obese (2).

Tackling obesity and its causes is high on the public health agenda and it is clear that there is no simple solution. Public Health England (PHE) recognises that cross-sector, system-wide action is required to change the status quo. PHE supports co-ordinated action across a life-course and place-based approach (3). This includes supporting the local delivery of evidence-based, effective and sustainable weight management (WM) services, as recommended by the National Institute for Health and Care Excellence (NICE) (4, 5), which individuals and families can access if they are above a healthy weight.

WM services are provided based on local needs and priorities. Typically, local authorities commission tier 2 lifestyle WM services with tier 3 multi-disciplinary team weight management services commissioned by either clinical commissioning groups (CCG) or local authorities. The extent of WM service provision across England is not known.

The aim of the mapping exercise was to explore the provision of WM services for children and young people (CYP) and adults across England, and to understand how these services are delivered. PHE Centres engaged local authorities and CCGs in the process, and a mixed methods approach was taken which involved face-to-face mapping workshops and an e-survey.

The objectives were to ascertain referral routes and entry criteria, service details, costs, exit routes and barriers to commissioning services.

Information was collated on weight management services from 73% of upper tier and unitary local authorities and 18% of CCGs in England. In relation to tier 2 children services, respondents from 56% of local authorities reported having a service in their locality. For adults, respondents from 61% of local authorities reported providing or commissioning a tier 2 service. Less information was provided in relation to tier 3 services and it is likely that this report does not reflect the true availability of tier 3 services in England.

## Tier 2

The majority of tier 2 WM services for CYP were commissioned by local authorities and were delivered in community, leisure or school settings. Most services were multi-component and delivered over 12 weeks in predominantly group or one-to-one sessions. The majority of respondents reported a minimum eligibility criteria of > 91<sup>st</sup> centile. The most frequently reported referral routes were through self-referral, health professional or school/the National Child Measurement Programme, and participants were followed up for 12 months or more in approximately two-thirds of the services reported. The most frequently reported costs were equal to, or greater than, £401 per participant

The majority of tier 2 services for adults were commissioned by local authorities and were delivered in community and/or leisure centres. Two-thirds of services were multi-component and most were delivered over 12 weeks in predominantly group sessions. Most respondents reported a minimum eligibility criteria of BMI>30 followed by BMI>25 and the most popular referral routes were through GPs, practice nurses and/or other health professionals and self-referral. Participants were followed up for 12 months or more in over half of the services reported. In the majority of reported services, average costs were less than, or equal to, £100 per participant.

For both CYP and adult tier 2 WM services, the majority of respondents reported using NICE guidance and just over half reported using the standard evaluation framework (SEF).

## Tier 3

The response rate for tier 3 CYP and adult WM services was poor and the results are not reflective of all services available across the England.

The majority of respondents reported that tier 3 CYP WM services were commissioned by local authorities, and most followed up participants for 12 months or more. All respondents reported use of NICE guidance and just over a third used the SEF.

From the tier 3 adult WM services reported, 44% were commissioned by CCGs, with 42% commissioned by local authorities, and 9% jointly commissioned. The majority of respondents described services that were delivered in hospital or GP settings, followed by community or leisure settings. Most of the respondents reported followed up of participants for 12 months or more and the majority of respondents used NICE guidance and over half used the SEF.

The Royal College of Physicians (RCP) recently surveyed 791 endocrinology and diabetes consultants to understand the provision of tier 3 services for adults across the



country of 169 responses, 60% stated there was a tier 3 adult service in their area while 40% did not have a service. When the responses were mapped to CCGs, around 21% of the CCGs in England described having a tier 3 adult WM service.

## Barriers to commissioning services

Commissioners reported six key themes relating to barriers they face when commissioning tier 2 and tier 3 weight management services for children and/or adults. These were evidence and outcomes, national guidance, funding and resource, commissioning, the obesity pathway and service model.

An observation, based on respondent feedback, was an inconsistency in the reporting of outcomes for weight management services.

This report, made possible due to the co-operation of local partners, represents one of the few such attempts to describe the local commissioning picture in England. The findings have value for PHE, local commissioners and providers of services. This work will help to inform PHE as it considers, with its partners, the support it can provide to help local areas deliver evidence and practice-based weight management services that meet the needs of their populations.

## Introduction

England is facing an obesity epidemic. The prevalence of obesity is high compared to most other countries in the Organisation for Economic Co-operation and Development (6). By the time children enter primary school, 1 in 5 is already overweight or obese and by the time they leave primary school, that figure increases to 1 in 3 (1). Compounding this issue, childhood obesity disproportionately affects those who are from deprived areas, with prevalence in the most deprived 10% of areas in England approximately twice that in the least deprived 10%, and higher prevalence in some black and minority ethnic groups (1). In 2013, an estimated 62% of the adult population were overweight or obese (2). By 2034, it is predicted that 70% of adults will be overweight or obese (7).

Children are more at risk of becoming obese if they live in a family where at least one parent or carer is obese (8). Children who are obese are more likely to be obese in adulthood (9).

The poor health and wellbeing outcomes associated with obesity are vast and well documented. Obese adults are less likely to be in employment and are more likely to face discrimination and suffer from health conditions such as sleep apnoea, type 2 diabetes, heart disease and some cancers (10).

The costs associated with obesity are increasing with the reported cost to the wider economy £27 billion; the National Health Service (NHS) £5.1 billion a year, and £352 million to social care (11-13).

Action on obesity is high on the public health agenda. Tackling obesity is one of seven public health priorities identified by Public Health England's *From evidence into action: opportunities to protect and improve the nation's health* (14). NHS England's *Five Year Forward View* promised to focus on prevention and public health, backing hard-hitting national action on obesity and diabetes, and together with PHE, establish a preventative services programme (15).

The environment in which children and adults live, play, work and socialise has a key role in lifestyle choices. These choices are often automatic and unconscious and formed around habitual behaviour (16). There is no simple solution to tackling obesity and it requires co-ordinated action that supports a life-course and place-based approach at all levels. Part of this action is to enable individuals and families to access evidence-based, effective and sustainable weight management (WM) services if they are above a healthy weight.

The National Institute for Health and Care Excellence (NICE) recommends that WM services are provided for adults with a body mass index<sup>1</sup> (BMI) of >25, and for children >91<sup>st</sup> centile (17), as part of a tiered approach to WM services (4, 5). However, the extent of WM service provision across England is not known. While definitions vary locally, the obesity pathway consists of 4 four tiers and, typically, tier 1 covers universal services, tier 2 covers lifestyle WM services, tier 3 covers specialist multi-disciplinary team WM services, and tier 4 covers bariatric surgery (4, 5).

Local authorities are responsible for commissioning public health services, including approaches typically described as tiers 1 and 2 (18). The responsibility for commissioning tier 3 services continues to be debated, though a systems working group convened by PHE and NHS England identified clinical commissioning groups (CCG) as the preferred commissioner (19). Commissioning of tier 4 services currently resides with NHS England.

The aim of the mapping exercise was to explore the provision of WM services for children and young people (CYP) and adults and to understand how these services are delivered. The objectives were to ascertain referral routes and entry criteria, service details, costs, exit routes and barriers to commissioning services.

## Purpose

This report sets out the results of a national mapping exercise led by PHE to determine the provision of tier 2 and tier 3 WM services provided by local authorities and CCGs.

This detailed insight into how services are delivered across England is fundamental to understanding whether service provision is equitable. It will help PHE to determine how best to support the translation of obesity evidence into practice at a local level, and will support the development of tools and resources to assist groups commissioning obesity services.

## Consideration

Due to the poor response rate for tier 3 WM services, there was insufficient data to undertake the same level of analysis as presented for tier 2 services. This report is therefore unlikely to provide an accurate reflection of tier 3 service provision across England.

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<sup>1</sup> Body mass index(BMI) is the weight of a person in kg divided by the square of their height in metres. The unit of BMI is kg/m<sup>2</sup>.

# Methodology

The mapping exercise was conducted in the following four stages.

## Scoping exercise

In England, there are 152 upper tier and unitary local authorities and 209 CCGs. In November 2014, commissioners of WM services in England were consulted via PHE Centres on the mapping process and provided feedback on key questions, outcomes and preferred method of engagement (face-to-face workshops or an e-survey). Feedback was collected by December 2014.

## Data collection

The mixed-methods data collection approach included face-to-face mapping workshops and/or an e-survey. Each approach collected data on: (i) referral route and entry criteria (ii) service details (iii) cost (iv) effectiveness (v) exit routes, and (vi) barriers to commissioning services. This data was collected between December 2014 and May 2015.

Six areas<sup>2</sup> participated in the face-to-face mapping workshops (Avon, Gloucestershire and Wiltshire; Devon, Cornwall and Somerset; Greater Manchester; Lancashire; North East; Yorkshire and Humber). Dates of the face-to-face workshops are provided in Annex 1. The data collected from the face-to-face workshops were transcribed and returned to commissioners for checking, before it was entered into MS Excel 2010.

The e-survey was created using the PHE web-based survey tool 'SelectSurvey'. The questionnaire included 30 closed and open questions following the same themes as the face-to-face workshop (Annex 2).

In the South East of England, the Association of Directors of Public Health (ADPH) was at the same time undertaking a sector-led improvement questionnaire for childhood obesity. As a result, PHE and ADPH created a joint e-survey that addressed both areas and included all of the original 30 mapping questions.

The e-survey was disseminated to commissioners of WM services via PHE centres. The data was collected between the 2 March and 5 May 2015. Data from the e-surveys was downloaded in MS Excel 2010.

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<sup>2</sup> Kent, Surrey and Sussex participated in a face-to-face session to discuss barriers

## Data processing

The data was cleaned to collate all data in a standardised format, remove anomalies, duplication and entry errors. Where data on multiple services was provided as a single entry, the data was disaggregated where possible. The response rate was calculated against the 152 upper tier and unitary local authorities that receive the public health grant and the 209 CCGs in England. The results throughout the report, may cover one or more local authority or CCG. Further details on data processing can be found in Annex 3.

## Data analysis

Both quantitative and qualitative analysis was carried out.

Quantitative data were analysed, using descriptive statistics in MS Excel 2010. Where percentages could not be reported due to multiple choice respondents, the numbers of observations are reported, where possible. Numbers were rounded to the nearest integer, therefore percentage totals may not always equal to 100.

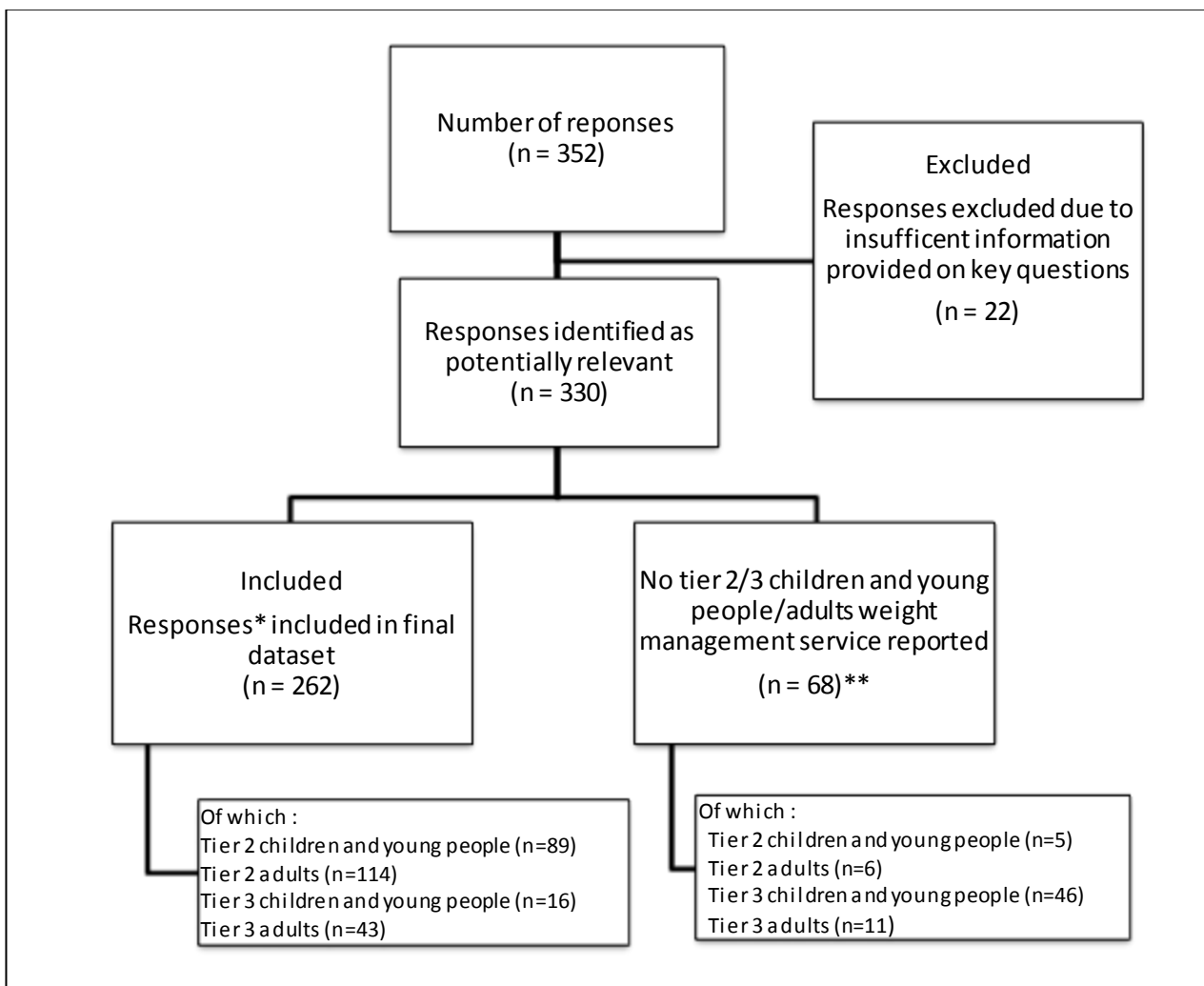
Qualitative data collected on barriers to commissioning WM services were thematically analysed to identify key topics and recurring themes. An iterative approach was taken in which data and categories were systematically reviewed until the most commonly cited concepts were identified, and a logical and a clear pattern emerged (20).

# Results

## Survey response for tier 2 and tier 3 children and young people and adult weight management services

An overview of the respondents<sup>3</sup> to the mapping exercise is provided in Figure 1. Of the 352 respondents initially identified, 262 were eligible for inclusion. Twenty-two respondents were excluded due to insufficient provision of information.

**Figure 1: Inclusion and exclusion process**



\* Respondents may include more than one service which was further disaggregated for some analysis.

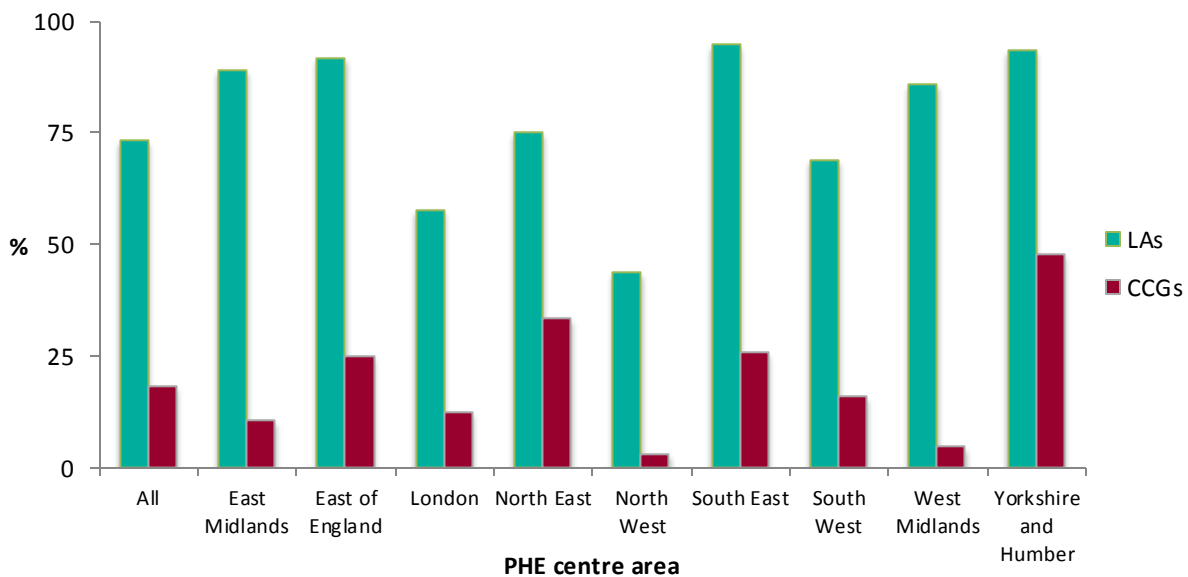
\*\*For the purpose of the analysis, the respondents (n= 68) that had identified no tier 2/3 weight management services were further excluded from the analysis

<sup>3</sup> This report is representative of the number of services that responded to the mapping exercise and is not indicative of all weight management services available across the country. For example, for those excluded due to insufficient information, there may be a service available in this area. However, this is not reported as there was insufficient data to include it in the analysis.

Information was received on services from 73% (111/152) of local authorities and 18% (38/209) of CCGs that described having a weight management service (tier 2 and/or tier 3) for children and young people (CYP) and/or adults. No tier 2 and/or tier 3 weight management services for adults and/or CYP were reported by 68 respondents, and it was not stated whether they were responding on behalf of a local authority or CCG.

The response rate varied for each PHE Centre area; however, the proportion of responding was at least 50% in all but one area, suggesting reasonable geographical coverage (Figure 2). The proportion of CCGs responding was less than 50% in all areas.

**Figure 2: Response rate from local authorities and CCGs by PHE Centre area**



**Key finding**

73% of local authorities and 18% of CCGs responded and described having a weight management service for children and young people and/or adults, suggesting reasonable geographical coverage across the country.

## Tier 2

### Children and young people services

#### Number of services and coverage:

One or more tier 2 children and young people weight management (CYP WM) services were reported by 89 respondents, with a geographical coverage of 56% of local authorities (85/152) and 1% (3/209) of CCGs.<sup>4</sup> In addition, 94% of respondents (84/89) stated that the service was available across the whole locality. Five respondents that reported not having a service were excluded from the analysis (Figure 1).

The majority (96%) of tier 2 CYP WM services were commissioned by local authorities as indicated in Table 2.

**Table 2: Commissioners of tier 2 CYP WM services**

Commissioner	Tier 2 CYP WM (n = 89)	Tier 2 CYP WM (%)
LA	85	96%
CCG and LA	3	3%
Unspecified	1	1%

#### Delivery settings (n=77):

The majority of tier 2 CYP WM respondents reported delivering the service in the 'community and/or leisure centres' and 'schools and/or after school' (Table 3).

**Table 3: Delivery settings for tier 2 CYP services**

	Community and/or leisure centre	School and/or after school	Home	Hospital/ GP	Work	Other**
Setting*	69	45	14	5	1	1

\*Respondents had the option to choose more than one category

\*\*Other includes community spaces close to the child's home and libraries

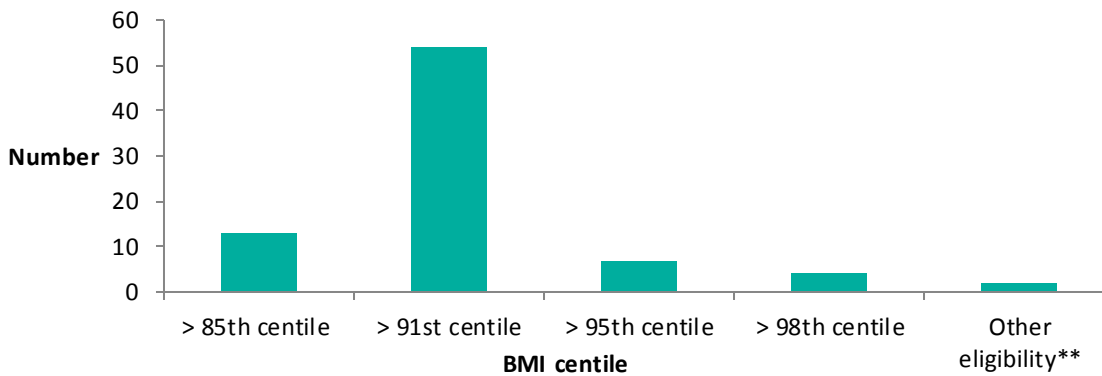
#### Eligibility criteria (n=78):

The majority of respondents reported eligibility criteria for tier 2 CYP WM service as >91st centile, followed by >85th centile (Figure 3).

<sup>4</sup> The responses throughout the report may cover one or more LA or CCG



**Figure 3: Eligibility criteria for tier 2 CYP services\***

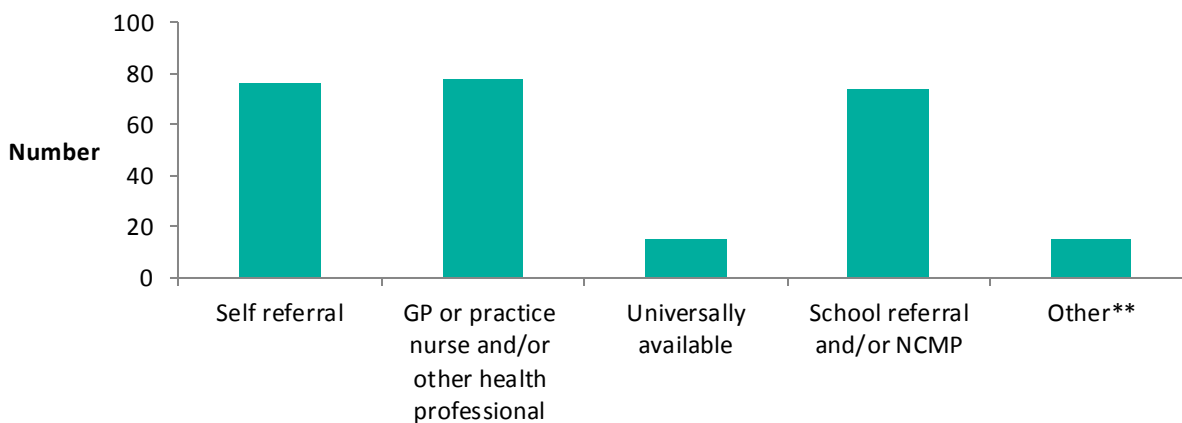


\*Respondents had the option to choose more than one category and where possible, the lowest BMI centile was included  
 \*\*Other eligibility includes parent carer with BMI > 25 with a child aged 0-17yrs or BMI > 30. It cannot be determined whether this was due to respondent error or families accessing services via this route.

**Referral routes (n=88):**

The most popular referral routes reported were GP or practice nurse and/or other health professionals, self-referral or school referral and/or the National Child Measurement Programme (NCMP) (Figure 4).

**Figure 4: Referral routes for tier 2 CYP services\***



\*Respondents had the option to choose more than one category  
 \*\* Other includes relevant stakeholders; referral from other lifestyles services/programmes; promotions; social services; active recruitment in hotspots; early year’s establishments and children centres; non health practitioners. A minority of responses selected NHS Health Checks. It cannot be determined whether this was due to respondent error or families accessing services via this route.

**Delivery format (n=76):**

Programmes that were delivered in group settings made up the most frequently identified delivery format of tier 2 CYP WM services, followed by one-to-one support (Table 4).

**Table 4: Delivery format for tier 2 CYP services**

	Group programmes	1:1 Support	Telephone	Online support
Delivery format*	66	40	17	13

\*Respondents had the option to choose more than one category

**Service design (n=83):**

66% described the service as multi-component, which included a physical activity, behaviour change and nutrition element. 16% reported delivering one component only, either; dietary, physical activity or behaviour change while 17% reported delivering two components within the service, such as dietary and physical activity, dietary and behaviour change, or physical activity and behaviour change.

**Length of service (n=96):**

The most frequently reported length of service for tier 2 CYP WM services was 12 weeks. The range was from six to 52 weeks.

**Evidence base and evaluation:**

The majority (96%) of those responding reported using NICE guidance (Table 5) and over half (58%) stated that they used the standard evaluation framework (SEF)(21).

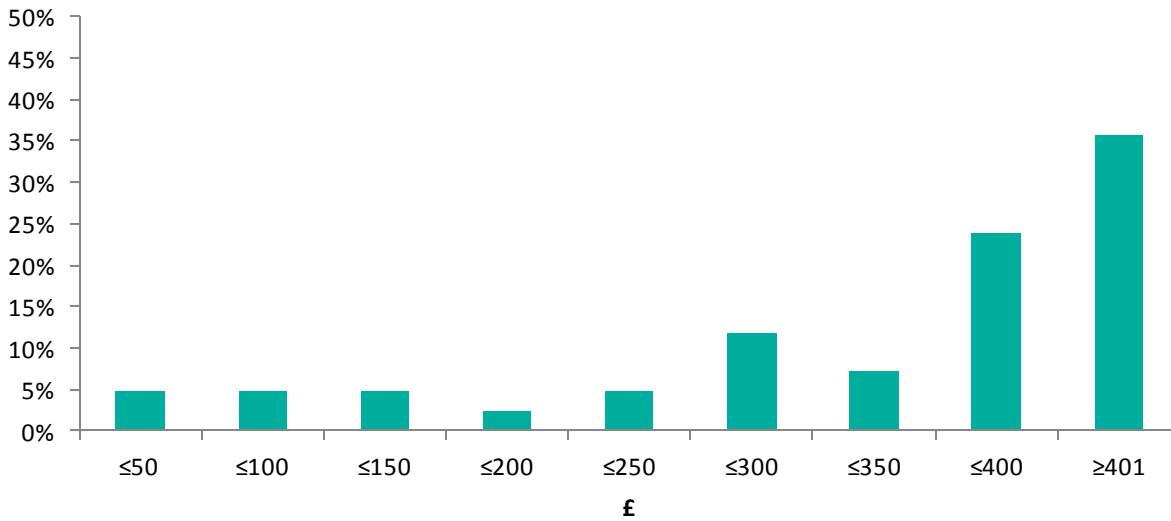
**Table 5: Proportion using SEF and NICE guidance in tier 2 CYP services**

	Yes (%)	No (%)
Percentage using the SEF (n=69)	58%	42%
Percentage using NICE guidance (n=71)	96%	4%

**Cost (n=42):**

The average cost per participant for tier 2 CYP WM services is presented in Figure 5. Of those that responded, the most frequently reported costs were equal to or greater than £401 per participant (Figure 5).

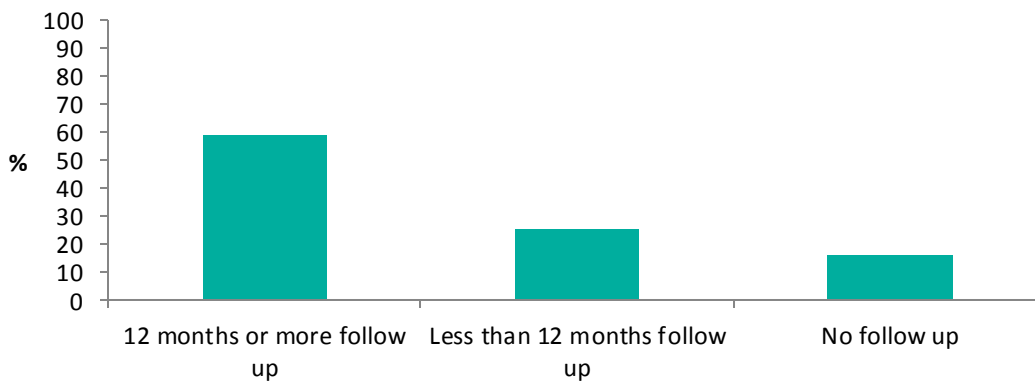
**Figure 5: Average cost per participant for tier 2 CYP services**



**Follow up of participants (n=70):**

Of those that responded, around 67% of service reported follow up of participants for 12 months or more and 21% of services reported follow up of participants for less than 12 months. Only 11% of service reported no follow up (Figure 6).

**Figure 6: Proportion that follow up participants in tier 2 CYP services**



**Outcomes:** The average change in BMI centile post programme and at 12 months could not be determined due to the heterogeneity of respondents and are therefore not reported.

### **Key findings**

- the majority of CYP tier 2 services were commissioned by local authorities and were delivered in community, leisure or school settings
- most respondents reported eligibility criteria of > 91<sup>st</sup> centile, and the most frequently reported referral routes were through self-referral, health professional or school/NCMP
- the majority of services were multi-component and delivered over 12 weeks in predominantly group or sessions
- the majority of services reported used NICE guidance and just over half reported using the SEF
- participants were followed up for 12 months or more in approximately two-thirds of the services reported
- the most frequently reported costs were equal to, or greater than £401 per participant

## Adult services

### Number of services and coverage:

One or more tier 2 adult WM services were reported by 114 respondents, with a geographical coverage of 61% (93/152) of local authorities and 5% (10/209) of CCGs.<sup>5</sup> In addition, 95% of respondents (102/107) stated the service was available across the whole locality. Six respondents that reported not having a service were excluded from the analysis (Figure 1).

The majority (89%) of the tier 2 adult WM services reported were commissioned by local authorities or jointly commissioned with CCGs (1%) or the voluntary, community and faith sector (VCFS) (2%), and 7% were commissioned by CCGs (Table 6).

**Table 6: Commissioners adult WM services**

Commissioner	Tier 2 adult WM service (n = 114*)	Tier 2 adult WM service (%)
Local authority	101	89%
CCG	8	7%
CCG and local authority	1	1%
Local authority/VCFS	2	2%
Unspecified	2	2%

### Delivery settings (n=100):

The majority of tier 2 adult WM respondents reported delivering the service in 'community and/or leisure centres' and to a lesser extent in 'Hospitals/GP' (Table 7).

**Table 7: Delivery settings for tier 2 adult services**

	Community and/ or leisure centre	Hospital/ GP	Work	School and/ or after school	Other*	Home
Setting*	97	27	15	5	5	2

\*Respondents had the option to choose more than one category

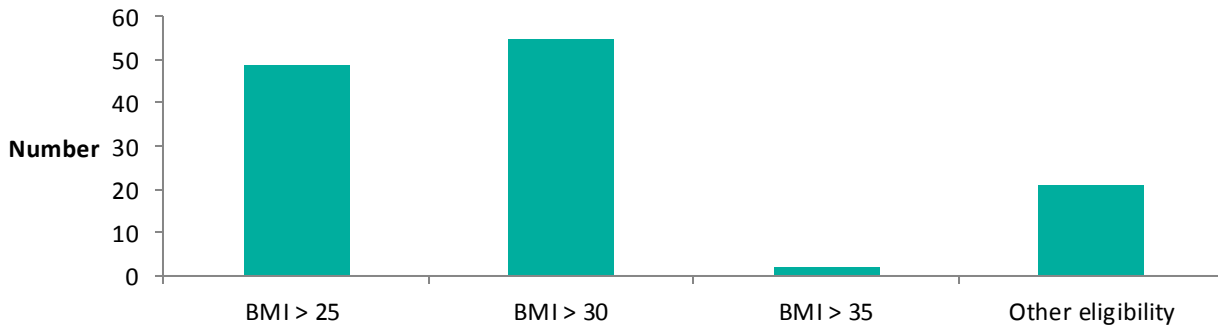
\*\*Other includes: obesity support services via telephone and, virtual support and e mail; targeted to suit client group; pharmacies.

### Eligibility criteria (n=111):

The majority of respondents reported a minimum eligibility criteria for tier 2 adult WM services as a BMI>30 (n=55), or by BMI>25 (n=49). Thirteen respondents also reported having an eligibility criteria of a BMI >28 with co-morbidities, and 3 respondents reported having an eligibility criteria of BMI>23 for South Asian ethnic groups (Figure 7).

<sup>5</sup> The responses throughout the report may cover one or more local authority or CCG

**Figure 7: Eligibility criteria for tier 2 adult services\***

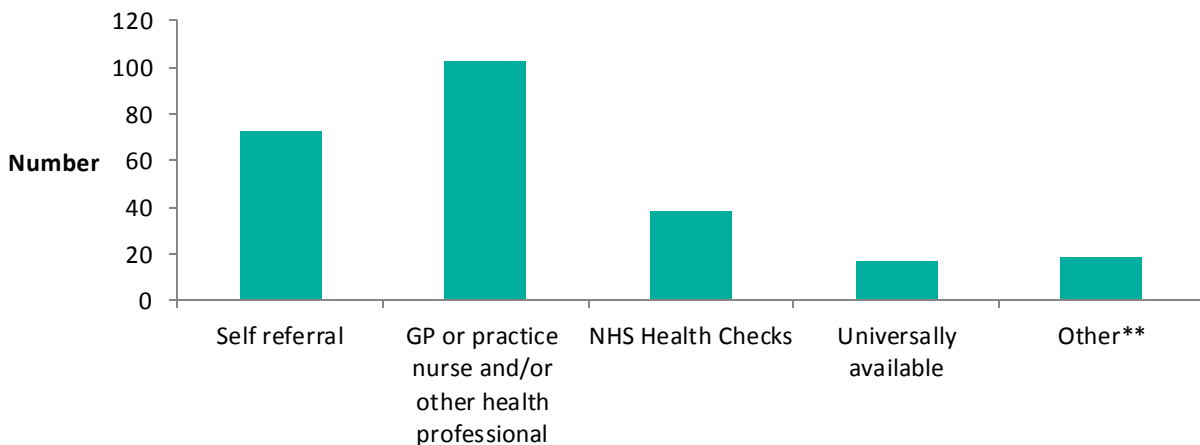


\* Respondents had the option to choose more than one category and where possible, the lowest BMI was included  
 \*\*Other eligibility includes other BMI thresholds (e.g. BMI 27); BMI criteria with co-morbidities; BMI criteria with waist circumference; BMI in pregnancy; BMI of other South Asian thresholds

**Referral routes (n=109):**

The most popular referral routes reported were: GP or practice nurse and/or other health professionals; self-referral followed by NHS Health Checks (Figure 8).

**Figure 8: Referral routes for tier 2 adult services\***



\* Respondents had the option to choose more than one category  
 \*\*'Other' includes referral through tier 3 or tier 1; if their child is on the child weight management programme; stop smoking services or other lifestyles services; family planning services; pharmacists; social care referral; exercise professional; voluntary, third sector partners or relevant stakeholders; health trainer. A minority of responses selected school/NCMP referral. It cannot be determined whether this was due to respondent error or families accessing services via this route.

**Delivery format (n=104):**

Group programmes were the main delivery format of adult WM services, followed by 1:1 support (Table 8).

**Table 8: Delivery format for tier 2 adult services**

	Group programmes	1:1 Support	Telephone	Online support
Delivery format*	99	66	23	16

\*Respondents had the option to choose more than one category

**Service Design (n=116):**

Two-thirds (66%) of respondents described the service as multi-component, which included a physical activity, behaviour change and nutrition element. 15% reported delivering one component only, either; dietary, physical activity or behaviour change, while 19% reported delivering two components within the service, such as dietary and physical activity, dietary and behaviour change, or physical activity and behaviour change.

**Length of service (n=136):**

The length of services ranged from six to 78 weeks (18 months), with 12 weeks being most frequently reported.

**Evidence base and evaluation:**

The majority (99%) of respondents reported using NICE guidance and over half (54%) reported using the SEF (Table 9).

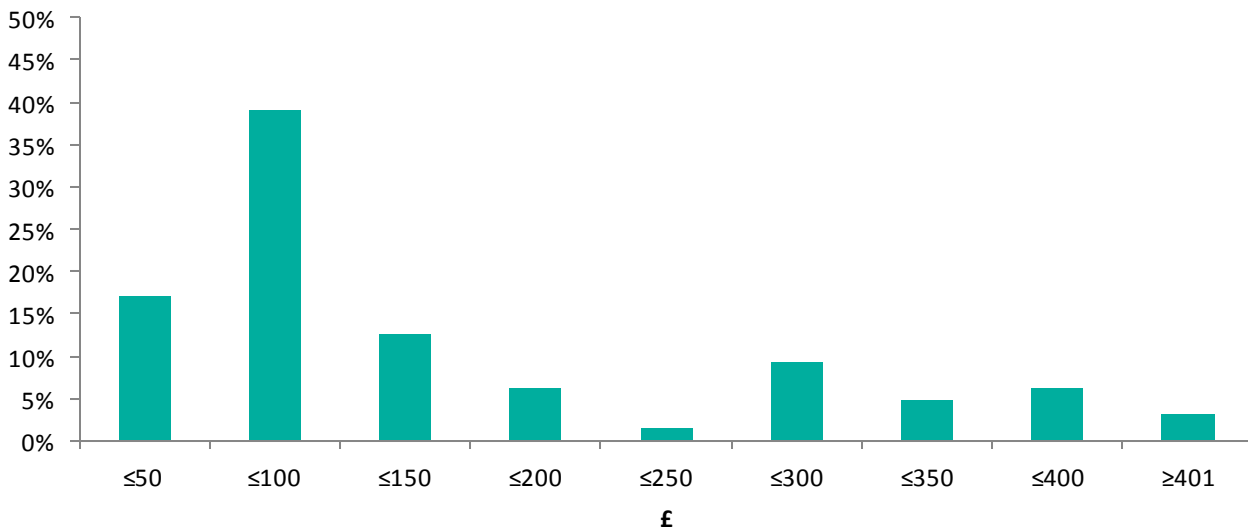
**Table 9: Proportion using SEF and NICE guidance in tier 2 adult services**

	Yes (%)	No (%)
Percentage using the SEF (n=90)	54%	46%
Percentage using NICE guidance (n=90)	99%	1%

**Cost (n=64):**

The average cost per participant for tier 2 adult WM services is presented in Figure 9. Of the respondents, the most frequently reported costs were less than or equal to £100 per participant.

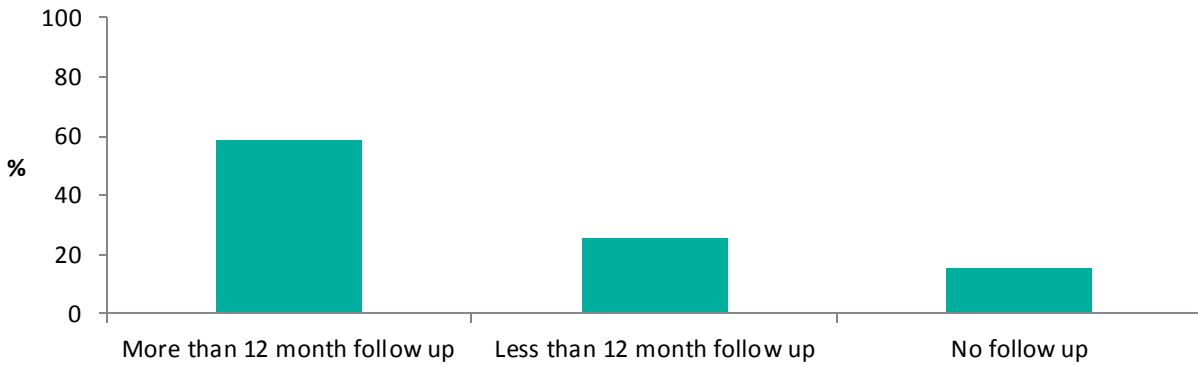
**Figure 9: Average cost per participant for tier 2 adult services**



**Follow up of participants (n=102):**

Of the respondents, around 59% of services reported follow up of participants for 12 months or more, while 26% reported less than 12 months follow up. Only 16% of services reported no follow up (Figure 10).

**Figure 10: Proportion that follow up participants in tier 2 adult services**



**Outcomes:**

Outcomes could not be determined due to the heterogeneity of responses and are therefore not reported in this report.

**Key findings**

- the majority of tier 2 services were commissioned by local authorities and were delivered in community and/or leisure centres
- most respondents reported a minimum eligibility criteria of BMI >30 followed by BMI >25 and the most popular referral routes were through GP or practice nurse and/or other health professionals and self-referral
- two-thirds of services were multi-component and delivered over 12 weeks in predominantly group sessions
- nearly all of the services reported using NICE guidance and just over half reported using the SEF
- participants were followed up for 12 months or more in over half of the services reported
- the most frequently reported costs were less than, or equal to, £100 per participant

**PHE Centre results**

Annexes 4 to 12 provide a summary of the tier 2 CYP and adult WM service respondents for each PHE Centre.



## Tier 3

### Children and young people services

#### **Number of services and coverage:**

One or more tier 3 CYP WM services were reported by 16 respondents, with a geographical coverage of 9% (14/152) of local authorities and 2% (5/209) of CCGs.<sup>6</sup> In addition, all respondents (n=13) stated the service was available across the whole locality. Forty-six respondents reported not having a service, and were excluded from the analysis (Figure 1). The majority (75%) of tier 3 CYP WM services were commissioned by local authorities.

#### **Delivery setting, format and referral routes:**

The majority of tier 3 CYP WM respondents reported delivering the service in the 'community and/or leisure centres' followed by 'hospital/GP'. Programmes that were delivered in one-to-one settings, followed by group programmes, were the most frequently identified delivery format. The most frequently reported referral routes were GP, practice nurse or other health professional and to a lesser extent, school referral and/or NCMP and self-referral.

#### **Eligibility criteria<sup>7</sup> and service design:**

Over half of respondents reported a minimum eligibility criteria of >91st centile, followed by >98th centile. Just over two-thirds (69%) of the reported services described the service as multi-component, which included a physical activity, behaviour change and nutrition element.

#### **Length of service, follow up, evidence base, evaluation and cost:**

The most frequently reported length of service for tier 3 CYP WM services was 12 weeks. The range of weeks was 10 to 52. Of those that responded, around 92% of services follow up participants for 12 months or more. Only 8% of services reported no follow up. Of the respondents, 100% reported using NICE guidance and 36% stated that they used the SEF. The majority of respondents reported average costs equal to, or greater than, £401 per participant.

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<sup>6</sup> The responses throughout the report may cover one or more LA or CCG

<sup>7</sup> Respondents had the option to choose more than one category and where possible, the lowest BMI centile was included

**Key findings**

- the response rate for tier 3 CYP WM services was poor and the results are not reflective of all services available across the England
- the majority of tier 3 CYP WM services that respondents reported were commissioned by local authorities
- the majority of respondents follow participants up for 12 months or more
- all respondents use NICE guidance and just over a third used the SEF

## Adult services

### **Number of services and coverage:**

One or more tier 3 adult WM services were reported by 43 respondents, with a geographical coverage of 13% (19/152) of local authorities and 12% (26/209) of CCGs.<sup>8</sup> In addition, 95% (38/40) respondents stated the service was available across the whole locality. Eleven respondents reported not having a service, and were excluded from the analysis (Figure 1). The respondents reported that 44% of tier 3 adult WM services were commissioned by CCGs, with 42% commissioned by local authorities, and 9% jointly commissioned.

### **Delivery setting, format and referral routes:**

Respondents reported tier 3 adult WM services were delivered in 'hospitals/GPs' (n=21) followed by 'community and/or leisure centres' (n=20). Programmes that were delivered in a one-to-one setting were the most frequently identified delivery format. The most frequently reported referral routes were GP, practice nurse or other health professional.

### **Eligibility criteria<sup>9</sup> and service design:**

The majority of respondents reported a minimum eligibility criteria for tier 3 adult WM services as BMI>40, followed by BMI >35. In addition, 14 respondents also reported having an eligibility criteria of BMI>35 with co-morbidities. Just over two-thirds (68%) of respondents described the service as multi-component, which included a physical activity, behaviour change and nutrition element.

### **Length of service, follow up evidence base, evaluation and cost:**

The most frequently reported length of service for tier 3 adult WM service was 52 weeks. The range was from six to 104 weeks. Of those that responded, around 77% of services reported following up participants for 12 months or more, whilst 10% reported following up participants for less than 12 months. Only 4% of services reported no follow up. Of those responding, 88% reported using NICE guidance and only 59% stated that they used the SEF. The majority reported average costs of tier 3 adult WM services to be more than £400 per participant.

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<sup>8</sup> The responses throughout the report may cover one or more LA or CCG

<sup>9</sup> Respondents had the option to choose more than one category and where possible, the lowest BMI centile was included

### Key findings

- the response rate for tier 3 adult WM services was poor and the results are not reflective of all services available across the England
- 44% of tier 3 adult WM services were commissioned by CCGs, 42% commissioned by local authorities and 9% were jointly commissioned
- most services were delivered in hospital or GP settings, followed by community or leisure settings
- The majority of respondents reported follow up of participants for 12 months or more

## PHE Centre results

The mapping data was collected through the original 15 PHE Centres, however as of 1 July 2015, the number of Centres in PHE reduced from 15 to nine. Annexes 4 to 13 provide summaries of the tier 2 and tier 3 CYP and adult WM service respondents for the nine PHE Centres. For tier 3, this is provided in a summary table, due to the low response rate.

## The Royal College of Physicians tier 3 survey

The Royal College of Physicians (RCP) surveyed 791 endocrinology and diabetes consultants to understand the provision of tier 3 services for adults across the country. Of the 169 responses, 60% stated that there was a tier 3 adult service in their area while 40% did not have a service. This results in around 21% of the CCGs in England describing a tier 3 adult WM service.

Of those that responded, two-thirds of the services were based in secondary care (67%), with 18% specifying that the services were based in both primary and secondary care, and 8% based in primary care alone.

In around half of the respondents, the service was commissioned by CCGs (54%), however 28% of respondents said they did not know who commissioned the service.

Nearly two-thirds (66%) of the respondents stated that the tier 3 adult service was linked to a tier 4 service, and in a third of cases, either the respondent did not know whether they were linked (25%) or there was no tier 4 service (5%).

The most frequently reported length of time that adults spent in a tier 3 service was 6–12 months (49%). Twenty-one per cent of respondents reported adults spent over a year in a tier 3 service, 21% didn't know and 8% reported 3–6 months.

The most frequently reported age range for patients accessing tier 3 services was 35–65 years (60%), followed by 19–35 years (27%), over 65 (12%) and under 18 (2%).

Thematic analysis of respondents’ comments in the survey revealed the following key factors affecting tier 3 services:

- perceptions of tier 3 services such as the **perception** that tier 3 is only a stepping stone to bariatric surgery, both on the part of GP’s, patients and surgeons
- **funding** such as services are oversubscribed with long waiting lists
- awareness such as lack of **awareness** on part of GP’s of existence, purpose and means of referral to the service
- **geography** such as inadequate or non-existent local services
- **staffing** such as lacking the right personnel to drive the initiatives forward
- referral process such as a convoluted **referral** system compounded a lack of communication between health professionals and patients
- patient Inclusion Criteria such as strict BMI **criteria** and CCGs imposing criteria as to who should or should not have access – e.g. that a patient must have two co-morbidities in the BMI 35-50 range
- **demographic Issues** such as socioeconomically deprived communities can find access hard due to travel costs and childcare etc.

### Barriers to commissioning services

Commissioners reported six key themes relating to barriers they face when commissioning tier 2 and tier 3 weight management services for children and/or adults; evidence and outcomes, national guidance, funding and resource, commissioning, obesity pathway and service model. Table 10 explores these themes.

**Table 10: Thematic analysis of the barriers to commissioning services**

Theme	Sub-theme	Example
<b>Evidence and Outcomes</b>	Using appropriate outcome measures	"Setting appropriate KPIs for the programme to be successful, but also allow the providers to have a flexible approach to working with individuals."
	Lack of evidence on what works	"Lack of evidence of long-term effectiveness, lack of validated tools that are not too onerous for participants to gauge effectiveness of behaviour change."
	Lack of long-term data	"There is still a lack of evidence of programmes that support people to maintain weight loss at 12 months."
<b>National Guidance</b>	Lack of leadership	"Absence of strong national leadership to drive and mobilise action on obesity. What is welcomed is the same level of leadership and drive witnessed in smoking cessation."

	Lack of clear guidance on service specifications	"There is still a lack of clear evidence to support effective adult weight management interventions, which takes the broad guidance offered by NICE and directs local areas in commissioning their weight management services and in determining the core competencies and skills needed within service delivery. Until and unless this is provided, local areas will continue to commission largely in isolation and 'in the dark'."
<b>Funding and Resource</b>	Not a priority area	"Not mandated – becomes low priority, limited resources."
	Lack of funding	"Threat of budgets and reduced ring fence makes long-term plans hard"
<b>Commissioning</b>	Lack of joint commissioning	"Responsibility now sits with three commissioners with no overall accountability, it would be better if one agency commissioned all tiers."
	Provider difficulties	"Lack of specialist training/expertise in obesity management using psychological/CBT type skills/competencies."
	Commissioning responsibility	"Lack of clarity regarding the responsible commissioner for Tier 3 services."
<b>Obesity Pathway</b>	Disjointed obesity pathway	"Pathways can be disjointed dependant on area, for example exit routes available to some individuals and not others on a weight management programme because of where they live and the commissioning changing."
<b>Service Model</b>	Patient centred	"Not necessarily patient-led system with contracts not matching need of service."
	Recruitment	"Getting sufficient people signed up to make the intervention cost effective."

## Discussion

Across England, the mapping of tier 2 WM services received a good response, with 75% of local authorities reporting a WM service in their locality for children and/or adults.

In April 2013, the responsibility for a range of public health services, including certain obesity related services, transferred from the NHS to local authorities. Typically, local authorities have responsibility for commissioning tier 2 WM services (18). This report positively reflects this, with the majority of tier 2 services for children and adults being commissioned by local authorities.

The response rate for tier 3 services was low. As a consequence, the results provided in this report may be misleading and a clear picture of tier 3 service provision is not known. Of those responding, 42% highlighted that the adult tier 3 services were commissioned by local authorities and the RCP survey of consultants found that over half of their reported services were commissioned by CCGs. In 2014, a cross-system working group published its considerations of an investigation into joined up clinical pathways for obesity. This report included a focus on tier 3 multi-disciplinary services and concluded that CCGs were the preferred option as the primary commissioners for local tier 3 weight management services (19). It is evident from the WM mapping that commissioners still perceive that there is a lack of clarity for commissioning responsibility for tier 3 services. While this report is not representative of the total number of tier 3 services in England, it would appear to highlight variable provision of services. Such variability could create unnecessary barriers for individuals to access the support they need to achieve and maintain a healthier weight, including accessing tier 4 services.

Throughout discussions with commissioners it was evident that national guidance is important, and it is encouraging that the majority of services reported using NICE guidance in their WM services for both children and adults. The importance and need for national guidance was further demonstrated through commissioners' providing valuable reflections on how that can be achieved, for example support to design 'credible' services and models that have the flexibility to meet local need and allow for innovation.

Furthermore, a key recommendation in NICE guidance is that both adult and child WM services are multi-component in design, featuring diet, physical activity and behavioural elements (4, 5). This report highlights that the majority of tier 2 and 3 services for children and adults are reflective of NICE guidance, and deliver multi-component services. However, a significant number of services that responded are delivering only one or two of these features, which may have an impact on their effectiveness.

An important finding identified in this report is that respondents from just over half of local authorities in England reported having a tier 2 WM programme for children. Assumptions about the total coverage of CYP WM services cannot be made, as they were not all reported. Tackling childhood obesity is a national priority and WM services have a role to play in helping to deliver sustained reductions in the number of children that are overweight and obese. The picture for adult services was not dissimilar, with respondents from 61% of local authorities providing a tier 2 WM service. The commissioning of obesity services, including WM, are a local consideration. A survey in 2013, undertaken with directors of public health (DsPH), identified that services are but one of the approaches required to tackle obesity (22). At the time DsPH reported that tackling childhood obesity was a priority, with the vast majority stating it featured in joint strategic needs assessments and/or health and wellbeing strategies. This has most recently been reaffirmed through a Local Government Association-led survey of local authority leaders, which reported that childhood obesity remained a priority area for local authorities and one for which some respondents felt required further action (23).

Tier 3 WM services are an important part of the obesity pathway for both children and adults. For adults, NICE recommends that individuals have been, or will be receiving intensive management in a tier 3 service to be eligible for bariatric surgery, amongst other criteria (4). This analysis highlights respondents from 13% of local authorities, and 12% of CCGs that have an adult tier 3 service, with 9% of local authorities and 2% of CCGs with a child tier 3 service.

Commissioners reported that recruitment and increasing the uptake of places on WM programmes was an area for improvement. This report highlights that the majority of referrals to services for children and adults were via self-referral, GPs, practice nurses and other health professionals. The information received also positively identified that children were accessing WM services through the NCMP and through NHS Health Checks for adults. The NCMP provides an opportunity to support families with children who are identified as being above a healthy weight and children accessing services via this route is a positive outcome.

Evaluation and reporting outcomes in WM services are an important consideration. NICE recommends that commissioners and providers of lifestyle WM programmes should use the SEF and validated tools to monitor services (21). With 42% of CYP WM services and 46% of adult WM services using the SEF, this indicates some consistency of reporting outcomes across services. It would appear, however, that there is a gap in standardised reporting. This is highlighted in the report through the reporting of average weight loss at the end of a service, and at 12-month follow up. Analysis of this data was not possible due to the heterogeneity of reporting, which included kilograms, % weight loss, average number of completers achieving 5% weight loss, BMI and more. Through the investigation of the barriers to commissioning services, a strong evidence and outcomes theme emerged. Commissioners reported a need for support on setting key



performance indicators and outcomes for services that can be expected to be achieved. They also highlighted a lack of evidence on 'what works'. This finding, along with the importance of consistent and standardised collection and reporting of outcome measures, will help inform and build the evidence on effective services, and indeed those that are not effective.

Additionally, the majority of reported services followed up participants once their programme had finished, and a significant number followed up participants for 12 months or more. This positively reflects NICE recommendations that WM services should routinely follow up participants and collect measurements for at least 12 months (4, 5). Commissioners described sustainability of outcomes as an area that lacked evidence, and consistency in this area may enhance the evidence base.

Commissioners described the uncertainty of budgets and limited resource to commission services as a barrier. Analysis of the cost of tier 2 WM services, based on the respondents, highlighted that the majority of adult services costed £100 or less per participant. NICE undertook economic modelling based on UK programmes, which demonstrated that a 12-week programme costing £100 or less, when meeting certain criteria, is cost effective for adults. However, it is important to note that this modelling was based on each programme participant, and not just completers. The modelling was also completed for programmes that cost more than £100 and they also demonstrated cost effectiveness if greater weight loss was achieved, and maintained (24).

A clear consideration, which requires attention, is the poor response rate for tier 3 WM services. This is in part perhaps related to the mechanism used to disseminate the mapping exercise, which resulted in potentially low awareness and hence responses from commissioners of these services. The lack of response resulted in insufficient and incomplete data, which meant it was not possible to complete the same level of analysis as for tier 2 services. Therefore, it is likely that this report is not reflective of tier 3 service provision across England. The RCP survey also received low coverage of CCGs across England, and this further highlights that improved mechanisms to engage with CCGs and understand service provision are required. It is also important to note the possible impact of biased response, with such a small number.

The majority of respondents were from local authorities. This report reflects the nature of WM services that responded, and provides a snapshot of tier 2 and tier 3 services that were available at the time of the mapping exercise. However, based on the response rate, it would indicate that this report does not capture the entirety of services that are available for individuals to access across the country. For example, it does not capture the entirety of commercial programmes that are available for individuals to access independently.

## Implications for practice

This report demonstrates that further information on 'what works' would assist the commissioning of WM services across England. PHE will develop blueprint specifications for commissioners and providers of WM services, as detailed in the Department of Health letter detailing PHE's Strategic Remit and Priorities (25). This will involve further research, including:

- insights into user and stakeholders experiences of WM services
- exploring the evidence base for tier 3 weight management services for children and adults
- undertaking an evidence review into what works in WM services for early years and primary school aged children

Applying the knowledge of what is known to work, and understanding better what does not work for users, will help to support local action and commissioning to achieve equitable provision and access to effective WM services across the country. PHE will use these findings to inform how it develops its support on WM services, to help local delivery and support to families, children and adults.

## Useful links

British Obesity and Metabolic Surgery Society Commissioning Guide: Weight Assessment and Management Clinics (tier 3): <http://www.bomss.org.uk/commissioning-guide-weight-assessment-and-management-clinics-tier-3/>

Public Health England Standard Evaluation Framework for Weight Management Interventions: [http://www.noo.org.uk/uploads/doc721\\_2\\_noo\\_SEF%20FINAL300309.pdf](http://www.noo.org.uk/uploads/doc721_2_noo_SEF%20FINAL300309.pdf)

National Institute for Health and Care Excellence Guidance on Diet, Nutrition and Obesity: <http://www.nice.org.uk/guidance/lifestyle-and-wellbeing/diet--nutrition-and-obesity>

Public Health England Obesity Knowledge and Intelligence Factsheets: [http://www.noo.org.uk/NOO\\_pub/Key\\_data](http://www.noo.org.uk/NOO_pub/Key_data)

## References

1. National Child Measurement Programme – England 2014-15 school year. [www.hscic.gov.uk](http://www.hscic.gov.uk) Health and Social Care Information Centre, 2015.
2. Health Survey for England 1993-2013. [www.hscic.gov.uk](http://www.hscic.gov.uk) Health and Social Care Information Centre, Joint Health Surveys Unit 2014.
3. PHE Board Paper: Update on Action to Tackle Obesity. [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/462706/PHE15-37\\_Obesity\\_panel\\_follow\\_up\\_v00.05\\_\\_20150918\\_.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/462706/PHE15-37_Obesity_panel_follow_up_v00.05__20150918_.pdf) Public Health England, 2015.
4. Weight management: lifestyle services for overweight or obese adults. [www.nice.org.uk/guidance/ph53](http://www.nice.org.uk/guidance/ph53) National Institute of Health and Care Excellence, 2014.
5. Weight management: lifestyle services for overweight or obese children and young people <https://www.nice.org.uk/guidance/ph47> National Institute of Health and Care Excellence, 2013.
6. International Comparisons. [http://www.noo.org.uk/NOO\\_about\\_obesity/adult\\_obesity/international](http://www.noo.org.uk/NOO_about_obesity/adult_obesity/international) Public Health England.
7. Risk Factor Modelling for Public Health England. UK Health Forum, 2014.
8. Kral TV, Faith MS. Influences on child eating and weight development from a behavioral genetics perspective. *J Pediatr Psychol.* 2009;34(6):596-605.
9. Simmonds M, Burch J, Llewellyn A, Griffiths C, Yang H, Owen C, et al. The use of measures of obesity in childhood for predicting obesity and the development of obesity-related diseases in adulthood: a systematic review and meta-analysis. *Health Technol Assess.* 2015;19(43):1-336.
10. Annual Report of the Chief Medical Officer: On the State of the Public's Health. . <https://www.gov.uk/government/publications/chief-medical-officer-annual-report-surveillance-volume-2012> Department of Health, 2012.
11. Scarborough P, Bhatnagar P, Wickramasinghe KK, Allender S, Foster C, Rayner M. The economic burden of ill health due to diet, physical inactivity, smoking, alcohol and obesity in the UK: an update to 2006-07 NHS costs. *J Public Health (Oxf).* 2011;33(4):527-35.
12. Butland B JS, Kopelman P. Foresight Programme Tackling Obesities: Future Choices – Project Report 2nd Edition. Government Office for Science.
13. <https://www.noo.org.uk/LA/impact/economic> National Obesity Observatory, 2014.
14. From Evidence into Action: Opportunities to Protect and Improve the Nation's Health. Public Health England, 2014.
15. 5 Year Forward View. NHS, 2014.
16. Marteau TM, Ogilvie D, Roland M, Suhrcke M, Kelly MP. Judging nudging: can nudging improve population health? *BMJ.* 2011;342:d228.
17. Cole TJ, Freeman JV, Preece MA. Body mass index reference curves for the UK, 1990. *Archives of Disease in Childhood.* 1995;73(1):25-9.
18. The health and care system explained. Department of Health, 2013.
19. Report of the working group into: Joined up clinical pathways for obesity. <https://www.england.nhs.uk/wp-content/uploads/2014/03/owg-join-clinc-path.pdf> NHS England, 2013.
20. Braun V, Clarke V. Using thematic analysis in psychology. *Qualitative Research in Psychology.* 2006;3(2):77-101.
21. Standard Evaluation Framework for Weight Management Interventions. <http://www.noo.org.uk/core/frameworks/SEF> National Obesity Observatory, 2009.
22. Public Health England and Association of Directors of Public Health survey findings: Tackling obesity.

- [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/271287/20140114\\_PHE\\_\\_\\_ADPH\\_DsPH\\_survey\\_on\\_obesity\\_priorities.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/271287/20140114_PHE___ADPH_DsPH_survey_on_obesity_priorities.pdf) Public Health England, 2014.
23. Public Health Opinion Survey: National Results.  
[http://www.local.gov.uk/documents/10180/6869714/Public+Health+Opinion+Survey\\_Final+Report.pdf/feb6199e-d1b4-4e37-894e-3ec7a198e408](http://www.local.gov.uk/documents/10180/6869714/Public+Health+Opinion+Survey_Final+Report.pdf/feb6199e-d1b4-4e37-894e-3ec7a198e408) Local Government Association, 2015.
24. Brown M, Marsh T., Retat, L., Fordham, R., Suhrcke, M., Turner, D., Little, R., Filani, O. Managing Overweight and Obesity among Adults: Report on Economic Modelling and Cost Consequence Analysis. <https://www.nice.org.uk/guidance/ph53/evidence/economic-modelling-report-431715709> 2014.
25. Public Health England Remit and Strategic Priorities.  
[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/417629/Public\\_Health\\_England\\_\\_Remit\\_\\_Priorities\\_Letter\\_\\_2015-16\\_Final\\_\\_2\\_.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/417629/Public_Health_England__Remit__Priorities_Letter__2015-16_Final__2_.pdf) Department of Health, 2015.