

Obesity: working with local communities

Public health guideline

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Your responsibility

The recommendations in this guideline represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, professionals and practitioners are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or the people using their service. It is not mandatory to apply the recommendations, and the guideline does not override the responsibility to make decisions appropriate to the circumstances of the individual, in consultation with them and their families and carers or guardian.

All problems (adverse events) related to a medicine or medical device used for treatment or in a procedure should be reported to the Medicines and Healthcare products Regulatory Agency using the [Yellow Card Scheme](#).

Local commissioners and providers of healthcare have a responsibility to enable the guideline to be applied when individual professionals and people using services wish to use it. They should do so in the context of local and national priorities for funding and developing services, and in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities. Nothing in this guideline should be interpreted in a way that would be inconsistent with complying with those duties.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should [assess and reduce the environmental impact of implementing NICE recommendations](#) wherever possible.

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This guideline is the basis of QS94 and QS111.

Overview

This guideline covers how local communities, with support from local organisations and networks, can help prevent people from becoming overweight or obese or help them lose weight. It aims to support sustainable and community-wide action to achieve this.

In June 2017, we amended the wording of the section headed 'Whose health will benefit from these recommendations?' to include people with learning disabilities.

See also the [NICE guideline on obesity prevention](#).

The guidance will support the [Department of Health's healthy lives, healthy people: a call to action on obesity in England and the public health outcomes framework](#). It provides an organisational framework for existing NICE guidance about obesity prevention or management.

Who is it for?

- Policy makers, commissioners, managers and practitioners in local authorities, the NHS and the wider public, private, voluntary and community sectors
- Academic organisations involved in community-wide interventions to prevent and manage obesity
- Members of the public

Introduction: scope and purpose of this guidance

What is this guidance about?

This guidance aims to support effective, sustainable and community-wide action to prevent overweight and obesity in adults and overweight and obesity in children. 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
- integrated commissioning
- involving businesses and social enterprises operating in the local area
- local authorities and the NHS as exemplars of good practice
- planning systems for monitoring and evaluation
- implementing monitoring and evaluation functions
- cost effectiveness
- organisational development and training
- scrutiny and accountability.

This guidance focuses on the prevention of overweight and obesity. 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.

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 that is not necessarily related to any official, administrative boundary. The community may be located in 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.

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.

Who is this guidance for?

This guidance is for local policy makers, commissioners, managers, practitioners and other professionals working in local authorities, the NHS and the wider public, private, voluntary and community sectors. It is particularly aimed at:

- local authority chief executive officers
- executive directors of local authority services (such as directors of children's or adult's services and directors of planning or leisure services)
- directors of public health, members of health and wellbeing boards
- elected members (particularly council leaders, including cabinet leads for health)
- 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?

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

The guidance will support the [government's call for action on obesity](#) and the [public health outcomes framework](#). It provides an organisational framework for existing NICE guidance (community-based or individual interventions) that directly or indirectly impacts on obesity prevention or management.

The ongoing structural changes to the public sector, particularly local authorities and the NHS, have influenced the direction and tone of the recommendations. This guidance is intended to support organisations that have a role in obesity prevention in the wider public health agenda, including Public Health England, the National Commissioning Board, local authorities, local Healthwatch, local health and wellbeing boards and clinical commissioning groups.

1 Recommendations

People have the right to be involved in discussions and make informed decisions about their care, as described in [NICE's information on making decisions about your care](#).

[Making decisions using NICE guidelines](#) has information about prescribing medicines (including off-label use), professional guidelines, standards and laws (including on consent and mental capacity), and safeguarding.

The guidance complements, but does not replace, [NICE's other guidance on obesity](#).

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](#).

See also the [evidence reviews, supporting evidence statements and economic modelling report](#).

Guiding principles

The recommendations should be undertaken in parallel, wherever possible as part of a system-wide approach to preventing obesity. Ideally, to be as cost effective as possible, they should be implemented as part of integrated programmes that address the whole population, but with a scale and intensity that is proportionate to addressing locally identified inequalities in obesity and associated diseases and conditions.

The guidance provides a framework for existing NICE guidance (community based or individual interventions) that directly or indirectly impacts on obesity prevention or management.

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 [NICE's guideline on community engagement](#).

Behaviour change

The prerequisites for effective interventions and programmes aimed at changing behaviour are covered in [NICE's guideline on behaviour change: general approaches](#). 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 [NICE's guideline on type 2 diabetes prevention: population and community interventions](#). 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 that 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 in a locally defined community but, in particular, vulnerable groups and communities where there is a high percentage of people who are at risk of excess weight gain or who are already overweight or obese (this includes those from particular ethnic or socioeconomic groups, those who are less likely to access services, people with mental health problems, a learning or physical disability). For more information, see the [section on public health need and practice](#)).

Recommendation 1 Developing a sustainable, community-wide approach to obesity

Who should take action?

- Council leaders and elected members.
- Local authority chief executive officers.
- Health and wellbeing boards.
- Directors of public health.
- Executive directors of local authority services.
- Local NHS trusts.
- Local Healthwatch.
- Leaders of local voluntary and community organisations.
- Clinical commissioning groups.
- Local education and training boards.

What action should they take?

- All of the above should ensure, through the health and wellbeing board, a coherent, community-wide, multi-agency approach is in place to address obesity prevention and management. Activities should be integrated within the joint health and wellbeing strategy and broader regeneration and environmental strategies. Action should also be aligned with other disease-specific prevention and health improvement strategies such as initiatives to prevent type 2 diabetes, cancers and cardiovascular disease, as well as broader initiatives, such as those to promote good maternal and child nutrition or mental health or prevent harmful drinking. (See NICE's guidelines on type 2 diabetes prevention: population and community interventions, cardiovascular disease prevention, maternal and child nutrition, and alcohol use disorders: prevention.)

- Health and wellbeing boards, supported by directors of public health, should ensure joint strategic needs assessments (JSNAs) address the prevention and management of obesity. They should ensure JSNAs:
 - consider the full range of factors that may influence weight, such as access to food and drinks that contribute to a healthy and balanced diet, or opportunities to use more physically active modes of travel
 - consider inequalities and the social determinants of obesity
 - consider local evidence on obesity (such as data from the National Child Measurement Programme).
- Health and wellbeing boards should ensure tackling obesity is one of the strategic priorities of the joint health and wellbeing strategy (based on needs identified in JSNAs).
- 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 food 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 that 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 that may have an indirect impact, for example, those favouring car use over other modes of transport, or decisions to remove park wardens, that affect people's use of parks.
- Health and wellbeing boards, through their performance infrastructure, should regularly (for example, annually) assess local partners' work to tackle obesity (taking account of any relevant evidence from monitoring and evaluation). 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?

- Directors of public health and public health teams.
- Chairs of local health and wellbeing boards.
- Executive directors of local authority services.
- Council leaders and elected members.
- Leaders of local voluntary and community organisations.
- Clinical commissioning group leads for obesity (where they exist).
- Clinical commissioning representatives on local health and wellbeing boards.
- Local education and training boards.

What action should they take?

- All of the above should provide visible, strategic leadership to tackle obesity at all levels and ensure an effective team is in place.
- Directors of public health and public health teams should ensure all those responsible for activity that impacts on obesity understand the needs and priorities of the local community, as outlined in JSNAs. They should ensure all partners understand JSNA priorities and be prepared to decommission 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 across the breadth of council strategies and plans.

- Directors of public health should seek to secure high-level commitment to long-term, integrated action on obesity, as part of the joint 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 and two-tier (as appropriate) coordination and communication between transport, planning and leisure services at strategic level and better involvement of local communities in each of these policy areas
 - ensuring performance management focuses on processes that support effective partnership working as well as measuring outputs and outcomes
 - ensuring the strategy on obesity is reviewed regularly (for example, every 3 to 5 years), based on needs identified in JSNAs and mapping of local assets.
- Leaders of local voluntary and community organisations should ensure the local approach to obesity:
 - fully engages and addresses marginalised groups at particular risk of obesity
 - addresses inequalities in obesity and associated diseases.
- All clinical commissioning groups should be encouraged to identify an obesity or public health lead to work with the public health team on joint approaches to tackling obesity.

Recommendation 3 Supporting leadership at all levels

Who should take action?

- Directors of public health and public health teams.
- Health and wellbeing board chairs.
- Clinical commissioning groups.
- Executive directors of local authority services.

- Council leaders and elected members.
- Chief executive officer of the local education and training board.

What action should they take?

- Public health teams should identify and work with 'champions' who have a particular interest or role in preventing obesity in 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.
- All of the above should work to build and support a network of leaders from all organisations and partnerships that could make a contribution to preventing obesity. This should include relevant local authority and NHS services, voluntary and community organisations and the private sector.
- Directors of public health should support leaders at all levels (including senior and middle managers and frontline staff) of all the partnerships involved in local action on obesity, to ensure local people and organisations are empowered to take action. This means:
 - providing regular opportunities for partners to meet and share learning in both formal meetings and informal, open environments, as appropriate
 - 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)
 - funding small-scale community-led projects such as local gardening, cooking and walking groups; and exploring how such initiatives can contribute to defined long-term goals and can be evaluated in a proportionate way
 - fostering a 'learning culture' by explicitly supporting monitoring and evaluation, especially for innovative interventions, and allowing partnerships to build on effective action and change or discard less effective solutions (see [recommendations 10 and 11](#)).

Recommendation 4 Coordinating local action

Who should take action?

- Health and wellbeing boards.
- Executive directors of local authority services.
- Directors of public health and public health teams.
- Community-based health workers, volunteers, groups or networks.
- Community engagement workers such as health trainers.

What action should they take?

- Local authority chief executive officers should ensure there is an effective public health team in place to develop a coordinated approach to the prevention of obesity. This should include:
 - a director or lead public health consultant to provide strategic direction
 - a senior coordinator who has dedicated time to support the director or consultant in their work on obesity and oversee the local programme. The coordinator should have:
 - ◇ specialist expertise in obesity prevention and community engagement
 - ◇ the skills and experience to work across organisational boundaries
 - community 'health champions' (volunteering with community or voluntary organisations) and other people who work directly with the community (such as health trainers and community engagement teams) to encourage local participation and support delivery of the programme.
- Coordinators should advise commissioners on contracts that support the local obesity agenda to ensure a 'joined-up' approach. They should encourage commissioners to promote better integration between providers through the use of joint contracts 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.

- Directors of public health should ensure coordinators engage frontline staff (such as health visitors, environmental health officers and neighbourhood wardens) who can contribute to local action on obesity.
- Directors of public health should ensure frontline staff set aside dedicated time to deliver specific aspects of the obesity agenda and receive training to improve their understanding of the needs of the local community and improve their practical implementation skills.
- Coordinators and community engagement workers (such as health trainers and community development teams) should work together to develop and maintain a map of local people and assets that could support a community-wide approach to combating obesity. This includes:
 - community-based health workers such as health visitors, community pharmacists or weight management group leaders
 - existing networks of volunteers and 'champions', health trainers and community organisations such as religious groups, sports clubs, school governors or parent groups
 - people working in the community, such as the police, park wardens, leisure centre staff, active travel coordinators, school crossing patrol officers or school and workplace canteen staff
 - physical activity organisations and networks such as county sport physical activity partnerships
 - 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 an agreement that pledges specific relevant actions in the short and long term.

Recommendation 5 Communication

Who should take action?

- Directors of public health and public health teams.
- Local government and NHS communications leads.

What action should they take?

- 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 preventing and managing 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 in the health and wellbeing strategy
 - be aware of the impact of obesity on other priorities (for example, the rising local incidence of type 2 diabetes, due to obesity).
- Local government communications leads should ensure obesity prevention programmes are highly visible and easily recognisable. Recognition may be increased – and costs kept to a minimum – by adapting a widely known brand for use locally (such as NHS healthier families). Where appropriate, branding should be agreed by elected members and the health and wellbeing board.
- Communications leads should ensure partners have shared vision, speak with 'a common voice' and are clearly identifiable to the community. This can be fostered by promoting all relevant activities under the obesity programme 'brand' and using this branding consistently over the long term.

- Health and wellbeing board chairs and executive directors of local authority services should advocate for action on obesity in any discussions with partners or the local media.
- Directors of public health and local government communications leads should carefully consider the type of language and media to use to communicate about obesity, tailoring language to the situation or intended audience. Local insight may be particularly important when developing communications to subgroups within a community or specific at-risk groups. For example, in communications to some local communities, it might be better to refer to a 'healthier weight' rather than 'preventing obesity', and to talk more generally about health and wellbeing or specific community issues. Making explicit the relevance of a wide range of initiatives for tackling obesity, for example in annual reports, may be helpful.
- The local coordinator and public health teams should 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 or [Public Health England's healthy places databases](#), or the [NICE shared learning database](#).
- The local coordinator and communications leads should ensure information from monitoring and evaluation is accessible and easy to use by everyone in the community, including those involved with obesity prevention, local groups and networks, the media and the public. This includes presenting information in accessible formats and different languages.

Recommendation 6 Involving the community

Who should take action?

- Local Healthwatch.
- Local authority community involvement teams.
- Directors of public health and public health teams.
- Local voluntary and community organisations, champions and networks.
- Council leaders and elected members.

- Clinical commissioning groups.

What action should they take?

- Local Healthwatch, community involvement and public health teams should engage local people in identifying their priorities in relation to weight issues. For example, residents may feel that issues such as crime, the siting of hot food takeaways or alcohol outlets, the lack of well-maintained green space, pavement parking, speeding, or the lack of a sense of community are their top priorities. Where possible, it should be made explicit that local concerns often can (and do) impact on levels of obesity in the community.
- Community involvement and public health teams should work with local people, groups and organisations 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 and ensuring that they receive feedback about decisions taken.

- 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 co-produce action on obesity as part of an integrated health and wellbeing strategy. These networks include:
 - people who are active and trusted in the community
 - people who have the potential to be local health champions
 - people who represent the needs of subgroups within the community (such as people with disabilities or mental health problems)
 - marginalised groups such as asylum seekers or homeless people (where there is no established network or partnership working, additional action may be needed to get them involved)
 - local champions (such as managers of youth or children's centres, school governors or parent groups, or those who organise walking or gardening groups)
 - people who can provide a link to local business or the private or voluntary sector
 - advocates who have a strong voice in the community, who can challenge social norms and beliefs of the community or who can champion obesity prevention and management as part of their usual role (this includes local elected members, GPs, head teachers, pharmacists, local weight management group leaders, health trainers, community leaders and representatives of local voluntary groups)
 - patient or carer groups.
- Public health teams should ensure those identified are provided with the resources and training they need to take action on obesity.
- Clinical commissioning groups should make their GP practices aware of local obesity prevention and treatment services. They should encourage GPs to:
 - make all their patients aware of the importance of a healthy diet and physical activity in helping to prevent obesity
 - signpost people to relevant community programmes.
- Council leaders and elected members should raise the profile of obesity prevention initiatives through informal meetings with local people and groups and at formal ward meetings.

Recommendation 7 Integrated commissioning

Who should take action?

- Local authority, NHS and other local commissioners.
- Directors of public health and public health teams.

What action should they take?

- Commissioners and public health teams should foster an integrated approach to local commissioning that supports a long-term (beyond 5 years) system-wide health and wellbeing strategy.
- Public health teams should ensure commissioners understand the demographics of their local area, and consider local insight on the motivations and characteristics of subgroups within local communities that may impact on obesity levels.
- Commissioners and public health teams should create an environment that allows the local system to take a truly community-wide approach to obesity. They should consider:
 - which 'packages' of interventions are most effective (including cost effective)
 - the 'intensity' of effective programmes (for example, the number of interventions which make up an effective programme or the percentage of the population that should be reached)
 - synergies between common actions to tackle obesity.

- Commissioners should focus on all of the following areas (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, including, for example, ensuring access to affordable, healthier food and drinks, and green space and built environments that encourage physical activity
 - aiming activities at both adults and children in a broad range of settings
 - providing lifestyle weight management services for adults, children and families
 - providing clinical services for treating obesity.

- Commissioners should fund both targeted and universal services that 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 approaches such as planning cycle routes and food procurement specifications and bottom-up approaches such as running activities in local parks and breastfeeding peer support (as appropriate). They should include interventions that are known to be effective as outlined in existing NICE guidance, including:
 - **community engagement and workforce development:**NICE's guidelines on behaviour change: general approaches, community engagement and type 2 diabetes prevention: population and community interventions
 - **prevention for adults:**NICE's guidelines on promoting physical activity in the workplace, alcohol-use disorders: prevention, cardiovascular disease prevention, weight management before, during and after pregnancy, type 2 diabetes prevention: population and community interventions, obesity prevention and physical activity: walking and cycling
 - **prevention for children:**NICE's guidelines on physical activity and the environment, maternal and child nutrition, physical activity for children and young people, cardiovascular disease prevention and obesity prevention
 - **lifestyle weight management:**NICE's guidelines on weight management before, during and after pregnancy, and obesity prevention
 - **clinical management:**NICE's guideline obesity prevention
 - **wider local policies:**NICE's guidelines on physical activity and the environment, cardiovascular disease prevention, and type 2 diabetes prevention: population and community interventions
 - **evaluation and monitoring:**NICE's guidelines on cardiovascular disease prevention, type 2 diabetes prevention: population and community interventions, and obesity prevention.
- Commissioners should allocate some of their budget to help establish and sustain local community engagement activities such as small community projects or local community groups. This can be done by, for example, funding the expenses of the leaders of community walking groups, or providing small grants to hire meeting spaces.

- Commissioners should allocate some of their budget to innovative approaches to obesity prevention that are based on sound principles, have the support of the local community and are likely to be effective, but for which there is limited evidence. Funds for innovative approaches should be allocated within a framework of action learning and evaluation.
- All contracts should include requirements for regular monitoring or evaluation (see recommendations 10 and 11). Commissioners should ensure some flexibility in contracts to allow programmes or services to be adapted and improved, based on early or ongoing monitoring. Any changes should be clearly documented and carefully monitored. Clear processes should be put in place for learning and evaluation, especially for new approaches.
- Commissioners should ensure service specifications and contracts encourage local partnership working and reduce unnecessary duplication and overlap, particularly for local services provided by the voluntary and community sector (for example, by specifying a joint rather than separate approach for physical activity and food and nutrition initiatives).
- Where possible, commissioners should consider extending effective programmes or services, 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 programmes or services that are identified by local Healthwatch or other local bodies with a scrutiny function (such as health overview and scrutiny committees) as ineffective or not meeting the community's needs.

Recommendation 8 Involving businesses and social enterprises operating in the local area

Who should take action?

- Directors of public health and public health teams.
- Local authority communications leads.
- Chambers of commerce.

- Environmental health departments.
- Council leaders and elected members.

What action should they take?

- Public health coordinators, with support from directors of public health, should establish methods for involving business and social enterprises in the implementation of the local obesity strategy. This includes, for example, caterers, leisure providers, weight management groups, the local chamber of commerce, food retailers and workplaces. They should consider developing local activities based on national initiatives to achieve this.
- Public health teams and local authority communications leads should develop mechanisms of governance for working with business and social enterprises that are in the public interest. For example, they could address issues around appropriate sponsorship or competing priorities, with transparent mechanisms to address real or perceived conflicts of interest.
- All of the above should encourage all businesses and social enterprises operating in the local area to recognise their corporate social responsibilities in relation to health and wellbeing. This should be in relation to:
 - employees – for example, supporting and encouraging employees (and employee's families) to adopt a healthy diet or developing and implementing active travel plans to encourage walking and cycling
 - products – for example, ensuring the range and content of the food and drinks they sell does not create an incentive to overeat and gives people the opportunity to eat healthily
 - wider social interests – such as actively supporting wider community initiatives on health and wellbeing.

See also [NICE's guidelines on obesity, physical activity in the workplace, cardiovascular disease prevention, alcohol use disorders: prevention drinking and type 2 diabetes prevention: population and community interventions](#).

Recommendation 9 Local authorities and the NHS

as exemplars of good practice

Who should take action?

- Chief executive officers.
- Executive directors of local authority services.
- Local authority and NHS commissioners.
- Directors of public health and public health teams.
- Council leaders and elected members.

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, NHS executive directors and commissioners 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. See also the [recommendation on public sector food provision in NICE's guideline on cardiovascular disease prevention \(recommendation 20\)](#) and the [recommendation on promoting a healthy diet: local action in NICE's guideline on type 2 diabetes prevention: population and community interventions \(recommendation 8\)](#).

- 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. 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. See also the [recommendation on physical activity in NICE's guideline on cardiovascular disease prevention](#) (recommendation 21); the [recommendation on promoting physical activity: local action in NICE's guideline on type 2 diabetes prevention: population and community interventions](#) (recommendation 10); and [NICE's guideline on physical activity in the workplace](#)).
- Local authorities and NHS organisations should offer lifestyle weight management services (in line with best practice outlined in [NICE's guideline on weight management: lifestyle services for overweight or obese adults](#)) 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 in 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 Planning systems for monitoring and evaluation

Who should take action?

- Directors of public health and public health teams.
- Local authority, NHS and other local commissioners.
- Providers of local authority or NHS commissioned services that have a direct or indirect impact on obesity.

What action should they take?

- All of the above should ensure sufficient resources are set aside for planning, monitoring and evaluation, and that all partners and providers appreciate the importance of monitoring and evaluation.

- All of the above should ensure all monitoring and evaluation considers the impact of strategies, policies and activities on inequalities in obesity and related health issues.
- All of the above should ensure all strategies, policies and activities that may impact on the obesity agenda (whether intended or not) are monitored in a proportionate manner. Monitoring arrangements should be built into all relevant contracts.
- All of the above should ensure sufficient resources are set aside to thoroughly evaluate new or innovative pieces of work (for example, 10% of project budgets).
- Local authority, NHS and other commissioners should ensure, when commissioning services, there is an appropriate lead-in time for baseline data collection, and data are stratified so that the impact on inequalities can be considered.
- All of the above should use simple tests to assess value for money (such as resources saved by working in partnership).
- All of the above should encourage a reflective learning approach that builds on effective practice and changes or discards practices that are found to be less effective.
- All of the above should ensure monitoring arrangements address 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, feedback from partner organisations, programme referral rates and impact on community wellbeing
 - ensuring the results of monitoring are fed back to teams delivering projects to improve implementation
 - 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).

Recommendation 11 Implementing monitoring and evaluation functions

Who should take action?

- Public Health England.
- Directors of public health and public health teams.
- Academic health networks and other academic institutions.
- Local authority, NHS and other local commissioners.
- Provider organisations.

What action should they take?

- Public Health England is encouraged to develop a framework for monitoring and evaluating integrated community-wide approaches to obesity to ensure consistency and comparability across all local areas.
- Directors of public health and public health teams should develop methods to capture changes in know of what it means to be a healthy weight and the benefits of maintaining a healthy weight.
- Academic health networks and academic institutions should:
 - establish links with local practitioners 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 (extensive economic modelling of partnership working is not needed on a routine basis).

- All of the above should encourage all partners to measure a broad range of outcomes to capture the full benefits of a sustainable, integrated health and wellbeing strategy. Appropriate outcomes include:
 - anthropometric measures such as body mass index (BMI) or waist circumference
 - indicators of dietary intake (for example intake of fruit and vegetables or sugar sweetened drinks), physical activity (for example time spent in moderately vigorous activities such as brisk walking) or sedentary behaviour (for example screen time or car use)
 - prevalence of obesity-related diseases
 - wider health outcomes such as indicators of mental health
 - process outcomes such as service use, engagement of disadvantaged groups, establishment or expansion of community groups
 - indicators of structural changes (such as changes to procurement contracts).

Recommendation 12 Cost effectiveness

Who should take action?

- Academic health networks and other academic institutions.
- Directors of public health and public health teams.
- Local authority, NHS and other local commissioners.
- Provider organisations.

What action should they take?

- All of the above should use simple tests to assess value for money of local action to tackle obesity. This may include determining whether resources would be saved by working in partnership, or measuring whether benefits in one sector (such as health) are sufficient to offset costs incurred in another (such as transport or leisure services).

- All of the above should ensure evaluation frameworks assess the value for money of partnership working and collaboration compared with working as separate entities.
- All of the above should identify aspects of partnership working or cooperation that can achieve health benefits at negligible or low cost (extensive economic modelling is not needed on a routine basis).

Recommendation 13 Organisational development and training

Who should take action?

- Health and wellbeing boards.
- Local education and training boards.
- Directors of public health and local public health providers.
- Academic health networks and other academic institutions.
- Professional bodies providing training in weight management, diet or physical activity.

What action should they take?

- Health and wellbeing boards, local education and training boards, and public health teams should ensure partners across the local system have opportunities to increase their awareness and develop their skills to take forward an integrated approach to obesity prevention. Local organisations, decision makers, partners and local champions, including those from public, private, community and voluntary sector bodies working in health, planning, transport, education and regeneration, should receive training to:
 - increase their awareness of the local challenges in relation to public health and preventing obesity (in particular, increasing their awareness of the local JSNAs)
 - understand the local systems and how their own work can contribute to preventing and managing the condition (for example when developing local commissioning plans, local planning frameworks or care provision)
 - develop their community engagement skills to encourage local solutions and ensure co-production of an integrated approach
 - understand the importance of monitoring and evaluation to the approach.
- Local education and training boards should ensure health promotion, chronic disease prevention and early intervention are part of the basic and post basic education and training for the public health workforce.

- Local education and training boards and the other groups listed above should ensure health and other relevant professionals are trained to be aware of the health risks of being overweight and obese and the benefits of preventing and managing obesity. This training should include:
 - understanding the wider determinants of obesity (such as the impact of the local environment or socioeconomic status)
 - understanding the local system in relation to the obesity agenda (such as who the key partners are)
 - understanding methods for working with local communities
 - knowing the appropriate language to use (referring to achieving or maintaining a 'healthy weight' may be more acceptable than 'preventing obesity' for some communities)
 - understanding why it can be difficult for some people to avoid weight gain or to achieve and maintain weight loss
 - being aware of strategies people can use to address their weight concerns
 - being aware of local services that are likely to be effective in helping people maintain a healthy weight
 - being aware of local lifestyle weight management services that follow best practice as outlined in [NICE's guideline on weight management: lifestyle services for overweight or obese adults](#).
- All of the 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 of the above should ensure all relevant staff who are not specialists in weight management or behaviour change can give people details of:
 - local services that are likely to be effective in helping people maintain a healthy weight
 - local lifestyle weight management services that meet best practice as outlined in NICE's guideline on weight management: lifestyle services for overweight or obese adults.
- All of the above should promote, as appropriate, web resources which encourage a community-wide approach to obesity. Resources include: [National Heart Forum's healthy weight, healthy lives toolkit for developing local strategies](#), the Obesity Learning Centre and [Public Health England's healthy places](#) resources.

Recommendation 14 Scrutiny and accountability

Who should take action?

- Local bodies with a scrutiny function (such as health overview and scrutiny committees).
- Local Healthwatch.

What action should they take?

- Local bodies with a scrutiny function (such as health overview and scrutiny committees) should assess local action on preventing obesity, ensuring that commissioning meets the breadth of the joint health and wellbeing strategy. This includes:
 - the impact of wider policies and strategies
 - organisational development and training on obesity to ensure a system-wide approach
 - the extent to which services aimed at tackling obesity are reaching those most in need and addressing inequalities in health.

- Local bodies with a scrutiny function should be encouraged to include plans of action to prevent obesity within their rolling programme of service reviews.
- Local Healthwatch should ensure the views of the local community are reflected in the development and delivery of the local approach to obesity. They should also scrutinise the priority given to obesity prevention by local health and wellbeing boards and the implementation of local obesity strategies.

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 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/m² 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 Black 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, Black Caribbean and Pakistani origin – and least prevalent among Chinese women (The Health and Social Care Information Centre 2008).

Around 58% of cases 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 that 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 (at today's prices) 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 at a population level. 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 that 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 that is not necessarily related to any official, administrative boundary. The community may be located in 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's guideline on type 2 diabetes prevention: population and community interventions](#)). However, while communities of interest are not excluded from this guidance, the primary focus is on those located in 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 among some communities – 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 in 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 let's 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 develop appropriate methodological models for evaluating system-wide, community-led approaches 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 the recommendations on monitoring and evaluation in NICE's guideline on cardiovascular disease prevention are of relevance.
- 3.7 The recommendations synthesise learning from the available evidence and indicate promising areas for future innovation in 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 be 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. This includes playing a critical role in developing a long-term obesity strategy.
- 3.12 In [two-tier](#) areas the involvement of district councils and other tiers of local government in the development and implementation of a long-term obesity strategy will be critical to success. The PDG acknowledges that individual health and wellbeing boards will manage this local engagement differently but advocates that key contributors to obesity prevention

such as planning, transport, parks and leisure services must be included in the strategy and are integral to action to prevent obesity.

- 3.13 The PDG recognised the importance of informing elected members of the personal, community and wider economic and social costs that 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.
- 3.14 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. 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).
- 3.15 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 and aid the development of supportive national policies.

Overarching approach

- 3.16 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 needed across the local system if there are to be appreciable changes in the prevalence of obesity.
- 3.17 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 in this is to build an area-wide partnership across sectors to help tackle the wider social, economic and environmental determinants of obesity.

- 3.18 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.
- 3.19 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 among children and adults.
- 3.20 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

- 3.21 Evidence considered by the PDG suggests managing weight is difficult for many people and health professionals may avoid raising this issue. Moreover, 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.
- 3.22 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.

- 3.23 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

- 3.24 Relevant NICE guidance (such as the [NICE guidelines on obesity prevention](#) and [type 2 diabetes prevention: population and community intervention](#)) demonstrates that individual interventions to prevent or reduce the prevalence of obesity in a particular setting or environment are known to be cost effective. While some interventions or programmes may result in short-term financial benefits, most benefits will be health benefits that will take place over the medium to long term.
- 3.25 It is very difficult, if not impossible, to apply the standard techniques of health-economic evaluation to local system-wide approaches to obesity. Economic evaluation of system-wide approaches reduces to determining the cost effectiveness of partnership working. Partnerships are formed in many different ways and circumstances, and this makes economic evaluation very difficult. The depth of involvement of the partners can vary enormously, as can the number of partners. The decision to become involved as a [partner](#) will also depend on how long a project will be funded, how assured the funding is, and whether all potential partners have the same assurances on project funding.
- 3.26 At low levels of engagement, potential partners may simply wish to share information. Such 'partnerships' are virtually costless and may generate relatively large benefits. They will therefore almost certainly be cost effective when viewed from a societal perspective. Further engagement that is likely to cost little to achieve but which is expected to yield relatively large future health benefits should also be cost effective. The greater the number of partners or the more the level of engagement is increased, the more difficult it will become to decide whether further engagement would be cost effective. There will usually come a time when the addition of more partners or the further increase in the level of

engagement will no longer be worth the additional effort. However, in practice it will not be easy to determine when such points are reached, particularly when arrangements are already complex.

3.27 This guidance concludes that it is more informative to consider the cost effectiveness of each intervention or set of interventions within a complex programme rather than try to consider the cost effectiveness of the programme as a whole. It will be important for potential partners to consider:

- whether it would be better to work together than to work alone
- whether to increase the existing level of engagement.

3.28 Modelling shows that projects with long-term funding are more likely to be cost effective, compared with projects funded on an annual basis.

4 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 or 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 across the breadth of the local system and
- data are produced to help local communities adapt and improve their approach?

An action research approach should be considered (see Waterman et al.'s action research: a systematic review and guidance for assessment). Researchers may also wish to refer to Medical Research Council guidance on developing and evaluating complex interventions and using natural experiments to evaluate population health interventions.

Recommendation 2

What factors are necessary 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 local engagement, adherence and effectiveness? This includes local population characteristics (for example, age, ethnicity or deprivation levels). It also includes funding arrangements and 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
 - return on investment?
- How can strategic approaches to obesity be sustained in terms of:
 - funding
 - partnerships
 - volunteer involvement
 - leadership continuity
 - 'champion' participation?
- How can change best be achieved using a community development approach?

Recommendation 3

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

- be conceived, developed and implemented by academics with
- 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).

See more detail on the [gaps in the evidence](#) identified during development of this guidance.

5 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^2).

'Bottom-up' activities or approaches

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

Capacity-building

Actions or interventions that improve the ability of an individual, an organisation or a community to identify and address health or other issues on a sustainable basis, for example through skills development, improved networking and communication or shared decision making.

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.

Local community refers to a group of people from the same geographic location that is not necessarily related to any official, administrative boundary. The community may be located in a ward, borough, region or city.

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, and includes 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 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 that aim to improve health or reduce health inequalities (Popay 2006).

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.

Co-production

For this guidance, co-production means developing and delivering action on obesity in an equal and reciprocal relationship between professionals, the local community, people using local services and their families.

Joint strategic needs assessments

Joint strategic needs assessments (JSNAs) identify the current and future health needs of a local population. They are used as the basis for the priorities and targets set by local areas, expressed in local health and wellbeing strategies. They are also used for commissioning to improve health outcomes and reduce health inequalities.

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

For adults, overweight and obesity are assessed by body mass index. The [sections on classifying overweight, obesity and central adiposity in adults, and classifying overweight, obesity and central adiposity in children and young people, in NICE's guideline on obesity assessment and management](#) give the cut-off points for healthy weight, overweight and obesity.

BMI is a less accurate indicator of adiposity in adults who are highly muscular, so BMI 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 the table.

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 risk, 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 states that body mass index (BMI) should be 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.

Partner

For the purpose of this guidance, a partner is a local department, service, organisation, network, community group or individual that could help prevent obesity.

'Top-down' activities or approaches

Where an activity is initiated from a senior level in an organisation and cascaded down to those working directly with the local community.

Two-tier

Two-tier counties in England consist of an 'upper-tier' county council and various 'lower-tier' city, borough and district councils.

Wider determinants of health

The social determinants of health are the circumstances in which people are born, grow up, live, work, and age, as well as the systems put in place to deal with illness. These circumstances are in turn shaped by a wider set of forces: economics, social and political forces.

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Wang YC, McPherson K, Marsh T et al. (2011) Health and economic burden of the projected obesity trends in the USA and the UK. *The Lancet* 378: 815–25

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 (PDG member 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) (until 2011), Independent Health and Wellbeing consultant (2012 onwards)

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 Professor in Health Policy and Management, School of Management, Royal Holloway, University of London

Gail Findlay London Health Commission Coordinator, Greater London Authority (until 2011); Director of Health Improvement, Institute for Health and Human Development, University of East London (from 2011)

Marcus Grant (PDG member until June 2011) Deputy Director, World Health Organization

(WHO) Collaborating Centre for Healthy Cities and Urban Policy

Tricia Harper (PDG member until October 2011) Independent Health Development Consultant

Jean Hughes (PDG member 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 of Public Health, Norwich Medical School, 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 (PDG member 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 (PDG member from July 2011) 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 (PDG member from July 2011) 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)

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 (until August 2012)

Jaimella Espley Senior Editor (from August 2012)

Alison Lake Editor

James Hall 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](#).

Key questions

The key questions were established as part of the scope. They formed the starting point for consideration of 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?

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 reviews 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 Organisation for Economic Co-operation and Development (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 evidence 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 (September 2011) to understand how local teams can work together effectively to prevent obesity in 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 Reference Manager databases were searched for economic evidence as part of [reviews 1 and 2](#). In addition, selected new searches were undertaken in economic bibliographic databases (NHS EED 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 report

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 the [economic modelling report](#) '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 or 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).

The draft guidance, including the recommendations, was released for consultation in May 2012. At its meeting in July 2012 the PDG amended the guidance in light of comments from stakeholders. The guidance was signed off by the NICE Guidance Executive in October 2012.

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.

The [additional evidence section](#) of this appendix 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'.

See the full [reviews, commissioned research, expert papers and economic modelling report](#). 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 2, 3, 5, 6, 7, 9, 12, 14

Recommendation 2: evidence statements 1.2, 1.6, 3.1, 3.2, 3.4, 3.7, 3.8, CR1, CR3; expert papers 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 18

Recommendation 3: evidence statements 1.6, 3.4, 3.5, 3.7, CR1, CR5; expert papers 2, 3, 5, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 18

Recommendation 4: evidence statements 1.2, 1.6, 3.2, 3.3, 3.4, 3.5, 3.7, 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, 11, 12, 14, 15, 16

Recommendation 6: evidence statements 1.2, 1.6, 3.1, 3.2, 3.3, 3.4, 3.7, CR1, CR4, CR5; expert papers 2, 4, 5, 7, 8, 9, 10, 12, 15, 17

Recommendation 7: evidence statements 1.3, 1.4, 1.6, 3.3, 3.6, 3.8, CR3, CR4, CR5; expert papers 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 14, 15, 16, 19

Recommendation 8: evidence statements 1.6, 3.2; expert papers 2, 5, 8, 11, 18; IDE

Recommendation 9: evidence statements 3.2, 3.5, CR3; expert papers 2, 5, 11, 18; IDE

Recommendation 10: evidence statements 1.4, 1.6, 3.6, 3.8, 4.3, CR4, CR5; expert papers 2, 3, 4, 5, 9, 11, 12, 13, 14, 16, 19

Recommendation 11: evidence statements 1.4, 1.6, 3.6, 3.8, 4.3, CR4, CR5; expert papers 2, 3, 4, 5, 9, 11, 12, 13, 14, 16, 19

Recommendation 12: evidence statements 4.3; CR6; expert papers 5, 9, economic modelling report

Recommendation 13: evidence statements 1.6, 3.2, 3.3, 3.6, CR3, CR4; expert papers 2, 5, 7

Recommendation 14: evidence statements 3.7, 3.8, 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.

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 adaptation.

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.

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 that 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.

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.

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 that 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 feedback into the system, to drive change to enhance effectiveness and acceptability. For example, developing action-learning or continuous-improvement models 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 [-] and one [+]) three non-randomised control trials (all [+]) one controlled before-and-after study (+); one longitudinal epidemiological study (+); and one repeated cross-sectional survey (+) – 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 in the UK.

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; one non-randomised control trial; and one [+] repeated cross-sectional survey). Lower BMI z scores (and one [+] before-and-after and one [+] non-randomised control trial); weight gain (and one cross-sectional [+] survey in France); increase in waist circumference or the prevalence of overweight or obesity (and one [+] longitudinal study). Only one before-and-after (+) study in New Zealand reported a statistically non-significant increase in the prevalence of overweight or obesity among the intervention group.

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). A statistically significantly higher percentage of children passing a fitness test post intervention (one before-and-after [+] study) and a statistically significant increase in diet and activity 'best practice' at childcare centres (one before-and-after [-] study). One non-randomised control trial study also reported a decrease in the number of children unhappy with their body size post intervention.

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 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 (that were statistically significant) and physical activity (that were statistically non-significant). The other study, a (+) non-randomised control trial, 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 (+) study clearly demonstrates the presence of four WSA features and implies another three features. This study reported a non-significant decrease in BMI z scores. Another (+) study describes three WSA features and makes reference to another three features. It reported a statistically significant change in the prevalence of obesity and improvements in fitness among children post-intervention. Another (-) 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 clearly demonstrated evidence of four features, and demonstrated unclear evidence of two additional features. Another, related, repeated cross-sectional (+) survey in France demonstrated unclear evidence of four features. Both studies showed significant pre-/post-reductions in obesity prevalence.

One (+) non-randomised control trial from New Zealand provides unclear evidence of two features and reported a between-group statistically significant and favourable change in BMI z scores.

Evidence statement 3.1: System recognition

According to three UK studies (one [-] and two [+]) and one (-) USA study, 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.

Evidence statement 3.2: Ownership and involvement

According to three studies (one [+] and one [++] based in the UK and one [-] 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. 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). Consultations should be focused to prevent partners becoming disillusioned and community concerns recognised, even if these are at odds with those envisaged in the public health programme.

Evidence statement 3.3: Capacity building

According to three (-) studies – one from the USA, one from the UK and one from New Zealand, 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.

Evidence statement 3.4: Partnerships

According to eight studies (two [-] from the UK; three [+] from the UK; one [++] from the UK; one [+] from the USA; and one [-] from New Zealand) 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 work
- pre-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; six [+] UK; one [++] UK; one [-] New Zealand and one [-] USA).

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

Evidence statement 3.5: Embeddedness

Whole-system working is more likely to become embedded where whole systems principles are integrated into strategy and policy documents (one [+] UK) and actions and policies are present at both strategic and operational levels (one [-] UK).

Evidence statement 3.6: Sustainability

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

According to seven studies (two [-] UK; one [+] UK; one [++] UK; one [-] USA; one [+] USA; one [-] New Zealand) 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.

Evidence statement 3.7: Leadership

According to four UK studies (three [+] and one [++]) 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. Leadership may face a range of problems including difficulties in achieving consensus between partners (one [+] UK); tensions between local and national priorities, ensuring the overall strategic direction does not stifle local leadership (one [+] UK) and difficulties ensuring inclusive working with minimal resources. Studies have noted implementation problems related to management decisions taken without staff consultation, autonomy of local staff and clarity of management structures, and local programme staff feeling isolated from a national programme (one [-] UK).

Evidence statement 3.8: Monitoring and evaluation

According to two UK studies (one [-] and one [+]) 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 (one [+] USA, one [++] UK and two [-] UK) 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. 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. 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 (one [+] UK). There may be an unfounded

assumption at national level that local agencies have the capacity to develop and deliver a whole system approach.

Evidence statement 3.9: National policy and priorities

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

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. 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 presented in \$NZ per kg of weight gain prevented after 2 years).
- 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).

Evidence statement 4.2: Cost-effectiveness findings

There is evidence from only one community-wide obesity prevention programme that 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). 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. Two of these studies 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.

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 that 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 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 in 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 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, and as a result, 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 report

Where two organisations decide to work in partnership to implement an intervention more

effectively than they could while working alone and there is a low initial cost, the partnership can usually be considered cost effective. When the partnership is known to lead to cost savings (especially as a result of sharing resources), it will be cost effective provided that the health benefits are not diminished when the organisations work together. In more complex situations, it is unclear whether or not partnerships are cost effective, 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 with less secure funding.

Previous modelling suggests that any public health 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, for a relatively low cost, ensure aspects of a large project that have not been acceptable to a community may be modified, and result in large community gains that would otherwise have been rejected. The decision to engage will depend on whether the original plans are likely to succeed without engagement, and the likelihood that engagement will succeed in producing a consensus in favour of a modified project.

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. Community-wide programmes

a) Few community-wide obesity programmes have been evaluated (that is, programmes involving multiple actions 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 community based obesity prevention programmes for children and adults with disabilities.

(**Source:** review 1 and 2; 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 that focuses on prevention tend to work against efforts in 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
- 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) need 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 'Please link to glossary 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 JSNAs 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:

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

Finding more information

To find NICE guidance on related topics, including guidance in development, see the [NICE topic page on obesity](#).

For full details of the evidence and the guideline committee's discussions, see the [evidence reviews and expert papers](#). You can also find information about [how the guideline was developed](#).

NICE has produced [tools and resources to help you put this guideline into practice](#). For general help and advice on putting our guidelines into practice, see [resources to help you put NICE guidance into practice](#).

Update information

June 2017: The wording of the section headed 'Whose health will benefit from these recommendations?' was amended to include people with learning disabilities.

March 2016: The 'Guiding principles' section was updated with details of the guideline on community engagement.

January 2014: Title of 'Behaviour change: the principles for effective interventions' was updated. This guidance was previously entitled 'Behaviour change'.

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Accreditation

