

NATIONAL INSTITUTE FOR HEALTH AND CLINICAL EXCELLENCE

# **PUBLIC HEALTH DRAFT GUIDANCE**

## **Obesity: working with local communities**

### **Introduction: scope and purpose of this draft guidance**

#### ***What is this guidance about?***

This guidance aims to support effective, sustainable and community-wide action to prevent obesity. It sets out how local communities, with support from local organisations and networks, can achieve this. The recommendations cover:

- developing a sustainable, community-wide approach to obesity
- strategic leadership
- supporting leadership at all levels
- coordinating local action
- communication
- involving the community
- coordinated commissioning to encourage innovative ways to tackle obesity
- involving local business
- local authorities and the NHS as exemplars of good practice
- monitoring and evaluation: public health teams
- monitoring and evaluation: commissioners
- organisational development and training
- scrutiny and accountability.

A 'sustainable, community-wide approach' to prevent obesity involves a set of integrated services and actions delivered by the many organisations, community services and networks that make up the 'local system'.

For the purpose of this guidance, 'local community' refers to a group of people from the same geographic location which is not necessarily related to any

official, administrative boundary. The community may be located within a ward, borough, region or city. This guidance does not cover interventions in a particular setting (such as a school or workplace) that do not involve the wider community or wider partnership working.

The guidance has a strong focus on local partnership working. For the purpose of this guidance, a partner could be a local department, service, organisation, network, community group or individual that could help prevent obesity.

This guidance focuses on prevention. The recommendations may also help people who are already overweight or obese to lose weight, or to prevent them from gaining further weight. It does not cover clinical management for people who are already overweight or obese. (Also see existing NICE guidance, see section 7).

### ***Who is this guidance for?***

This guidance is for local policy makers, commissioners, managers, practitioners and other professionals working within local authorities, the NHS and the wider public, private, voluntary and community sectors. It is particularly aimed at local authority chief executive officers, directors of public health, members of health and wellbeing boards, elected members (particularly council leaders) and community champions.

The recommendations will also be of interest to academic organisations involved in designing and evaluating community-wide interventions to prevent and manage obesity, as well as members of the public.

### ***Why is this guidance being produced?***

In 2009, the Department of Health (DH) asked the National Institute for Health and Clinical Excellence (NICE) to produce guidance to tackle obesity at a local level using a 'whole-system approach'.

The work was put on hold in November 2010 and reviewed as part of the government's obesity strategy work programme. The scope was subsequently

revised and the work progressed with a stronger focus on local, community-wide best practice, addressing both process and outcomes.

This guidance focuses on an overarching approach to obesity in local communities and the importance of integrating action on obesity within other local agendas (such as initiatives to prevent type 2 diabetes or cardiovascular disease).

It provides a framework for existing NICE guidance that directly or indirectly impacts on obesity prevention or management. (For more details see sections 4 and 7 on implementation and related NICE guidance respectively.)

The ongoing structural changes to the public sector, particularly local authorities and the NHS, have influenced the direction and tone of the recommendations.

### ***How was this guidance developed?***

The recommendations are based on the best available evidence. They were developed by the Programme Development Group (PDG).

Members of the PDG are listed in appendix A.

The guidance was developed using the NICE public health programme process. See appendix B for details.

Supporting documents used to prepare this document are listed in appendix E.

### ***What evidence is the guidance based on?***

The evidence that the PDG considered included: three reviews of the evidence, economic modelling, the testimony of expert witnesses and a commissioned report. Further detail on the evidence is given in the considerations section (section 3) and appendices B and C.

In some cases, the evidence was insufficient and the PDG has made recommendations for future research.

More details of the evidence on which this guidance is based, and NICE's processes for developing public health guidance, are on the [NICE website](#).

### ***Status of this guidance***

This is **draft** guidance.

This document does not include all sections that will appear in the final guidance. NICE is now inviting comments from stakeholders ([listed on our website](#)).

**Note that this document is not NICE's formal guidance on obesity: working with local communities. The recommendations made in section 1 are provisional and may change after consultation with stakeholders.**

The stages NICE will follow after consultation are summarised below.

- The Group will meet again to consider the comments, reports and any additional evidence that has been submitted.
- After that meeting, the Group will produce a second draft of the guidance.
- The final guidance will be signed off by the NICE Guidance Executive.

For further details, see '[The NICE public health guidance development process: An overview for stakeholders including public health practitioners, policy makers and the public \(second edition, 2009\)](#)'.

### **The key dates are:**

Closing date for comments: 8 June 2012.

Next PDG meeting: 18 July 2012.

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## 1 Draft recommendations

The Programme Development Group (PDG) considers that the recommended approaches are cost effective.

The evidence statements underpinning the recommendations are listed in appendix C.

For the gaps in research, see appendix D.

The evidence reviews, supporting evidence statements and economic modelling report are available at the [NICE website](#)

### ***Guiding principles***

The recommendations should be undertaken in parallel, wherever possible. Ideally, to be as cost effective as possible, they should be implemented as part of integrated programmes of action.

Other NICE guidance can also be used to ensure effective delivery of the recommendations made in this guidance (see below).

### **Community engagement**

The prerequisites for effective community engagement are covered in [Community engagement](#) NICE public health guidance 9 (2008). These include:

- Coordinated implementation of the relevant policy initiatives.
- A commitment to long-term investment.
- Openness to organisational and cultural change.
- A willingness to share power, as appropriate, between statutory and community organisations.
- The development of trust and respect among all those involved.

The guidance states that the following should also be in place to ensure effective local practice:

- Support to ensure those working with the community – including members of that community – receive appropriate training and development opportunities.
- Formal mechanisms which endorse partnership working.
- Support for effective implementation of area-based initiatives.

### **Behaviour change**

The prerequisites for effective interventions and programmes aimed at changing behaviour are covered in [Behaviour change](#). NICE public health guidance 6 (2007). In summary, NICE recommends that interventions and programmes should be based on:

- Careful planning, taking into account the local and national context and working in partnership with recipients.
- A sound knowledge of community needs.
- Existing skills and resources, by identifying and building on the strengths of individuals and communities and the relationships within communities.

In addition, interventions and programmes should be evaluated, either locally or as part of a larger project, and practitioners should be equipped with the necessary competencies and skills to support behaviour change. This includes knowing how to use evidence-based tools. (NICE recommends that courses for practitioners should be based on theoretically informed, evidence-based best practice.)

### **Cultural appropriateness**

The prerequisites for culturally appropriate action are outlined in [Preventing type 2 diabetes – population and community interventions](#). NICE public health guidance 35 (2011). The guidance emphasises that culturally appropriate

action takes account of the community's cultural or religious beliefs and language and literacy skills by:

- Using community resources to improve awareness of, and increase access to, interventions. For example, they involve community organisations and leaders early on in the development stage, use media, plan events or make use of festivals specific to black and minority ethnic groups.
- Understanding the target community and the messages that resonate with them.
- Identifying and addressing barriers to access and participation, for example, by keeping costs low to ensure affordability, and by taking account of different working patterns and education levels.
- Developing communication strategies which are sensitive to language use and information requirements. For example, they involve staff who can speak the languages used by the community. In addition, they may provide information in different languages and for varying levels of literacy (for example, by using colour-coded visual aids and the spoken rather than the written word).
- Taking account of cultural or religious values, for example, the need for separate physical activity sessions for men and women, or in relation to body image, or beliefs and practices about hospitality and food. They also take account of religious and cultural practices that may mean certain times of the year, days of the week, settings, or timings are not suitable for community events or interventions. In addition, they provide opportunities to discuss how interventions would work in the context of people's lives.
- Considering how closely aligned people are to their ethnic group or religion and whether they are exposed to influences from both the mainstream and their community in relation to diet and physical activity.



***Whose health will benefit from these recommendations?***

Everyone within a locally defined community but, in particular, vulnerable groups and communities where there is a high percentage of people who are at risk of being overweight or obese.

***Recommendation 1 Developing a sustainable, community-wide approach to obesity*****Who should take action?**

- Clinical commissioning groups.
- Council leaders and elected members.
- Directors of public health.
- Health and wellbeing boards.
- Local authority chief executive officers.

**What action should they take?**

- All of the above should ensure, through the health and well being board, a coherent, community-wide, multi-agency agenda is in place to address obesity prevention and management. Activities should be integrated within a wider health and wellbeing strategy and broader regeneration and environmental strategies. Action should also be aligned with other disease-specific prevention strategies. (This includes, for example, initiatives to [prevent type 2 diabetes](#), cancers and [cardiovascular disease](#), as well as initiatives to promote mental health.)
- Health and wellbeing boards, supported by directors of public health, should ensure the joint strategic needs assessment (JSNA) addresses the prevention and management of obesity. They should ensure it:
  - considers the full range of factors which may influence weight, including, for example, access to foods that contribute to a

healthy, balanced diet or opportunities to use more physically active modes of travel

- considers inequalities and the social determinants of obesity
  - considers local evidence on obesity.
- Health and wellbeing boards should ensure tackling obesity is one of the strategic priorities of the local joint health and wellbeing strategy (if the JSNA demonstrates significant need).
  - Health and wellbeing boards and local authority chief executive officers should encourage partners to provide funding and other resources for activities that make it as easy as possible for people to achieve and maintain a healthy weight. This includes, for example, activities to improve local recreation opportunities, community safety or access to foods that can contribute to a healthier diet. Partners should be encouraged to provide funding and resources beyond one financial or political cycle and have clear plans for sustainability.
  - Health and wellbeing boards should work in partnership with local clinical commissioning groups to ensure a coherent approach to tackling obesity which spans both prevention and treatment.
  - Health and wellbeing boards should work with partners to optimise the positive impact (and mitigate any adverse impacts) of local policies on obesity levels. This includes strategies and policies which may have an indirect impact, for example, those favouring car use over other modes of transport, or decisions to remove park wardens which may put people off using a park.
  - Health and wellbeing boards should annually assess local partners' work to tackle obesity. In particular, they should ensure clinical commissioning group operational plans support the obesity agenda within the health and wellbeing strategy.

## ***Recommendation 2 Strategic leadership***

### **Who should take action?**

- Chairs of health and wellbeing boards.
- Clinical commissioning group leads for obesity (where they exist).
- Clinical commissioning representative on the health and wellbeing board.
- Elected members, including council leaders and lead members for health and wellbeing.
- Local authority chief executive officers.
- Public health teams (including directors of public health).

### **What action should they take?**

- All those above should provide visible, strategic leadership to tackle obesity.
- Clinical commissioning groups should be encouraged to identify an obesity lead to work with the public health team on joint approaches to tackling obesity.
- Public health teams should ensure all those responsible for activity that impacts on obesity understand the geographic boundaries, needs and priorities of the local community, as outlined in the joint strategic needs assessment (JSNA). They should ensure all partners understand the JSNA priorities and be prepared to de-commission services, if necessary, to divert resources to priority areas.
- Local authority chief executive officers and directors of public health should:
  - Regularly brief elected members on the local prevalence of obesity, the health risks and the local factors that may have an impact.

- Help elected members identify what they can do to ensure obesity prevention is integrated within council strategies and plans.
- Directors of public health should ensure there is a high-level commitment to long-term, integrated action on obesity, as part of the health and wellbeing strategy. This includes:
  - Local indicators and targets being established collaboratively with all partners.
  - Ensuring the strategy defines long-term goals and also includes short and intermediate measures.
  - Cross-sector coordination and communication between transport, planning and leisure services at strategic level and better involvement of local communities in all these policy areas.
  - Ensuring performance management focuses on processes that support effective partnership working as well as considering outputs and outcomes.
  - Ensuring action on obesity is reviewed every 3 to 5 years, based on needs identified in the JSNA.

### ***Recommendation 3 Supporting leadership at all levels***

#### **Who should take action?**

- Clinical commissioning groups.
- Elected members.
- Health and wellbeing board chairs.
- Public health teams (including directors of public health).

#### **What action should they take?**

- All of the above should ensure there is an effective public health team in place to prevent obesity. This should include:

- A director or lead public health consultant to provide strategic direction.
  - A senior coordinator role, whereby someone has dedicated time to support the director or consultant in their work on obesity and oversee the local programme (see recommendation 4).
  - Community ‘health champions’ (volunteering with community or voluntary organisations) and other staff who work directly with the community (such as health trainers) to encourage local participation and support delivery of the programme.
- Directors of public health should recognise and support leaders of all the partnerships involved in the local obesity programme, at all levels, to ensure local people and organisations are empowered to take action. This means:
    - Allowing creative and diverse short-term solutions to local issues (but which support clearly defined long-term goals).
    - Supporting a ‘learning culture’, by allowing partnerships to build on effective action and change or discard less effective solutions.
    - Providing regular opportunities for partners to meet and share learning in an informal, open environment, in addition to formal meetings.
    - Addressing any overlapping, fragmented or competing agendas among different partners and considering options to enhance cooperation and joint working. (Options might include workshops or away-days.)
  - Public health teams should identify and work with ‘champions’ with a particular interest or role in preventing obesity within local authority and NHS strategy groups and public, private, community and voluntary sector bodies. This includes, for example, those involved in planning, transport, education and regeneration.

- Health and wellbeing board chairs should provide visible leadership on obesity as a local issue both in their dealings with the strategic partnership and the media.

### ***Recommendation 4 Coordinating local action***

#### **Who should take action?**

- Community engagement workers such as health trainers.
- Health and wellbeing boards.
- Public health teams (including directors and coordinators).

#### **What action should they take?**

- Directors of public health and health and wellbeing boards should ensure there is a senior person with dedicated time set aside to coordinate action on obesity. The coordinator should have a senior position within the public health team and have practical and technical expertise in obesity prevention. They should also have the skills and experience to work across organisational boundaries.
- Coordinators should advise commissioners on contracts that support the local obesity agenda to ensure a 'joined-up' approach. They should encourage commissioners to explore subcontracting and supply chain models that provide a range of local options. The aim is to tackle the wider determinants of obesity and support local people to make changes in their behaviour to prevent obesity.
- Coordinators and community engagement workers (such as health trainers) should work together to map local assets that could support a community-wide approach to combating obesity. This includes:
  - existing networks of volunteers and 'champions', health trainers and community organisations

- people working in the community, such as the police, park wardens, school crossing patrol officers or school and workplace canteen staff
  - unused open spaces or meeting places that could be used for community-based events and courses.
- Coordinators and community engagement workers should jointly plan how they will work with population groups, or in geographic areas, with high levels of obesity. Plans should consider the motivations and characteristics of the target groups, in relation to obesity. Coordinators should also map where public, private, community and voluntary organisations are already working in partnership to improve health or on other relevant issues.
  - Coordinators, supported by the director of public health, should encourage and support partnership working at both strategic and operational levels. They should ensure partner organisations are clear about their contribution and responsibilities. They should consider asking them to sign a memorandum of agreement that pledges specific relevant actions in the short and long term.

### ***Recommendation 5 Communication***

#### **Who should take action?**

- Local government and NHS communications leads.
- Public health teams (including directors of public health).

#### **What action should they take?**

- Directors of public health and local government communications leads should carefully consider the type of language and media to use to communicate about obesity. For example, it might be better to refer to a 'healthier weight' rather than 'obesity' – and to talk more generally about health and wellbeing or specific community issues. Making explicit the relevance of a wide range of initiatives to tackling obesity, for example, within annual reports may also be helpful.

- Local government communications leads should ensure the obesity programme is highly visible and easily recognisable. They should note that recognition may be increased – and costs kept to a minimum – by adapting a widely recognised brand for use locally (such as the Department of Health’s [Change4Life](#)). Branding should be agreed by elected members and the health and wellbeing board.
- Communications leads should promote all relevant activities under the obesity programme brand and should commit to using it consistently over the long term. The aim is to ensure partners speak with ‘a common voice’, have a shared vision and adopt a coherent approach.
- Directors of public health and local government communications leads should ensure elected members and all management and staff working with local communities, both within and across partner organisations, are aware of the importance of tackling obesity. The commitment of middle managers and those with a strategic role is particularly important. For example, they should:
  - Be aware of, and committed to, the obesity agenda within the health and wellbeing strategy.
  - Be aware of the impact of obesity on other priorities. For example, be aware of the rising local incidence and cost of type 2 diabetes, due to obesity.

### ***Recommendation 6 Involving the community***

#### **Who should take action?**

- Clinical commissioning groups.
- Elected members.
- Local authority community involvement teams.
- Public health teams.



**What action should they take?**

- Community involvement and public health teams should gather local residents' views to identify their priorities in relation to weight issues and more general concerns. For example, residents may feel that issues such as crime, the lack of well-maintained green space, or the lack of a sense of community are their top priorities. Where possible, the teams should make it explicit that often general concerns can (and do) impact on levels of obesity within the community.
- Community involvement and public health teams should work with local people to decide what action to take on obesity. They should recognise local concerns both in terms of the focus of programmes or services and how they might be delivered. This includes involving local groups, networks or social enterprises in any discussions about service redesign.
- Public health teams should use community engagement and capacity building methods to identify networks of local people, champions and advocates who have the potential to support action on obesity as part of an integrated health and wellbeing strategy. This includes identifying:
  - People who are active and trusted in the community.
  - People who have the potential to be local health champions.
  - Advocates who have a strong voice in the community and who can champion obesity prevention and management as part of their usual role. (This includes local elected members, GPs, head teachers, health trainers, community leaders and representatives of local voluntary groups.)
  - Local champions, such as managers of youth or children's centres, or those who organise walking or gardening groups.
  - People who can provide a link to local business or the private sector.
  - Marginalised groups (where there is no established network or partnership working, additional action may be required to get them involved).

- Clinical commissioning groups should make their local GP practices aware of local obesity treatment services and prevention initiatives. They should encourage GPs to make their patients aware of the importance of a healthy diet and physical activity in helping prevent obesity whenever they can.
- Elected members should raise the profile of obesity prevention initiatives through informal meetings with local people and groups and at formal ward meetings.
- Public health teams should ensure that those identified are provided with the resources and training they need to support action on obesity.
- Ensure information from monitoring and evaluation is accessible and easy to use by everyone in the community who is potentially involved with obesity prevention, including local groups and networks, the media and the public.

### ***Recommendation 7 Coordinated commissioning to encourage innovative ways to tackle obesity***

#### **Who should take action?**

- Local authority, NHS and other local commissioners.
- Public health teams.

#### **What action should they take?**

- Commissioners and public health teams should foster innovative approaches to local commissioning that support a strategic, system-wide approach to obesity.
- Public health teams should ensure commissioners understand the demographics of their local area, and the motivations and characteristics of subcommunities that may impact on obesity levels.
- Commissioners should fund both targeted and universal services which can help people achieve or maintain a healthy weight. The specific package of

services should be based on local needs, but should include both ‘top down’ and bottom up approaches (as appropriate). They should include interventions that are known to be effective as outlined in existing NICE guidance:

Local commissioning on obesity	NICE guidance	
	Adults	Children
Community engagement and workforce development	<a href="#">Behaviour change</a> <a href="#">Community engagement</a> <a href="#">Preventing type 2 diabetes – population and community interventions</a>	
Prevention	<a href="#">Promoting physical activity in the workplace</a> <a href="#">Alcohol-use disorders – preventing harmful drinking</a> <a href="#">Prevention of cardiovascular disease</a> <a href="#">Weight management before, during and after pregnancy</a> <a href="#">Preventing type 2 diabetes – population and community interventions</a> <a href="#">Obesity</a>	<a href="#">Physical activity and the environment</a> <a href="#">Maternal and child nutrition</a> <a href="#">Promoting physical activity for children and young people</a> <a href="#">Prevention of cardiovascular disease</a> <a href="#">Obesity</a>
Lifestyle weight management	<a href="#">Weight management before, during and after pregnancy</a> <a href="#">Obesity</a>	
Clinical management	<a href="#">Obesity</a>	<a href="#">Obesity</a>
Wider local policies	<a href="#">Physical activity and the environment</a> , <a href="#">Prevention of cardiovascular disease</a> , <a href="#">Preventing type 2 diabetes – population and community interventions</a>	
Evaluation and monitoring	<a href="#">Prevention of cardiovascular disease</a> , <a href="#">Preventing type 2 diabetes – population and community interventions</a> , <a href="#">Obesity</a>	

- Commissioners should focus on all of the following areas (note: focusing on just one at the expense of others may reduce effectiveness):

- Raising awareness of the health problems caused by obesity and the benefits of being a healthier weight among partners and the public.
  - Training to meet the needs of staff and volunteers (prioritising those who are working directly with local communities).
  - Influencing the wider determinants of health. This includes, for example, ensuring access to affordable, healthier food choices and green space and built environments that encourage physical activity. Action should be aimed at both adults and children in a broad range of settings. .
  - Providing lifestyle weight management services for adults, children and families.
  - Clinical services for treating obesity.
- Commissioners should allocate some of their budget to help establish and sustain local community engagement activities which have the support of the local community and may well be effective, but for which there is limited evidence. For example, they may consider funding small community projects, peer-to-peer interventions and development activities within a framework of action learning.
  - Commissioners should ensure all contracting arrangements encourage cooperation and support, particularly for local services provided by the voluntary and community sector.
  - Commissioners should aim, where possible, to fund longer-term programmes (that is, beyond 5 years) in recognition of the time needed to help people make sustained changes to their behaviour.
  - Commissioners should ensure some flexibility in contracts to allow programmes to be adapted and improved, based on early or ongoing monitoring. Any changes should be clearly justified, documented and carefully monitored. Clear processes should be put in place for learning and evaluation, especially for new approaches.

- Where possible, commissioners should consider extending effective projects, recommissioning effective small-scale projects and commissioning small-scale projects or prototypes that fill a gap in provision. (Such actions should be based on local experience, monitoring and evaluation.)
- Commissioners should consider redesigning or decommissioning services that are identified by HealthWatch or health overview and scrutiny committees as not meeting the community's needs.
- Commissioners and public health teams should consider how the existing 'local system' can evolve to take a truly community-wide approach to obesity. This includes:
  - Deciding which 'packages' of interventions are most effective (including cost effective) and the 'intensity' of an effective programme. (For example, they should decide on the number of interventions which make up an effective programme or the percentage of the population that should be reached.)
  - Considering the synergies between common actions to tackle obesity.

### ***Recommendation 8 Involving local business***

#### **Who should take action?**

- Chambers of commerce.
- Environmental health departments.
- Public health teams (including coordinators).

#### **What action should they take?**

- Public health coordinators, with support from directors of public health, should establish methods for involving private organisations in the implementation of the local obesity strategy. This includes, for example, caterers, leisure providers, the local chamber of commerce, retailers and

other workplaces. They should consider developing local activities based on national initiatives to achieve this.

- Public health teams and the local chamber of commerce should encourage all local businesses to recognise their corporate social responsibilities in relation to health and wellbeing. This could include helping them to:
  - ensure the range and content of the food products they offer gives people the opportunity to eat healthily and to avoid incentives to overeat
  - encourage their employees (and their employee’s families) to adopt a healthy diet and be physically active
  - develop and implement active travel plans to encourage walking and cycling.
  - get involved with wider community action on health and wellbeing.

See also NICE guidance on [preventing cardiovascular disease](#) and [type 2 diabetes](#).

### ***Recommendation 9 Local authorities and the NHS as exemplars of good practice***

#### **Who should take action?**

- Chief executives and senior managers and commissioners within local authorities and the NHS.
- Public health teams.

#### **What action should they take?**

- Public health teams should ensure local authorities and NHS organisations develop internal policies to help staff, service users and the wider community achieve and maintain a healthy weight.
- Local authorities and NHS organisations should promote healthier food and drink choices (and discourage less healthy choices) in all onsite

restaurants, hospitality suites, vending machines, outreach services and shops. They should do this through contracts with caterers, pricing and the positioning of products, information at the point of choice and educational initiatives<sup>1</sup>.

- Local authorities and NHS organisations should introduce and monitor an organisation-wide programme that encourages and supports staff and, where appropriate, service users, to be physically active<sup>2</sup>. This includes, for example, introducing physically active travel plans for staff to promote walking and cycling to and from work. It also includes considering the design of working environments to increase opportunities for physical activity.
- Local authorities and NHS organisations should offer lifestyle weight management service(s) for overweight or obese staff who would like support to manage their weight.
- Local authority and NHS commissioners should consider how their decisions impact on obesity within the local community. For example, ensuring the provision of healthier choices is included in food contracts for leisure centres may have a positive impact on the diet of people who visit or work at these centres.

### ***Recommendation 10 Monitoring and evaluation: public health teams***

#### **Who should take action?**

Public health teams.

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<sup>1</sup> See also recommendation 20 in [Prevention of cardiovascular disease](#) NICE public health guidance 25 (2010) and recommendation 8 in [Preventing type 2 diabetes – population and community interventions](#) NICE public health guidance 35 (2011).

<sup>2</sup> See also recommendation 21 in [Prevention of cardiovascular disease](#) NICE public health guidance 25 (2010); recommendation 10 in [Preventing type 2 diabetes – population and community interventions](#) NICE public health guidance 35 (2011); and NICE guidance on [Promoting physical activity in the workplace](#) NICE public health guidance 13 (2008).

**What action should they take?**

- Map all activities within the health and wellbeing strategy against the obesity agenda on an annual basis. Check that delivery plans have been fulfilled.
- Ensure all strategies, policies and activities that may impact on the obesity agenda (whether intended or not) are monitored and evaluated.
- Encourage a reflective learning approach which builds on effective practice and changes or discards what is found to be less effective.
- Encourage long-term monitoring and evaluation to establish value for money.
- Encourage partners to measure a broad range of intermediate outcomes as an important means of ensuring the sustainability of strategies and partnerships. Outcomes might include:
  - population awareness of what it means to be a healthy weight and the benefits of a healthy weight
  - what constitutes a healthy, balanced diet
  - how much physical activity someone should be doing to keep healthy.
- Ensure all partner organisations that are measuring outcomes recognise that anthropometric measures, such as body mass index (BMI), will not capture the full or immediate health benefits of an intervention or strategy. They should also recognise that changes are unlikely to be observed on a population basis in the short term (less than 5 years).
- For more thorough evaluation of interventions or strategies:
  - Establish links with one or more academic institutions to help with planning, collecting and analysing data on obesity strategies and interventions.
  - Identify aspects of partnership working or cooperation that can achieve health benefits at a negligible or lower cost.



(Note: extensive economic modelling of partnership working is not needed on a routine basis.)

- Measure a range of intermediate outcomes (relating to diet and physical activity) to identify how any changes in BMI may have come about.
- Ensure innovative approaches are thoroughly monitored and evaluated.
- Ensure the results of all monitoring and evaluation are made available to all those who can use them to inform their work – both in the local community and nationally. For example, log evaluation reports in the [Obesity Learning Centre database](#).

### ***Recommendation 11 Monitoring and evaluation: commissioners***

#### **Who should take action?**

Local authority, NHS and other local commissioners.

#### **What action should they take?**

- Ensure there is an appropriate lead-in time for baseline data collection. Also ensure sufficient resources are set aside for planning, monitoring, evaluation and reflection for all projects, including prototypes.
- Consider setting aside a minimum percentage of project budgets for evaluation of all commissioned work.
- Encourage people to use the National Obesity Observatory (NOO) standard evaluation framework for obesity as a basis for evaluating interventions. A simplified version of the standard evaluation form should be considered for organisations concerned about the volume of data collection involved (such as those from the community or voluntary sector).
- Ensure monitoring and evaluation addresses the information needs and expectations of a broad range of groups by:

- Assessing a broad range of process indicators such as the views and experience of people who have participated in the obesity programme (and those who haven't), feedback from partner organisations, programme referral rates and attendance, crime and community cohesion.
  - Measuring value for money.
  - Recognising the input of all organisations involved.
  - Ensuring positive findings are used to motivate all those involved in the programme (for example, by capturing success stories in media campaigns or press releases).
- Ensure innovative approaches are thoroughly monitored and evaluated.

### ***Recommendation 12 Organisational development and training***

#### **Who should take action?**

- Health and wellbeing boards
- Local education and training boards.
- Professional bodies providing training in weight management, diet or physical activity.
- Public health teams.

#### **What action should they take?**

- Health and wellbeing boards and public health teams should ensure local decision makers, partners and local champions receive training to increase their awareness of the local challenges in relation to preventing obesity. The training should also make them aware of how their own work can contribute to preventing and managing the condition. Those who should be trained include those from public, private, community and voluntary sector bodies working in planning, transport, education and regeneration. They should also be given opportunities to develop their community engagement skills to encourage local solutions.

- All those listed above should promote, as appropriate, web resources which encourage a community-wide approach to obesity. Resources include: the National Heart Forum's [obesity toolkit](#), the [Obesity Learning Centre](#) and [Healthy Places](#) resources.
- All those above should ensure health and other relevant professionals are trained in the health risks of being overweight and obese and the benefits of preventing and managing obesity. This includes:
  - Understanding why it can be difficult for some people to avoid weight gain or to achieve and maintain weight loss.
  - Knowing the appropriate language to use (referring to 'achieving a healthy weight' may be more acceptable for some people).
  - Knowing about the local services available to help people maintain a healthy weight and how to refer them for treatment.
  - Being aware of strategies people can use to address their weight concerns.
- All those above should ensure training addresses the barriers some professionals may feel they face when initiating conversations about weight issues. (For example, they may be overweight themselves or feel that broaching the subject might damage their relationship with the person they are advising.)
- All those above should ensure all relevant staff who are not specialists in weight management or behaviour change can give people details of services that can help them to manage their weight.

### ***Recommendation 13 Scrutiny and accountability***

#### **Who should take action?**

- Local HealthWatch.
- Health overview and scrutiny committees.

**What action should they take?**

- Health overview and scrutiny committees should assess local action on obesity. This includes the impact of wider policies and strategies. It also includes the extent to which services aimed at tackling obesity are reaching those most in need.
- Local HealthWatch organisations should ensure the local community is fully involved in the creation and delivery of the obesity agenda within the health and wellbeing strategy.

## 2 Public health need and practice

In England in 2010, just over a quarter of adults (26%) and almost a sixth of children (16%) aged from 2 to 15 years were obese (The Health and Social Care Information Centre 2012). By 2050, 60% of adult men, 50% of adult women and 25% of children may be obese (Foresight 2007). Adults with a body mass index (BMI) more than or equal to 30 kg/m<sup>2</sup> are classified as obese, as are children with a BMI over the 95th percentile – based on the 1990 UK reference population (The Health and Social Care Information Centre 2012).

Differences in measurement methods make comparison with other countries difficult. However, the prevalence of obesity in England is at least as high, if not higher, than in other EU countries. While there is some suggestion that it may be starting to level off among children in England (McPherson et al. 2009; The Health and Social Care Information Centre 2012), prevalence remains very high among this group.

Obesity is related to social disadvantage with marked trends, especially in children, by area of residence (The Marmot Review 2010). It is also linked to ethnicity. Obesity is most prevalent among African-Caribbean, black African and Irish men – and least prevalent among Chinese and Bangladeshi men. Among women, it is more prevalent among those of black African, African-Caribbean and Pakistani origin – and least prevalent among Chinese women (The Health and Social Care Information Centre 2006).

Around 58% of the incidences of type 2 diabetes, 21% of cases of heart disease and between 8% and 42% of certain cancers (endometrial, breast, and colon) are attributable to excess body fat (Foresight 2007).

Obesity reduces life-expectancy by an average of 9 years and is responsible for 9000 premature deaths a year in England. In addition, people who are obese can experience stigmatisation and bullying, which can lead to depression and low self-esteem (Foresight 2007).

It is estimated that overweight and obesity now costs the NHS £5.1 billion per year (Scarborough et al. 2011). However, if current trends continue, these costs will increase by an additional £1.9 billion per year by 2030 (Wang et al 2011). In 2007, the cost to the wider economy was £16 billion – this is predicted to rise to £50 billion a year by 2050 if left unchecked (Foresight 2007).

The determinants of obesity are complex. Factors include: genetic disposition, early life nutrition and growth, individual lifestyle, psychological issues, the physical and cultural environment, food production and consumption, education, social and economic factors and the influence of the media (Foresight 2007).

Existing NICE guidance indicates the type of national and local interventions that can be used to tackle obesity and improve people's diet and physical activity levels. (Existing guidance covers settings such as primary care, schools and workplaces.) However, none of the recommendations have considered the synergy between discrete policies or 'packages' of interventions and the complex organisational issues involved in local delivery.

To date, no country has managed to reverse the rising rates of obesity. The Foresight report (2007) argued that a wide range of partners should work together to develop and implement community-wide approaches to tackle the determinants. More recently, the white paper 'A call to action on obesity in England' has reinforced the importance of synergistic efforts at a range of levels, including local action (DH 2011).

However, it remains unclear how such an approach can best be implemented. Community-based programmes are notoriously difficult to evaluate and often do not lend themselves to traditional research designs. Current practice is patchy and is dominated by short-term single interventions, usually developed and implemented through a 'top down' approach. Integrated, coordinated action which feeds into an overarching, long-term strategy is uncommon.

In addition, commissioners often find it difficult to decide whether to allocate funds to prevention or treatment, although it is clear that there is a need for both to operate in tandem (DH 2011).

### 3 Considerations

The Programme Development Group (PDG) took account of a number of factors and issues when developing the recommendations.

#### ***Definitions***

- 3.1 For the purpose of this guidance, ‘local community’ refers to a group of people from the same geographic location which is not necessarily related to any official, administrative boundary. The community may be located within a ward, borough, region or city. The PDG recognised that ‘community’ can also refer to groups with an interest, background or issue in common (such as low income and black and minority ethnic groups – see NICE guidance on [preventing type 2 diabetes](#)). However, while communities of interest are not excluded from this guidance, the primary focus is on those located within specific geographic areas.
- 3.2 The Group noted that aiming for a ‘healthier weight’, rather than focusing on preventing or combating obesity, may be a more acceptable and achievable goal for many people. Members also felt this goal could be accommodated within a general health and wellbeing agenda. The PDG heard that the term ‘obesity’ may be unhelpful – while some people may like to ‘hear it like it is’, others may consider it derogatory. Bearing these differing views in mind, the PDG acknowledged the need to choose the most appropriate language for any given community or situation.

#### ***Evidence***

- 3.3 The scope for this guidance was revised during its development. Originally the aim was to look at a whole-system approach to obesity. Following the revision, the PDG focused more on local, community-wide best practice. Consultation with stakeholders confirmed that the evidence previously considered was still relevant



and features of an effective whole-systems approach have been incorporated within the recommendations.

- 3.4 There is a lack of evidence on effective community-wide approaches to obesity. The most advanced studies have only started to publish early findings. These include: EPODE in France ('Ensemble prevenons l'obesite des enfants' ['Together lets prevent childhood obesity']) or CO-OPS Collaboration in Australia (the 'Collaboration of community-based obesity prevention sites'). No UK-based studies were identified. The PDG had hoped to gain insight from community-wide approaches to tobacco control, but again there was little UK-based evidence. As a result, the recommendations draw heavily on the experience of local practitioners in England (via expert testimony and commissioned research). They also draw on early learning from ongoing initiatives (such as Healthy Towns, Cycling Demonstration Towns and the work of the Department of Health Child Obesity National Support Team).
- 3.5 In recent years, there has been a proliferation of community-based interventions aimed at preventing and managing obesity. These have tended to be one-off, highly controlled explanatory studies, developed and delivered by academic centres. While some studies have been evaluated using the approaches set out in the MRC Framework on complex interventions, system-wide interventions are still being evaluated using randomised trials. The PDG considered that there is a need to move beyond existing academic models to a more community-led approach to obesity prevention and management.
- 3.6 Evaluation of local action on obesity is not straightforward, as the full impact may not be seen for a number of years. In particular, there is a lack of evaluation that considers process and economics, as well as health outcomes, over the short, medium and long term.

The PDG noted that NICE's recommendations on monitoring and evaluation in NICE's guidance on the [prevention of cardiovascular disease](#) (2010) are of relevance.

- 3.7 The recommendations synthesise learning from the available evidence and indicate promising areas for future innovation within a culture of ongoing evaluation and action. The evidence does not demonstrate that a particular approach (or established package of interventions) holds the key to tackling obesity in any given community. However, it does provide useful pointers to approaches that may worth putting into practice and evaluating.

### ***Context***

- 3.8 There is enormous variation in current practice, both in terms of the types of action taken, local capacity and assets. The PDG recognised that different areas are at different 'starting points'. The recommendations aim to bring all areas up to the standard of the most advanced and to encourage future innovation.
- 3.9 Context is vital – and what works in one locality may not always work in another. The PDG considered techniques that could be used to tailor interventions for particular contexts. These included, for example, community engagement techniques and development and good practice in relation to partnerships and commissioning.

### ***Public sector reorganisation***

- 3.10 Ongoing structural changes to the public sector, particularly local authorities and the NHS, have influenced the direction and tone of the PDG's recommendations. The Group was aware that the timing of the guidance offered an opportunity to stress the importance of a systemic approach to obesity that is integrated with other local agendas.

- 3.11 Many of the recommendations are aimed at local authorities and new bodies, particularly health and wellbeing boards. The PDG believes the latter will provide a crucial forum for the NHS, public health and local authority representatives (such as transport and planning). This includes playing a critical role in developing a long-term obesity strategy.
- 3.12 The PDG recognised the importance of informing elected members of the personal, community and wider economic and social costs which will accrue if the prevalence of obesity continues to rise. It also noted the need to provide elected members with tools to take effective action.
- 3.13 The PDG acknowledged that national policy can act as a facilitator or barrier to local action on obesity. Analogies were drawn with action on tobacco control and smoking cessation. Here evidence points to the importance of supportive national policies and the need for a balance between treatment and prevention activities among children and adults. It also points to the need to 'de-normalise' behaviours that increase the risk of obesity via strong advocacy and market regulation (in this analogy, in relation to tobacco products).
- 3.14 The PDG considered that if the findings from recommended local action on monitoring and evaluation were fed back to national or supra- regional policy teams and practitioners, it may foster a wider culture of 'action learning'.

### ***Overarching approach***

- 3.15 The PDG strongly emphasised the need to take systemic, sustainable action that encompasses the wider determinants of health. Obesity may be the long-term consequence of a passive response to decisions taken elsewhere (for example, in relation to planning, policing or traffic law enforcement). The Group believes

single, one-off interventions are likely to have a limited impact – and that multi-sector action is required across the local system if there are to be appreciable changes in the prevalence of obesity.

- 3.16 The recommendations focus on sustained community engagement and the development of effective partnerships involving a broad range of groups. The PDG believes the public health team’s role within this is to build an area-wide partnership across sectors to help tackle the wider social, economic and environmental determinants of obesity.
- 3.17 The PDG recognised that change will take a long time unless a simultaneous ‘top down’, ‘bottom up’ and partnerships (‘co-production’) approach is adopted. This includes action across all local organisations and networks supported by effective, policies and delivery systems.
- 3.18 The effectiveness of individual interventions was outside the scope of this guidance. However, the PDG recognised that a range of existing NICE guidance provides details on the types of interventions that are likely to be effective. The exact package commissioned will depend on the needs of the local area. However, the PDG felt that it was very important to take a long-term, coherent approach to commissioning – for both obesity prevention and treatment.
- 3.19 The PDG noted that activities focused on obesity prevention receive greater support, especially among practitioners, when there are clear opportunities for referral into local treatment services. This is also the case when actions to prevent and treat obesity are closely integrated.

### ***Workforce capacity***

- 3.20 Managing weight is difficult for many people and raising this issue can be considered taboo. Just as someone who smokes may

attempt to quit many times before they finally succeed, so it may take many conversations (and attempts) before someone is able to change their behaviour to control their weight. The PDG heard that many public health workers lack confidence in raising the issue of obesity with clients. The Group felt that this was a fundamental issue for local authority and NHS staff. It considered it vital that all staff, but particularly those on the 'frontline', have the skills and confidence to provide basic information about local obesity services.

- 3.21 The PDG recognised that success in preventing and managing obesity in local areas can sometimes depend on one or two highly motivated people. While passionate individuals can be a catalyst for change, it leaves sustained action vulnerable to any change in personnel. Accordingly, the PDG has advocated action that is embedded in organisational processes and skill sets.
- 3.22 Volunteers have a vital role in driving community-wide action on obesity – from championing community needs and assets to providing peer support. While there may be a high turnover in volunteers, the PDG acknowledged that they free up other resources and provide an essential supporting role. However, members were concerned to ensure volunteers' training needs and other related costs are not ignored.

### ***Health economics***

- 3.23 Interventions to prevent or reduce the prevalence of obesity in a particular setting or environment are known to be cost effective.
- 3.24 Modelling shows that securing long-term funding of a project is likely to be cost effective, compared with funding on an annual basis. The PDG also recognised that it costs very little for two people from different organisations to exchange information, but that this could lead to large benefits. Similarly, two organisations

working together by sharing resources would be cost effective. However, it cannot be assumed that cooperation between organisations will necessarily be good value for money.

- 3.25 Projects associated with seemingly small weight loss (or non-gain of weight) are likely to be cost effective, provided that the per-person cost of implementing them is not unduly high. For information see the economic modelling report (details in appendix E).

This section will be completed in the final document.

## 4 Implementation

NICE guidance can help:

- Commissioners and providers of NHS organisations, social care and children's services meet national priorities and the requirements of the DH's 'Operating framework for 2011/12'.
- National and local organisations improve quality and health outcomes and reduce health inequalities.
- Local authorities improve the health and wellbeing of people in their area.
- Local NHS organisations, local authorities and other local partners benefit from any identified cost savings, disinvestment opportunities or opportunities for re-directing resources.
- Provide a focus for integration and partnership working across social care, the NHS and public health organisations.

NICE will develop tools to help organisations put this guidance into practice.

Details will be available on our website after the guidance has been issued.

## 5 Recommendations for research

The Programme Development Group (PDG) recommends that the following research questions should be addressed. It notes that 'effectiveness' in this context relates not only to the size of the effect, but also to cost effectiveness and duration of effect. It also takes into account any harmful/negative side effects.

### ***Who should take action?***

Research councils, research commissioners, funders.

### ***Recommendation 1***

What is the most effective way to monitor and evaluate community-wide approaches to obesity to ensure:

- evidence of effectiveness is gathered **and**
- data is produced to help local communities adapt and improve their approach?

### ***Recommendation 2***

What makes for an effective and cost effective, community-wide approach to obesity prevention? In particular:

- How can learning from systemic approaches to other complex problems be applied to obesity prevention?
- How does the local context affect implementation and effectiveness? This includes local population characteristics (for example, age, ethnicity or deprivation levels). It also includes features of the local environment (such as transport links, access to green space or food outlets).
- What components are needed to build and sustain successful local community partnerships? This includes: how to identify and get local people and professionals involved; the relative benefits of voluntary versus



imposed partnerships; and best practice in forming and sustaining partnerships.

- At what point is partnership working no longer cost effective?
- How cost effective and practical is it to extend and expand existing obesity prevention programmes to support a whole community, in terms of: geographic coverage, variety of contexts, number of participants and return on investment?
- How can strategic approaches to obesity be sustained in terms of: funding, partnerships, volunteer involvement, leadership continuity and 'champion' participation?
- How can change best be achieved using a community development approach?

An 'action research' approach should be considered (see ['Action research: a systematic review and guidance for assessment'](#) at the Health Technology Assessment website). Researchers may also wish to refer to Medical Research Council guidance on [developing and evaluating complex interventions](#).

### ***Recommendation 3***

Research which specifically aims to improve understanding of community-wide approaches to prevent obesity should **not**:

- be solely conceived, developed and implemented by academics
- involve only limited consultation with local practitioners or the local community
- be limited in terms of the number of situations where it could be transferred to or implemented
- focus on interventions in one setting (such as an individual school).

More detail on the gaps in the evidence identified during development of this guidance is provided in appendix D.

## 6 Updating the recommendations

This section will be completed in the final document.

## 7 Related NICE guidance

### ***Published***

[Preventing type 2 diabetes – population and community interventions](#). NICE public health guidance 35 (2011)

[Weight management before, during and after pregnancy](#). NICE public health guidance 27 (2010)

[Prevention of cardiovascular disease](#). NICE public health guidance 25 (2010)

[Alcohol use disorders – preventing harmful drinking](#). NICE public health guidance 24 (2010)

[Promoting physical activity for children and young people](#). NICE public health guidance 17 (2009)

[Promoting physical activity in the workplace](#). NICE public health guidance 13 (2008)

[Maternal and child nutrition](#). NICE public health guidance 11 (2008)

[Community engagement](#). NICE public health guidance 9 (2008)

[Physical activity and the environment](#). NICE public health guidance 8 (2008)

[Behaviour change](#). NICE public health guidance 6 (2007)

[Obesity](#). NICE clinical guideline 43 (2006)

### ***Under development***

Preventing type 2 diabetes: risk identification and interventions for high-risk individuals. NICE public health guidance (publication expected June 2012)

Walking and cycling. NICE public health guidance (publication expected October 2012)

Assessing thresholds for body mass index (BMI) and waist circumference in black and minority ethnic groups. NICE public health guidance (publication expected February 2013)

Overweight and obese adults: lifestyle weight management services. NICE public health guidance (publication expected October 2013)

Overweight and obese children and young people: lifestyle weight management services. NICE public health guidance (publication expected October 2013)

## **8 Glossary**

### **Action learning**

A process by which someone performs an activity and then analyses their actions and gains feedback to improve future performance.

### **Action research**

Action research aims to respond to the practical concerns of participants involved in a change process, such as a new approach to obesity prevention. It involves a partnership between researchers and participants in which problem identification, planning, action and evaluation are all interlinked

### **Body mass index**

Body mass index (BMI) is commonly used to indicate whether adults are a healthy weight or underweight, overweight or obese. It is defined as the weight in kilograms divided by the square of the height in metres (kg/m<sup>2</sup>).

### **Bottom up**

Activity is initiated by the community, or people working directly with the community, rather than being introduced by senior management.

## **Community**

A group of people who have common characteristics. Communities can be defined by location, race, ethnicity, age, occupation, a shared interest (such as using the same service), a shared belief (such as religion or faith) or other common bonds. A community can also be defined as a group of individuals living within the same geographical location (such as a hostel, a street, a ward, town or region).

## **Community assets**

A community asset (or resource) is anything that can be used to improve the quality of community life. It could be a physical structure or place (such as a recreation centre, library, hospital, meeting place, monument or business). Or it could be a group or an individual, for example, a local community group or a community leader.

## **Community champions**

The term 'community champion' covers a range of roles from inspirational figures, community entrepreneurs, mentors or leaders who 'champion' the priorities and needs of their communities and help them build on their existing skills. It also includes those 'on the ground' who drive forward community activities and pass on their expertise to others. They may provide mentoring or a range of other support, for example, by helping people to get appropriate training or by helping to manage small projects.

## **Community health champions**

Community health champions are local people who are recruited and trained as volunteers to 'champion' the health priorities and need of their communities.

## **Community development**

Community development is about building active and sustainable communities based on social justice, mutual respect, participation, equality, learning and cooperation. It involves changing power structures to remove the barriers that prevent people from participating in the issues that affect their lives.

## Community engagement

The process of getting communities involved in decisions that affect them.

This includes the planning, development and management of services, as well as activities which aim to improve health or reduce health inequalities (Popay 2006).

## Joint strategic needs assessment

The joint strategic needs assessment (JSNA) identifies the current and future health needs of a local population. It is used as the basis for the priorities and targets set by local area agreements and for commissioning to improve health outcomes and reduce health inequalities.

## Local area agreements

Local area agreements set out the priorities agreed between central government and key local partners including the local authority and the local strategic partnership.

## Local system

The local system comprises a broad set of interrelated organisations, community services and networks operating at a range of levels and involving a number of delivery processes.

## Overweight and obesity: adults<sup>3</sup>.

For adults, overweight and obesity are assessed by body mass index. The following table shows the cut off points for healthy weight, overweight and obesity

Classification	BMI (kg/m <sup>2</sup> )
Healthy weight	18.5–24.9
Overweight	25–29.9
Obesity I	30–34.9
Obesity II	35–39.9
Obesity III	40 or more

<sup>3</sup> This is an extract from 'Obesity' (2006) NICE clinical guideline 43.

BMI is a less accurate indicator of adiposity in adults who are highly muscular, so it should be interpreted with caution in this group. Some other population groups, such as Asians and older people, have comorbidity risk factors that would be of concern at different BMIs (lower for Asian adults and higher for older people). Healthcare professionals should use clinical judgement when considering risk factors in these groups, even in people not classified as overweight or obese using the classification in recommendation.

Assessment of the health risks of being overweight or obese can also be based on waist circumference. For men, waist circumference of less than 94 cm is low, 94–102 cm is high and more than 102 cm is very high. For women, waist circumference of less than 80 cm is low, 80–88 cm is high and more than 88 cm is very high.

### **Overweight and obesity: children**

More than one classification system is used in the UK to define 'overweight' and 'obesity' in children. The National Child Measurement Programme (NCMP) for primary care requires that body mass index (BMI) is plotted onto a gender-specific BMI chart for children (UK 1990 chart for children aged over 4 years). Children over the 85th centile, and on or below the 95th centile, are categorised as 'overweight'. Children over the 95th centile are classified as 'obese'. Other surveys, such as the Health Survey for England also use this system. In clinical practice, however, the 91st and 98th centiles may be used to define 'overweight' and 'obesity' respectively. Children on or above the 98th centile may also be described as very overweight (see [BMI healthy weight calculator](#)).

### **Top down activities or approaches**

Where an activity is initiated from a senior level within an organisation to those working directly with the local community.

## **9 References**

Department of Health (2011) Healthy lives, healthy people: a call to action on obesity in England. London: Department of Health

Foresight (2007) Tackling obesity: future choices – project report. London: Government Office for Science

The Health and Social Care Information Centre (2012) Statistics on obesity, physical activity and diet: England. London: The Health and Social Care Information Centre

The Health and Social Care Information Centre (2006) Health survey for England 2004: The health of minority ethnic groups. Leeds: The Information Centre for Health and Social Care

McPherson K, Brown M, Marsh T et al. (2009) Obesity: recent trends in children aged 2–11y and 12–19y. Analysis from the health survey for England 1993–2007. London: National Heart Forum

The Marmot Review (2010) Fair society, healthy lives. Strategic review of health inequalities in England post 2010. London: The Marmot Review

Scarborough P, Bhatnagar P, Wickramasinghe K et al. (2011) [The economic burden of ill health due to diet, physical inactivity, smoking alcohol and obesity in the UK](#) [online]

Wang YC, McPherson K, Marsh T, Gortmaker SL, Brown M (2011). [Health and economic burden of the projected obesity trends in the USA and the UK](#). 378; 815–825.

## **Appendix A Membership of the Programme Development Group (PDG), the NICE project team and external contractors**

### ***Programme Development Group***

PDG membership is multidisciplinary. The Group comprises public health practitioners, clinicians, local authority officers, teachers, social care professionals, representatives of the public, academics and technical experts as follows.

**Ronald Akehurst** (until June 2011) Dean of School, School of Health and Related Research (SchARR), University of Sheffield

**Susan Biddle** Joint Head of Healthy Communities Programme, Improvement and Development Agency (IDeA)

**Matthew Capehorn** Clinical Director, National Obesity Forum (NOF)

**Erica Dobie** Community Member

**Chris Drinkwater** President and Public Health Lead, NHS Alliance

**Sara Ellis** Community Member

**Mark Exworthy** Reader in Public Management and Policy, School of Management, Royal Holloway, University of London

**Gail Findlay** Director of Health Improvement, Institute for Health and Human Development, University of East London

**Marcus Grant** (until June 2011) Deputy Director, World Health Organization (WHO) Collaborating Centre for Healthy Cities and Urban Policy

**Tricia Harper** (until October 2011) Independent Health Development Consultant

**Jean Hughes** (until June 2011) Consultant in Obesity Management



**Philip Insall** Director, Health, Sustrans

**Susan Jebb** (Chair) Head of Diet and Population Health, MRC Human Nutrition Research, Cambridge

**Andrew Jones** Professor, University of East Anglia

**Paul Lincoln** Chief Executive, National Heart Forum

**Patrick Myers** Strategic Joint Commissioning Manager, Dorset County Council

**Ian Reekie** Community Member

**Harry Rutter** Director, English National Obesity Observatory

**Andy Sutch** Executive Director, Business In Sport and Leisure

**Kate Trant** (until June 2011) Senior Evidence and Learning advisor, Commission for Architecture and the Built Environment (CABE)

**Esther Trenchard-Mabere** Associate Director of Public Health/Consultant in Public Health, NHS Tower Hamlets

**Justin Varney** Joint Assistant Director of Health Improvement/Consultant in Public Health Medicine, NHS Barking and Dagenham

**Martin Wiseman** Medical and Scientific Adviser, World Cancer Research Fund International; Visiting Professor in Human Nutrition, University of Southampton

#### **Co-opted members**

**Steve Allender** Senior Researcher, Department of Public Health, University of Oxford; Associate Professor and Deputy Director, World Health Organization Collaborating Centre for Obesity Prevention, Deakin University, Australia

**Ceri Philips** Professor of Health Economics and Deputy Head of School,  
Swansea University

***NICE project team***

**Mike Kelly** CPHE Director

**Jane Huntley** Associate Director

**Adrienne Cullum** Lead Analyst

**Karen Peploe** Analyst

**Andrew Hoy** Analyst

**Caroline Mulvihill** Analyst (until April 2011)

**Brian Reddy** Analyst (from October 2011 to April 2012)

**Alastair Fischer** Technical Adviser, Health Economics

**Emma Doohan** Project Manager (until June 2011)

**Victoria Axe** Project Manager (from June 2011)

**Palida Teelucknavan** Coordinator (until December 2011)

**Rukshana Begum** Coordinator (from February 2012)

**Sue Jelley** Senior Editor

**Alison Lake** Editor

***External contractors***

**Evidence reviews**

Review 1 was carried out by the Peninsula Technology Assessment Group (PenTAG). The principal authors were: Ruth Garside, Mark Pearson, Harriet Hunt, Tiffany Moxham and Rob Anderson.

Review 2 was carried out by PenTAG. The principal authors were: Harriet Hunt, Rob Anderson, Helen Coelho and Ruth Garside.

Review 3 was carried out by PenTAG. The principal authors were: Mark Pearson and Ruth Garside.

### **Cost effectiveness**

The review of economic evaluations was carried out by PenTAG. The principal author was Rob Anderson.

Economic modelling was carried out by Rob Anderson of PenTAG and Martin Brown of the National Heart Forum.

### **Commissioned report**

The commissioned report was carried out by Word of Mouth. The principal authors were: Graham Kelly, Dominic McVey and Adam Crosier.

See appendix E for the titles of the above reports.

### ***Expert testimony***

Expert paper 1 by Julian Pratt and Diane Plamping, Centre for Innovation in Health Management, Leeds University Business School.

Expert paper 2 by Linda Bauld, University of Bath.

Expert paper 3 by Jake Chapman, Demos.

Expert paper 4 Steve Allender, PDG co-opted member.

Expert paper 5 by Kim Hastie, Child Obesity National Support Team (until March 2011).

Expert paper 6 by Patrick Lingwood, Bedfordshire County Council.

Expert paper 7 by Judy White, Centre for Health Promotion Research, Leeds Metropolitan University.

Expert paper 8 by Alison Pearce and Adrian Renton, Well London and University of East London.

Expert paper 9 by Esther Trenchard-Mabere, PDG member.

Expert paper 10 by Olena Sawal, NHS Luton.

Expert paper 11 by Zsolt Schuller, Exeter Cycling Town.

Expert paper 12 by Carol Weir, NHS Rotherham.

Expert paper 13 by Andrew Taylor, Hull Primary Care Trust.

Expert paper 14 by Matthew Pearce, NHS South Gloucestershire.

Expert paper 15 by Gareth Dix, Cornwall and Isles of Scilly NHS.

Expert paper 16 by Adrian Coggins, NHS West Essex.

Expert paper 17 by Liz Messenger, NHS Kirklees.

Expert paper 18 by Mark Exworthy, PDG member.

Expert paper 19 by Boyd Swinburn, Deakin University.

## **Appendix B Summary of the methods used to develop this guidance**

### ***Introduction***

The reviews, primary research, commissioned reports and economic modelling include full details of the methods used to select the evidence (including search strategies), assess its quality and summarise it.

The minutes of the Programme Development Group (PDG) meetings provide further detail about the Group's interpretation of the evidence and development of the recommendations.

All supporting documents are listed in appendix E and are available at the [NICE website](#).

### ***Guidance development***

The stages involved in developing public health programme guidance are outlined in the box below.

1. Draft scope released for consultation
2. Stakeholder meeting about the draft scope
3. Stakeholder comments used to revise the scope
4. Final scope and responses to comments published on website
5. Evidence reviews and economic modelling undertaken and submitted to PDG
6. PDG produces draft recommendations
7. Draft guidance (and evidence) released for consultation and for field testing
8. PDG amends recommendations
9. Final guidance published on website
10. Responses to comments published on website

### ***Key questions***

The key questions were established as part of the scope. They formed the starting point for the reviews of evidence and were used by the PDG to help develop the recommendations. The key questions were:

- What are the essential elements of a local, community-wide approach to preventing obesity that is sustainable, effective and cost effective?
- What barriers and facilitators may influence the delivery and effectiveness of a local, community-wide approach (including for specific groups)?
- Who are the key leaders, actors and partners and how do they work with each other?

- What factors need to be considered to ensure local, community-wide approaches are robust and sustainable?
- What does effective monitoring and evaluation look like?
- Can the cost effectiveness of local, community-wide obesity interventions be established and, if so, what is the best method to use?

These questions were made more specific for each review (see reviews for further details).

## ***Reviewing the evidence***

### **Effectiveness reviews**

One review of effectiveness was conducted (review 2).

### ***Identifying the evidence***

A number of databases were searched in July 2010 for interventions published in English from 1990 onwards. See the review for details.

General health and topic-specific websites and other sources of grey literature were also searched including:

- Scrutiny committee reports (searched via an Internet search engine)
- ZeTOC database (British Library)
- ISI proceedings (Web of Science)
- Conference Proceedings Citation Index (Web of Science).

### ***Selection criteria***

Studies were included in the effectiveness review if they:

- Demonstrated core features of a whole-system approach (as identified in review 1) to preventing obesity or smoking.
- Covered whole populations or communities and reported on outcome measures or other indicators for an intervention.

- Used comparative study designs.
- Were published from 1990 onwards in English.

Studies were excluded if they:

- Did not report on the outcomes listed.
- Only presented a single component of an intervention or strategy.
- Did not focus on obesity prevention, improving physical activity or diet, or smoking prevention.

### **Other reviews**

One review was undertaken to define a 'whole-system approach' (review 1) and one review of qualitative data was undertaken to consider the barriers and facilitators to such an approach (review 3).

### ***Identifying the evidence***

For review 1 and 3, the databases and websites searched were the same as for the effectiveness review (see above).

### **Selection criteria**

Studies were included in review 1 if they considered:

- The theory, key elements and relationships of a whole-system approach
- A whole-system approach in relation to obesity or smoking prevention.

Qualitative studies were included in review 3 if they focused on:

- Any 'whole- community' programme in the UK
- 'Whole-community' obesity and smoking prevention programmes, including those delivered in schools or workplaces (in OECD countries).

Studies were excluded from review 3 if they focused on:



- People's opinions about eating and exercise and their understanding of the issues around obesity, for example, food choices
- Community engagement, unless there were elements specific to obesity prevention
- Relationships between members of a single agency (for example, a primary care team)
- A single setting (even where the intervention was part of a multi-agency initiative) or a single aspect of health (for example, physical activity or diet).

### **Quality appraisal**

For review 1, included papers were assessed according to whether they provided a coherent account of the concepts and approaches taken and their relationship to each other. (Those that provided more information along these lines were considered better 'quality'.)

For the effectiveness review (review 2), included papers were assessed for methodological rigour and quality using the NICE methodology checklist, as set out in the NICE technical manual 'Methods for the development of NICE public health guidance' (see appendix E). Each study was graded (++, +, –) to reflect the risk of potential bias arising from its design and execution.

### ***Study quality***

++ All or most of the checklist criteria have been fulfilled. Where they have not been fulfilled, the conclusions are very unlikely to alter.

+ Some of the checklist criteria have been fulfilled. Those criteria that have not been fulfilled or not adequately described are unlikely to alter the conclusions.

– Few or no checklist criteria have been fulfilled. The conclusions of the study are likely or very likely to alter.

For review 3, the qualitative research studies were assessed using a thirteen-question checklist to determine:

- the clarity of descriptions
- the appropriateness of the aims and methods
- the evidence for the findings
- logical and theoretical coherence.

### **Summarising the evidence and making evidence statements**

The review data was summarised in evidence tables (see full reviews).

The findings from the evidence reviews were synthesised and used as the basis for a number of evidence statements relating to each key question. The evidence statements were prepared by the public health collaborating centre (see appendix A).

The statements reflect their judgement of the strength (quality, quantity and consistency) of evidence and its applicability to the populations and settings in the scope.

### ***Commissioned report***

Primary, qualitative research was commissioned to understand how local teams can work together effectively to prevent obesity within local communities. The opinions and experiences of the 93 participants are reported in 'Implementing community-wide action to prevent obesity: opinions and experiences of local public health teams and other relevant parties'.

### ***Cost effectiveness***

There was a review of economic evaluations and an economic modelling report.

### **Review of economic evaluations**

The obesity-related RefMan databases were searched for economic evidence as part of reviews 1 and 2 (see above). In addition, selected new searches were undertaken in economic bibliographic databases (NHSEED and EconLit). As a result, four economic evaluations were selected and summarised narratively.

The generic tool for economic evaluations (Drummond and Jefferson 1996) **was used for quality assessment.**

### **Economic modelling**

An economic logic model was constructed to explore the circumstances in which a collaboration of two or more local organisations could usually be expected to be cost effective. The model aimed to deduce the direction of change of interventions, but not the magnitude of that change.

The results are reported in: 'Cost effectiveness analysis in partnership working for reducing obesity and other long-term conditions.'

### ***How the PDG formulated the recommendations***

At its meetings from July 2011 to February 2012, the Programme Development Group (PDG) considered the evidence, expert reports, primary research and cost effectiveness to determine:

- whether there was sufficient evidence (in terms of strength and applicability) to form a judgement
- where relevant, whether (on balance) the evidence demonstrates that the intervention or programme/activity can be effective or is inconclusive
- where relevant, the typical size of effect (where there is one)
- whether the evidence is applicable to the target groups and context covered by the guidance.

The PDG developed draft recommendations through informal consensus, based on the following criteria:

- Strength (type, quality, quantity and consistency) of the evidence.
- The applicability of the evidence to the populations/settings referred to in the scope.
- Effect size and potential impact on the target population's health.
- Impact on inequalities in health between different groups of the population.

- Equality and diversity legislation.
- Ethical issues and social value judgements.
- Cost effectiveness (for the NHS and other public sector organisations).
- Balance of harms and benefits.
- Ease of implementation and any anticipated changes in practice.

The PDG noted that effectiveness can vary according to the context.

Where evidence was lacking, the PDG also considered whether a recommendation should only be implemented as part of a research programme.

Where possible, recommendations were linked to an evidence statement(s) (see appendix C for details). Where a recommendation was inferred from the evidence, this was indicated by the reference 'IDE' (inference derived from the evidence).

## Appendix C The evidence

This appendix lists the evidence statements from four evidence reviews and commissioned research provided by external contractors (see appendix A and appendix E) and links them to the relevant recommendations. See appendix B for the meaning of the (++) , (+) and (-) quality assessments referred to in the evidence statements.

Appendix C also lists 19 expert papers and their links to the recommendations and sets out a brief summary of findings from the economic modelling.

The evidence statements are short summaries of evidence in a review, report or paper (provided by an expert in the topic area). Each statement has a short code indicating which document the evidence has come from. The letter(s) in the code refer to the type of document the statement is from, and the numbers refer to the document number, and the number of the evidence statement in the document.

**Evidence statement number 1.1** indicates that the linked statement is numbered 1 in the review 'Identifying the key elements and interactions of a whole system approach to obesity prevention'. **Evidence statement 2.1** indicates that the linked statement is numbered 1 in the review 'The effectiveness of whole system approaches to prevent obesity'. **Evidence statement 3.1** indicates that the linked statement is numbered 1 in the review 'Barriers and facilitators to effective whole system approaches'. **Evidence statement 4.1** indicates that the linked statement is numbered 1 in the review 'Whole system approaches to obesity prevention: review of cost-effectiveness evidence'. **Evidence statement CR1** indicates that the linked statement is numbered 1 in the commissioned report 'Implementing community-wide action to prevent obesity: opinions and experiences of local public health teams and other relevant parties'.

The reviews, commissioned research, expert papers and economic modelling report are available [online](#). Where a recommendation is not directly taken

from the evidence statements, but is inferred from the evidence, this is indicated by **IDE** (inference derived from the evidence).

Where the Programme Development Group (PDG) has considered other evidence, it is linked to the appropriate recommendation below. It is also listed in the additional evidence section of this appendix.

**Recommendation 1:** evidence statements 1.6, 2.5, 3.1, 3.2, 3.5, CR1; expert papers 3, 5, 6, 7, 9, 14

**Recommendation 2:** evidence statements 1.2, 1.6, 3.1, 3.2, 3.4, 3.7, 3.8, CR1; expert papers 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 19

**Recommendation 3:** evidence statements 1.6, 3.1, 3.4, 3.5, 3.7, CR1; expert papers 3, 5, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 19

**Recommendation 4:** evidence statements 1.2, 1.6, 3.2, 3.4, 3.5, CR2, CR3, CR4; expert papers 1, 4, 5, 6, 7, 8, 9, 10, 12, 14, 16

**Recommendation 5:** evidence statements 1.6, 3.3, 3.4, CR1, CR2, CR3, CR4; expert papers 2, 3, 5, 6, 8, 9, 12, 14, 15, 16

**Recommendation 6:** evidence statements 1.2, 1.6, 3.1, 3.2, 3.3, 3.4, 3.7, CR1, CR5; expert papers 4, 5, 7, 8, 9, 10, 12, 15, 17

**Recommendation 7:** evidence statements 1.3, 1.4, 1.6, 3.3, CR3, CR4, CR5, expert papers 2, 3, 5, 6, 7, 8, 9, 10, 12, 14, 15, 16, 18

**Recommendation 8:** evidence statements 1.6, 3.2; expert papers 2, 5, 8, 11, 19; IDE

**Recommendation 9:** evidence statements 3.2, 3.5, CR3; expert papers 2, 5, 11, 19; IDE

**Recommendation 10:** evidence statements 1.4, 1.6, 3.6, 3.8, 4.3, CR2, CR4, CR5, CR6; expert papers 2, 3, 4, 5, 9, 11, 12, 13, 14, 16, 18

**Recommendation 11:** evidence statements 1.4, 1.6, 3.6, 3.8, 4.3, CR2, CR4, CR5, CR6; expert papers 2, 3, 4, 5, 9, 11, 12, 13, 14, 16, 18

**Recommendation 12:** evidence statements 1.6, 3.2, 3.3, 3.6, CR2, CR3, CR4; expert papers 2, 5, 7

**Recommendation 13:** evidence statements 3.7, CR1, CR4; IDE

### ***Evidence statements***

Please note that the wording of some evidence statements has been altered slightly from those in the evidence review(s) to make them more consistent with each other and NICE's standard house style. The superscript numbers refer to the studies cited beneath each statement. The full references for those studies can be found in the reviews.

#### **Evidence statement 1.1: Whole systems theory**

Authors may interpret what is meant by a whole system in different ways; there is a clear division in views between those advocating 'complexity theory' and those discussing a more mechanistic approach.

A whole-system approach to achieving change in organisations, communities or individuals shares conceptual underpinnings with complexity science and complex adaptive systems. Systems continually evolve, with complex outcomes arising from a few simple rules of interaction. Self-regulation occurs within systems, and efforts to contain them may be counterproductive. Systems include formal and informal relationships or networks; these relationships are of great importance. Systems can exist in single or multi-sector organisations.<sup>1,2,3,4,5,6</sup>

<sup>1</sup> Butland (2007)

<sup>2</sup> Hawe et al. (2009)

<sup>3</sup> Plamping et al. (1998)

<sup>4</sup> Plsek (2001)

<sup>5</sup> Pratt (2005)

<sup>6</sup> Rowe et al. (2005)

### **Evidence statement 1.2: Implications of whole-system theory for ways of working**

Whole system theory suggests that organisation or community goals may best be achieved by:

- Creating more flexible organisational structures.
- Recognising that relationships are crucial.
- Understanding how positive and negative feedback loops within a system operate – giving insights into how to increase or sustain positive outcomes.
- Genuine engagement and discussion about the issues to be addressed – developing shared meaning and purpose - before moving on to ‘problem-solving’. This must include a diverse range of actors and community members at all organisational levels.
- All actors understanding the system in which they operate (and their role within it).
- Awareness of the divisions between traditional ways of working and whole-system working. The former may involve hierarchical leadership and complex targets and plans while the approach of the latter may be to increase opportunities for natural adaption.<sup>1,2,3,4,5,6,7,8</sup>

<sup>1</sup> Attwood et al. (2003)

<sup>2</sup> Bauld and Mackenzie (2007)

<sup>3</sup> Hawe et al. (2009)

<sup>4</sup> Hudson (2004)

<sup>5</sup> Plsek (2001)

<sup>6</sup> Pratt et al. (2005)

<sup>7</sup> Stacey (1996)

<sup>8</sup> Senge (1993)

### **Evidence statement 1.3: Implications of whole-system theory for those working within the system**

Individuals participate in their own capacity rather than as a representative of an organisation, community or profession so that they only agree to do what is in their power.



Successful and productive communication within or across organisations may require innovative approaches to break down traditional restrictions stemming from hierarchies and differing expectations of organisations, professions and individuals.

The personal qualities of individuals working within the system may be important. Personal qualities such as optimism, empathy, humility and tenacity may increase the likelihood of success.

A willingness to take the 'long view' rather than go for the 'quick fix' is essential for a systems approach to be effective.<sup>1,2</sup>

<sup>1</sup> Pratt et al. (2005)

<sup>2</sup> Attwood et al. (2003)

#### **Evidence statement 1.4: Implications of a whole-system approach for evaluation**

In a whole-system approach, it is the function rather than the form of activities which is standardised.

The change in behaviour of individuals working within the system, through developing relationships and creating robust networks, is central.

Evaluating a systems approach is complex. Different techniques for evaluation may be required to assess the added benefit of taking a systems approach. Process outcomes and the robustness of the systems are of particular interest (over and above short term outcomes).

Evaluation of a systems approach needs to consider the networks that have been established and the relationships and synergies between and within settings.

Evaluation of a systems approach may be time consuming.<sup>1,2,3,4,5,6</sup>

<sup>1</sup> Attwood et al. (2003)

<sup>2</sup> Bauld and Mackenzie (2007)

<sup>3</sup> Dooris (2006)

<sup>4</sup> Hawe et al. (2009)

<sup>5</sup> Pratt (2005)

<sup>6</sup> Rowe et al. (2005)

### **Evidence statement 1.5: Potential challenges of whole-system working**

Challenging long-standing assumptions can be uncomfortable. Traditional organisational structures are culturally embedded and change may appear chaotic.<sup>1,2,3</sup>

<sup>1</sup> Attwood et al. (2003)

<sup>2</sup> Rowe et al. (2005)

<sup>3</sup> Stacey (1996)

### **Evidence statement 1.6: The features of a systems approach to tackle health problems**

Identifying a system: explicit recognition of the public health system with the interacting, self-regulating and evolving elements of a complex adaptive system. Recognise that a wide range of bodies with no overt interest or objectives referring to public health may have a role in the system and therefore that the boundaries of the system may be broad.

Capacity building: an explicit goal to support communities and organisations within the system. For example, increasing understanding about obesity in the community and by potential partner organisations or training for those in posts directly or indirectly related to obesity.

Creativity and innovation: mechanisms to support and encourage local creativity and/or innovation to address obesity. For example, mechanisms which allow the local community to design locally relevant activities and solutions.

Relationships: methods of working and specific activities to develop and maintain effective relationships within and between organisations. For

example, establishing and maintaining relationships with organisations without a health remit or an overt focus on obesity.

**Engagement:** clear methods to enhance the ability of people, organisations and sectors to engage community members in programme development and delivery. For example, sufficient time in projects allocated to ensuring that the community can be involved in planning and assessing services.

**Communication:** mechanisms to support communication between actors and organisations within the system. For example, ensuring sufficient face-to-face meeting time for partners, having planned mechanisms for feeding back information about local successes or changes.

**Embedded action and policies:** practices explicitly set out for obesity prevention within organisations within the system. For example, local strategic commitments to obesity, aligning with wider policies and drivers (such as planning or transport policy) and ensuring obesity is an explicit concern for organisations without a health remit.

**Robust and sustainable:** clear strategies to resource existing and new projects and staff. For example, contingency planning to manage risks.

**Facilitative leadership:** strong strategic support and appropriate resourcing developed at all levels. For example, specific methods to facilitate and encourage bottom-up solutions and activities.

**Monitoring and evaluation:** clear methods to provide ongoing feed back into the system, to drive change to enhance effectiveness and acceptability. For example, developing action-learning or continuous improvement model for service delivery.

### **Evidence statement 2.1: paucity of evidence**

There is a paucity of evidence on the effectiveness of community-wide programmes displaying features of a whole-system approach to prevent obesity. Of the eight community-wide obesity prevention programmes included in this review – two before-and-after (one [-]<sup>1</sup> and one [+]<sup>2</sup>) three non-

randomised control trials (all [+])<sup>3,4,5</sup> one controlled before-and-after study (+)<sup>6</sup>; one longitudinal epidemiological study (+)<sup>7</sup>; and one repeated cross-sectional survey (+)<sup>8</sup> – none were undertaken in the UK and all targeted children below 14 years. Although they stated an aim to influence the wider community through the programme, including parents, childcare centre workers, teachers and other members of the community. This evidence is judged to be partially applicable to communities of a similar size within the UK.

<sup>1</sup> Drummond et al. (2009)

<sup>2</sup> Chomitz et al. (2010)

<sup>3</sup> Economos et al. (2007)

<sup>4</sup> Bell et al. (2008); Sanigorski et al. (2008)

<sup>5</sup> Taylor et al. (2006); Taylor et al. (2007); Taylor et al. (2008); McAuley et al. (2009)

<sup>6</sup> Bell et al. (2008); de Groot et al. (2009); de Groot et al. (2010); de Silva-Sanigorski et al. (2009a); de Silva-Sanigorski et al. (2009c); de Silva-Sanigorski et al. (2009b); de Silva-Sanigorski et al. (2010b); de Silva-Sanigorski et al. (2010a); Nichols et al. (2009); Parker et al. (2009); Parker et al. (2009a); Parker et al. (2009b)

<sup>7</sup> EPODE abstract (2010); EPODE results (2010); EPODE press kit (2005); Thin Living (2007)

<sup>8</sup> Romon et al. (2008); Heude et al. (2003); EPODE abstract (2010)

## **Evidence statement 2.2: Range of whole-system approach (WSA) features in obesity prevention programmes**

None of the eight obesity prevention programmes included in the review demonstrated evidence of explicit recognition of the public health problem as a system. All programmes demonstrated inconsistent evidence of local creativity. Seven programmes demonstrated more robust evidence of capacity building, robustness and sustainability and community engagement, but this was still inconsistent across the groups and all these features did not appear across the same seven programmes. Five obesity prevention programmes demonstrated inconsistent evidence of a focus on the embeddedness of actions and policies, and of developing working relationships within and

between partners. Four of the obesity prevention programmes demonstrated inconsistent evidence of a focus on enhancing communication between actors and organisations within the system, facilitative leadership and the use of well-articulated methods for monitoring and evaluation of activities.

### **Evidence statement 2.3: The effectiveness of obesity prevention programmes – anthropometric outcomes**

Overall, there is evidence from a range of community-wide obesity programmes that they can have a beneficial effect on body mass index (BMI) scores, weight gain or the prevalence of overweight and obesity in children. However, these observed differences tended to be relatively small and were not always significant. There is no clear evidence of a relationship between features of system working and programme effectiveness. Studies reported lower BMI scores (one [+] controlled before-and-after<sup>1</sup>; one non-randomised control trial<sup>2</sup>; and one [+] repeated cross-sectional survey<sup>3</sup>). Lower BMI z scores<sup>1,2</sup> (and one [+] before-and-after<sup>4</sup> and one [+] non-randomised control trial<sup>5</sup>); weight gain<sup>2</sup> (and one cross-sectional [+] survey in France<sup>6</sup>); increase in waist circumference<sup>2</sup> or the prevalence of overweight or obesity<sup>1,2,3,4,5</sup> (and one [+] longitudinal study<sup>7</sup>). Only one before-and-after (+) study in New Zealand<sup>8</sup> reported a statistically non-significant increase in the prevalence of overweight or obesity among the intervention group.

<sup>1</sup> Bell et al. (2008); de Groot et al. (2009); de Groot et al. (2010); de Silva-Sanigorski et al. (2009a); de Silva-Sanigorski et al. (2009c); de Silva-Sanigorski et al. (2009b); de Silva-Sanigorski et al. (2010b); de Silva-Sanigorski et al. (2010a); Nichols et al. (2009); Parker et al. (2009); Parker et al. (2009a); Parker et al. (2009b)

<sup>2</sup> Bell et al. (2008); Sanigorski et al. (2008)

<sup>3</sup> Romon et al. (2008); Heude et al. (2003); EPODE abstract (2010)

<sup>4</sup> Chomitz et al. (2010)

<sup>5</sup> Economos et al. (2007)

<sup>6</sup> Romon et al. (2008); Heude et al. (2003); EPODE abstract (2010)

<sup>7</sup> EPODE abstract (2010); EPODE results (2010); EPODE press kit (2005); Thin Living (2007)

<sup>8</sup> Taylor et al. (2006); Taylor et al. (2007); Taylor et al. (2008); McAuley et al. (2009)

#### **Evidence statement 2.4: The effectiveness of obesity prevention programmes – diet and physical activity outcomes**

There is some evidence that community-wide obesity programmes can have a beneficial effect on diet or physical activity outcomes in children. However, there is no clear evidence of a relationship between features of a system working and the programme's effectiveness. Studies reported a significant decrease in the number of daily servings of 'less healthy' foods and increased daily servings of vegetables and less TV viewing (one controlled before-and-after [+] study<sup>1</sup>). A statistically significantly higher percentage of children passing a fitness test post intervention (one before-and-after[+] study<sup>2</sup>) and a statistically significant increase in diet and activity 'best practice' at childcare centres (one before-and-after [-] study<sup>3</sup>). One non-randomised control trial study<sup>4</sup> also reported a decrease in the number of children unhappy with their body size post intervention.

<sup>1</sup> Bell et al. (2008); de Groot et al. (2009); de Groot et al. (2010); de Silva-Sanigorski et al. (2009a); de Silva-Sanigorski et al. (2009c); de Silva-Sanigorski et al. (2009b); de Silva-Sanigorski et al. (2010b); de Silva-Sanigorski et al. (2010a); Nichols et al. (2009); Parker et al. (2009); Parker et al. (2009a); Parker et al. (2009b)

<sup>2</sup> Chomitz et al. (2010)

<sup>3</sup> Drummond et al. (2009)

<sup>4</sup> Bell et al. (2008); Sanigorski et al. (2008)

#### **Evidence statement 2.5: Relationship between system working and effectiveness of obesity prevention programmes**

Due to the degree of variation across studies, the small number of the included studies, and the wide range of outcomes reported, the relationship between the presence of features of system working and the effectiveness of community-based programmes to prevent obesity remains ambiguous. It is therefore not possible to suggest a clear relationship.

Two community programmes based in Australia demonstrated the strongest evidence for system working. One controlled before-and-after (+) study<sup>1</sup> describes nine out of the ten features of system working, and demonstrated favourable (though statistically non-significant) between group differences in anthropometric outcomes. The programme also reported favourable outcomes relating to nutrition (which were statistically significant) and physical activity (which were statistically non-significant). The other study, a (+) non-randomised control trial<sup>2</sup>, shows clear evidence of six out of ten features of a whole system approach, and makes implicit reference to an additional three features. This study reports statistically non-significant between-group decreases in BMI, weight gain and the prevalence of overweight and obesity.

Three community programmes in the US showed five to seven features of whole-system working. One (+)<sup>3</sup> study clearly demonstrates the presence of four WSA features and implies another three features. This study reported non-significant decrease in BMI z scores. Another (+)<sup>4</sup> study describes three WSA features and makes reference to another three features. It reported statistically significant change in the prevalence of obesity and improvements in fitness among children post-intervention. Another (-)<sup>5</sup> study describes only two WSA features and makes reference to another three features. No anthropometric outcomes were reported, but the authors reported a statistically non-significant post-intervention increase in diet and activity 'best practices' at childcare centres.

The remaining three community programmes clearly displayed evidence of four or fewer features of whole-system working.

One longitudinal epidemiological (+) study based in France<sup>6</sup> clearly demonstrated evidence of four features, and demonstrated unclear evidence of two additional features. Another, related, repeated cross-sectional (+) survey in France<sup>7</sup> demonstrated unclear evidence of four features. Both studies showed significant pre-/post-reductions in obesity prevalence. One (+) non-randomised control trial from New Zealand<sup>8</sup> provides unclear evidence of

two features and reported a between-group statistically significant and favourable change in BMI z scores.

<sup>1</sup> Bell et al. (2008); de Groot et al. (2009); de Groot et al. (2010); de Silva-Sanigorski et al. (2009a); de Silva-Sanigorski et al. (2009c); de Silva-Sanigorski et al. (2009b); de Silva-Sanigorski et al. (2010b); de Silva-Sanigorski et al. (2010a); Nichols et al. (2009); Parker et al. (2009); Parker et al. (2009a); Parker et al. (2009b)

<sup>2</sup> Bell et al. (2008); Sanigorski et al. (2008)

<sup>3</sup> Economos et al. (2007)

<sup>4</sup> Chomitz et al. (2010)

<sup>5</sup> Drummond et al. (2009)

<sup>6</sup> EPODE abstract (2010); EPODE results (2010); EPODE press kit (2005); Thin Living (2007)

<sup>7</sup> Romon et al. (2008); Heude et al. (2003); EPODE abstract (2010)

<sup>8</sup> Taylor et al. (2006); Taylor et al. (2007); Taylor et al. (2008); McAuley et al. (2009)

### **Evidence statement 3.1: System recognition**

According to three UK studies (one [-]<sup>1</sup> and two [+]<sup>2,3</sup>) and one (-) USA study<sup>4</sup>, it is important to recognise the system in which public health problems such as obesity exist. The importance of collaborative working practices (such as partnership working, using novel networks, or managing meetings in a constructive, non-hierarchical way) was also recognised.

<sup>1</sup> Bauld et al. (2005a)

<sup>2</sup> Hall et al. (2009)

<sup>3</sup> Benzeval (2003)

<sup>4</sup> Campbell-Voytal (2010)

### **Evidence statement 3.2: Ownership and involvement**

According to three studies (one [+]<sup>1</sup> and one [++]<sup>2</sup> based in the UK and one [-]<sup>3</sup> based in the USA), partner organisations need to feel that they are actively involved and have some 'ownership' of a strategy. This can help reduce the



strain between partner organisations<sup>1,2</sup>. It is important to develop shared awareness and perspectives (for example, through pre-engagement work or training), but this may take considerable time (that is, years rather than months)<sup>3</sup>. Consultations should be focused to prevent partners becoming disillusioned<sup>1</sup> and community concerns recognised, even if these are at odds with those envisaged in the public health programme<sup>3</sup>.

<sup>1</sup> Hall et al. (2009)

<sup>2</sup> Platt et al. (2003)

<sup>3</sup> Campbell-Voytal (2010)

### **Evidence statement 3.3: Capacity building**

According to three (-) studies – one from the USA<sup>1</sup>, one from the UK<sup>2</sup> and one from New Zealand<sup>3</sup>, adequate time and resources need to be set aside for capacity building. Training and awareness-raising may be particularly important – for example to increase staff evaluation (or other technical) skills or bring health onto the agenda of bodies that do not have public health as a primary concern (for example, city planners), according to four (+) UK studies<sup>4,5,6,7</sup>.

<sup>1</sup> Campbell-Voytal (2010)

<sup>2</sup> Bauld et al. (2005a)

<sup>3</sup> Charlier et al. (2009)

<sup>4</sup> Hall et al. (2009)

<sup>5</sup> Benzeval and Meth (2002)

<sup>6</sup> Benzeval (2003)

<sup>7</sup> Cole (2003)

### **Evidence statement 3.4: Partnerships**

According to eight studies (two [-] from the UK<sup>1,7</sup>; three [+] from the UK<sup>2,3, 8</sup>; one [++] from the UK<sup>5</sup>; one [+] from the USA<sup>4</sup>; and one [-] from New Zealand<sup>6</sup>) partnerships may encounter problems in establishing consensus on the design, delivery and priorities of a programme. Partnerships need time and space to develop and are likely to be stronger where:

- there is active involvement from both the community and senior staff in key organisations (with communication downwards and upwards)
- organisations have a positive historical relationship
- actors form natural communities and share at least some interests or areas of workpre-existing tensions are resolved
- there is strategic leadership
- a common language is developed (poor communication can lead to silo working and strained relationships).

Studies also found joint working is easier where programme workers have the skills to establish a relationship with the local community and key individuals can act as 'boundary spanners' across organisations, linking their concerns (two [-] UK<sup>1,9</sup>; six [+] UK<sup>2,3, 8,10,11,13</sup>; one [++] UK<sup>5</sup>; one [-] New Zealand<sup>6</sup> and one [-] USA<sup>12</sup>).

Such individuals can be vital to the success of a programme, but this has implications for sustainability (one [+] UK<sup>14</sup>).

<sup>1</sup> Bauld et al. (2005b)

<sup>2</sup> Hall et al. (2009)

<sup>3</sup> Benzeval and Meth (2002)

<sup>4</sup> Po'e et al. (2010)

<sup>5</sup> Platt et al. (2003)

<sup>6</sup> Charlier et al. (2009)

<sup>7</sup> Powell et al. (2001)

<sup>8</sup> Evans and Killoran (2000)

<sup>9</sup> Bauld et al. (2005a)

<sup>10</sup> Benzeval (2003)

<sup>11</sup> Cole (2003)

<sup>12</sup> Campbell-Voytal (2010)

<sup>13</sup> Rugaska et al. (2007)

<sup>14</sup> Rugaska et al. (2009)

### **Evidence statement 3.5: Embeddedness**

Wholesystem working is more likely to become embedded where whole systems principles are integrated into strategy and policy documents (one [+] UK<sup>1</sup>) and actions and policies are present at both strategic and operational levels (one [-] UK<sup>2</sup>).

<sup>1</sup> Hall et al. (2009)

<sup>2</sup> Bauld et al. (2005a)

### **Evidence statement 3.6: Sustainability**

The sustainability of whole-systems approaches may be hindered by traditional organisational structures (one [++] UK<sup>1</sup>) or poor experience from previous projects (one [+] UK<sup>2</sup>).

According to seven studies (two [-] UK<sup>6, 8</sup>; one [+] UK<sup>7</sup>; one [++] UK<sup>1</sup>; one [-] USA<sup>3</sup>; one [+] USA<sup>4</sup>; one [-] New Zealand<sup>5</sup>) funding issues impact on the sustainability of a whole-system approach for a range of reasons including:

- difficulties in making the case for funding for diffuse objectives
- the lack of continuity and stability inherent in short-term funding for addressing long term issues
- inadequate staffing levels.

<sup>1</sup> Platt et al. (2003)

<sup>2</sup> Cole (2003)

<sup>3</sup> Campbell-Voytal (2010)

<sup>4</sup> Po'e et al. (2010)

<sup>5</sup> Charlier et al. (2009)

<sup>6</sup> Bauld et al. (2005b)

<sup>7</sup> Benzeval and Meth (2002)

<sup>8</sup> Powell et al. (2001)

### **Evidence statement 3.7: Leadership**

According to four UK studies (three [+] <sup>1,2,4</sup> and one [++] <sup>3</sup>) strategic leadership was considered important when implementing a whole-system approach – for

example, ensuring focus in programme meetings, providing clarity on staff roles, managing tensions between programme staff, providing active leadership at local level and demonstrating personal commitment. However, implementing formal accountability arrangements in cross-organisation partnerships can be difficult<sup>2,4</sup>. Leadership may face a range of problems including difficulties in achieving consensus between partners<sup>1</sup> (and one [+] UK<sup>5</sup>); tensions between local and national priorities<sup>1</sup>, ensuring the overall strategic direction doesn't stifle local leadership<sup>3</sup> (and one [+] UK<sup>6</sup>) and difficulties ensuring inclusive working with minimal resources<sup>5</sup>. Studies have noted implementation problems related to management decisions taken without staff consultation<sup>3</sup>, autonomy of local staff and clarity of management structures<sup>3</sup>, and local programme staff feeling isolated from a national programme (and one [-] UK<sup>7</sup>).

<sup>1</sup> Hall et al. (2009)

<sup>2</sup> Cole (2003)

<sup>3</sup> Platt et al (2003)

<sup>4</sup> Evans and Killoran (2000)

<sup>5</sup> Benzeval (2003)

<sup>6</sup> Rugaska et al. (2007)

<sup>7</sup> Bauld et al. (2005b)

### **Evidence statement 3.8: Monitoring and evaluation**

According to two UK studies (one [-]<sup>1</sup> and one [+]<sup>2</sup>) the usefulness of evaluation may be limited by a lack of clarity about objectives and a lack of specificity about outcomes to be measured. Six studies<sup>1,2</sup> (and two [-] UK<sup>5,6</sup>; one [++] UK<sup>4</sup> and one [+] USA<sup>3</sup>) found intermediate or broader outcome measures may be more appropriate for assessing whole-system approaches, at least in the first instance, rather than specific short-term health outcomes. Broader indicators of success may have the added benefit of fostering partnership working.

It may be particularly difficult to evaluate non health outcomes and 'reward' partners who do not have a traditional health role<sup>6</sup>. Problems may arise with

data collection where, staff responsible for collecting the data are unclear about its usefulness or relevance, partners use different information systems or where organisations struggle to reach a consensus on appropriate outcome measures<sup>1,5,6</sup>. Unresolved organisational issues or the promotion of a working culture where partners feel unable to openly discuss problems in implementation may act as a barrier to organisational learning<sup>5</sup> (and one [+] UK<sup>7</sup>). There may be an unfounded assumption at national level that local agencies have the capacity to develop and deliver a WSA<sup>1</sup>.

<sup>1</sup> Bauld et al. (2005a)

<sup>2</sup> Hall et al. (2009)

<sup>3</sup> Po'e et al. (2010)

<sup>4</sup> Platt et al. (2003)

<sup>5</sup> Bauld et al. (2005b)

<sup>6</sup> Powell et al. (2001)

<sup>7</sup> Benzeval (2003)

### **Evidence statement 3.9: National policy and priorities**

According to two studies (both [+] one USA<sup>1</sup> and one UK<sup>2</sup>) the broader political climate may open a 'national policy window' which facilitates policy change, influencing the ability to take a systems approach. Three UK studies (all [+])<sup>2,3,4</sup> found this would enable partnerships that focus on addressing health inequalities. Supportive national policy can help foster partnerships and influence the local agenda<sup>2,3,4</sup>. However, changes in national policy may create uncertainty<sup>2</sup> (and one [-] UK<sup>5</sup>) and reduce the credibility of local programmes<sup>2</sup>. Targets or funding attached to narrowly-defined areas of health, and limited timeframes may limit the ability to take a systems approach<sup>4</sup> (and one [-] UK<sup>6</sup>).

<sup>1</sup> Dodson et al. (2009)

<sup>2</sup> Benzeval (2003)

<sup>3</sup> Evans and Killoran (2000)

<sup>4</sup> Benzeval and Meth (2002)

<sup>5</sup> Bauld et al. (2005b)

<sup>6</sup> Powell et al. (2001)

#### **Evidence statement 4.1: Quantity and quality of published cost effectiveness and obesity modelling evidence**

Only four published economic evaluations were found which related to community-wide multi-faceted obesity prevention or smoking prevention programmes. Two of the economic evaluations (a conference poster relating to the 'Be active eat well' programme in Australia, and a 3-page section of a larger evaluation report on the 'Breathing space' smoking prevention intervention in Edinburgh) were not presented in sufficient detail to warrant a full summary or critical appraisal<sup>1,2</sup>. The other two cost-effectiveness analyses were not comparable because they were:

- A small pilot-trial based cost-effectiveness analysis of a school-based community-wide child obesity prevention programme (in New Zealand, results in \$NZ per kg of weight gain prevented after 2 years)<sup>3</sup>
- A modelling-based study of the cost-effectiveness of two US-based community-wide campaigns to promote physical activity (the 'Stanford five cities project' and 'Wheeling walks' programme for older people – results presented in cost per life-year and cost per quality-adjusted life-year)<sup>4</sup>.

<sup>1</sup> Moodie et al. (2010)

<sup>2</sup> Platt et al. (2003)

<sup>3</sup> McAuley et al. (2009)

<sup>4</sup> Roux et al. (2008)

#### **Evidence statement 4.2: Cost-effectiveness findings**

There is evidence from only one community-wide obesity prevention programme which estimated incremental cost-effectiveness ratios, and can be judged as having used appropriate methods (of the APPLE pilot project in four small towns in New Zealand<sup>1</sup>). However, while having some community-based activities, the APPLE project was judged to only weakly exhibit two of the ten defined features of a whole-system approach. Only four published economic evaluations were identified that were potentially relevant to the scope of this

guidance<sup>1,2,3,4</sup>. Two of these studies<sup>2,3</sup> were so under-reported that their findings cannot be relied upon. The other included cost-effectiveness study was of two community-wide physical activity promotion campaigns in the USA<sup>4</sup>.

<sup>1</sup> McAuley et al. (2009)

<sup>2</sup> Moodie et al. (2010)

<sup>3</sup> Platt et al. (2003)

<sup>4</sup> Roux et al. (2008)

### **Evidence statement 4.3: Approaches to modelling of obesity and for obesity prevention**

Simulation modelling of obesity or obesity policies is still at a relatively early stage of development. However, in some cases methods for modelling outcomes in the area of obesity and obesity prevention policies or programmes has already become so complex and advanced that the usefulness (or even feasibility) of attempting to develop credible new models without significant modelling capacity, access to national data, and significant modeller time and other resources is questionable. Instead, with limited resources, any realistic modelling of alternative local community-wide obesity prevention policies should aim to make best use of one of the well-established and tested existing population-level obesity models (such as the National Heart Forum's micro-simulation model, or the ACE Obesity model framework).

### **Evidence statement CR1: Establishing a community-wide approach to preventing obesity – key actors and players**

A genuinely community-wide approach to preventing obesity includes a vast range of actors and agencies. For such a network to be effective, partners must share an overarching vision around obesity prevention, with each organisation 'buying in' and feeling a sense of ownership.

At the strategic level, the impetus for a community-wide approach begins with local elected members and senior managers (particularly from the NHS and the local authority). Public health is best placed to provide investment and

leadership for the network of partners, aided by the health and wellbeing board, which needs to exert its influence on the clinical commissioning group to ensure investment and 'buy in' across community health services.

In order to build the network of partners, local communities and services should be viewed from the perspective of individual citizens, to identify the most relevant services regularly used and trusted by key groups such as parents. Once signed up as partners, these services can be leveraged to make every contact count.

Information needs to be shared and relationships developed both 'horizontally' across partner organisations, and 'vertically' inside individual organisations. Failure to ensure that middle managers and frontline workers share the vision and understand the community-wide approach is perhaps the most common factor limiting the effectiveness of such partnerships.

The main delivery organisations (for example, community projects with provider contracts) must have credibility within their local communities. Community engagement is the key activity in building and developing this credibility.

### **Evidence statement CR2: Facilitators of an effective community-wide approach**

Having a central coordination and communications function is considered to be essential and must engage beyond senior management level in the partner organisations, striving to ensure that middle managers share the vision, and are well informed about the wider network. Concise briefings on key issues are important for middle managers and frontline staff, to build confidence, capacity and consistency in messaging across the wide range of partners.

Partner organisations should be expected to make an explicit commitment of what they will contribute, and this should be publicised across the network. Those making investment decisions should build on proven success by 'backing winners', and concentrate investment where it is most likely to succeed.



Strategy should take an iterative approach, reviewing progress regularly.

**Evidence statement CR3: Barriers to an effective community-wide approach**

Starting conversations about obesity with individual clients and patients is difficult, and there are numerous reasons why staff may not have the confidence or the motivation to do so, even among primary care professionals. It is very important to build confidence and capability among customer-facing staff in both primary care and community settings, as the credibility of messages from the latter will be seriously undermined if inconsistent with messages from the former.

In terms of population-wide primary prevention, the term 'obesity' can be off-putting, and engagement with target audiences may be easier if the focus is framed as 'healthy lifestyles'. This more broad-based approach may also be more stable in terms of long-term funding.

Financial barriers are significant for many low-income groups, particularly in terms of the cost of transport and accessing services. Cultural minorities and disabled people face additional barriers in accessing information and services, and their specific needs should be considered carefully when assessing needs.

A significant contribution can be made by volunteers (health champions and peer mentors), but their effectiveness may be limited by the willingness of health professionals to make referrals to them.

The prevention of obesity is a long-term objective, but most project funding is short term. There are complex personal, family and socioeconomic causes applying to many obese and overweight people. Both commissioners and providers would like to be able to commit to longer-term contracts for obesity prevention work, in recognition of the considerable time and resources needed to successfully engage with clients with complex needs, for whom positive short-term outcomes are less likely.

**Evidence statement CR4: Sustainability**

It is inevitable that funding streams will change over time. By recognising that obesity is an essential concern for many health and social issues, it should be possible to be flexible and creative in justifying ongoing funds for obesity prevention work, despite such changes.

The strategy and the wider network of partners must be sustainable. The maintenance and development of the shared vision is fundamental for sustainability, and this requires effective communication to maintain the engagement, particularly with politicians and middle managers. Frontline staff and organisations may see themselves as peripheral to the issue of obesity. Having a strong local brand or identity is important, particularly for workers in the network of organisations, as it is important for them to feel part of a bigger picture.

A key message in this communication must be the commitment to evaluation and ongoing service improvement. If pump-priming funds (that is, short-term funds, aimed at stimulating future investment from mainstream sources) are made available to establish the network, plans to transfer responsibilities to mainstream budgets should be built in wherever possible. However, in the context of current public expenditure constraints, mainstream incorporation cannot be guaranteed.

The community-wide approach should seek to build on existing community assets. This will build capacity in people and institutions that will continue, even if obesity specific funding diminishes. Commissioners should also consider that at some point in the future, they may be relying on influence and goodwill rather than contractual obligations.

A clear separation of strategic and operational management, using boards and forums with distinctive terms of reference, may be helpful.

**Evidence statement CR5: Evaluation**

Data collection and monitoring can contribute to project sustainability, project management, keeping all parties focused on goals and service improvement.

Evaluation is primarily considered for individual programmes, projects and interventions; a complex, community-wide approach is seldom evaluated.

Further consideration needs to be given to the applicability and acceptability of different types of evidence, in the context of the very limited time and resources available at a local level. There is concern that while obesity prevention is a long-term challenge, with long timescales for return on investment, funding is very often short term, with unrealistic outcome expectations. Consideration should be given to the acceptance of intermediate outcomes in commissioning contracts. The example of 'job readiness' in employment-related community work was cited, with the suggestion that 'weight-loss readiness' was a similarly legitimate intermediate outcome. There is a tension between the use of narrow, quantitative outcome criteria (often the focus of commissioners), versus a broader range of outcome measures including qualitative data of community wellbeing (often the focus of providers).

Evaluation is often focused on contract performance management. There was little evidence of a systematic approach to building a local evidence base. Project timetables and budgets rarely allow for the establishment of robust baselines on which to base evaluations. Evaluation often ignores clients who had dropped out of the programme or intervention. This would seem to be a significant gap in the development of evidence.

Providers express concerns about the burden of data collection and monitoring, particularly those receiving funding from multiple sources. There is frustration at the inconsistency of data required by different funders. Evaluators should properly brief those collecting the data on the rationale and requirements.

### **Evidence statement CR6: Cost effectiveness**

Very little true cost-effectiveness evaluation is undertaken at a local level due to the lack of specialist skills. To commission externally is expensive, and if the skills are available internally it is very time intensive. Thus, cost-

effectiveness analysis may be considered not justified on grounds of cost effectiveness.

There seems to be relatively little scrutiny of cost effectiveness (as opposed to cost management). Budget holders at a higher level appear to have limited understanding of cost-effectiveness analysis, meaning that there is little pressure to undertake such work.

Some participants expressed concern that public health investment might be disadvantaged by more exposure to cost-effectiveness analysis, due to public health delivering longer-term returns on investment, and the difficulty of attributing cause and effect (relative to clinical treatment). There was also a concern that truly like-for-like comparisons are difficult to achieve in cost-effectiveness analysis. In this view there was a risk of simplistic interpretation, in which differences between programmes and interventions may be caused by underlying socioeconomic factors that were not visible in the calculation.

### ***Additional evidence***

Expert paper 1: 'Whole systems – adapted and designed'

Expert paper 2: 'Lessons from tobacco control'

Expert paper 3: 'Systems and system failure'

Expert paper 4: 'Whole system approaches to obesity – progress and future plans'

Expert paper 5: 'Insight, experiences and evidence of the Childhood Obesity National Support Team'

Expert paper 6: 'Cycling cities/cycling demonstration towns initiative'

Expert paper 7: 'The contribution of health trainers, community health champions and the general public'

Expert paper 8: 'Well London'

Expert paper 9: 'Tower Hamlets healthy borough programme'

Expert paper 10: 'Healthy places, healthy lives – tackling childhood obesity in Luton case study'

Expert paper 11: 'Exeter cycling demonstration town 2005 to 2011'

Expert paper 12: 'Commissioning – learning from Sheffield and Rotherham'

Expert paper 13: 'Evaluation in Hull'

Expert paper 14: 'Working in partnership: An example from a rural area – South Gloucestershire'

Expert paper 15: 'Tackling obesity in a rural county'

Expert paper 16: 'West and Mid Essex local commissioning experience'

Expert paper 17: 'Effective partnership working and stakeholder engagement in the delivery of obesity prevention and treatment programmes in Kirklees'

Expert paper 18: 'Short paper on organisational issues'

Expert paper 19: 'Evaluating complex community-based interventions (CBIs) for obesity prevention'

### ***Economic modelling***

A number of assumptions were made that could overestimate or underestimate the cost effectiveness of the interventions (see the modelling report, 'Cost effectiveness analysis in partnership working for reducing obesity and other long-term conditions', for further details).

Partnership working can be considered cost effective if the intervention is recognised to be effective and there is a sufficiently low initial cost. The same is true when it is known to lead to cost savings (in particular, as a result of sharing resources).

In more complex situations, such as community-wide interventions to tackle obesity, it is unclear whether partnerships are a cost effective way of delivering an intervention, because conventional cost-effectiveness methods cannot be applied.

On funding for projects, a simple model suggests that obesity projects with long-term funding are likely to be more cost effective than equivalent projects where funding is less secure.

On interventions, modelling suggests that interventions costing £10 or less per head will be cost effective for all except the smallest weight losses (or weight gains prevented).

Engaging with local communities can ensure, for a relatively low cost, that a large project that may not have previously been acceptable to them is accepted after modifications. This, in turn, may result in large community gains that would otherwise not have been realised.

## Appendix D Gaps in the evidence

The Programme Development Group (PDG) identified a number of gaps in the evidence related to the programmes under examination, based on an assessment of the evidence reviews, commissioned primary research and expert testimony. These gaps are set out below.

### 1. Programmes

- a) Few community-wide obesity programmes have been evaluated (that is, programmes involving multiple action locally). Those that do exist are mainly school-based, the components are often inadequately described, and the terminology varies from study to study. Follow-up times are too short and clients who dropped out are often ignored.
- b) There is a lack of evidence on obesity prevention programmes for children and adults with disabilities.

(**Source:** review 1; commissioned report; PDG discussions)

### 2. Partnerships

There is a lack of evidence on community-wide partnership working. In particular, the following questions need answering:

- a) What are the most cost-effective components of a partnership?
- b) How can oversight and management committees or groups effectively manage a partnership? How can the best local representatives for these committees or groups be identified?
- c) On what basis should a decision be made to form a local partnership – as opposed to working unilaterally?

- d) Is there a difference between 'adaptive' (that is, voluntary) partnerships that emerge spontaneously) and 'mandated' (imposed from above) partnerships in terms of effectiveness?
- e) What are the best incentives or techniques to encourage partnership working?

**(Source:** PDG discussions)

### 3. Complexity of local systems

There is a lack of evidence on how complexity theory, management theory, change theory and a whole-systems approach works in practice. Specifically, we need to know:

- a) What are the synergies between common actions to tackle obesity?
- b) Where are the greatest opportunities for tackling obesity in any given community?
- c) How can the local system – and components of the local system – evolve to better tackle obesity?
- d) Does a local community programme which focuses on prevention tend to work against efforts within the same community to treat people who are already obese (and vice versa)?

**(Source:** PDG discussions)

### 4. Health economics

There is a lack of evidence on the economics of community-wide partnership working to prevent obesity. This type of activity involves complex interactions and is not amenable to current economic evaluation techniques.

(Source: PDG discussions)

### 5. Scalability



There is a lack of evidence on the practicality and effectiveness of extending or 'scaling up' small obesity prevention programmes. 'Scalability' in this sense means increasing the:

- geographic coverage
- number of contexts in which it is offered, or
- number of participants.

**(Source:** PDG discussions)

## 6. Programme composition

There are unresolved questions about the composition of an effective, local community-wide programme aimed at tackling obesity, specifically:

- a) How can a 'community development' approach best be applied?
- b) How can learning from other programmes be used (for example, how transferrable is the learning from tobacco or alcohol control programmes)?
- c) What combination of features ensures a programme is effective – and how do they relate to each other?
- d) What aspects of a community-wide intervention (or parts of an intervention) require guidance to ensure health and community workers can implement them effectively?
- e) How 'intense' does a programme need to be, both in terms of the number of interventions (or sub-interventions), and the amount of activities involved in each one?

**(Source:** PDG discussions)

## 7. Sustainability

There is a lack of evidence on how to ensure programmes can be sustained over the longer term. This includes effective ways of ensuring: continuation of

funding, the partnership remains strong, volunteer and 'community champion' participation and long-term leadership.

**(Source:** PDG discussions)

#### 8. Business

There is a lack of evidence on how to get local businesses (in particular, small businesses) and chambers of commerce involved in obesity prevention work.

**(Source:** PDG discussions)

#### 9. Measurement

There is a lack of evidence on effective measurement and segmentation tools that could be used as part of the joint strategic needs assessment (JSNA) and for programme evaluation. Similarly, there is a lack of research on appropriate benchmarks that could be used.

**(Source:** PDG discussions)

## Appendix E Supporting documents

Supporting documents include the following:

- Evidence reviews:
  - Review 1 'Identifying the key elements and interactions of a whole system approach to obesity prevention'
  - Review 2 'The effectiveness of whole system approaches to prevent obesity'
  - Review 3 'Barriers and facilitators to effective whole system approaches'.
  
- Review of economic evaluations:
  - 'Whole system approaches to obesity prevention: Review of cost-effectiveness evidence'.
  
- Economic modelling:
  - 'Cost effectiveness analysis in partnership working for reducing obesity and other long-term conditions'.
  
- Commissioned report:
  - 'Implementing community-wide action to prevent obesity: opinions and experiences of local public health teams and other relevant parties'.
  
- Expert testimony:
  - Expert paper 1: 'Whole systems – adapted and designed'
  - Expert paper 2: 'Lessons from tobacco control'
  - Expert paper 3: 'Systems and system failure'
  - Expert paper 4: 'Whole system approaches to obesity – progress and future plans'
  - Expert paper 5: 'Insight, experiences and evidence of the Childhood Obesity National Support Team'
  - Expert paper 6: 'Cycling cities/cycling demonstration towns initiative'

- Expert paper 7: 'The contribution of health trainers, community health champions and the general
- Expert paper 8: 'Well London'
- Expert paper 9: 'Tower Hamlets healthy borough programme'
- Expert paper 10: 'Healthy places, healthy lives – tackling childhood obesity in Luton case study'
- Expert paper 11: 'Exeter cycling demonstration town 2005 to 2011'
- Expert paper 12: 'Commissioning – learning from Sheffield and Rotherham'
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- Expert paper 14: 'Working in partnership: An example from a rural area – South Gloucestershire'
- Expert paper 15: 'Tackling obesity in a rural county'
- Expert paper 16: 'West and Mid Essex local commissioning experience'
- Expert paper 17: 'Effective partnership working and stakeholder engagement in the delivery of obesity prevention and treatment programmes in Kirklees'
- Expert paper 18: 'Short paper on organisational issues'
- Expert paper 19: 'Evaluating complex community-based interventions (CBIs) for obesity prevention'.

For information on how NICE public health guidance is developed, see:

- [‘Methods for development of NICE public health guidance \(second edition, 2009\)’](#)
- [‘The NICE public health guidance development process: An overview for stakeholders including public health practitioners, policy makers and the public \(second edition, 2009\)’](#)