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— MEDICAL SCHOOL —
UNIVERSITIES OF EXETER & PLYMOUTH



Preventing obesity using a ‘whole system’ approach at local and community level: PDG4

Barriers to and facilitators of effective whole system approaches (Review 3)

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About the Peninsula Technology Assessment Group (PenTAG)

The Peninsula Technology Assessment Group is part of the Institute of Health Service Research at the Peninsula Medical School. PenTAG was established in 2000 and carries out independent Health Technology Assessments for the UK HTA Programme, systematic reviews and economic analyses for NICE (Technology Appraisal and Centre for Public Health Excellence) and systematic reviews as part of the Cochrane Collaboration Heart Group, as well as for other local and national decision-makers. The group is multi-disciplinary and draws on individuals' backgrounds in public health, health services research, computing and decision analysis, systematic reviewing, statistics and health economics. The Peninsula Medical School is a school within the Universities of Plymouth and Exeter. The Institute of Health Research is made up of discrete but methodologically related research groups, among which Health Technology Assessment and Evidence Synthesis are strong and recurring themes. Projects to date include:

- Preventing unintentional injuries among under-15s: Outdoor play and leisure: Systematic review of effectiveness of educational interventions (2010)
- Preventing unintentional injuries in children: Systematic review to provide an overview of published economic evaluations of relevant legislation, regulations, standards, and/or their enforcement and promotion by mass media (2009)
- Preventing unintentional injury in children: Strategic and regulatory frameworks for guiding, enforcing or promoting activities to prevent unintentional injury in children and young people in the home environment (2009)
- Preventing unintentional injuries among under-15s in the home: systematic review of effectiveness and cost-effectiveness of home safety equipment and risk assessment schemes (2009)
- Interventions to prevent unintentional injury in children on the road: Systematic reviews of effectiveness and cost-effectiveness of road and street design-based interventions aimed at reducing unintentional injuries in children (2009)
- A systematic review of risk factors for unintentional injuries among children and young people aged under 15 years: Quantitative correlates review of unintentional injury in children (2009)
- Providing public information to prevent skin cancer. Barriers to and facilitators to conveying information to prevent first occurrence of skin cancer: a systematic review of qualitative research (2009)
- Population and community programmes addressing multiple risk factors to prevent cardiovascular disease: a qualitative study into how and why some programmes are more successful than others (2009)
- Barriers to and facilitators for the effectiveness of multiple risk factor programmes aimed at reducing cardiovascular disease within a given population: a systematic review of qualitative research (2009)
- Bevacizumab, sorafenib tosylate, sunitinib and temsirolimus for renal cell carcinoma: A systematic review and economic model (2008)

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Declaration of authors' competing interests

The authors have no competing interests.

List of abbreviations

ASSIA	Applied Social Sciences Index and Abstracts
BME	Black and minority ethnic groups
CEA	Community Energy Advisor
CINAHL	Cumulative Index to Nursing and Allied Health Literature
CPHE	Centre for Public Health Excellence (National Institute for Health and Clinical Excellence)
EPPI	Evidence for Policy and Practice Information
GP	General Practitioner
HAZ	Health Action Zone
HC	Healthy City
HIA	Health Impact Assessment
HImP	Health Improvement Plans
HMIC	Health Management Information Consortium database
HUP	Healthy Urban Partnership
INTUTE	Gateway to subject catalogues for study and research
LA	Local Authority
MEDLINE	National Library of Medicine's bibliographic database
NHS	National Health Service
NA	Not applicable
NR	Not reported
OECD	Organisation for Economic Co-operation and Development
PCT	Primary Care Trust
PDG	Programme Development Group
PenTAG	Peninsula Technology Assessment Group
PH	Public Health
SALAD	Schools Acting in Leicester Against Diabetes
USA	United States of America
WHO	World Health Organisation
WMHTAC	West Midlands Health Technology Assessment Collaboration
WSA	Whole System Approach

Glossary of terms

Actor	A person or organisation within a system that has the <i>potential</i> to take action in relation to the system
Stakeholder	A person or organisation within a system that <i>takes action</i> in relation to the system

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1. Summary

1.1. Introduction

This report presents the findings of a systematic review of qualitative research about the barriers to and facilitators of the implementation of programmes using a whole system approach. It is the third evidence review produced by PenTAG for the NICE Centre for Public Health Excellence about a whole system approach to obesity prevention at the local level.

1.2. Aim

The aim of this evidence review is to understand the factors that impact on the development and implementation of a whole system approach to preventing obesity or other complex public health problems. The primary research question was:

- What factors act as barriers to, and facilitators of, the successful development, implementation, delivery and effectiveness of a whole system approach to preventing obesity (or other complex public health problems) in a locality?

The secondary research questions were:

- What factors act as barriers to, or facilitators of, successful:
 - Capacity building
 - Encouragement of local creativity
 - Relationships between individuals and organisations
 - Engagement of all relevant sectors and workers
 - Communication between individuals, organisations and the public
 - Embeddedness of action for obesity prevention in organisations and systems
 - Robustness and sustainability of the system to tackle obesity

- Facilitative leadership
- Who are the essential partners and packages of activities for a successful whole system approach to obesity prevention?
- Are there any implications for evaluation and monitoring?

1.3. Methods

The review used published evidence that was identified through a search of electronic bibliographic databases and websites using subject terms and a qualitative research filter. In addition, citation searching was conducted, reference lists were searched, suggestions from PDG members were requested (through the CPHE team), and potentially relevant papers (tagged during screening for Reviews 1 and 2) screened.

Studies were included if they reported in English on qualitative research that focused on how ‘whole community’ obesity or smoking prevention programmes (in OECD countries), or ‘whole community’ programmes without a specific health focus (in the UK), were planned, managed, delivered or evaluated. Each included study was quality appraised, and the findings in the form of key themes, concepts and supporting quotations were extracted.

The synthesis used the ten whole system features identified in Review 1 (and following development at PDG3) as an analytic framework of major themes, under which sub-themes were developed.

1.4. Findings

Nineteen study reports (relating to 17 separate studies) were included from the UK, USA, and New Zealand.

Evidence statement 1: Recognition of the public health problem(s) as a system

There is evidence from four qualitative studies (Bauld et al 2005a [-], UK; Hall et al 2009 [+], UK; Benzeval 2003 [+]; Campbell-Voytal 2010 [-], USA) regarding **recognition of public health problem(s) as a system**. Whilst none of the studies made direct reference to a whole system approach, there are parallels between the approaches described and the whole system approach described by Pratt et al (2005):

- a. two studies (Benzeval 2003; Campbell-Voytal 2010) reported that a focus on partnership working enabled collaborative working practices to emerge. However, one study (Bauld et al 2005a) reported that logical planning structures for partnership working were insufficient for enabling a partnership approach.
- b. two studies (Hall et al 2009; Campbell-Voytal 2010) reported that management of meetings in a facilitative (rather than hierarchical) manner was important for facilitating networking between partners and identifying a strategic focus.

Evidence statement 2: Capacity building - Ownership and involvement

There is evidence from three qualitative studies (Hall et al 2009 [+], UK; Platt et al 2003 [++], UK; Campbell-Voytal 2010 [-], USA) regarding the role of **ownership and involvement** in implementing a whole system approach. This is related to:

- a. a sense of ownership reducing strain between partner organisations (Platt et al 2003; Hall et al 2009). However, consultation with partners needed to be focused if disillusionment with the process was to be avoided (Hall et al 2009).
- b. “pre-engagement” work with potential partners may be necessary to gradually develop mutual awareness and shared perspectives about issues (Campbell-Voytal 2010). The “pre-engagement” phase may take a number of years (Campbell-Voytal 2010).
- c. recognition of the concerns of a community, which may be different to those envisaged in a public health programme (Campbell-Voytal 2010).

Evidence statement 3: Capacity building - Support and training

There is evidence from six qualitative studies (Bauld et al 2005a [-], UK; Charlier et al 2009 [-], New Zealand; Hall et al 2009 [+], UK; Benzeval & Meth 2002 [+], UK; Benzeval 2003 [+], UK; Cole 2003 [+], UK) regarding the role of **support and training** in implementing a whole system approach. This is related to:

- a. the provision of adequate resources (Bauld et al 2005a; Charlier et al 2009).
- b. training to address skill deficits in ‘technical’ issues and evaluation (Hall et al 2009; Cole 2003).
- c. increasing understanding of public health at an organisational level through, for example, getting issues about the wider determinants of health onto local organisations’ agendas to enhance the scope for staff support and training (Benzeval & Meth 2002; Benzeval 2003).
- d. the presence or absence of provision of a collaborative framework (e.g. the natural and built environment) around which to develop organisational awareness (as a basis for staff training and support) (Hall et al 2009).

Evidence statement 4: Local creativity

No studies reported findings about the role of local creativity in implementing a whole system approach. However, fostering local creativity is a part of other features of a whole system approach; see Evidence statements 2, 5, 16, 17, and 18.

Evidence statement 5: Relationships - Collaboration

There is evidence from six qualitative studies (Bauld et al 2005a [-], UK; Bauld et al 2005b [-], UK; Benzeval & Meth 2002 [+], UK; Benzeval 2003 [+], UK; Cole 2003 [+], UK; Platt et al 2003 [++], UK) regarding the role of **collaboration** in implementing a whole system approach. This is related to:

- a. the strategic lead provided by a national programme in providing the impetus for the development of novel partnerships and ways of working (Bauld et al 2005a; Bauld et al 2005b; Benzeval 2003; Cole 2003).

- b. the demonstrable effects of a partnership approach for addressing local problems (Bauld et al 2005b).
- c. the focus provided a community-wide approach enabling partners to discuss novel ways of addressing health inequalities (Benzeval 2003).
- d. tensions between established organisational structures and the development of community involvement (Bauld et al 2005a; Benzeval & Meth 2002; Platt et al 2003).
- e. governance arrangements where partnership agencies cover different areas (Bauld et al 2005a).
- f. the provision of both training and emotional support for programme staff implementing an unfamiliar approach, especially in an environment where there is considerable job uncertainty (Platt et al 2003).

Evidence statement 6: Relationships - Power and representation

There is evidence from six qualitative studies (Bauld et al 2005b [-], UK; Benzeval & Meth 2002 [+], UK; Cole 2003 [+], UK; Hall et al 2009 [+], UK; Platt et al 2003 [++], UK; Rugaska et al 2009 [+], UK) regarding the role of **power and representation** in implementing a whole system approach. This is related to:

- a. the representation of public health strategy at senior levels (Benzeval & Meth 2002; Bauld et al 2005b; Cole 2003; Hall et al 2009), for example through joint appointments between the health and local authority sectors (Bauld et al 2005b).
- b. advocacy on behalf of project managers (Cole 2003) or community members (Rugaska et al 2007)
- c. the status accorded to the knowledge of members of different professions, or community members (Benzeval & Meth 2002; Powell et al 2001; Platt et al 2003). However, one study also reports that some programme staff perceived community organisations as the more powerful actor (Platt et al 2003).
- d. the potentially marginalising effect of language on less powerful actors (Platt et al 2003)
- e. the existence of adequate leadership, line management, and support so that tensions between different actors are not exacerbated (Platt et al 2003).

Evidence statement 7: Relationships - Working through issues

There is evidence from five qualitative studies (Bauld et al 2005b [-], UK; Benzeval 2003 [+], UK; Charlier et al 2009 [-], New Zealand; Cole 2003 [+], UK; Powell et al 2001 [-], UK) regarding the role of **working through issues** when implementing a whole system approach. This is related to:

- a. the history of partnership working in an area, where previous tensions need to be resolved before constructive working relationships can be developed (Bauld et al 2005b; Benzeval 2003; Cole 2003; Powell et al 2001).
- b. the development of trust regarding the ability of partners to deliver programme elements that are their responsibility (Charlier et al 2009).
- c. the presence of a wide range of representatives in meetings (Bauld et al 2005b).

Evidence statement 8: Relationships - Organisational cultures

There is evidence from four qualitative studies (Benzeval 2003 [+], UK; Charlier et al 2009 [-], New Zealand; Cole 2003 [+], UK; Evans & Killoran 2000 [+]) regarding the role of **organisational cultures** when implementing a whole system approach. This is related to:

- a. the nature of the partners involved. Informal events, such as ‘fun days’, were reported as useful for developing working relationships between teachers, health staff and a community (Charlier et al 2009). However, another study reported that an approach that directly focused on developing inter-professional and inter-agency relationships was necessary to involve General Practitioners (Evans & Killoran 2000).
- b. development of a common language that reconciles different approaches (Cole 2003).
- c. recognising that partnership working may challenge traditional work roles, with professionals feeling very uncomfortable with changes (Cole 2003).
- d. formal organisational accountability for results may lead to a perception that projects are the ‘property’ of, for example, a health agency and not the community (Benzeval 2003).

Evidence statement 9: Engagement - Raising awareness and shared vision

There is evidence from eight qualitative studies (Bauld et al 2005b [-]; Hall et al 2009 [+]; Benzeval & Meth 2002 [+]; Po'e et al 2010 [+]; Platt et al 2003 [++]; Charlier et al 2009 [-]; Powell et al 2001 [-]; Evans & Killoran 2000 [+]) regarding the role of **raising awareness and shared vision** in implementing a whole system approach. This is related to:

- a. associating the programme with a high-profile organisation so that the programme is perceived as important and legitimate (Hall et al 2009).
- b. day-to-day work pressures limiting the scope of partners to deliver complex community programmes (Benzeval & Meth 2002).
- c. potential conflict between the health focus of a programme and the health behaviour of partners (Po'e et al 2010).
- d. valuing the input of partners who may not traditionally have been sought, so that a focus on public health extends beyond disciplinary boundaries (Bauld et al 2005b).
- e. congruency between partners' ways of working, or a recent history of working together successfully (Evans & Killoran 2000; Powell et al 2001; Benzeval & Meth 2002; Charlier et al 2009).
- f. 'on the ground' action backing up policy statements (Powell et al 2001).
- g. genuinely engaging with a community, which may require a different health focus to that originally envisaged by professionals for a programme (Platt et al 2003).

Evidence statement 10: Engagement - Ways of working

There is evidence from four qualitative studies (Benzeval 2003 [+], UK; Platt et al 2003 [++], UK; Campbell-Voytal 2010 [-], USA; Evans & Killoran 2000 [+], UK) regarding the role of **ways of working** when implementing a whole system approach. This is related to:

- a. established approaches to programme delivery, for example, focused at the level of the individual rather than the wider determinants of health (Platt et al 2003).
- b. the historical relationship between a community and professionals (Campbell-Voytal 2010).

c. the sharing of similar geographical boundaries or areas of responsibility between organisations (Evans & Killoran 2000; Benzeval 2003) or between an organisation and the programme being implemented (Benzeval 2003).

Evidence statement 11: Engagement - Cultural concordance

There is evidence from two qualitative studies (Charlier et al 2009 [-], New Zealand; Rugaska et al 2007 [+], UK) regarding the role of **cultural concordance** when implementing a whole system approach. This is related to:

a. the historical relationship between a community and professionals, the skills of programme workers in building on this relationship, and an involvement in the life of a community (Charlier et al 2009; Rugaska et al 2007).

Evidence statement 12: Communication

There is evidence from five qualitative studies (Charlier et al 2009 [-], New Zealand; Platt et al 2003 [++], UK; Bauld et al 2005a [-], UK; Benzeval & Meth 2002 [+], UK; Hall et al 2009 [+], UK) regarding the role of **communication** when implementing a whole system approach. This is related to:

a. using a mode of communication that is perceived by programme staff as personal and consultative (Charlier et al 2009).

b. developing a common, cross-disciplinary, language between programme members (Platt et al 2003).

c. programme managers' ability to work in both academic and community participation roles (Charlier et al 2009); however, a non-facilitative context could hinder efforts to work in this way (Platt et al 2003).

d. the development of 'downwards' communication networks so that local programmes are kept informed of wider programme goals, and 'upwards' communication networks so that local programmes can communicate programme strategy to key local actors (Hall et al 2009)

Evidence statement 13: Embeddedness of action and policies

There is evidence from three qualitative studies (Bauld et al 2005a [-], UK; Cole 2003 [+], UK; Hall et al 2009 [+], UK) regarding the **embeddedness of action and policies** when implementing a whole system approach. This is related to:

- a. the extent to which whole system principles become integrated into strategy and policy documents of agencies where public health was not traditionally a priority (Hall et al 2009).
- b. the success at a local level of previous projects that addressed issues considered to be important locally (Cole 2003).
- c. actions and policies being present at a range of levels (from strategic to operational), and involving both governance and community engagement (Bauld et al 2005a).

Evidence statement 14: Robustness and sustainability - Organisational restructuring

There is evidence from four qualitative studies (Bauld et al 2005a [-], UK; Bauld et al 2005b [-], UK; Platt et al 2003 [++], UK; Benzeval & Meth 2002 [+], UK) regarding the impact of **organisational restructuring** when implementing a whole system approach. This is related to:

- a. new organisational structures hindering, rather than enabling, programme delivery (Platt et al 2003).
- b. the disruption of established working relationships and communication channels (Platt et al 2003).
- c. uncertainty about changes having a negative impact on staff morale (Bauld et al 2005a; Bauld et al 2005b; Benzeval & Meth 2002).
- d. focusing programme staff's attention 'inwards' (towards organisational matters) rather than 'outwards' (towards working with partners) (Bauld et al 2005b; Benzeval & Meth 2002).

Evidence statement 15: Robustness and sustainability - Funding

There is evidence from eight qualitative studies (Campbell-Voytal 2010 [-], USA; Po'e et al 2010 [+], USA; Dodson et al 2009 [+], USA; Platt et al 2003 [++], UK; Charlier et al 2009 [-], New Zealand; Bauld et al 2005b [-], UK; Benzeval & Meth 2002 [+], UK; Powell et al 2001 [-], UK) regarding the impact of **funding** when implementing a whole system approach. This is related to:

- a. inadequate staffing levels for programme delivery (Campbell-Voytal 2010 [-]; Po'e et al 2010; Platt et al 2003; Charlier et al 2009 [-]; Bauld et al 2005b; Benzeval & Meth 2002; Powell et al 2001).
- b. a reliance on the energy and commitment of individual programme members (Benzeval & Meth 2002; Campbell-Voytal 2010; Po'e et al 2010).
- c. difficulties in making a case for using limited resources on the diffuse objectives of a whole system approach (Powell et al 2001).
- d. uncertainty about future funding leading to a reduced focus on programme implementation, as it becomes necessary for programme resources to be used in the effort to obtain further programme funding (Bauld et al 2005b; Platt et al 2003).
- e. the lack of continuity and stability inherent in short-term funding for programmes designed to address long-term issues such as health inequalities (Powell et al 2001).
- f. the ability of actors in the system to identify potential synergies between different interest groups that would allow both a financial and health case to be made for funding (Dodson et al 2009).

Evidence statement 16: Facilitative leadership - Visible strategic leadership

There is evidence from five qualitative studies (Platt et al 2003 [++], UK; Hall et al 2009 [+], UK; Rugaska et al 2007 [+], UK; Evans & Killoran 2000 [+], UK; Benzeval & Meth 2002 [+], UK) regarding the impact of **visible strategic leadership** when implementing a whole system approach. This is related to:

- a. the existence of a strategic programme at a larger scale than the local level (Hall et al 2009) but which still enables active leadership at the local level (Platt et al 2003; Rugaska et al 2007).
- b. the implementation of line management that makes the role of programme staff clear and which allowed tensions between programme staff to be effectively managed (Cole

2003; Platt et al 2003).

c. the difficulties of implementing formal accountability arrangements in cross-organisation partnerships (Cole 2003; Evans & Killoran 2000).

d. the personal commitment by staff or management to programme implementation (Platt et al 2003; Benzeval & Meth 2002)

Evidence statement 17: Facilitative leadership - Focus

There is evidence from two qualitative studies (Hall et al 2009 [+], UK; Benzeval 2003 [+], UK) regarding the impact of **focus** when implementing a whole system approach.

This is related to:

a. partnership working towards a common goal, which requires that consensus is reached between partners (Hall et al 2009; Benzeval 2003); however, this focus could be diminished by tension between local and national priorities (Hall et al 2009) and the desire to be inclusive leading to a wide but minimal dispersion of resources (Benzeval 2003).

b. a lack of strategic programme focus in programme meetings (Hall et al 2009).

Evidence statement 18: Facilitative leadership - Local control

There is evidence from three qualitative studies (Platt et al 2003 [++], UK; Rugaska et al 2007 [+], UK; Bauld et al 2005b [-], UK) regarding the impact of **local control** when implementing a whole system approach. This is related to:

a. senior management decisions being taken on matters about which programme staff had not been consulted (Platt et al 2003).

b. local staff not having the authority to make decisions about programme implementation, but also being unable to refer to the relevant authority because of unclear management structures (Platt et al 2003).

c. the extent to which programme staff felt involved with a national programme; participants' uncertainty about a programme was increased where participants felt isolated from a national programme (Bauld et al 2005b), but shared ownership of the local programme occurred where participants felt closely involved (Rugaska et al 2007).

Evidence statement 19: Ongoing monitoring and evaluation - Indicators of success

There is evidence from six qualitative studies (Po'e et al 2010 [+], USA; Platt et al 2003 [++], UK; Bauld et al 2005a [-], UK; Bauld et al 2005b [-], UK; Powell et al 2001 [-], UK; Hall et al 2009 [+], UK) regarding the way in which **indicators of success** drove the implementation of programmes. This is related to:

- a. an expectation that specific outcomes will be achieved in the short-term that are not consistent with the wider (long-term) goals of community development that could potentially reduce health inequalities (Platt et al 2003; Powell et al 2001; Bauld et al 2005a). Intermediate outcome measures may be more appropriate (Bauld et al 2005b; Powell et al 2001; Hall et al 2009; Po'e et al 2010).
- b. the way in which organisations are rewarded for their role in partnership working - for example, non-health focused organisations may have a key role to play in implementing a whole system approach that reduces health inequalities, but are measured and rewarded only on the basis of non-health outcomes (Powell et al 2001).

Evidence statement 20: Ongoing monitoring and evaluation - Mechanisms for data collection

There is evidence from three qualitative studies (Bauld et al 2005a [-], UK; Bauld et al 2005b [-], UK; Powell et al 2001 [-], UK) regarding the impact of **mechanisms for data collection** when implementing a whole system approach. This is related to:

- a. the complexity of organisational collaboration where different information systems are used, or where organisations struggled to reach a consensus on appropriate outcomes to measure (Bauld et al 2005a; Powell et al 2001).
- b. the perceived usefulness and relevance to the programme for staff with responsibility for collecting the data - this was linked to the extent of integration staff felt with the programme as a whole and communication to staff of programme outcomes based on the data collected (Bauld et al 2005a; Bauld et al 2005b).

Evidence statement 21: Ongoing monitoring and evaluation - Organisational learning

There is evidence from two qualitative studies (Bauld et al 2005b [-], UK; Benzeval 2003 [+], UK) regarding the extent to which **organisational learning** could take place when implementing a whole system approach. This is related to:

- a. the existence of unresolved organisational issues that act as a barrier to organisational changes that could promote learning (Benzeval 2003).
- b. the promotion of a working culture in which partners feel able to openly discuss problems encountered in programme implementation (Bauld et al 2005b).

Evidence statement 22: Ongoing monitoring and evaluation - Complexity

There is evidence from three qualitative studies (Bauld et al 2005a [-], UK; Cole 2003 [+], UK; Hall et al 2009 [+], UK) regarding the impact of **complexity** when implementing a whole system approach. This is related to:

- a. a lack of clarity about objectives and a lack of specificity about outcomes to be measured (Bauld et al 2005a; Hall et al 2009).
- b. an unfounded assumption at the national planning level that local agencies had the capacity to develop a whole system approach for programme delivery (Bauld et al 2005a). However, given time, local programmes could begin to develop an understanding of a whole system approach that could potentially be implemented (Cole 2003).

Evidence statement 23: National policy and priorities - Priorities and targets

There is evidence from six qualitative studies (Bauld et al 2005a [-], UK; Bauld et al 2005b [-], UK; Benzeval & Meth 2002 [+], UK; Powell et al 2001 [-], UK; Evans & Killoran 2000 [+], UK; Benzeval 2003 [+], UK) regarding the impact of **national priorities and targets** when implementing a whole system approach. This is related to:

- a. the enabling effect of national policy in fostering partnerships that addressed health inequalities, or for getting health inequalities onto the local agenda (Evans & Killoran

2000; Benzeval & meth 2002; Benzeval 2003). However, changes in national policy could also create uncertainty (Bauld et al 2005b; Benzeval 2003) and reduce the credibility of programmes addressing health inequalities (Benzeval 2003).

b. the existence of targets other than health inequalities which organisations considered more pressing to address (Powell et al 2001).

c. funding being attached to specific, narrowly-defined, areas of health, thereby limiting the extent to which whole community programmes could be implemented (Benzeval & Meth 2002; Powell et al 2001). However, funding that recognised the wider determinants of health facilitated the implementation of a whole system approach (Benzeval & Meth 2002).

d. the limited time available for the development of local strategic priorities that balance both national and local concerns (Bauld et al 2005a).

Evidence statement 24: National policy and priorities - Legitimacy of public health

There is evidence from two qualitative studies (Benzeval 2003 [+], UK; Dodson et al 2009 [+], USA) regarding the impact of the perceived **legitimacy of public health** when implementing a whole system approach. This is related to:

a. the broader political climate's role in making wider policy changes that facilitate a whole system approach (Dodson et al 2009), through acting as a 'policy vehicle' that enable health inequalities to be promoted at a local level (Benzeval 2003), or through opening a national 'policy window' through which a whole system approach could be implemented (Dodson et al 2009; Benzeval 2003).

Evidence statement 25: National policy and priorities - Legal considerations

There is evidence from one qualitative study (Cole 2003 [+], UK) regarding the impact of **legal considerations** when implementing a whole system approach. This is related to:

a. the extent to which novel programme partnerships to address health inequalities could be implemented where these novel approaches breached established law (Cole 2003).

Evidence statement 26: National policy and priorities – Pressures on policy makers

There is evidence from one qualitative study (Dodson et al 2009 [+], USA) regarding the impact of **pressures on policy makers** when implementing a whole system approach.

This is related to:

- a. the pressure exerted by key actors in the public sector, as well as lobbyists on behalf of the private sector (Dodson et al 2009).

Evidence statement 27: Unintended consequences of obesity reduction activities.

There is evidence from one study (Curtis 2008 [++], UK) relating to unintended consequences of a Healthy Schools programme.

This suggests that such programmes can create more opportunities for some overweight and obese children to be scrutinised and criticised by their peers. Participation in sports or visibly eating foods now marked as “healthy” (such as apples) may be seen as validating the perception that there is a problem with such children that needs to be addressed. Various strategies employed by these children, (such as faking illness or avoiding foods associated with dieting) have the potential to make programmes less, rather than more, inclusive.

Evidence statement 28: Barriers to healthy eating

There is evidence from two studies (Khunti et al 2007 [-], UK; Points 4 Life 2010 [-], UK) about barriers to healthy eating in secondary school pupils (Khunti et al 2007) and an urban population (Points 4 Life 2010). This related to:

- a. Perception that healthy food is more expensive than inexpensive food (Khunti et al 2007; Points 4 Life 2010).
- b. Unwillingness of children to try unfamiliar (healthy) school options as potentially a waste of money (Khunti et al 2007).
- c. Food options informed by factors other than health (taste, hunger, peer pressure etc. Khunti et al 2007; convenience and stress Points 4 Life 2010).

- d. Unhealthy food being more readily available than healthy and, for pupils, healthy in-school options easily replaced by local retail outlets (Khunti et al 2007; Points 4 Life 2010).
- e. The least deprived groups mentioned fewer barriers than the most deprived groups (Points 4 Life 2010).

Evidence statement 29: Barriers to physical activity

There is evidence from two studies (Khunti et al 2007 [-], UK; Points 4 Life 2010 [-], UK) about barriers to participating in physical activities for secondary school pupils (Khunti et al 2007) and an urban population (Points 4 Life 2010). This related to:

- a. Poor facilities, lack of information about available facilities or costly facilities had a negative impact on participation (examples of poor facilities included shared changing rooms and lack of safe kit and bike storage, Khunti et al 2007; South Asian women were reluctant to use public facilities, those in the most deprived groups were reluctant to go out at night, Points 4 Life 2010).
- b. Other commitments taking up time (such as attending mosque, children in Khunti et al 2007; home responsibilities South Asian groups in Points 4 Life 2010).
- c. Options for physical activity at school were thought to be of limited appeal (Khunti et al 2007)
- d. School pupils regarded a concern about health as relevant to older people (Khunti et al 2007).

2. Aims and Background

2.1. Objectives and Rationale

This review is the third produced by PenTAG to inform the Programme Development Group at meeting 4. The first of the previous reviews, presented at PDG1, sought to define a “whole system approach” in theory and illustrate how obesity programmes had used these ideas in practice. We found no examples of obesity prevention in practice that exhibited all the aspects of a whole system approach as conceived in the theoretical literature about complex adaptive systems. However, we did develop a working definition of the key features of a whole system approach (agreed after PDG2) which relates to the way in which complex, community wide programmes of work are designed, developed and implemented. These features continue to be developed through the review work and the input of the PDG. The second of the reviews assessed the effectiveness of a whole systems approach to obesity prevention and assessed the extent to which such programmes might be thought to be using a whole system approach based on their exhibition of these core features.

For this report we aimed to systematically review and synthesise reports of qualitative research which would illuminate the factors which enhance or inhibit a whole system approach to obesity prevention.

2.2. Review questions

2.2.1. Main research question:

What factors act as barriers to, and facilitators of, the successful development, implementation, delivery and effectiveness of a whole system approach to preventing obesity (or other complex public health problems) in a locality?

2.2.2. Supplementary questions:

What factors act as barriers to, or facilitators of, successful:

- Capacity building

- Encouragement of local creativity
- Relationships between individuals and organisations
- Engagement of all relevant sectors and workers
- Communication between individuals, organisations and the public
- Embeddedness of action for obesity prevention in organisations and systems
- Robustness and sustainability of the system to tackle obesity
- Facilitative leadership

Who are the essential partners and packages of activities for a successful whole system approach to obesity prevention?

Are there any implications for evaluation and monitoring?

3. Methods

3.1. Identification of evidence

3.1.1. Searches

Our primary method of identifying evidence was through searches of the following electronic databases: Cochrane Library (CDSR, DARE, HTA, and CENTRAL), MEDLINE (including MEDLINE In Process), ASSIA, CINAHL, HMIC, SSCI, EPPI-Centre (Bibliomap, DoPHER, TRoPHI, Database of Obesity and Sedentary Behaviour Studies), and NHS CRD databases (DARE and HTA). The search terms identified through the development of search strategies for Review 1 and Review 2 were used with a filter for qualitative research (http://hiru.mcmaster.ca/hiru/HIRU_Hedges_MEDLINE_Strategies.aspx#Qualitative).

A date restriction of 1990-current and an English language publications limit was used. Grey literature sources were also searched (ZeTOC database and ISI Conference Proceedings Citation Index).

Websites identified in the course of searches conducted for Review 1 and Review 2 were searched. As potentially relevant sources for inclusion in this review (Review 3) were tagged during these original searches, the website searches conducted for this review (Review 3) did not include the previously searched for areas of smoking and obesity prevention (i.e. only additional potentially includable areas of public health were searched for).

In addition to the above, citations were identified through searching reference lists of included studies, citation searching, and communication with members of the PDG (through the CPHE team). Potentially relevant papers for this review were also tagged in the course of screening titles and abstracts for includable papers for Review 1 and Review 2. The search protocol is shown in Appendix 2, with full details of the search strategy (search terms and interfaces used) in Appendix 3.

3.1.2. Inclusion of relevant evidence

3.1.2.1. Inclusion criteria

In summary, the inclusion criteria were:

- Systematic reviews of qualitative research which use a recognised, structured approach to identifying and synthesising studies (including, but not limited to, meta-ethnography, meta-study, meta-synthesis, narrative synthesis, etc).
- Primary qualitative research designs which use recognised methods of data collection and analysis (including, but not limited to, observational methods, interviews and focus groups for the former and grounded theory, thematic analysis, hermeneutic phenomenological analysis, discourse analysis etc. for the latter.)
- Studies conducted among those involved in the design, management, delivery or evaluation of whole community initiatives to prevent obesity (or other public health initiative) whether from public sector, private sector, voluntary or lay populations.
- Studies about programmes conducted in an OECD country.
- Studies published from 1990.
- Written in the English language.

Because this programme of work is concerned not just with *what* needs to be done to prevent obesity using a whole system approach, but also *how* this needs to be done, all studies had to relate to specific health promotion activities. This was to ensure that the findings illuminated ways of working, relationships between organisations and between them and local populations and so on. In order to produce a manageable synthesis within the timeframe available, we restricted included programmes by area of health and geographical location:

- ‘Whole community’ obesity prevention programmes, including those delivered in schools or workplaces (any OECD country).
- ‘Whole community’ smoking prevention programmes (any OECD country).

- ‘Whole community’ programmes without a focus on a particular area of health (UK only), subject to additional exclusion criteria (see below).

We have not, therefore, included studies which simply seek the opinions of people about eating and exercise unless this is in the context of a specific community programme aimed at reducing or preventing obesity. Whilst we acknowledge that people’s understandings about food and physical activity (that are not linked to a specific programme) and an understanding of individual’s psychological processes can provide insight into the barriers and facilitators of whole system approaches to obesity prevention, we note that the Foresight report (Butland et al. 2007) located little evidence in this area.

To enable us to produce a focused synthesis within the timeframe available, and mindful of the need to avoid overlap with public health guidance already developed by NICE (NICE 2007;NICE 2008a;NICE 2008b), we further refined the exclusion criteria as follows:

- a primary focus on people’s understandings of issues around obesity, e.g. food choices, the effect of the environment, or influence of significant others
- a sole or primary focus on community engagement, unless there were elements specific to obesity prevention
- a primary focus on the relationships between professional members of a primary care team only (i.e. not involving multi-agency working)
- single-setting, multi-agency work - for example, an initiative where collaborative work between schools and Local Education Authority staff took place, but was only delivered within the school setting
- focus of the programme on a single aspect of health, for example, physical activity or healthy eating
- research on people’s understandings of barriers and facilitators to, for example, healthy eating or physical activity that was not linked to a specific programme

- a claim that qualitative methods had been used for data collection and analysis (for example, 'data was analysed qualitatively'), but with no details of these methods being provided

Finally, it should be noted that we did *not* use the WSA features (identified in Review 1 and developed through discussion by the PDG and consultation with CPHE team) as a tool for screening studies for inclusion/exclusion, as was done for Review 2. The WSA features were solely used as an *analytic tool*, as detailed in Section 3.2.3.

3.1.2.2. Screening

Potentially includable journal papers, books, or grey literature that were identified through the searches were uploaded into a Reference Manager™ (ResearchSoft, San Francisco, CA) database. All titles and abstracts (where available) were screened by one of two reviewers (MP or RG). A sample of 10% of abstracts was screened by a second reviewer (MP or RG). A predefined checklist (see Appendix 4) was used to assess whether or not sources met the inclusion criteria. If the abstract provided insufficient information to assess for inclusion, or if no abstract was available and the report was not clearly excludable on the basis of the title alone, then the full text of the report was obtained. Excluded reports and the reason for their exclusion at the full-text stage are listed in Appendix 7.

3.2. Methods of analysis/ synthesis

3.2.1. Quality assessment

All included studies were critically appraised by one reviewer (MP or RG) using the Wallace et al (2004) tool (see Appendix 5). The final quality rating (++, +, or -) was assigned following discussion and agreement between two reviewers (MP and RG). Consensus was reached on the quality rating for all included studies without needing to refer to a third reviewer.

In view of the nature of the qualitative research in the included studies, which tended towards breadth (through summarising results across a number of programme sites or communities) rather than depth (of a particular site or community), we found the

Wallace et al critical appraisal tool (Wallace et al. 2004) to be more usable and appropriate than the more in-depth critical appraisal tool contained in the NICE Methods Manual (National Institute for Health & Clinical Excellence 2009). However, we also note a number of limitations of using the Wallace et al (2004) tool with the studies included in this review. In common with all quality appraisal tools, the quality appraisal rating may reflect the limitations of the reporting that was possible in the source concerned (journal paper, book chapter, or report) rather than genuine weaknesses in the research. We found this to particularly be the case in studies of HAZs. In these studies the high-level of analysis (across study sites), whilst arguably appropriate, limited the extent to which a number of the key quality criteria could be met. Sources which had significant theoretical depth, but which did not report their research methods in such detail, were also unable to meet a number of the quality criteria.

Results of the quality appraisal, based on a critical reading of each report, are shown in Appendix 5. An overall quality appraisal score (++, +, or -) was assigned on the basis of the number of quality criteria met by each study; ten or more [++], seven to nine [+], or six or less [-].

3.2.2. Data extraction

For each included study, details were extracted by one reviewer (MP or RG) to an evidence table (see Appendix 6). Details were extracted about the context in which the programme was implemented, the programme itself (population targeted, programme aims and components) and research methods used. Both first and second order findings from included sources were extracted; first order concepts are the direct expressions of the participants in the research (showing how they interpret their experiences), and second order concepts are the interpretations or explanations of the findings made by the researcher(s).

3.2.3. Data analysis and synthesis

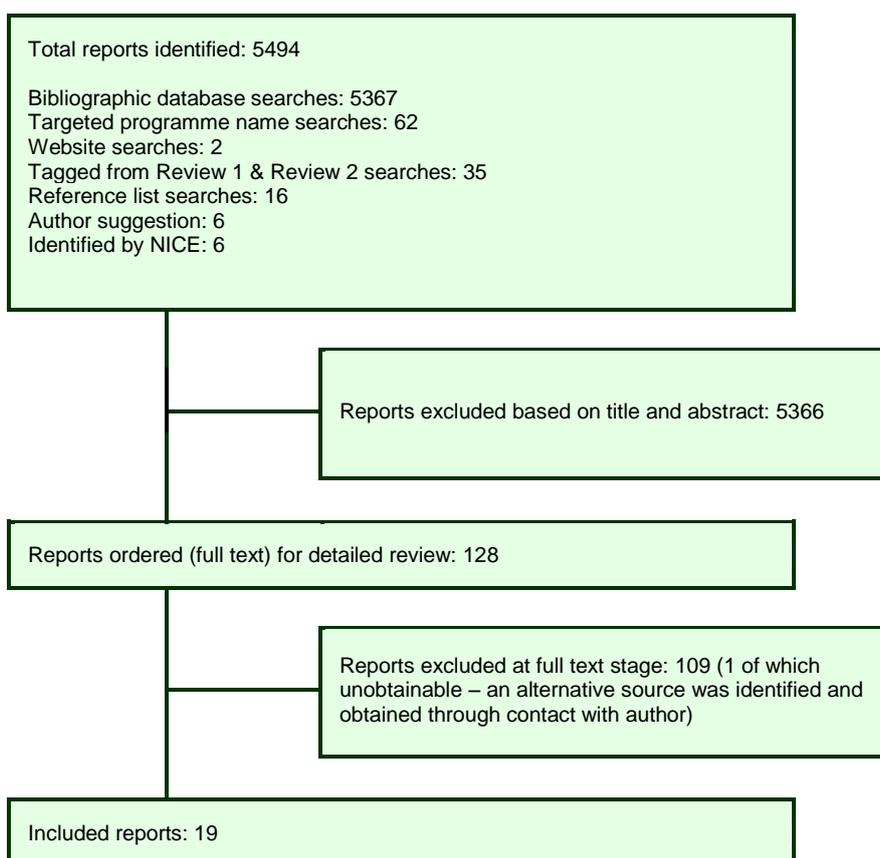
All of the original sources and the extracted findings in evidence tables were read and re-read by two reviewers (MP and RG). In order to facilitate understanding of barriers and facilitators to implementation, WSA features identified in Review 1 (and

developed through discussion by the PDG and consultation with CPHE team) were used as the main thematic categories under which sub-themes were developed by a process of discussion between MP and RG. This process, which was cyclical rather than linear, involved a number of iterations as our understanding of the findings across the studies developed. At times this understanding developed through discussion of the studies' findings and the way in which they related (or not) to the WSA features and sub-themes, whilst at other times we found it necessary to formally write-up the emerging synthesis before we could reach a consensus or develop it further. Whilst the conceptual richness of the findings in the included studies was insufficient to allow a meta-ethnography (Noblit & Hare 1988), we found it very useful to use the principles of meta-ethnography in conducting the synthesis (for example, through creating a line of argument or a refutational synthesis).

4. Summary of included studies

4.1. Identified studies

Figure 1 Review flowchart



4.2. Included studies

A total of 19 reports were included. Five related to obesity prevention programmes internationally (Campbell-Voytal 2010; Curtis 2008; Dodson et al. 2009; Khunti et al. 2008; Po'e et al. 2010) ten were about locality wide health promotion activities, such as Health Action Zones and Healthy Cities, in the UK (Bauld et al. 2005a; Bauld et al. 2005b; Benzeval 2003; Benzeval & Meth 2002; Cole 2003; Evans & Killoran 2000; Hall et al. 2010) (Points 4 Life 2010; Powell et al. 2001; Rugkasa et al. 2007) and four papers were about smoking prevention (Charlier et al. 2009; Platt et al. 2003; Ritchie et al. 2004; Ritchie et al. 2008). Three of these were based on a single piece of work about the same intervention, Breathing Space, (Platt et al. 2003; Ritchie et al. 2004; Ritchie

et al. 2008) and so have been treated as a single study (Platt et al. 2003). Breathing Space is the only programme about which effectiveness findings were also located (see Review 2).

4.2.1. Programme characteristics

Obesity prevention initiatives

Details about the type of public health programme being evaluated are shown in Table 1 (p.40). There were five papers related to whole system approaches to obesity prevention (Campbell-Voytal 2010; Curtis, 2008; Dodson et al 2009; Khunti et al 2007; P’oe et al, 2010). Four of these were about childhood obesity (Curtis, 2008; Dodson et al 2009; Khunti et al 2007; Po’e et al, 2010). The work described by Campbell-Voytal (2010) was about the Healthy Eating and Healthy Living Every Day programme, which targeted Mexican-American parents and young people in Michigan and African Americans in Detroit. These were aimed at communities, schools and individuals. The research report focuses on what they describe as “pre-engagement” activities which took place to develop partnerships and build community capacity for participation in such activities. This was deemed appropriate as there were state funds allocated to address obesity, but awareness of obesity as an issue was thought to be low in the communities and there were no immediately identifiable partners with whom to work to raise awareness and mobilise community responses.

Curtis (2008) looks at the experience of young people with obesity of the activities undertaken in South Yorkshire schools as part of the national *Health School Programme*. This was part of the WHO Global School Initiative (from 1985) to encourage health promoting schools as healthy environments and involved support for mental health issues, as well as healthy food and opportunities for physical education and recreation.

Khunti et al (2007) is part of an action research project for SALAD (Schools Acting in Leicester Against Diabetes). Although not labelled as obesity prevention, this was an intermediate aim and the activities in school related to increased physical activity and healthy eating. The action research approach meant that pupils and staff were involved in identifying possible interventions, through survey work and the focus groups reported on here. This is assumed to enhance the likelihood of them achieving

an impact. As such, the programme echoes some of the concerns of a whole system approach in that local creativity about activities was sought through engaging the school community at all stages – from the funding application to considering the research findings. The findings of the research fed into the development of the activities, encouraging a learning culture. It was noted in the report however that it was difficult for the researchers to maintain good communication with the school, and that this was hampered by the key contacts in each school changing at least once during the year and difficulties contacting teachers because few used email and phone calls can't be taken in class time. School commitments also made meetings difficult to organise. Finally, a lack of capacity building, in the form of staff time dedicated to the project, hampered the project.

Po'e et al (2010) reports on unnamed, community childhood obesity prevention programmes in Nashville, Tennessee where one in three children are reported to be overweight. It aimed to assess elements that support or deter the sustainability of such projects. No further details are supplied.

Finally, Dodson et al (2009) took a different perspective focusing on the contribution that state level policy can make to preventing childhood obesity. This focuses on the experiences of 12 states throughout the USA. They note that, between 2003 and 2005, 230 pieces of legislation related to school nutrition standards and 190 about physical activity in schools. The study aims to identify factors that enable or impede such legislation.

Health promotion initiatives

Of the ten reports related to UK-based locality-wide health promotion activities, four are about *Health Action Zones* (HAZ) (Bauld et al 2005a; Bauld et al 2005b; Benzeval 2003; Cole 2003). A further paper, reports on a specific HAZ project which aimed to increase health and wellbeing through addressing fuel poverty, *Home is where the heat is*. It was based in two rural communities in Northern Ireland. This took a community development approach and adopted partnership with 21 organisations from statutory, community and voluntary sectors (Rugaska et al 2007).

HAZs were established in 26 English areas of high deprivation, concentrated in the Midlands and the North, within locations with populations ranging from 200,000 to 1.5

million. They were in operation in the late 1990s to early 2000s as the result of New Labour's modernisation agenda which prioritised reducing health inequalities through addressing the social determinants of health. They comprised a range of community-determined activities. The HAZs had a particular emphasis on partnership working and community involvement. These programmes were explicitly theory driven, and this was built into the proposed development and evaluation of locally chosen activities. The initial drive for these broad aims was affected by a change in political direction by the government health department and the subsequent change to a more clinically determined target culture.

The HAZs appear to demonstrate a number of our defined features of a whole system approach, indeed "whole systems change" was a goal of the HAZs (Bauld et al 2005a). The broad and ambitious remit allowed a great deal of freedom locally about the type of projects in which they could invest. Partnerships were key. Both community engagement and collaborative capacity building were explicit HAZ aims. Finally, they were envisaged as learning organisations, with extensive evaluation programmes which could inform future adaptation and development.

Three papers assessed *Health Improvement Plans* (HImPs 1999-2001) (Benzeval & Meth, 2002; Evans & Killoran, 2000; Powell et al 2001). Like HAZs, HImPs were also part of the drive to address health inequalities. Health Authorities were given responsibility for taking this agenda forward in partnership with local authorities, other parts of the NHS and local community groups. They were intended to represent "bottom up" working, which was actively responsive to the views of local organisations. Again, restructuring of health authorities and primary care may have impacted on the ability of these programmes to deliver and the perceptions of them.

One study, from Brighton and Hove, reports on health promotion work done under the WHO *Healthy City* initiative which they joined in 2001 during its third phase (phase one launched in 1987 to implement action areas of the Ottawa Charter for health Promotion) (Hall et al 2009). Brighton and Hove has a coastal population of more than 250,000 people and is known for its large lesbian, gay and bisexual population, as well as large student body from its two universities. There are pockets of severe deprivation, and it is in the most deprived 25% of local authorities in England.

The focus of *Healthy Cities* activity is to facilitate community-based, health-enhancing initiatives through a multi-sectoral approach to health in urban settings. In common with whole systems approaches, it favours community based, “bottom-up” strategies and aims to place health high up on the agenda of political decision makers and health and social systems (i.e. aims to embed health concern in policy and actions), as well as raising awareness among a broader population.

Finally, one study explored population perceptions about *Points 4 Life* in Manchester (2006-2001) (Points 4 Life, 2010). This is a loyalty card scheme to encourage healthier lifestyles, branded as part of the national *Change 4 Life* suite of activities and, locally, part of Manchester’s *Healthy Cities* activities which had an agenda to tackle health inequalities. The card can be used to gain points for healthy purchasing choices (like buying fruit and vegetables) and activities (such as going to the swimming pool). Commercial, health and transport partners were involved. As well as increased physical activity and healthier eating, Points 4 Life also targets smoking cessation, alcohol consumption and increased screening uptake.

Smoking cessation initiatives

There were four reports related to smoking prevention activities (Charlier et al, 2009; Platt et al 2003;(Ritchie et al. 2004;Ritchie et al. 2008). Three of them were about the same intervention and based on the same interview, focus group and observational data, so these have been treated as a single study referenced as Platt et al (2003) for the remainder of this report (Platt et al. 2003;Ritchie et al. 2004;Ritchie et al. 2008).

Charlier et al (2009) report on the *Keeping Kids Smokefree* initiative in Auckland, New Zealand. This was a school-based project targeting those with higher proportions of students from Maori, Pacific and lower socio-economic status populations. The programme was aimed at individual, family and community activities. It promoted non-smoking among parents, provided health education to parents about reducing the chance their children would start smoking, reduced sale and supply of tobacco to minors, involved students in producing programme materials and held health promotion events for students’ families.

Platt et al (2003) evaluate the *Breathing Space* initiative in Edinburgh. This was launched in response to the 1998 White Paper *Smoking Kills* which proposed a comprehensive smoking reduction plan targeting young people, adult smokers and pregnant women, as well as proposals to abolish tobacco advertising, proposals to alter public attitudes about smoking and restricting smoking in public places. The locality had already introduced no-smoking policies and support for smokers to quit. These programmes are summarised in Table 1.

Table 1: Programme details

Author/ programme	Target	Dates	Name	Location	Theoretical perspective	Levels of action
Bauld et al 2005a	Health Inequalities	1997- 2002	Health Action Zones (HAZ)	8 English HAZ locations	Theory of change and realist perspective	Individual, Family, School, Community, PH policy
Bauld et al 2005b	Health Inequalities	1997- 2002	Health Action Zones (HAZ)	8 English HAZ locations	Theory of change and realist perspective	Individual, Family, School, Community, PH policy
Benzeval, 2003	Health Inequalities	1997- 2002	Health Action Zones (HAZ)	Sheffield, N. Staffordshire, E London & the City	Theory of change and realist perspective	Individual, Family, School, Community, PH policy
Benzeval & Meth 2002	Health inequalities	1999- 2001	Health Improvement Plans (HImps)	5 English towns/cities	NR	Community
Campbell- Voytal 2010	Obesity in Mexican and African American communities	1999- 2008	Healthy Eating Everyday/ Active Living Everyday. Active for Life/ Active Living Everyday	Michigan USA	Not named but capacity building to develop mutual awareness and shared perspectives and leadership between parties previously unknown to each other specified as core- engagement activities.	Individual, School, community
Charlier et al 2009	Smoking	2007- 2009	Keeping Kids Smokefree	Auckland New Zealand	Broadly “community development” led.	Individual family, school

Author/ programme	Target	Dates	Name	Location	Theoretical perspective	Levels of action
Cole 2003	Health Inequalities	1998-2005	Health Action Zones (HAZ)	Plymouth	Theory of change and realist perspective	Individual, Family, School, Community, PH policy
Curtis 2008	Childhood obesity	1999-2009 (unclear)	Healthy School Programme	S. Yorkshire	NR	Individual, school
Dodson et al 2009	Childhood obesity	2003-2005	Obesity prevention policies	12 USA states	NR	PH policy
Evans & Killoran, 2000	Health inequalities	1996-1999	Health Improvement Plans (HImPs) – specifically, Integrated Purchasing Programme (HIPP)	Northumberland, Nottingham, Tameside & Glossop, Sandwell 7 Yelford, Wrekin	NR	Individual, Family, School, Community, PH policy
Hall et al 2010	Health promotion	2001-2008	Healthy City	Brighton & Hove	Broadly community development agenda	Individual, Family, School, Community, PH policy
Khunti et al 2007	Obesity as a risk factor for CVD & diabetes in predominantly Asian British population	NR 1yr	SALAD – Schools based diabetes prevention initiative but based on increasing physical activity and healthy eating	Leicester	Action research with a participatory agenda	Individual, School
Platt et al 2003	Smoking	1998-2001	Breathing Space	Edinburgh	Broadly community development agenda	Individual, school, community

Obesity review 3 – full version

Included studies

Author/ programme	Target	Dates	Name	Location	Theoretical perspective	Levels of action
Po'e et al 2010	Childhood obesity	NR	NR – community action	Davidson County Nashville, TN, USA	NR	Community
Points 4 Life 2010	Healthy living	NR	Points 4 Life	Manchester	NR	Individual, Community
Powell et al 2001	Health inequalities	NR	Health Improvement Plans (HImPs)	NR	NR	Community
Rugkasa et al 2007	Health inequalities	2000- 2002	Home is where the heat is (HAZ activity)	Armagh & Dungannon, NI	Broadly community development agenda	Individual, family, community

NR - not reported; PH - Public Health

4.3. Study methodology and quality appraisal

Methodological details are summarised in Table 2 (p.45). Four studies used interviews alone to collect data (Bauld et al 2005b; Cole 2003; Dodson et al 2009; Powell et al 2001), with a further eight studies using interviews with focus groups (Charlier et al 2009; Curtis 2008; Points 4 Life 2010; Rugkasa et al 2007), surveys (Po'e et al 2010), or documentary analysis (Benzeval & Meth 2002; Benzeval 2003). One study used a focus group and observation of the school environment (Khunti et al 2007) and one study used interviews and observation of steering groups and other events related to the programme (Evans & Killoran 2000). Three studies used a combination of data collection methods, including interviews, focus groups, documentary analysis and/or observation (Bauld et al 2005a; Hall et al 2009; Platt et al 2003). One study was unclear about its methods of data collection (Campbell-Voytal 2010), but its use of critical social theory demonstrated sufficient engagement with qualitative research practice for us to be confident that qualitative research had been conducted.

Participants in the studies were typically actors from a range of health, social and voluntary sectors, with nine of the included studies sampling from this range of programme actors (Bauld et al 2005a; Benzeval & Meth 2002; Benzeval 2003; Cole 2003; Dodson et al 2009; Evans & Killoran 2000; Hall et al 2009; Powell et al 2001; Rugkasa et al 2007). In addition to this broad range of programme actors, a further two studies included community members (rather than representatives of the community working in the voluntary sector) (Charlier et al 2009; Platt et al 2003). Three studies solely included community members (Curtis 2008; Khunti et al 2007; Points 4 Life 2010), and two studies solely included programme staff, at either the level of delivery (Po'e et al 2010) or project management (Bauld et al 2005b). The role of the participants in one study was unclear (Campbell-Voytal 2010).

A stated theoretical approach was used in 12 of the studies. Six studies (all about HAZs or HImPs) used the principles of realist evaluation to inform their approach (Bauld et al 2005b; Bauld et al 2005a; Benzeval & Meth 2003; Benzeval 2003; Cole 2003; Evans & Killoran 2000), two used grounded theory (Khunti et al 2007; Po'e et al 2010), and one used critical social theory (Campbell-Voytal 2010). Three studies did

not name a specific theoretical approach, but clearly stated the framework within which they were conducted; competing discourses around obesity (Curtis 2008), a framework for conceptualising policy research (Dodson et al 2009), and the literature on cross-boundary working (Rugkasa et al 2007). Five studies did not state a theoretical approach for the primary research conducted (Charlier et al 2009; Hall et al 2009; Platt et al 2003; Points 4 Life 2010; Powell et al 2001).

Results of the quality appraisal, based on a critical reading of the report, are shown in Appendix 5. An overall quality appraisal score (++, +, or -) was assigned on the basis of the number of quality criteria met by each study; ten or more [++], seven to nine [+], or six or less [-].

Two of the included studies were quality appraised as [++] (Curtis 2008; Platt et al 2003), eight as [+] (Benzeval 2003; Benzeval & Meth 2002; Cole 2003; Dodson et al 2009; Evans & Killoran 2000; Hall et al 2009; Po'e et al 2010; Rugkasa et al 2007), and seven as [-] (Bauld et al 2005b; Bauld et al 2005a; Campbell-Voytal 2010; Charlier et al 2009; Khunti et al 2007; Points 4 Life 2010; Powell et al 2001).

Table 2 Included study characteristics

Author/ programme	Quality score	Theoretical approach	Data collection method	Participants	Sampling. Size	Analytic process
Bauld et al 2005a	-	HAZ evaluation aimed to use realist evaluation methods	Annual visits Interviews Informal meetings Survey & group interviews Document analysis	Each HAZ Director HAZ personnel	NR	NR
Bauld et al 2005b	-	HAZ evaluation aimed to use realist evaluation methods	Interviews	Project managers	All 26 interviewed	NR
Benzeval, 2003	+	Realist evaluation	Interviews Documentary analysis	HAZ project managers & stakeholders	Purposive sample of 3 HAZ locations using different approaches within which purposive sample of interviewees across different sectors identified through HAZ leads. N=57	Analysis based on framework approach (Spencer & Ritchie, 1994)

Author/ programme	Quality score	Theoretical approach	Data collection method	Participants	Sampling. Size	Analytic process
Benzeval & Meth 2002	+	Realist evaluation	Interviews	“key players” in HA, PCTs, acute trusts, councils, voluntary groups, regeneration partnerships, key local projects	NR N=64	Analysis based on framework approach (Spencer & Ritchie, 1994)
Campbell-Voytal 2010	-	Critical social theory (see details in evidence table)	Document analysis Not clear - ?case study through observation	NR	2 project examples used	NR
Charlier et al 2009	-	NR	Focus groups Interviews	Students Stakeholders (health service providers, programme & research teams, smokefree group)	Convenience sample n=NR Purposive sample n=NR	Framework analysis (reviewer defined form description)
Cole 2003	+	Realist evaluation	Interviews	Key workers from 37 HAZ projects.	Purposive from 37 HAZ projects. Health sector informants <50% sample. n=72	Framework analysis (reviewer defined form description)
Curtis 2008	++	Informed by competing discourses around obesity.	Focus groups Interview	Young people 11-18 yrs attending a community based obesity intervention programme	Convenience n=18	Thematic analysis

Author/ programme	Quality score	Theoretical approach	Data collection method	Participants	Sampling. Size	Analytic process
Dodson et al 2009	+	Schmid et al (2006) framework for conceptualising policy research.	Interviews	Key informants, staffers and legislators	Purposive in relation to dominant political party. N=16	Framework analysis (reviewer defined from description)
Evans & Killoran, 2000	+	Realist evaluation	Interviews Observation	Project managers, project sponsors, steering group members & other stakeholders. Steering groups, seminar & other events.	NR	NR
Hall et al 2009	+	NR	Interviews Documentary analysis Facilitated workshop	Partnership members – public, statutory, elected, community & voluntary, neighbourhood, business. N=27.	Purposive to gain representation from partners. N=27	Thematic analysis

Author/ programme	Quality score	Theoretical approach	Data collection method	Participants	Sampling. Size	Analytic process
Khunti et al 2007	-	Informed by grounded theory	Focus groups	Pupils aged 11-15	Recruited by staff to represent a range of backgrounds 5/6 schools took part. 18 focus groups 2-4 per school with 5-8 per group.	Content analysis (NB pupil groups not recorded)
Platt et al 2003	++	NR	Observational visits	Staff Schools	Not clear	
			Interviews	Programme managers, intervention staff.	NR	
			Focus groups	Young people aged 12-15, local youth workers, smoking cessation counsellors, community group workers.	NR	
			Observation	Programme meetings and key events.		
			Media analysis	Local newspapers & community publications		

Author/ programme	Quality score	Theoretical approach	Data collection method	Participants	Sampling. Size	Analytic process
Po'e et al 2010	+	Grounded theory	Interviews Survey	Workers in community outreach organisations, after school programmes, clinic based programmes	Random selection from eligible population of 80 identified using services directory. 24/30 invited participated.	Grounded theory informed
Points 4 Life 2010	-	NR	Focus groups Interviews	Population grouped by most-deprived, least deprived, Bangladeshi/ Pakistani/ Indian female, Bangladeshi / Pakistani/ Indian male; Black African/ Caribbean	Convenience – on street recruitment for specified populations.	NR
Powell et al 2001	-	NR	Interviews	HA managers, community, health council chief officers, LA policy officers, voluntary sector reps, GPs, PCG managers, NHS trust staff.	Purposive within rural, urban, mixed areas. N=43	Framework analysis (Ritchie & Spencer 1995)
Rugkasa et al 2007	+	Literature on cross boundary working	Focus groups Interviews	Partnership members Statutory, community & voluntary sector representatives	NR. n=27 in 4 groups NR n=12	Thematic content analysis

HAZ - Health Action Zone; NR - not reported; PCT - Primary Care Trust

5. Study findings

This section presents the findings using the thematic headers from the features of a whole system approach. Feature 1 (explicit recognition of the public health problem(s) as a system) was developed in Review 1 and following discussion at PDG 2. The remaining features (2 to 10) reflect discussion at PDG3. The features are as follows:

1. **Explicit recognition of the public health problem(s) as a system:** recognition of interacting and evolving elements; self-regulation; synergy and emergent properties associated with complex adaptive systems.
2. **Capacity building** within communities and organisations as an explicit goal. 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.
3. Encourage **local creativity** and/or innovation to address obesity. For example, mechanisms which allow the local community to design locally relevant activities and solutions.
4. Clear methods to develop and maintain working **relationships** within and between organisations. For example, establishing and maintaining relationships with organisations without a health remit or an overt focus on obesity.
5. Clear methods for **engagement** of community members (people, organisations and sectors) 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.
6. Establish clear methods of **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.
7. Focus on the **embeddedness of action and policies** for obesity prevention in organisations and systems. 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.

8. Focus on the **robustness and sustainability** of the system to tackle obesity. For example, strategies for resourcing existing and new projects and staff.

9. Enhance **facilitative leadership**, ensuring strong strategic support and appropriate resourcing. Leadership which is not necessarily located at any particular level or organisation and is likely to encourage bottom up solutions and activities.

10. Well articulated methods for ongoing **monitoring and evaluation**, the results of which feedback into the system and drive change to enhance effectiveness and acceptability. This relates to the adaptability and learning capacity of the system.

Additional sub-themes under which the synthesis was conducted were also developed through a process of discussion between the reviewers. An overview of these sub-themes and the reports included in each is shown in Table 3 (below).

There are also two sections of this chapter which discuss synthesised findings that could not be incorporated into ten core features of a whole system approach. Despite this, they were felt pertinent enough to present here. The first of these describes the context of national policy and priorities and the impact of this on programme implementation. This is presented in section 5.11.4. The second provides the perspective of a different and crucial part of the system - those at whom obesity prevention activities are aimed. These groups' voices were not well represented in the part of the synthesis organised using the whole system approach framework. We present them, therefore, as a separate section (5.12) which describes specific findings about each of the three programmes and brings together synthesised findings which describe perceived barriers to physical activity and to healthy eating.

Table 3 Thematic coding and number of reports

Thematic header	Section	Reports
Explicit recognition of the public health problem(s) as a system	5.1 (p.53)	Benzeval 2003; Bauld et al 2005a; Hall et al 2009; Campbell-Voytal 2010
Capacity building: Ownership and involvement	5.2.1 (p.56)	Platt et al 2003; Hall et al 2009; Campbell-Voytal 2010
Capacity building: Support and training	5.2.2 (p.57)	Bauld et al 2005a; Charlier et al 2009
Local creativity	5.3 (p.60)	No reports
Relationships: Collaboration	5.4.1 (p.61)	Benzeval & Meth 2002; Benzeval 2003; Cole 2003; Platt et al 2003; Bauld et al 2005a; Bauld et al 2005b;
Relationships: Power and representation	5.4.2 (p.65)	Benzeval & Meth 2002; Cole 2003; Platt et al 2003; Bauld et al 2005b; Rugaska et al 2007; Hall et al 2009
Relationships: Working through issues	5.4.3 (p.68)	Powell et al 2001; Benzeval 2003; Cole 2003; Bauld et al 2005b; Charlier et al 2009
Relationships: Organisational cultures	5.4.4 (p.70)	Evans & Killoran 2000; Benzeval 2003; Cole 2003; Charlier et al 2009
Engagement: Raising awareness and shared vision	5.5.1 (p.72)	Evans & Killoran 2000; Powell et al 2001; Benzeval & Meth 2002; Platt et al 2003; Bauld et al 2005b; Charlier et al 2009; Hall et al 2009; Po'e et al 2010
Engagement: Ways of working	5.5.2 (p.76)	Evans & Killoran 2000; Benzeval 2003; Platt et al 2003; Campbell-Voytal 2010
Engagement: Cultural concordance	5.5.3 (p.78)	Rugaska et al 2007; Charlier et al 2009
Communication	5.6 (p.80)	Benzeval & Meth 2002; Platt et al 2003; Bauld et al 2005a; Charlier et al 2009; Hall et al 2009
Embeddedness of action and policies	5.7 (p.83)	Cole 2003; Bauld et al 2005a; Hall et al 2009
Robustness and sustainability: Organisational restructuring	5.8.1 (p.85)	Benzeval & Meth 2002; Platt et al 2003; Bauld et al 2005a; Bauld et al 2005b
Robustness and sustainability: Funding	5.8.2 (p.86)	Powell et al 2001; Benzeval & Meth 2002; Platt et al 2003; Bauld et al 2005b; Charlier et al 2009; Dodson et al 2009; Campbell-Voytal 2010; Po'e et al 2010
Facilitative leadership: Visible strategic leadership	5.9.1 (p.89)	Platt et al 2003; Rugaska et al 2007; Hall et al 2009
Facilitative leadership: Focus	5.9.2 (p.91)	Benzeval 2003; Hall et al 2009
Facilitative leadership: Local control	5.9.3 (p.92)	Platt et al 2003; Bauld et al 2005b; Rugaska et al 2007
Ongoing monitoring and evaluation: Indicators of success	5.10.1 (p.94)	Powell et al 2001; Platt et al 2003; Bauld et al 2005a; Bauld et al 2005b; Hall et al 2009; Po'e et al 2010
Ongoing monitoring and evaluation: Mechanisms for data collection	5.10.2 (p.97)	Powell et al 2001; Bauld et al 2005a; Bauld et al 2005b
Ongoing monitoring and evaluation: Organisational learning	5.10.3 (p.98)	Benzeval 2003; Bauld et al 2005b

Ongoing monitoring and evaluation: Complexity	5.10.4 (p.99)	Cole 2003; Bauld et al 2005a; Hall et al 2009
National policy and priorities: Priorities and targets	5.11.1 (p.102)	Evans & Killoran 2000; Powell et al 2001; Benzeval & Meth 2002; Benzeval 2003; Bauld et al 2005a; Bauld et al 2005b
National policy and priorities: Legitimacy of public health	5.11.2 (p.104)	Benzeval 2003; Dodson et al 2009
National policy and priorities: Legal considerations	5.11.3 (p.105)	Cole 2003
National policy and priorities: Pressures on policy makers	5.11.4 (p.106)	Dodson et al 2009
Experience of obesity prevention programmes	5.12 (p.107)	Khunti et al 2007; Curtis 2008; Points 4 Life 2010

5.1. Explicit recognition of the public health problem(s) as a system

A 'whole system approach': Recognises public health problem(s) as a system involves the recognition of three characteristics: 1) the system's interacting and evolving elements; 2) self-regulation of the system; and 3) synergy and emergent properties that are associated with complex adaptive systems.

Four reports presented features which we have interpreted as having parallels with some suggested approaches to whole system working (Bauld et al 2005a; Hall et al 2009; Benzeval 2003; Campbell-Voytal 2010). One report was about an obesity prevention programme in the USA (Campbell-Voytal 2010), two reports were about HAZs in England (Benzeval 2003; Bauld et al 2005a), and one report was about a WHO Healthy City in England (Hall et al 2009). In common with Review 1 and Review 2, we located no studies that made direct reference to a whole system approach in their findings; the four studies included here make indirect references, for example, HAZs recognised whole systems in their programme design and evaluation but not in their findings.

In Review 1, the whole system approach proposed by Pratt et al (2005) identified the importance of managing meetings in a way that enabled a wide range of voices to be heard and for novel possibilities to be explored. All four studies presented findings

that resonate with Pratt et al's (2005) proposals. In one study of HAZs, programme planners expected that logical planning structures could enable the development and implementation of programmes that would address complex social problems. This expectation was found to be unrealistic (Bauld et al 2005a). However, in another study of HAZs, the emphasis on partnership working had acted to provide a diverse range of partners with a focus around which they could meet and develop strategies for addressing health inequalities (Benzeval 2003). This was echoed in the obesity prevention programme study, which identified the importance of collaborating around common issues (Campbell-Voytal 2010).

The study of the WHO Healthy City reported the perception that meetings between partners in the programme did not achieve all that they could (Hall et al 2009). Some respondents felt that meetings lacked focus, were not sufficiently interactive, and did not relate explicitly to opportunities that became available through the Local Strategic Partnership's involvement with commissioning (Hall et al 2009). Using the meetings to develop a strategic approach to address health inequalities, for example through networking with partnership members that other members would not normally encounter in their day-to-day (working) life, was identified as an opportunity that was missed:

Maybe it's getting people in more smaller, more flexible action groups, time limited because otherwise you create silos that engage in different areas and have a task and achieve it then take it back to the group...rather than just go to the meetings being bombarded with reams of paper...there's no opportunity for me to actually sit down and network with those people. (Business sector representative) (Hall et al 2009)

The above quote echoes Pratt et al's (2005) proposals about how to use meetings constructively as 'events' in systems. Furthermore, the opportunity to work 'from the bottom-up' through making use of novel networking opportunities is also identified as being of key importance in the study of an obesity prevention programme (Campbell-Voytal 2010). This indicates that partnership meetings, if managed in a facilitative rather than hierarchical manner, can be a key site from which a whole system approach can grow in a locality.

Evidence statement 1: Recognition of the public health problem(s) as a system

There is evidence from four qualitative studies (Bauld et al 2005a [-], UK; Hall et al 2009 [+], UK; Benzeval 2003 [+]; Campbell-Voytal 2010 [-], USA) regarding **recognition of public health problem(s) as a system**. Whilst none of the studies made direct reference to a whole system approach, there are parallels between the approaches described and the whole system approach described by Pratt et al (2005):

a. two studies (Benzeval 2003; Campbell-Voytal 2010) reported that a focus on partnership working enabled collaborative working practices to emerge. However, one study (Bauld et al 2005a) reported that logical planning structures for partnership working were insufficient for enabling a partnership approach.

b. two studies (Hall et al 2009; Campbell-Voytal 2010) reported that management of meetings in a facilitative (rather than hierarchical) manner was important for facilitating networking between partners and identifying a strategic focus.

5.2. Capacity building

A 'whole system approach' has: Capacity building within communities and organisations as an explicit goal. 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.

Nine reports presented findings related to capacity building (Campbell-Voytal 2010; Platt et al 2003; Hall et al 2009; Benzeval & Meth 2002; Benzeval 2003; Evans & Killoran 2000; Bauld et al 2005a; Cole 2003; Charlier et al 2009). One report was about an obesity prevention programme in the USA (Campbell-Voytal 2010), two reports were about smoking prevention programmes (Platt et al 2003, Scotland; Charlier et al 2009, New Zealand), and six reports were about whole community programmes in England (Evans & Killoran 2000 and Benzeval & Meth 2003, HImPs; Benzeval 2003, Cole 2003, and Bauld et al 2005, HAZs; Hall et al 2009, Healthy City). Their findings in relation to capacity building are summarised under two headings: Ownership and involvement (5.2.1), and Support and training (5.2.2).

5.2.1. Ownership and involvement

Three of the nine studies describe the need for creating a sense of ownership within communities, and the need for processes which help to get people and organisations involved in health promotion work (Campbell-Voytal 2010; Platt et al 2003; Hall et al 2009). Platt et al (2003) note that a failure to ensure a sense of ownership within communities can cause strain between partner organisations (Platt et al 2003). The Healthy City project also regarded capacity building, involving awareness raising and strengthening community involvement, as a key achievement of the project (Hall et al 2009). However, they also note that some partners felt there was too much consultation and engagement, suggesting that the reason for doing this needs to be clear.

The Campbell-Voytal (2010) study in particular, describes what it calls “pre-engagement” capacity building in USA communities during two case studies. This was needed where no obvious community partners existed for a healthy eating and active living promotion project and a diabetes prevention project. Both were based in minority ethnic communities. Organisations and communities were described by authors as “unaware, disinterested or unable to engage in prevention activities”. Capacity building was undertaken which gradually built mutual awareness between the health promotion and research teams and the community and this led to shared perspectives about concerns. The authors note that scrupulous practice is crucial in this early phase to establish credibility. It is notable that this phase took several years. Three stages are described: discovery; exploration and trial alliance (Campbell-Voytal 2010).

Importantly, pre-engagement activities allowed those involved in health promotion and research activities to become aware of the barriers to addressing obesity that the community experienced. In addition to low initial priority, organisations were understaffed and lacked health promotion experience. The immediate concerns identified by communities for their children included bullying, gangs, drugs and violence so pre engagement work included recognising these concerns, learning about attitudes and lifestyles, understanding issues relating to health care access and building recognition for the team in the community. Initially, schools proved to be the gateway and researchers were invited into schools to carry out health screening.

Later, these data were used to show how activities had an impact and created enthusiasm for activities (Campbell-Voytal 2010). This need for evidence of effect to ensure future funding was also seen in the other case study. The time needed to build relationships, shared priorities and build understanding between groups may be a challenge to ensuring sufficient resourcing (Campbell-Voytal 2010).

Evidence statement 2: Capacity building - Ownership and involvement

There is evidence from three qualitative studies (Hall et al 2009 [+]; Platt et al 2003 [++]; Campbell-Voytal 2010 [-]) regarding the role of **ownership and involvement** in implementing a whole system approach. This is related to:

- a. a sense of ownership reducing strain between partner organisations (Platt et al 2003; Hall et al 2009). However, consultation with partners needed to be focused if disillusionment with the process was to be avoided (Hall et al 2009).
- b. “pre-engagement” work with potential partners may be necessary to gradually develop mutual awareness and shared perspectives about issues (Campbell-Voytal 2010). The “pre-engagement” phase may take a number of years (Campbell-Voytal 2010).
- c. recognition of the concerns of a community, which may be different to those envisaged in a public health programme (Campbell-Voytal 2010).

5.2.2. Support and training

Two of the nine studies identified the provision of adequate resources as being of importance for capacity building and successful programme implementation (Bauld et al 2005; Charlier et al 2009). Such resources could be tangible, for example teaching and learning materials suitable for use within a national curriculum (Charlier et al 2009) or intangible, for example in allowing enough time for programme partners to genuinely engage with one another and develop a local strategy (Bauld et al 2005).

Four of the nine studies identified the importance of training for the development of capacity building (Hall et al 2009; Benzeval & Meth 2002; Benzeval 2003; Cole 2003). Training was perceived to be of use for ‘technical’ issues (Hall et al 2009; further details not provided by the source) and for addressing a lack of evaluation skills in research-based projects (Cole 2003). Where this training and support was not made

available, there was a perception that this had a negative impact on programme implementation (Hall et al 2009).

Increasing people's understanding of the relationship between their professional roles and the wider determinants of health could be problematic because of the difficulty in getting wider health impact issues onto the agendas of different departments (Benzeval 2003). For example, in relation to HImPs, a perceived lack of understanding in PCTs was felt by some to inhibit a broader public health approach:

... the main thing is to basically make PCTs public health agencies and actually get, say, both members and the staff trained in public health so they actually think in public health terms, and that is the crux of it. (Health Authority director) (Benzeval & Meth 2002)

However, once there was a critical mass of awareness and understanding of the wider determinants of health, training to further increase this understanding could be implemented far more easily. For example, in a WHO Healthy City project, training of city planners around health and wellbeing was perceived to have made a substantial difference to both urban planning and partnership working:

It's [WHO Healthy City] enabled us to get health training, health promotion, public health training onto the agenda of staff development for planners throughout the city... In some ways it's been a challenge breaking down the barriers that people have in their understanding about health and trying to move health in a very medicalised or health sector narrow concepts to one considering holistic health, and particularly the way environment influences people's health. (Health sector interviewee, reviewers' edit) (Hall et al 2009)

It is suggested by the above quote that training alone is not enough; rather, it is necessary for support to be provided for people whose traditional work roles and understandings of health may be challenged by a whole system approach.

Perceived success in the Brighton WHO Healthy City project was linked to the role played by the WHO 'Healthy Urban Planning core theme' in providing a framework (for example, the natural and built environment) around which professional groups could

collaborate and through which key principles and objectives could be embedded into future local authority planning (Hall et al 2009).

[Healthy Urban Partnership (HUP)] has been very successful in raising awareness amongst the planning groups, that there's more to their role than just, you know the physical layout of the city, and the physical infrastructure of the city, that they need to see how it impacts on the residents and the communities – I get the sense that Brighton is seen as having done this very well. (Private sector interviewee) (Hall et al 2009)

Taken as a whole, the perceptions of study participants of the role played by capacity building indicate its importance for getting public health onto the agenda of bodies that do not have it as their primary concern and of providing support for people unfamiliar with a whole system approach. However, the mechanisms by which these can be achieved remain unclear.

Evidence statement 3: Capacity building - Support and training

There is evidence from six qualitative studies (Bauld et al 2005a [-], UK; Charlier et al 2009 [-], New Zealand; Hall et al 2009 [+], UK; Benzeval & Meth 2002 [+], UK; Benzeval 2003 [+], UK; Cole 2003 [+], UK) regarding the role of **support and training** in implementing a whole system approach. This is related to:

- a. the provision of adequate resources (Bauld et al 2005a; Charlier et al 2009).
- b. training to address skill deficits in 'technical' issues and evaluation (Hall et al 2009; Cole 2003).
- c. increasing understanding of public health at an organisational level through, for example, getting issues about the wider determinants of health onto local organisations' agendas to enhance the scope for staff support and training (Benzeval & Meth 2002; Benzeval 2003).
- d. the presence or absence of provision of a collaborative framework (e.g. the natural and built environment) around which to develop organisational awareness (as a basis for staff training and support) (Hall et al 2009).

5.3. Local creativity

A 'whole system approach': Encourages **local creativity** and/or innovation to address obesity. For example, mechanisms which allow the local community to design locally relevant activities and solutions.

No reports explicitly presented findings related to the fostering of local creativity. However, fostering local creativity is clearly a part of other features of a whole system approach. This can be seen in the synthesis in: Section 5.2 (capacity building, for example engaging community members by first understanding their priorities); Section 5.4 (relationships, for example programme management); and Section 5.9 (facilitative leadership, for example the difficulty inherent in balancing strategic leadership with addressing local concerns).

Evidence statement 4: Local creativity

No studies reported findings about the role of local creativity in implementing a whole system approach. However, fostering local creativity is a part of other features of a whole system approach; see Evidence statements 2, 5, 16, 17, and 18.

5.4. Relationships

A 'whole system approach' has: Clear methods to develop and maintain working **relationships** within and between organisations. For example, establishing and maintaining relationships with organisations without a health remit or an overt focus on obesity.

Eleven reports presented findings related to relationships between personnel within and between organisations (Benzeval & Meth 2002; Platt et al 2003; Bauld et al 2005a; Bauld et al 2005b; Hall et al 2009; Rugaska et al 2007; Powell et al 2001; Cole 2003; Charlier et al 2009; Benzeval 2003; Evans & Killoran 2000). Two reports were about smoking prevention programmes (Platt et al 2003, Scotland; Charlier et al 2009, New Zealand), three reports were about HImPs in England (Evans & Killoran 2000; Powell et al 2001; Benzeval & Meth 2002), four reports were about HAZs in England

(Benzeval 2003; Bauld et al 2005a; Bauld et al 2005b; Cole 2003), and one report was about a fuel poverty programme in Northern Ireland delivered as part of a HAZ (Rugaska et al 2007). Finally, one report was about a WHO Healthy City in England (Hall et al 2009). Their findings in relation to relationships are summarised under four headings: Collaboration (5.4.1), Power and representation (5.4.2), Working through issues (5.4.3), and Organisational cultures (5.4.4).

5.4.1. Collaboration

One of the eleven studies reported on the perceived impact of a whole community approach on the development of collaborative mechanisms that enabled organisations to work with one another (Bauld et al 2005a). Certain areas of organisational practice, such as joint appointments across organisational boundaries and secondments, had developed through the implementation of HAZs; however, HAZs were viewed as not having adequately explored the potential of, for example, pooled budgets and integrated services (Bauld et al 2005a).

Four of the eleven studies reported on the way in which HAZs provided opportunities for novel partnerships and ways of working to be developed (Bauld et al 2005a; Bauld et al 2005b; Benzeval 2003; Cole 2003). These collaborations were reported as taking place both between agencies and underserved communities (Bauld et al 2005a) and between different agencies, at both practitioner and board level (Cole 2003). One way in which these collaborations were perceived to be fostered was through the focus on addressing health as a collective process:

So you get 25, 30 people there quite regularly and they are not all Social Services and PCTs and partnership trusts... there is a whole broad range... this is the value that HAZ has had for us, it has brought people together, it has got people thinking in new ways, doing things in new ways. (HAZ project manager)
(Bauld et al 2005b)

This suggests that for collaborations to grow, it is necessary for common goals to be agreed upon, but that the development of these goals may require the strategic lead provided by a national level programme such as HAZs.

Two of the eleven studies report how collaborative working with a collective focus enabled the development of novel partnership services that it had not previously been possible to even consider (Bauld et al 2005b; Benzeval 2003). This process was reported as working in one of two ways, the first of which relied more on getting collaborative projects implemented so that their effectiveness was demonstrated;

The approach to intermediate care for elderly people was originally not seen as relevant to the acute trust, it was seen as social services type of service. Their consultants just wanted more money spent on hospital beds, but when they saw it began to work, it did have an influence... they saw that success... was achieved by working across sectors in genuine joint ways. (HAZ project manager, reviewers' edit) (Bauld et al 2005b)

The visible success of a partnership approach can therefore contribute to the further development (or maintenance or expansion) of collaboration as people become aware of the ways in which it can lead to successful outcomes.

The second way in which novel forms of partnership working were enabled by HAZs was through providing a credible focus around which collaborators could meet and discuss how health inequalities could be addressed (Benzeval 2003). Some respondents described the cross-sector meetings fostered through HAZ partnerships as providing an intellectual space and a sense of the possibilities of what could be achieved in the future; these opportunities did not arise in the course of these professionals' work roles where partnership working did not take place (Benzeval 2003).

Three of the eleven studies (Bauld et al 2005a; Benzeval & Meth 2002; Platt et al 2003) report how tensions can arise when attempting to balance local collaborative approaches with higher-level service provision where accountability and/or management structures may be more rigidly implemented. For example, community involvement in some HAZs was limited by professionals' concerns about accountability (Bauld et al 2005a), and in some HImPs by what was perceived as the "centralised, professionally-led" nature of the NHS (Benzeval & Meth 2002). In addition, substantial time was required for HAZs to negotiate their position within the context of statutory systems, meaning that the time available for community

engagement and development of community priorities was reduced (Bauld et al 2005a).

In the delivery of a smoking prevention programme in Scotland, the Health Board's way of working was perceived to sit uncomfortably with a community development approach:

... there are tensions in doing community development if you're a statutory organisation... it doesn't quite fit, because on one level it's home grown, it's grass roots development, it's power located in the community and then you are there as a totally different, like well quite a powerful structure with certain ways of working. (Programme team member) (Ritchie et al 2004)

This tension between fostering a genuinely community-based approach and the accountability of statutory organisations was related in one study to the issue of partnership governance, about which there was a perception that (in HAZs) there had been little progress made at the strategic level (Bauld et al 2005a). However, within the localities of HAZs where partnership agencies covered the same areas, much greater progress had been made in developing partnership governance (Bauld et al 2005a).

Equally, tensions could arise from established ways of working at the local level when a community development approach was adopted. This occurred in a smoking prevention programme in Scotland despite the visible and substantive support of the Health Board for a community development approach. A number of programme team members in the study were uncomfortable with, and resistant to, the emergent process of establishing project objectives in collaboration with the community (Platt et al 2003). The process was felt by some to be "amorphous" and "shapeless" (Platt et al 2003) and difficult to translate into practice:

People are probably more used to working in a way that's erm, you know, you do this and then you do this and then you do this. Whereas what we are trying to do is allow a process to emerge... and what people are finding difficult is being diffuse... very difficult, the anxiety is enormous. (Programme team member) (Ritchie et al 2004)

The support that programme staff may require when working within a less linear and more emergent approach links with the finding in Section 5.2.2 about the support, and not just training, that professionals require in order to work successfully within a novel approach. At least in part, this is because of the very real concerns that programme staff may have about their own job security in a changing work environment:

... it is very difficult when you come down to the actual people that are working in any organisation within a changing agenda, to ask them to see this as an exciting opportunity, to try and look at how they might impact on some of the issues like inequalities, when [what] they are actually worrying about [is] will I have a job when all of this reshuffling is finished? (HA senior manager) (Benzeval & Meth 2002)

Evidence statement 5: Relationships - Collaboration

There is evidence from six qualitative studies (Bauld et al 2005a [-], UK; Bauld et al 2005b [-], UK; Benzeval & Meth 2002 [+], UK; Benzeval 2003 [+], UK; Cole 2003 [+], UK; Platt et al 2003 [++], UK) regarding the role of **collaboration** in implementing a whole system approach. This is related to:

- a. the strategic lead provided by a national programme in providing the impetus for the development of novel partnerships and ways of working (Bauld et al 2005a; Bauld et al 2005b; Benzeval 2003; Cole 2003).
- b. the demonstrable effects of a partnership approach for addressing local problems (Bauld et al 2005b).
- c. the focus provided a community-wide approach enabling partners to discuss novel ways of addressing health inequalities (Benzeval 2003).
- d. tensions between established organisational structures and the development of community involvement (Bauld et al 2005a; Benzeval & Meth 2002; Platt et al 2003).
- e. governance arrangements where partnership agencies cover different areas (Bauld et al 2005a).
- f. the provision of both training and emotional support for programme staff implementing an unfamiliar approach, especially in an environment where there is considerable job uncertainty (Platt et al 2003).

5.4.2. Power and representation

Six of the eleven studies reported how the presence, or absence, of a broad range of professionals and community members impacted upon the delivery of programmes (Benzeval & Meth 2002; Platt et al 2003; Bauld et al 2005b; Hall et al 2009; Rugaska et al 2007; Cole 2003). Lack of representation could occur at senior organisational levels; for example, one study of HAZs reported that some respondents felt that there should have been a stronger public health presence on PCT boards (Benzeval & Meth 2002). Lack of community representation could also occur despite a stated organisational goal to facilitate community involvement. In a smoking prevention programme in Scotland where community development was a stated goal, Health Board workers were perceived as having taken the lead (at the expense of genuine community involvement) in programme development and implementation (Platt et al 2003).

HAZs were identified as facilitating collaborative working through, for example, joint appointments between statutory agencies:

The fact that the director of public health post is a joint appointment between PCT and local authority is an example. Public health is now seen as a shared agenda... and [this] has been greatly helped by the HAZ. (HAZ project manager) (Bauld et al 2005b)

This shows that relationships may be fostered through the obvious sharing of resources.

The presence of advocates from senior levels in organisations could also be vital to the success of HAZ projects, for example where project managers did not have credibility outside of their own organisations (Cole 2003). In the study of a WHO Healthy City, most respondents felt that there was adequate representation (in terms of sectors and seniority) in the Healthy City partnership, although some were of the view the business sector was under-represented and that strategic action was compromised by under-representation of senior professionals (Hall et al 2009; who was considered to be a 'senior professional' not stated).

Three of the eleven studies identify the way in which the presence alone of a wide range of people in a partnership is necessary, but not sufficient for achieving adequate representation (Benzeval & Meth 2002; Platt et al 2003; Powell et al 2001). Established power relations could hinder genuine collaborative working where, for example, representation of public health consultants at PCG/PCT executive level was viewed to be lacking (Benzeval & Meth 2002). Power relations could also impact where professional interests trumped partnership working:

And then you are still fighting a battle with a medical consultant, on what they think should be the priorities that are taken forward, so I think that there is still a value change here that has to happen (unattributed) (Benzeval & Meth 2002)

The imbalance between statutory organisations and the voluntary sector (in terms of historical status and control over resources) was viewed by some as impacting substantively on the extent of the role that the voluntary sector could play:

Part of it is also the issues of power. At a very real level we don't in the voluntary sector have a say in the kinds of money there is in the NHS, or the council, nothing like it. We don't have perhaps the same explicit control over people's lives, power is something that's difficult to give up. And I mean we can make expert interventions, we can provide lots of evidence, but it doesn't always get taken on board. (Voluntary sector worker) (Powell et al 2001)

Established power relations, and an implicit definition of expertise and the relative importance of different participants' contributions, can therefore be seen to have been perceived to have had a negative effect on the implementation of partnership approaches.

Professionals' attitudes could also have a detrimental effect on representation, for example by indicating to community members of a group that their input was only of peripheral concern because of their 'amateur' status (Platt et al 2003). However, in the same study, some Health Board employees perceived community organisations as the more powerful actor (Platt et al 2003).

Key individual(s) who can act as 'boundary spanners' that link together key players across organisational and policy environments (Rugaska et al 2007) may be vital for

achieving genuine representation. In the delivery of a fuel poverty programme as part of a HAZ, many respondents referred to how the HAZ project manager had acted as a 'boundary spanner':

The management board worked well. Community groups were prominent on it. They were really telling us what to do. This was, in a way, laid down by [the manager]. She would not allow the big guys to determine the terms. (Private sector participant) (Rugaska et al 2007)

In this example, the 'boundary spanner' was a widely-respected individual who had significant influence that may well have been beyond what would normally be expected for a project worker in their role. The way in which roles can be developed so that they have this 'boundary spanning' role together with respect and influence remains unclear. Relying upon an individual's strong character, rather than the strength and density of connections within a system, also has ramifications for the robustness and sustainability of a system (see also Section 5.8).

Finally, two further issues regarding relationships were identified in the smoking prevention programme study (Platt et al 2003). First, relationships between different groups were constrained by the difficulties these groups encountered in establishing a common (trans-disciplinary) language (see also Section 5.6). Second, there was a perception that tensions between these different groups had been exacerbated by inadequate leadership, line management and support (Platt et al 2003) (see also Section 5.9).

Evidence statement 6: Relationships - Power and representation

There is evidence from six qualitative studies (Bauld et al 2005b [-], UK; Benzeval & Meth 2002 [+], UK; Cole 2003 [+], UK; Hall et al 2009 [+], UK; Platt et al 2003 [++], UK; Rugaska et al 2009 [+], UK) regarding the role of **power and representation** in implementing a whole system approach. This is related to:

- a. the representation of public health strategy at senior levels (Benzeval & Meth 2002; Bauld et al 2005b; Cole 2003; Hall et al 2009), for example through joint appointments between the health and local authority sectors (Bauld et al 2005b).
- b. advocacy on behalf of project managers (Cole 2003) or community members (Rugaska et al 2007)
- c. the status accorded to the knowledge of members of different professions, or community members (Benzeval & Meth 2002; Powell et al 2001; Platt et al 2003). However, one study also reports that some programme staff perceived community organisations as the more powerful actor (Platt et al 2003).
- d. the potentially marginalising effect of language on less powerful actors (Platt et al 2003)
- e. the existence of adequate leadership, line management, and support so that tensions between different actors are not exacerbated (Platt et al 2003).

5.4.3. Working through issues

Five of the eleven studies presented findings on the impact of partnership members working through issues in the course of collaborating on programme implementation (Charlier et al 2009; Bauld et al 2005b; Benzeval 2003; Cole 2003; Powell et al 2001). In areas where there was a history of tension between voluntary, community and statutory agencies it was necessary for these tensions to be resolved before cross-sectoral services could be developed (Benzeval 2003; Cole 2003; Powell et al 2001). Conversely, where joint working was already well-established in an area, levels of trust (which facilitated partnership working) were higher (Powell et al 2001). In one study, providers who were not part of the core implementation team felt that they were

not trusted to deliver elements of the programme which had been made their responsibility (Charlier et al 2009).

In the delivery of a HImP, professionals held different views on how partnership working should be achieved, despite agreement on the broader areas of the approach (Powell et al 2001). Nevertheless, progress was made in some areas, for example the joint appointment of a Health Impact Assessment (HIA) manager between a health agency and local authority (Powell et al 2001). The goal of partnership working in HAZs was viewed by some as being important for providing a space in which, for example, historical organisational conflicts could be resolved. This was not necessarily a comfortable process, but it was vital for the development of partnership working:

We have had one or two rough patches... notably the continuing care criteria... Funnily enough, there was a huge row but it started better working. And in a sense HAZ gave us the elbow room to begin to trust one another and develop again. (reviewers' edit) (HAZ project manager) (Bauld et al 2005b)

As relationships are dynamic, it is necessary for the system to have the capacity to allow working relationships the time to develop. Also, the focus on partnership working, and the physical presence in meetings of a wide range of representatives, was viewed by some working within HAZs as being of importance:

... [In the area concerned, prior to the HAZ there was] a tendency, an awful corrosiveness to speak disparagingly of parties not present and I think this was not just in the health service here but was a wider feature [through HAZ] I think we were able to see a more grown-up way of working and nowadays those comments are rarely uttered and when they are whoever utters them is made to feel uncomfortable for having done so. (HAZ project manager) (Bauld et al 2005b)

In this view, it was the *experience* of partnership working that fostered more constructive working relationships through challenging traditional ways of working that were specific to a profession or sector.

Evidence statement 7: Relationships - Working through issues

There is evidence from five qualitative studies (Bauld et al 2005b [-], UK; Benzeval 2003 [+], UK; Charlier et al 2009 [-], New Zealand; Cole 2003 [+], UK; Powell et al 2001 [-], UK) regarding the role of **working through issues** when implementing a whole system approach. This is related to:

- a. the history of partnership working in an area, where previous tensions need to be resolved before constructive working relationships can be developed (Bauld et al 2005b; Benzeval 2003; Cole 2003; Powell et al 2001).
- b. the development of trust regarding the ability of partners to deliver programme elements that are their responsibility (Charlier et al 2009).
- c. the presence of a wide range of representatives in meetings (Bauld et al 2005b).

5.4.4. Organisational cultures

Four of the eleven studies reported findings on the impact of organisational cultures on programme implementation (Charlier et al 2009; Benzeval 2003; Cole 2003; Evans & Killoran 2000). One study suggested that ‘fun days’ which involved both professionals and community members were useful for developing working relationships between people who had not previously worked together (Charlier et al 2009). Other studies reported that a more structured and proactive approach was necessary. For example, targeting inter-professional and inter-agency relations in the delivery of HImPs enabled the lack of GP involvement in health partnerships to be addressed (Evans & Killoran 2000). In the delivery of a cross-sectoral programme, it may also be necessary to take steps to develop a common language and approach that reconciles social and medical models of care (Cole 2003). However, it is acknowledged that whilst this may enable the development of partnership working, it may also lead to uncomfortable changes to the working role of professionals (Cole 2003).

Efforts to foster partnership working through formal organisational links, such as health authorities being held accountable for a HAZ meeting performance targets,

could have unintended consequences (Benzeval 2003). This formal accountability was reported as leading to a perception that a HAZ was an ‘NHS entity’ rather than a genuine cross-sectoral partnership, a perception that was intensified when a change in HAZ priorities increased pressure for HAZ resources to be used on ‘NHS-specific’ issues (Benzeval 2003).

Evidence statement 8: Relationships - Organisational cultures

There is evidence from four qualitative studies (Benzeval 2003 [+], UK; Charlier et al 2009 [-], New Zealand; Cole 2003 [+], UK; Evans & Killoran 2000 [+]) regarding the role of **organisational cultures** when implementing a whole system approach. This is related to:

- a. the nature of the partners involved. Informal events, such as ‘fun days’, were reported as useful for developing working relationships between teachers, health staff and a community (Charlier et al 2009). However, another study reported that an approach that directly focused on developing inter-professional and inter-agency relationships was necessary to involve General Practitioners (Evans & Killoran 2000).
- b. development of a common language that reconciles different approaches (Cole 2003).
- c. recognising that partnership working may challenge traditional work roles, with professionals feeling very uncomfortable with changes (Cole 2003).
- d. formal organisational accountability for results may lead to a perception that projects are the ‘property’ of, for example, a health agency and not the community (Benzeval 2003).

5.5. Engagement

A ‘whole system approach’ has: Clear methods for **engagement** of community members (people, organisations and sectors) 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.

Twelve reports presented findings related to engagement (Campbell-Voytal 2010; Hall et al 2009; Benzeval & Meth 2002; Benzeval 2003; Bauld et al 2005b; Po’e et al 2010;

Platt et al 2003; Charlier et al 2009; Powell et al 2001; Evans & Killoran 2000; Cole 2003; Rugaska et al 2007). Two reports were about an obesity prevention programme in the USA (Campbell-Voytal 2010; Po'e et al 2010), two reports were about smoking prevention programmes (Platt et al 2003, Scotland; Charlier et al 2009, New Zealand), three reports were about HImPs in England (Evans & Killoran 2000; Powell et al 2001; Benzeval & Meth 2002), and two reports were about HAZs in England (Bauld et al 2005b; Benzeval 2003). One report was about a fuel poverty programme in Northern Ireland delivered as part of a HAZ (Rugaska et al 2007). Finally, one report was about a WHO Healthy City in England (Hall et al 2009). Their findings in relation to engagement are summarised under three headings: Raising awareness and shared vision (5.5.1), Ways of working (5.5.2), and Cultural concordance (5.5.3).

5.5.1. Raising awareness and shared vision

Raising awareness appears to be a necessary initial step in the process of engagement with public, private, and community partners. One of the twelve studies identified the role played by the programme's association with a high profile organisation (WHO) for legitimising the approach taken and facilitating 'buy-in' from key actors:

...It has created a high profile and has legitimised health and well-being as an important issue - so health shouldn't be seen in isolation but very much part of the wider work that the City Council does as well, in terms of education, planning, environment etc. (Local authority interviewee, reviewers' edit) (Hall et al 2009)

However, not all respondents in this study agreed that the association with WHO was sufficient to raise the profile and understanding of the Healthy City (HC) approach:

The introduction of HC and HC concepts hasn't been sufficiently known and understood to enable it to be embedded across all policy areas. In terms of marketing, there has been an insufficient lack of overall marketing within Brighton and Hove as a HC...you need an overall marketing strategy to go with it. (Health sector interviewee) (Hall et al 2009)

Barriers to engaging with programme staff could result from other work pressures or the difficulties which staff themselves had with leading a demonstrably healthy lifestyle. An example of the former is where community health staff's role in HAZs could have potentially been much greater, but there were real limitations in the strategic scope of this role:

I think there is huge potential for health visitors in their daily jobs... there is just a range of stuff that they can be doing, but most of it is one-to-one or with families and most of it is opportune, there is no way you can co-ordinate tackling root causes through health visitors. (Health Authority director) (Benzeval & Meth 2002)

Attempts to raise awareness and develop a shared vision therefore need to be conducted with a sound understanding of the day-to-day pressures experienced by, for example, practitioners. Strategic thinking about the potential for a whole system approach for addressing health inequalities may need to be tempered with realism about the scope and capacity of people 'on the ground' to deliver (see also Section 5.2).

In the case of one obesity prevention programme, where 'buy in' to the programme amongst school staff was estimated by a respondent to be around 50%, commitment amongst staff was further moderated by the difficulties people had in setting a good example:

.....Our staff have struggled with [eating healthily and exercise]... We have staff at our school age service sites that are promoting this, but they're struggling with doing it themselves...So we see that some work with even our staff promoting this is one that we need to continue to be working with...(reviewers' edit) (Po'e et al 2010)

The above quote illustrates how the healthy characteristics (or otherwise) of people involved with programme implementation cannot be selected. It indicates that implementation of a whole system approach requires that the strengths and weaknesses of programme personnel are worked 'with' and not 'against'; it does not appear to be a programme characteristic that can simply be mandated.

However, it was reported in one study that the cross-sectoral approach of HAZs had the effect of introducing non-medical perspectives into local actors' debates about health inequalities. This involved a range of people, who had not previously been engaged with, in debates about health:

It has enabled a diversity of stakeholders, from Jo Public to the voluntary and community sector to mental health services through to children's services to PCT to be involved in this debate about public health and health promotion from a non-medicalised perspective. (HAZ project manager) (Bauld et al 2005b)

One of the twelve studies identified the role played by being part of a wider network of whole-community initiatives (Hall et al 2009). The credibility of the Brighton WHO Healthy City project was perceived to have been substantially increased by the city's association with the WHO (Hall et al 2009). The 'comprehensive communication strategy' of the project, which was "directed at carefully segmented target audiences" (Hall et al 2009, p.26) was considered to be of importance for increasing the programme's credibility and visibility.

Five of the twelve studies reported findings related to the development of a shared vision about a programme, which can be seen as the next stage of the engagement process (Charlier et al 2009; Platt et al 2003; Powell et al 2001; Benzeval & Meth 2002; Evans & Killoran 2000). One study reported that in communities where there was a history of working together it was possible to develop a shared strategic vision on addressing health inequalities (Evans & Killoran 2000). Similarly, partnership working was more successful where organisations were familiar with working in partnership with other organisations (Evans & Killoran 2000), with the converse (less success where limited history of partnership working) also being reported elsewhere (Powell et al 2001). The different organisational cultures, for example in NHS bodies and Local Authorities, could act as a barrier to the development of partnership approaches:

I think that there are also dangers around different organisational approaches and you know we are all working as best we can to the partnership mantle and we are all working to very different cultures. Not only actually to be honest with you with different organisations, but also within our own organisations. (county council senior manager) (Benzeval & Meth 2002)

Where there was not a history of collaborative working, time pressures could prevent partnerships being formed. For example, where gatekeepers (such as principals where school involvement was sought) were unable or unwilling to become involved in a programme development group, or where practitioners (such as teachers) felt that the implementation of a health programme had been imposed on them without proper resourcing (Charlier et al 2009). In one instance, the health behaviour of gatekeepers scuppered programme delivery at the outset; this occurred in one school where a smoking prevention programme was rejected by a management committee who perceived the project as a personal affront to their own smoking behaviour (Charlier et al 2009).

One of the twelve studies reported that despite the apparent focus provided around addressing health inequalities in HImPs, policy statements to that effect were sometimes perceived as being largely rhetorical and of failing to address where health inequalities fitted on the local policy agenda (Powell et al 2001). This suggests that there was a lack of shared vision about the nature of HImP work.

One of the twelve studies reported a lack of consensus amongst members of partnership organisations regarding what ‘community participation’ meant for the design and delivery of the programme (Platt et al 2003). Some senior Health Board members defined ‘the community’ as health professionals and local businesses, whilst others pointed to the low level involvement in the programme of residents of local communities (Platt et al 2003). This low level of involvement reflected the perception in the community that the focus of the programme (smoking behaviour) was a low community priority. Drug and alcohol use were identified by residents in the community as higher priority, with young people identifying sexual health as their major health concern and smoking cessation as an ‘adult issue’ (Platt et al 2003). Programme workers who had been involved with the mapping exercise designed to identify community priorities believed that smoking cessation had indeed been a ‘community-identified’ priority (Platt et al 2003). Although these perceptions differ, it is clear that a lack of shared vision was at least partly responsible for the lack of community participation in the programme. The role of community engagement (see Section 5.2.1) and the tensions between engagement and agencies’ accountability for addressing particular areas of health (see Section 5.4.1) and the impact of the recent history of partnership working in an area (see Section 5.4.3) are again evident here.

Evidence statement 9: Engagement - Raising awareness and shared vision

There is evidence from eight qualitative studies (Bauld et al 2005b [-]; Hall et al 2009 [+]; Benzeval & Meth 2002 [+]; Po'e et al 2010 [+]; Platt et al 2003 [++]; Charlier et al 2009 [-]; Powell et al 2001 [-]; Evans & Killoran 2000 [+]) regarding the role of **raising awareness and shared vision** in implementing a whole system approach. This is related to:

- a. associating the programme with a high-profile organisation so that the programme is perceived as important and legitimate (Hall et al 2009).
- b. day-to-day work pressures limiting the scope of partners to deliver complex community programmes (Benzeval & Meth 2002).
- c. potential conflict between the health focus of a programme and the health behaviour of partners (Po'e et al 2010).
- d. valuing the input of partners who may not traditionally have been sought, so that a focus on public health extends beyond disciplinary boundaries (Bauld et al 2005b).
- e. congruency between partners' ways of working, or a recent history of working together successfully (Evans & Killoran 2000; Powell et al 2001; Benzeval & Meth 2002; Charlier et al 2009).
- f. 'on the ground' action backing up policy statements (Powell et al 2001).
- g. genuinely engaging with a community, which may require a different health focus to that originally envisaged by professionals for a programme (Platt et al 2003).

5.5.2. Ways of working

One study of the implementation of a smoking prevention programme in Scotland (Platt et al 2003) reported that, despite the programme's stated aim to address the determinants of health through community development, programme workers still predominantly viewed smoking cessation as something that only involved individual behavioural factors (Platt et al 2003). There was a perception that, because of the nature of their work, primary health care professionals had the greatest understanding of people's circumstances and life even though most of this contact was in a clinical setting and therefore not necessarily conducive to contextualising people's behaviour in an understanding of the wider determinants of health (Platt et al 2003).

One of the twelve studies reported that the historical relationship between a community and academics involved with programme implementation required ‘working through’ in order to develop a constructive working relationship:

When academics come to the door, there is always a research agenda...We have been researched to death (reviewers’ edit) (Campbell-Voytal 2010)

This indicates not only that those involved with programme delivery or evaluation may need to reflect honestly upon the approach they take, but also the relationship between a way of working and the scope for developing a shared vision (see Section 5.5.1). Also, the history of the success or otherwise of recent working relationships between public, private, and voluntary sectors and the community (see Section 5.4.3) can again be seen to be of importance.

Similarities in the borders of areas covered by agencies and/or groups involved in programme implementation was reported by one study as facilitating stakeholder events in communities and the work of strategic steering groups (Evans & Killoran 2000). A lack of joint working was reported where programme implementation involved agencies and/or groups that, at the outset of a programme, did not form ‘natural communities’ in terms of their geographical boundaries (Benzeval 2003). This could lead to a perception that an organisation’s approach was inconsistent and unfair; for example, where resources could be used in areas consistent with the programme’s (but not the organisation’s) borders (Benzeval 2003). Such perceived inconsistencies could also arise as a result of organisational restructuring. For example, an increased role for PCTs in local health meant that organisations’ configurations and boundaries changed, with a consequent change in the extent to which they shared areas in common (Benzeval 2003).

Evidence statement 10: Engagement - Ways of working

There is evidence from four qualitative studies (Benzeval 2003 [+], UK; Platt et al 2003 [++], UK; Campbell-Voytal 2010 [-], USA; Evans & Killoran 2000 [+], UK) regarding the role of **ways of working** when implementing a whole system approach. This is related to:

- a. established approaches to programme delivery, for example, focused at the level of the individual rather than the wider determinants of health (Platt et al 2003).
- b. the historical relationship between a community and professionals (Campbell-Voytal 2010).
- c. the sharing of similar geographical boundaries or areas of responsibility between organisations (Evans & Killoran 2000; Benzeval 2003) or between an organisation and the programme being implemented (Benzeval 2003).

5.5.3. Cultural concordance

Two of the twelve studies reported findings about the impact of cultural concordance between people involved with programme implementation (Charlier et al 2009; Rugaska et al 2007). Three facilitators for enabling people to see ‘eye-to-eye’ were identified. First, the knowledge, experience, and personal relationships developed through previous work in a community can be built upon (Charlier et al 2009) (see also Section 5.4.3). Second, programme workers from the same ethnic group as community members can reduce cultural barriers and facilitate programme implementation (Charlier et al 2009). Third, an understanding of, and involvement in, community life can act to bridge the gap between the community and programme team members (Charlier et al 2009; Rugaska et al 2007).

In the delivery of a fuel poverty programme to a rural community in Northern Ireland, the role of the Community Energy Advisor (CEA) was agreed by all respondents to have been vital for the programme’s success (Rugaska et al 2007). The CEA in this project had almost daily contact with community groups, and took the lead in identifying all homes that were to be assessed for inclusion in the programme, as well

as completing the majority of assessment surveys herself. The intensity of the CEA's contact with the community, as well as her cultural background and personality, enabled her to develop a close bond with community members:

She could talk about the price of cattle, lighting in the outhouse. She knew people. (Community sector participant, emphasis in the original) (Rugaska et al 2007)

The affinity between the CEA and community members facilitated her further involvement with community life, for example, attending school concerts, carol services, community raffles, and funerals. As well as this, the CEA was involved with the community on a very practical level in, for example, helping elderly residents to clear loft spaces in preparation for insulation measures (Rugaska et al 2007). The CEA also developed a reputation for efficiency and attention to detail:

No matter what happened, if there was a problem [she] would write it down, she would phone me that evening or the next day or whatever, and she would have talked to Joe or Lisa [in the meantime and say] 'Don't worry about it, we'll get it sorted' – and she did. [She] was exceptional. Oh, she's an honorary citizen of Aughnacloy now! (Community sector participant) (Rugaska et al 2007)

In this example, the programme worker's energy, drive and attention to detail was enabled by the cultural concordance which she had with community members. Whilst this was a key facilitator for the successful implementation of this particular project, the robustness and sustainability of a 'whole system approach' that relies on one individual for its success is highly questionable (see also Section 5.8).

Evidence statement 11: Engagement - Cultural concordance

There is evidence from two qualitative studies (Charlier et al 2009 [-], New Zealand; Rugaska et al 2007 [+], UK) regarding the role of **cultural concordance** when implementing a whole system approach. This is related to:

a. the historical relationship between a community and professionals, the skills of programme workers in building on this relationship, and an involvement in the life of a community (Charlier et al 2009; Rugaska et al 2007).

5.6. Communication

A 'whole system approach': Establishes clear methods of **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.

Five reports presented findings related to communication (Charlier et al 2009; Platt et al 2003; Bauld et al 2005a; Benzeval & Meth 2002; Hall et al 2009). Two reports were about smoking prevention programmes (Platt et al 2003, Scotland; Charlier et al 2009, New Zealand), one report was about HAZs (Bauld et al 2005a), one report was about a HImP (Benzeval & Meth 2002), and one report was about a WHO Healthy City in England (Hall et al 2009).

One of the five studies reported how the means of communication could act as a barrier to programme implementation (Charlier et al 2009). In a smoking prevention programme, teachers who were expected to be involved with programme delivery felt that the means of communication (flyers and newsletters posted in their school mailboxes) 'subjected' them to the programme without any substantive involvement (Charlier et al 2009). Informal methods of face-to-face communication, for example at teachers' tea and lunch breaks, were stated by teachers to be preferable (Charlier et al 2009). This finding also relates to the need to raise awareness and develop a shared vision in partnerships for programme delivery (see Section 5.5.1). One study reported how communication required a common language to be developed if relationships between programme members were to avoid becoming strained (Platt et al 2003). This was particularly the case for the relationship between community partner organisations and the Health Board, where it was perceived that established disciplinary boundaries inhibited the development of a common language (Platt et al 2003) (see also Section 5.4.4 regarding organisational cultures).

Four of the five studies reported the way in which poor communication could lead to the isolation of different project elements, thereby inhibiting the delivery of a whole system approach (Charlier et al 2009; Platt et al 2003; Bauld et al 2005a; Benzeval & Meth 2002). To achieve a strategic approach to programme delivery, the importance

of support across these different project areas was identified (Bauld et al 2005a), but such support needed to be practical rather than simply desired:

We have got these wonderful strategic partnerships but they are still in silos. (unattributed) (Benzeval & Meth 2002)

This practical role could be played by people who had experience of, and skill in, working across traditional disciplinary boundaries. It involved more than simply ‘co-ordinating’ different programme elements. In a study of a smoking prevention programme, the appointment of a programme co-ordinator (with the role of pulling together project areas that had become isolated from one another) ended up doing frontline staff’s work because of limitations on their time or their unwillingness to engage in community development work (Platt et al 2003). However, another study of a smoking prevention programme found that programme team members with experience of both academic and community participation roles were very important for translating research findings into programme delivery in a community context (Charlier et al 2009). It is unclear precisely what accounted for these differing levels of success, although the context into which the programme co-ordinator was introduced in the programme evaluated by Platt et al (2003) seems likely to have played a significant role in preventing co-ordination (see also Section 5.4.3 regarding the impact of historical working relationships).

Where a programme was part of a wider network, as in the case of the Brighton WHO Healthy City project, mechanisms that were perceived as being inefficient meant that communication between WHO and the sub-networks was inadequate (Hall et al 2009). This had further ramifications for keeping influential actors informed about, and supportive of, the programme:

What hasn’t worked well is the regularity of communication from the WHO office and the lack of participation in meetings... There has been a lack of clarity about budget allocation and just a general sense of malaise and strategic drift. They are very, very slow in getting strategic papers out to us and in the UK context, if we to keep our politicians on board we need to be kept regularly briefed about the future direction of the Programme. (Health sector interviewee, reviewers’ edit) (Hall et al 2009)

Communication ‘downwards’, from a wider network to those implementing a programme, can therefore be seen to not only be important for engaging people and maintaining a working relationship. The above quote demonstrates how communication ‘upwards’, from programme workers to key local actors, is perceived to be vital for maintaining the political support that is necessary for ongoing programme implementation. However, this ‘upwards’ communication cannot take place without there first being ‘downwards’ communication about strategic direction from the wider network concerned.

Evidence statement 12: Communication

There is evidence from five qualitative studies (Charlier et al 2009 [-], New Zealand; Platt et al 2003 [++], UK; Bauld et al 2005a [-], UK; Benzeval & Meth 2002 [+], UK; Hall et al 2009 [+], UK) regarding the role of **communication** when implementing a whole system approach. This is related to:

- a. using a mode of communication that is perceived by programme staff as personal and consultative (Charlier et al 2009).
- b. developing a common, cross-disciplinary, language between programme members (Platt et al 2003).
- c. programme managers’ ability to work in both academic and community participation roles (Charlier et al 2009); however, a non-facilitative context could hinder efforts to work in this way (Platt et al 2003).
- d. the development of ‘downwards’ communication networks so that local programmes are kept informed of wider programme goals, and ‘upwards’ communication networks so that local programmes can communicate programme strategy to key local actors (Hall et al 2009)

5.7. Embeddedness of actions and policies

A 'whole system approach': Focuses on the **embeddedness of action and policies** for obesity prevention in organisations and systems. 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.

Three reports presented findings related to the embeddedness of action and policies (Bauld et al 2005a; Cole 2003; Hall et al 2009). Two reports were about HAZs in England (Bauld et al 2005a; Cole 2003) and one report was about a WHO Healthy City in England (Hall et al 2009).

The importance of embedding the principles of Healthy Urban Planning into strategy and policy documents was highlighted in the study of the Brighton WHO Healthy City (Hall et al 2009). This embeddedness could be particularly important with regard to organisations where public health was not traditionally a primary concern, for example, where HIAs became established as an important component of council planning developments (Hall et al 2009). One study of a HAZ identified the way in which the local experience of previous initiatives impacted upon the process of embedding a whole system approach (Cole 2003). Previous projects that were seen to have addressed important local issues paved the way for embedding similar approaches in the local policy agenda, whilst issues that historically had a low priority remained in this marginal position (Cole 2003) (see also Section 5.4.3).

Another study of a HAZ reported that there was some evidence to suggest that actions and policies could not become embedded unless they were present across a range of sites and at a number of levels (Bauld et al 2005a). These levels needed to range from the strategic to the operational, and involve both governance and community engagement (Bauld et al 2005a).

Evidence statement 13: Embeddedness of action and policies

There is evidence from three qualitative studies (Bauld et al 2005a [-], UK; Cole 2003 [+], UK; Hall et al 2009 [+], UK) regarding the **embeddedness of action and policies** when implementing a whole system approach. This is related to:

- a. the extent to which whole system principles become integrated into strategy and policy documents of agencies where public health was not traditionally a priority (Hall et al 2009).
- b. the success at a local level of previous projects that addressed issues considered to be important locally (Cole 2003).
- c. actions and policies being present at a range of levels (from strategic to operational), and involving both governance and community engagement (Bauld et al 2005a).

5.8. Robustness and sustainability

A 'whole system approach': Focuses on the **robustness and sustainability** of the system to tackle obesity. For example, strategies for resourcing existing and new projects and staff.

Nine reports presented findings related to the robustness and sustainability of a whole system approach (Campbell-Voytal 2010; Po'e et al 2010; Dodson et al 2009; Platt et al 2003; Charlier et al 2009; Bauld et al 2005a; Bauld et al 2005b; Benzeval & Meth 2002; Powell et al 2001). Two reports were about an obesity prevention programme in the USA (Campbell-Voytal 2010; Po'e et al 2010), one report was about the implementation of obesity prevention policies (Dodson et al 2009), two reports were about smoking prevention programmes (Platt et al 2003, Scotland; Charlier et al 2009, New Zealand), two reports were about HAZs in England (Bauld et al 2005a; Bauld et al 2005b), and two reports were about HImPs in England (Benzeval & Meth 2002; Powell et al 2001). Their findings in relation to the robustness and sustainability of a whole system approach are summarised under two headings: Organisational restructuring (5.8.1) and Funding (5.8.2).

5.8.1. Organisational restructuring

Four of the nine studies reported on how organisational restructuring could impact upon the implementation of a whole system approach (Platt et al 2003; Bauld et al 2005a; Bauld et al 2005b; Benzeval & Meth 2002). One study explicitly identified the perception among programme staff that organisational restructuring was centred on internal organisational priorities, rather than the needs of the programme (Platt et al 2003). This restructuring had a significant impact on the working relationship between staff in partner organisations; re-allocation of staff to different roles and changes to partner organisations' structure was perceived to have disrupted working relationships and decreased the scope for communication (see also Section 5.6).

Three of the nine studies report how organisational restructuring impacted upon programme staff morale, and subsequently on their ability to engage in effective partnership working (Bauld et al 2005a; Bauld et al 2005b; Benzeval & Meth 2002). Restructuring was reported to turn programme staff's focus inwards to the organisation, rather than outwards to the partners with whom they were supposed to be collaborating (Bauld et al 2005b; Benzeval & Meth 2002):

... it [restructuring] is a big organisational issue, and people are distracted at the minute by - people who should be doing that [inequalities work] are distracted by - am I going to be merged? Are we out of a job? Is my career going? Can I pay the mortgage? It takes your mind off important things. (executive director, acute trust) (Benzeval & Meth 2002)

There would appear to be a significant risk to the functionality of current working practices in any effort to undertake organisational restructuring, which can potentially have a overall negative impact on the ability of programme staff to implement a whole system approach.

Evidence statement 14: Robustness and sustainability - Organisational restructuring

There is evidence from four qualitative studies (Bauld et al 2005a [-], UK; Bauld et al 2005b [-], UK; Platt et al 2003 [++], UK; Benzeval & Meth 2002 [+], UK) regarding the impact of **organisational restructuring** when implementing a whole system approach.

This is related to:

- a. new organisational structures hindering, rather than enabling, programme delivery (Platt et al 2003).
- b. the disruption of established working relationships and communication channels (Platt et al 2003).
- c. uncertainty about changes having a negative impact on staff morale (Bauld et al 2005a; Bauld et al 2005b; Benzeval & Meth 2002).
- d. focusing programme staff's attention 'inwards' (towards organisational matters) rather than 'outwards' (towards working with partners) (Bauld et al 2005b; Benzeval & Meth 2002).

5.8.2. Funding

Eight of the nine studies reported on the impact of funding on the implementation of programmes (Campbell-Voytal 2010; Po'e et al 2010; Dodson et al 2009; Platt et al 2003; Charlier et al 2009; Bauld et al 2005b; Benzeval & Meth 2002; Powell et al 2001). Participants in seven studies (Campbell-Voytal 2010; Po'e et al 2010; Platt et al 2003; Charlier et al 2009; Bauld et al 2005b; Benzeval & Meth 2002; Powell et al 2001) perceived a lack of funding to have hindered programme implementation through inadequate staffing levels. Three studies identified how this meant that programmes came to rely on the energy and commitment of specific individuals, with implications for programme robustness and sustainability (see also Section 5.8) (Benzeval & Meth 2002; Campbell-Voytal 2010; Po'e et al 2010). One study described the context in which HImPs were implemented (Health Authorities in budget deficit, with tight budgetary restrictions for the foreseeable future and pressure to promptly address a range of health-related issues) as significantly limiting the extent

to which a case could be made for using limited resources on the more diffuse objectives of partnership working (Powell et al 2001). This finding links with the role played by communication and a political commitment to a whole system approach (see Section 5.6) and the manner in which national policy and priorities drive the availability of funding for specific areas of health rather than for a 'whole system approach' (see Section 5.11.1).

Four studies identified uncertainty over future funding as having a negative impact on programme implementation (Platt et al 2003; Bauld et al 2005b; Po'e et al 2010; Powell et al 2001). Two studies reported how ongoing delivery on programme objectives within the timeframe available was limited by the need to obtain new sources of funding (Bauld et al 2005b; Platt et al 2003). For example, in relation to a HAZ:

One of the problems is that you can't put things in place until you know you've got the funding and then half the year is gone. (HAZ project manager) (Bauld et al 2005b)

A similar issue was identified in the implementation of an obesity prevention programme, where aspects of the programme received time-limited funding that, once it had expired, left programme staff attempting to identify unpaid volunteers to fulfil roles on the programme (Po'e et al 2010). Participants in one study of a smoking prevention programme perceived that pledges that were originally made to support the programme had faded away, and that in terms of funding, "the rug was pulled from under your feet all the time" (Platt et al 2003). Programme staff's efforts to obtain additional funding to enable the continuation of the programme was reported to impact negatively on the time available to actually deliver the programme as it had originally been planned (Platt et al 2003). One study reported how short-term funding worked against efforts to address the long-term nature of health inequalities (Powell et al 2001). Taken as a whole, these four studies strongly suggest that there is a fundamental tension between short-term, project-based funding and a whole system approach.

One study of obesity prevention policy in the USA identified how costs were always a major consideration in policy making (Dodson et al 2009). The study identified synergy between groups with different concerns, for example between representatives

of the health sector who were focused on reducing obesity, and others who were more focused on financial implications, as being important in facilitating appropriate policy making.

Evidence statement 15: Robustness and sustainability - Funding

There is evidence from eight qualitative studies (Campbell-Voytal 2010 [-], USA; Po'e et al 2010 [+], USA; Dodson et al 2009 [+], USA; Platt et al 2003 [++], UK; Charlier et al 2009 [-], New Zealand; Bauld et al 2005b [-], UK; Benzeval & Meth 2002 [+], UK; Powell et al 2001 [-], UK) regarding the impact of **funding** when implementing a whole system approach. This is related to:

- a. inadequate staffing levels for programme delivery (Campbell-Voytal 2010 [-]; Po'e et al 2010; Platt et al 2003; Charlier et al 2009 [-]; Bauld et al 2005b; Benzeval & Meth 2002; Powell et al 2001).
- b. a reliance on the energy and commitment of individual programme members (Benzeval & Meth 2002; Campbell-Voytal 2010; Po'e et al 2010).
- c. difficulties in making a case for using limited resources on the diffuse objectives of a whole system approach (Powell et al 2001).
- d. uncertainty about future funding leading to a reduced focus on programme implementation, as it becomes necessary for programme resources to be used in the effort to obtain further programme funding (Bauld et al 2005b; Platt et al 2003).
- e. the lack of continuity and stability inherent in short-term funding for programmes designed to address long-term issues such as health inequalities (Powell et al 2001).
- f. the ability of actors in the system to identify potential synergies between different interest groups that would allow both a financial and health case to be made for funding (Dodson et al 2009).

5.9. Facilitative leadership

A 'whole system approach': Enhances **facilitative leadership**, ensuring strong strategic support and appropriate resourcing. Leadership which is not necessarily located at any particular level or organisation and is likely to encourage bottom up solutions and activities.

Six reports presented findings related to facilitative leadership when implementing a whole system approach (Platt et al 2003; Cole 2003; Rugaska et al 2009; Benzeval & Meth 2003; Evans & Killoran 2000; Hall et al 2009). One report was about a smoking prevention programme (Platt et al 2003, Scotland), two were about HAZs (Cole 2003; Rugaska et al 2009), two were about HImPs in England (Benzeval & Meth 2003; Evans & Killoran 2000), and one was about a WHO Healthy City in England (Hall et al 2009). Their findings in relation to facilitative leadership when implementing a whole system approach are summarised under three headings: Visible strategic leadership (5.9.1), Focus (5.9.2), and Local control (5.9.3).

5.9.1. Visible strategic leadership

Five of the six studies reported on the role played by leadership in programme implementation (Platt et al 2003; Hall et al 2009; Rugaska et al 2007; Evans & Killoran 2000; Benzeval & Meth 2002). Respondents in the WHO Healthy City study perceived the long term WHO strategy and shared vision that was developed (see also Section 5.5.1) to be important drivers of programme success (Hall et al 2009). The study of a smoking prevention programme in Scotland identified a similar issue; whilst respondents largely agreed that partner organisations were committed to the programme, they felt that the partnership lacked the energy for ‘driving forward’ because there was no person or group taking on this leadership role (Platt et al 2003). In this instance, the desire to foster a ‘bottom-up’ rather than ‘top-down’ approach resulted in a lack of strategic direction, but a further example from a HAZ (Rugaska et al 2007) demonstrates how this tension is not necessarily irresolvable. Whilst the limitations of decreasing the number and strength of connections in a network by relying too much on key personnel should be borne in mind (see Sections 5.5.3 and 5.8), the following quote illustrates how a resourceful and imaginative approach can be key for ‘driving forward’ a project:

There’s a bit of manipulation, there’s a bit of cajoling, there’s a bit of actually identifying what makes these people turn on, and then playing to what’s important to them. It’s just clever partnership working... Seeing an opportunity and mixing it together and pulling those people together to point in the same

direction needed a very, very strategic approach... and what you have to do in that situation is identify for everybody how being there is going to meet their agenda. (HAZ project manager) (Rugaska et al 2007)

It remains unclear how a whole system approach can foster creative individuals to work in the way described in the above quote. A key consideration is how to utilise individuals' energy and creativity without limiting the robustness and sustainability of the system. This requires striking a fine balance that does not decrease the number and strength of connections in a network too much.

Three studies (Platt et al 2003; Cole 2003; Evans & Killoran 2000) identified more prosaic ways in which leadership could facilitate programme implementation. One study of a HAZ reported how clear responsibility and line management was perceived to be important for successful programme delivery (Cole 2003), whilst a study of a smoking prevention programme noted the perception that inadequate line management had exacerbated tensions between personnel (Platt et al 2003). Two studies identified the problem of formal accountability processes in cross-organisation partnerships which had different ways of working (Cole 2003; Evans & Killoran 2000), with one study noting that this could be a significant source of tension in partnership working (Evans & Killoran 2000).

Two studies identified how the perceived personal commitment of others could impact upon programme implementation (Platt et al 2003; Benzeval & Meth 2002). In one study of a smoking prevention programme, there was a perception that representatives from some partner organisations should have been involved more actively with the programme in order to demonstrate their commitment to it (Platt et al 2003). In one study of a HImP, the perceived lack of understanding of a partnership approach at a senior level was argued to considerably weaken the delivery of a genuine partnership approach 'on the ground' (Benzeval & Meth 2002).

Evidence statement 16: Facilitative leadership - Visible strategic leadership

There is evidence from five qualitative studies (Platt et al 2003 [++], UK; Hall et al 2009 [+], UK; Rugaska et al 2007 [+], UK; Evans & Killoran 2000 [+], UK; Benzeval & Meth 2002 [+], UK) regarding the impact of **visible strategic leadership** when implementing a whole system approach. This is related to:

- a. the existence of a strategic programme at a larger scale than the local level (Hall et al 2009) but which still enables active leadership at the local level (Platt et al 2003; Rugaska et al 2007).
- b. the implementation of line management that makes the role of programme staff clear and which allowed tensions between programme staff to be effectively managed (Cole 2003; Platt et al 2003).
- c. the difficulties of implementing formal accountability arrangements in cross-organisation partnerships (Cole 2003; Evans & Killoran 2000).
- d. the personal commitment by staff or management to programme implementation (Platt et al 2003; Benzeval & Meth 2002)

5.9.2. Focus

Two of the six studies reported on the way in which the degree of focus in a programme could impact upon programme implementation (Benzeval 2003; Hall et al 2009). The focus of a programme was important for allowing actors to join together in pursuit of a common aim. Both of the studies documented the efforts that were made to foster a 'bottom-up' approach to identify and agree priorities, but both also identified problems that could accompany this. Such problems could reflect the tensions that existed between locally and nationally identified priorities (Hall et al 2009) (see also Section 5.11.1), or difficulties in reaching a local consensus regarding priorities and the subsequent wide but minimal dispensation of resources across a number of programme areas (Benzeval 2003). One study also reported how local debate about the appropriate focus for reduction of health inequalities (should focus solely be on the most disadvantaged groups, or on narrowing health inequalities as a whole?), but does not report if a consensus was attained (Benzeval 2003).

One study reported a perception that meetings should have focused more on the strategic issues around the implementation of a WHO Healthy City (Hall et al 2009).

Evidence statement 17: Facilitative leadership - Focus

There is evidence from two qualitative studies (Hall et al 2009 [+], UK; Benzeval 2003 [+], UK) regarding the impact of **focus** when implementing a whole system approach.

This is related to:

a. partnership working towards a common goal, which requires that consensus is reached between partners (Hall et al 2009; Benzeval 2003); however, this focus could be diminished by tension between local and national priorities (Hall et al 2009) and the desire to be inclusive leading to a wide but minimal dispersion of resources (Benzeval 2003).

b. a lack of strategic programme focus in programme meetings (Hall et al 2009).

5.9.3. Local control

Three of the six studies reported on the extent of local control over programme implementation (Platt et al 2003; Rugaska et al 2007; Bauld et al 2005b). The extent of this control directly relates to the ‘facilitative’ aspect of ‘facilitative leadership’, whereby programme staff and community members are empowered to act.

One study of a smoking prevention programme reported how programme staff felt a lack of control over programme delivery; senior management decisions were made in response to the wider political climate on issues about which staff had not been consulted (Platt et al 2003). This was perceived to adversely affect staff morale (see also Section 5.8.1), as expectations of staff did not seem clear or consistent (Platt et al 2003).

Lack of control was also related to management at more junior levels. Key staff in one study of a smoking prevention programme reported that they lacked the authority to make decisions about programme implementation, but also faced a confusing management structure where it was not clear which manager was responsible for the issue they were attempting to resolve (Platt et al 2003). There was a perception that

partnership working was limited by this lack of structure (see also Section 5.9.1) (Platt et al 2003).

Two studies reported contrasting experiences in the implementation of HAZs (Bauld et al 2005b; Rugaska et al 2007). In one study, participants reported feeling isolated from the national programme, which further increased their feelings of insecurity and uncertainty about it (Bauld et al 2005b). However, in another study of a HAZ (where the programme in question was delivered in a rural community as part of a HAZ) a sense of shared ownership of the project was reported, with relationships between partners being perceived as harmonious and evenly balanced (Rugaska et al 2007) (see also Section 5.4).

Evidence statement 18: Facilitative leadership - Local control

There is evidence from three qualitative studies (Platt et al 2003 [++], UK; Rugaska et al 2007 [+], UK; Bauld et al 2005b [-], UK) regarding the impact of **local control** when implementing a whole system approach. This is related to:

- a. senior management decisions being taken on matters about which programme staff had not been consulted (Platt et al 2003).
- b. local staff not having the authority to make decisions about programme implementation, but also being unable to refer to the relevant authority because of unclear management structures (Platt et al 2003).
- c. the extent to which programme staff felt involved with a national programme; participants' uncertainty about a programme was increased where participants felt isolated from a national programme (Bauld et al 2005b), but shared ownership of the local programme occurred where participants felt closely involved (Rugaska et al 2007).

5.10. Ongoing monitoring and evaluation

A 'whole system approach' has: Well articulated methods for ongoing **monitoring and evaluation**, the results of which feedback into the system and drive change to enhance effectiveness and acceptability. This relates to the adaptability and learning capacity of the system.

Eight reports presented findings related to the ongoing monitoring and evaluation of projects (Po'e et al 2010; Platt et al 2003; Bauld et al 2005a; Bauld et al 2005b; Benzeval 2003; Cole 2003; Powell et al 2001; Hall et al 2009). One report was about an obesity prevention programme in the USA (Po'e et al 2010), one report was about a smoking prevention programme in Scotland (Platt et al 2003), four reports were about HAZs in England (Bauld et al 2005a; Bauld et al 2005b; Benzeval 2003; Cole 2003), one report was about a HImP (Powell et al 2001), and one report was about a WHO Healthy City in England (Hall et al 2009). Their findings in relation to ongoing monitoring and evaluation are summarised under four headings: Indicators of success (5.10.1), Mechanisms for data collection (5.10.2), Organisational learning (5.10.3), and Complexity (5.10.4).

5.10.1. Indicators of success

Six of the eight studies reported perceptions that indicators of success (that is, measures used in monitoring an evaluation) drove the implementation of programmes in certain directions (Po'e et al 2010; Platt et al 2003; Bauld et al 2005a; Bauld et al 2005b; Powell et al 2001; Hall et al 2009). Three of the studies identified ways that indicators of success were perceived to divert programmes away from their overall goal of addressing the wider determinants of health (Platt et al 2003; Bauld et al 2005b; Powell et al 2001). The requirement for tangible outcomes within a limited timeframe could clash significantly with the fostering of local creativity; issues identified as important by a community might not accord with those identified by programme funders (Platt et al 2003). A programme could be effectively fostering community development that in the long-term reduces health inequalities, but being measured on other outcomes that in the short-term show no improvement. This may lead to a programme being judged somewhat prematurely as 'unsuccessful':

Health and inequalities are about what people eat and whether or not they have a job and what their educational attainment is and the kinds of houses they live in... we are talking about the root causes of health, not about giving some existing services some additional capacity. So from that point of view, we haven't been given a fair opportunity. (HAZ project manager) (Bauld et al 2005b)

Intermediate outcome measures (such as indicators of community development) may be, at least in the short term, more appropriate for judging the success or otherwise of programmes that are attempting to address deeply-ingrained social issues. This may particularly be the case where programmes need the space to develop over time rather than being assessed on multiple outcome measures in the short-term (Powell et al 2001). One study of HAZs raised the issue of whether or not adequate time was allowed for HAZ programmes to demonstrate their potential before attempting to evaluate their impact (Bauld et al 2005a). These issues resonate with a whole system approach, where changes are expected to be non-linear involving long periods of no apparent effect followed by step changes.

One study identified how measures of success that are applied to an organisation, but which originate from outside of the programme evaluation, can have a significant impact on programme implementation (Powell et al 2001). For example, local authority departments may be vital for programme implementation, but not measured on, or rewarded for, the contribution they make to a programme to reduce health inequalities:

What [LA depts.] contribute to reducing health inequalities, which is technically a huge amount as far as I can see, is not what they are measured on. (Health strategy officer) (Powell et al 2001)

The indicators of success that are applied to bodies involved in partnership working can impact on their resourcing from year to year; this impact is likely to be acutely felt by practitioners and their managers, who may have very real concerns for the stability of their employment:

What [education departments] are interested in is where their school is in the league tables. That's what gets their money, that's what drives their roles. (Health strategy officer) (Powell et al 2001)

However, two studies identified examples of how indicators of success could drive programmes in a positive sense (Hall et al 2009; Po'e et al 2010). One study reported how an obesity prevention programme recognised the long-term nature of reducing obesity rates by measuring the number of children attending programme activities (Po'e et al 2010). At the earlier stages of programme implementation, this

intermediate measure was considered to be far more indicative of the programme's likely success than the 'primary' outcome of levels of obesity. One study of a WHO Healthy City identified the way in which broader indicators of success could foster partnership working and provide a focus on addressing the wider determinants of health:

It has given us a focus to move upstream whether you see it as a health promotion or public health or health improvement - it has given us strategic focus where we are more accountable from a local partnership perspective in terms of how we spend NHS capacity and resources focusing on the wider determinants of health. (Health sector worker) (Hall et al 2009)

The implementation of programmes at a local level, in both a negative and positive sense, are driven to a significant extent by the framework provided by national policy and priorities (see also Section 5.11.1).

Evidence statement 19: Ongoing monitoring and evaluation - Indicators of success

There is evidence from six qualitative studies (Po'e et al 2010 [+], USA; Platt et al 2003 [++], UK; Bauld et al 2005a [-], UK; Bauld et al 2005b [-], UK; Powell et al 2001 [-], UK; Hall et al 2009 [+], UK) regarding the way in which **indicators of success** drove the implementation of programmes. This is related to:

- a. an expectation that specific outcomes will be achieved in the short-term that are not consistent with the wider (long-term) goals of community development that could potentially reduce health inequalities (Platt et al 2003; Powell et al 2001; Bauld et al 2005a). Intermediate outcome measures may be more appropriate (Bauld et al 2005b; Powell et al 2001; Hall et al 2009; Po'e et al 2010).
- b. the way in which organisations are rewarded for their role in partnership working - for example, non-health focused organisations may have a key role to play in implementing a whole system approach that reduces health inequalities, but are measured and rewarded only on the basis of non-health outcomes (Powell et al 2001).

5.10.2. Mechanisms for data collection

Three of the eight studies report that the mechanisms for data collection used to evaluate the programmes concerned were not straightforward to implement (Bauld et al 2005a; Bauld et al 2005b; Powell et al 2001). Two studies identified how partnership working made the mechanisms of data collection more complex to implement (Bauld et al 2005a; Powell et al 2001). Although the need to collect data across a range of agencies involved with the programmes was recognised, the practicalities of doing so where different information systems were used (even where ostensibly measuring the same outcome) (Powell et al 2001) or where agencies struggled to reach a consensus on which outcomes to measure (Bauld et al 2005a) meant that implementation was problematic.

One study reported that successful data collection could rely to a substantial extent on the perceived usefulness of the data for those who were responsible for its collection (Bauld et al 2005a). Data collection was unlikely to be successful where programme workers could not understand its relevance to the programme, which in turn was related to the isolation from the HAZ programme as a whole felt by some project staff (see also Section 5.6). Providing feedback to staff on programme progress at a national level was identified as an important ‘missed opportunity’ for decreasing this isolation:

I think there’s been a real wasted opportunity in terms of the amount of data we feed in regularly to them [Department of Health] and I don’t see any evidence of it. You would have thought they’d have put together an annual publication on the work of HAZs. There’s been nothing to raise the profile of HAZs at the national level and to galvanise that combined force in terms of expertise and experience. (HAZ project manager) (Bauld et al 2005b)

Data collection therefore not only serves a purpose in evaluating a programme’s impact at the level. The importance of data collection (and feedback) to programme staff involvement, understanding and motivation should not be overlooked.

Evidence statement 20: Ongoing monitoring and evaluation - Mechanisms for data collection

There is evidence from three qualitative studies (Bauld et al 2005a [-], UK; Bauld et al 2005b [-], UK; Powell et al 2001 [-], UK) regarding the impact of **mechanisms for data collection** when implementing a whole system approach. This is related to:

- a. the complexity of organisational collaboration where different information systems are used, or where organisations struggled to reach a consensus on appropriate outcomes to measure (Bauld et al 2005a; Powell et al 2001).
- b. the perceived usefulness and relevance to the programme for staff with responsibility for collecting the data - this was linked to the extent of integration staff felt with the programme as a whole and communication to staff of programme outcomes based on the data collected (Bauld et al 2005a; Bauld et al 2005b).

5.10.3. Organisational learning

Two of the eight studies reported the way in which organisational learning was perceived to take place during programme implementation (Bauld et al 2005b; Benzeval 2003). One study identified a barrier to organisational learning in the delivery of HAZs as ongoing issues (unspecified in the source) *within* organisations (Benzeval 2003). These issues were perceived by some as limiting efforts that were made to foster organisational learning or change working practices that could better facilitate partnership working (Benzeval 2003). One study identified a facilitator of organisational learning as the promotion of a working culture in which people weren't afraid to discuss problems encountered in programme implementation:

I think what we have developed is a much more open learning culture, where people don't feel afraid to stand up and say, 'well this didn't work but this is why and I'm telling you so you don't go through the same process'... and that enables others to do the same. (HAZ project manager, reviewers' edit) (Bauld et al 2005b

Promoting organisational learning is therefore not simply a matter of enabling a facilitative organisational structure to develop, it also requires close attention to be paid to working culture so that participants feel confident in discussing the strengths and weaknesses of a programme. Before this stage can be reached, it may be necessary for ongoing issues within the organisation to be addressed so that programme staff feel able to speak candidly about the programme without fear of redress.

Evidence statement 21: Ongoing monitoring and evaluation - Organisational learning

There is evidence from two qualitative studies (Bauld et al 2005b [-], UK; Benzeval 2003 [+], UK) regarding the extent to which **organisational learning** could take place when implementing a whole system approach. This is related to:

- a. the existence of unresolved organisational issues that act as a barrier to organisational changes that could promote learning (Benzeval 2003).
- b. the promotion of a working culture in which partners feel able to openly discuss problems encountered in programme implementation (Bauld et al 2005b).

5.10.4. Complexity

Three of the eight studies reported issues about the inherent complexity of implementing a whole system approach and the implications for measuring and/or attaining particular outcomes (Bauld et al 2005a; Cole 2003; Hall et al 2009). One study of HAZs identified a lack of clarity about objectives and a lack of specificity about the outcomes to be measured in what was a highly complex system, as substantially limiting the conclusions about HAZs that could be reached based on the evaluation data (Bauld et al 2005a). This weakness was traced back to the assumption at a national planning level that local agencies had the capacity to develop a whole system approach; the reality was that this capacity was unevenly distributed, with many HAZs struggling to plan activities and reach a consensus on appropriate intermediate outcome measures (Bauld et al 2005a). This study also identified a list of problems that HAZs encountered in their efforts to develop appropriate outcome measures (Table 4). However, one study in a HAZ not included

in the Bauld et al (2005a) study reported that, although evaluation efforts could be patchy, many projects had *begun* to make the links between context, programme mechanisms, and outcomes that the evaluation effort was structured around (Cole 2003). The implication is that, given time, this local understanding would have developed further and strengthened links between central government theories of change and local evaluations of efforts to implement programmes according to these theories (see also Section 5.2).

Table 4 Issues encountered in developing appropriate outcome measures in HAZs

- **Lack of existing baseline data to enable comparison with data after implementation of HAZs**
- **Targets sometimes developed without accessing routinely collected data, or without being identified by needs assessment**
- **Targets expressed without enough specificity to see if they had been met**
- **Selection of targets only partially represented the overall HAZ strategy**
- **Targets set by central government were not necessarily realistic locally, as the contexts in which programmes were implemented could differ significantly**
- **Activities and interventions delivered as part of the HAZ programmes were not conceptualised clearly enough; process measures were not always plausibly linked to the types of outcomes predicted to emerge from them**
- **Complexity and extent of HAZ programme activities made assessing impact difficult**

Source: Bauld et al (2005a)

One study of a WHO Healthy City in England reported that the programme's complexity was associated with a lack of clarity around objectives, targets, and benchmarks (Hall et al 2009). Ultimately, some doubt was expressed as to whether or not evaluation could ever identify the actual impact of the programme:

It has brought key stakeholders together, it has supported collaborative thinking and planning. But it is sometimes difficult to say what has happened as a result of the HC and what might have happened anyway...it is a difficult thing to separate. (Health Sector worker) (Hall et al 2009)

Amongst some programme staff at least, clarity about the way in which evaluation of a complex programme will take place and the validity of evaluation findings will be required to engage programme staff in these evaluation efforts.

Evidence statement 22: Ongoing monitoring and evaluation - Complexity

There is evidence from three qualitative studies (Bauld et al 2005a [-], UK; Cole 2003 [+], UK; Hall et al 2009 [+], UK) regarding the impact of **complexity** when implementing a whole system approach. This is related to:

- a. a lack of clarity about objectives and a lack of specificity about outcomes to be measured (Bauld et al 2005a; Hall et al 2009).
- b. an unfounded assumption at the national planning level that local agencies had the capacity to develop a whole system approach for programme delivery (Bauld et al 2005a). However, given time, local programmes could begin to develop an understanding of a whole system approach that could potentially be implemented (Cole 2003).

5.11. National policy and priorities

The above sections have discussed barriers and facilitators using whole system approach features as a framework. The following sections use an additional theme (national policy and priorities) that emerged from the synthesis, but which does not fit into the framework of the ten whole system approach features. This thematic category focuses on the impact that a changing national context can have on programme implementation.

Eight reports presented findings related to national policy and priorities and the effect that these had on the implementation of programmes (Benzeval & Meth 2002; Powell et al 2001; Evans & Killoran 2000; Benzeval 2003; Bauld et al 2005a; Bauld et al 2005b; Cole 2003; Dodson et al 2009). Three reports were about HImPs in England (Benzeval & Meth 2002; Powell et al 2001; Evans & Killoran 2000), four reports were about HAZs in England (Benzeval 2003; Bauld et al 2005a; Bauld et al 2005b; Cole 2003), and one report was about the implementation of obesity prevention policies in the USA (Dodson et al 2009). Their findings in relation to national policy and

priorities are summarised under four headings: Priorities and targets (5.11.1), Legitimacy of public health (5.11.2), Legal considerations (5.11.3), and Pressures on policy makers (5.11.4).

5.11.1. Priorities and targets

Six of the eight studies reported on the impact of national priorities and targets upon programme implementation (Benzeval & Meth 2002; Powell et al 2001; Evans & Killoran 2000; Benzeval 2003; Bauld et al 2005a; Bauld et al 2005b). Four studies showed how the impact of national policy on the local delivery of programmes could be significant (Evans & Killoran 2000; Bauld et al 2005b; Benzeval & Meth 2002; Benzeval 2003). This impact could be positive, for example where a national focus on addressing health inequalities fostered the development of partnerships that prioritised health inequalities in HImPs (Evans & Killoran 2000) or provided the impetus for getting health inequalities onto the local agenda (Benzeval & Meth 2002; Benzeval 2003) (see also Section 5.1). However, two studies identified how the impact could also be negative (Bauld et al 2005b; Benzeval 2003). For example, when national priorities were re-oriented to have less of a focus on HAZs, uncertainty was created about the future of programmes at a local level (Bauld et al 2005b; Benzeval 2003). In one study, this move was perceived to be significant for the way it signalled a reduced focus on addressing health inequalities, and reduced the credibility of the work in which local authority, community and voluntary sector partners were engaged (Benzeval 2003).

Two studies of HImPs identified how, despite a commitment to addressing health inequalities at both a national and local policy level, efforts to address these inequalities remained peripheral to the concerns of health agencies (Benzeval & Meth 2002; Powell et al 2001). This was perceived to be as a result of the many other targets that health agencies were required to meet persistently pushing health inequalities to the bottom of, or even off, the agenda:

You just haven't been able to get HI onto the agenda because there have just been these other major pressures that have to be resolved, a wealth of "must-be-dones" which...are not related to HI. (Director of public health) (Powell et al 2001)

This difficulty was perceived to be related to the availability of resources. Many health agencies believed that they weren't funded adequately even to meet targets related to their core priorities (Benzeval & Meth 2002), so it is perhaps unsurprising that difficulties were encountered in getting work to address health inequalities onto the local agenda (see also Section 5.8.2). Two studies identified the key role played by the disbursement of central funds that were attached to prioritised, but narrowly defined, areas of health (Benzeval & Meth 2002; Powell et al 2001). This was perceived to limit the scope for funding more wide-ranging projects that addressed the determinants of health:

... national 'must dos' ... gives us less flexibility than we had in the past to fund broader health agenda projects, which were about health and well-being as opposed to health services. (unattributed, reviewers' edit) (Benzeval & Meth 2002)

Equally, however, central funding was in certain cases attached to definitions of health that were more cognisant of the wider determinants of health, and national priorities were similarly oriented. This enabled programme managers at a local level to ensure that programmes delivered using a whole system approach, and which addressed health inequalities, received the necessary funding (Benzeval & Meth 2002):

... the national guidelines on teenage pregnancy have made a huge difference because I have been able to go to the SaFF [Service and Financial Framework] and say you need to do this, this is not a choice, this is a national priority, these are national guidelines, and we need to look at how that fits in with what you are doing. (unattributed, reviewers' edit) (Benzeval & Meth 2002)

The inflexible nature of national priorities and targets, and the directive hand applied when these were followed up with disbursement of central funds that were tied to certain areas of health, could prove frustrating for efforts to implement a whole system approach at a local level. Three studies report that, although it was recognised in the implementation of HImPs and HAZs that national priorities and targets would have to take account of local contexts, in reality this was not always the case (Benzeval 2003; Bauld et al 2005a; Powell et al 2001). This imbalance could raise significant concerns, for example in East London where a locally-identified priority around

addressing tuberculosis (a distinctive and important health issue in the localities concerned) struggled against nationally set targets for recognition (Benzeval 2003). In one study of HAZs, the need to strike a balance between national and local priorities (including the need for local priorities not to have to react to every policy change) was identified (Bauld et al 2005a). Time and training were key enablers for partners to engage and develop strategic priorities that attained a better balance between the national and local (Bauld et al 2005a).

Evidence statement 23: National policy and priorities - Priorities and targets

There is evidence from six qualitative studies (Bauld et al 2005a [-], UK; Bauld et al 2005b [-], UK; Benzeval & Meth 2002 [+], UK; Powell et al 2001 [-], UK; Evans & Killoran 2000 [+], UK; Benzeval 2003 [+], UK) regarding the impact of **national priorities and targets** when implementing a whole system approach. This is related to:

- a. the enabling effect of national policy in fostering partnerships that addressed health inequalities, or for getting health inequalities onto the local agenda (Evans & Killoran 2000; Benzeval & meth 2002; Benzeval 2003). However, changes in national policy could also create uncertainty (Bauld et al 2005b; Benzeval 2003) and reduce the credibility of programmes addressing health inequalities (Benzeval 2003).
- b. the existence of targets other than health inequalities which organisations considered more pressing to address (Powell et al 2001).
- c. funding being attached to specific, narrowly-defined, areas of health, thereby limiting the extent to which whole community programmes could be implemented (Benzeval & Meth 2002; Powell et al 2001). However, funding that recognised the wider determinants of health facilitated the implementation of a whole system approach (Benzeval & Meth 2002).
- d. the limited time available for the development of local strategic priorities that balance both national and local concerns (Bauld et al 2005a).

5.11.2. Legitimacy of public health

Two of the eight studies identified how the perceived legitimacy (or otherwise) of public health as a local policy issue impacted upon programme implementation (Benzeval 2003, HAZs; Dodson et al 2009, obesity policy legislation in the USA).

Both studies identified how the broader political climate could facilitate programme delivery, either through wider policy changes (Dodson et al 2009) or through acting as a ‘policy vehicle’ that enabled a health inequalities agenda to be promoted at a local level (Benzeval 2003). Capitalising on an open policy window was identified in both studies. In the obesity policy study in the USA, an increase in awareness of obesity issues amongst legislators enabled changes in obesity policy (Dodson et al 2009), whilst in the study of HAZs in England a consultation document on how to deliver on health inequalities targets became very important for creating opportunities on the local agenda for the development of local policy that addressed health inequalities (Benzeval 2003). This ‘space’ that was created on the local agenda was perceived to be important for the way that it legitimised activity around health inequalities, provided resources for partnership working that would not have otherwise been available (see also Section 5.8.2), and also provided an ‘intellectual space’ in which novel partnerships or policies could be explored (see also Section 5.3).

Evidence statement 24: National policy and priorities - Legitimacy of public health

There is evidence from two qualitative studies (Benzeval 2003 [+], UK; Dodson et al 2009 [+], USA) regarding the impact of the perceived **legitimacy of public health** when implementing a whole system approach. This is related to:

- a. the broader political climate’s role in making wider policy changes that facilitate a whole system approach (Dodson et al 2009), through acting as a ‘policy vehicle’ that enable health inequalities to be promoted at a local level (Benzeval 2003), or through opening a national ‘policy window’ through which a whole system approach could be implemented (Dodson et al 2009; Benzeval 2003).

5.11.3. Legal considerations

One of the eight studies reported how legal considerations could impact upon programme implementation (Cole 2003). This arose in relation to the provision of contraception to girls under the age of consent and voluntary sector provision of harm reduction services related to illicit drugs (Cole 2003).

Evidence statement 25: National policy and priorities - Legal considerations

There is evidence from one qualitative study (Cole 2003 [+], UK) regarding the impact of **legal considerations** when implementing a whole system approach. This is related to:

- a. the extent to which novel programme partnerships to address health inequalities could be implemented where these novel approaches breached established law (Cole 2003).

5.11.4. Pressures on policy makers

One of the eight studies reported how pressures could be brought to bear on USA policy makers, in relation to obesity prevention policy (Dodson et al 2009). This reflected an imbalance in resources between the private and public sector; for example, private sector corporations employed lobbyists in order to represent the corporation's view and proactively address policy makers' concerns (Dodson et al 2009). However, pressure could also come from other parts of the system, for example:

Representatives who voted no [on school junk food bill, indicated] that their schools had encouraged them to vote no... even the ones who said they got pressure from the soda companies, all of them mentioned pressures from their school districts they represented, saying that their school districts feared they would lose money. (Dodson et al 2009, reviewers' edit)

A whole system approach needs to be aware of the totality of the system with regard to the pressures that may be placed on policy makers, as seeking to control the more overt aspects of the system (for example, lobbyists) may overlook the influence that ostensibly less powerful players in the system (for example, school district representatives) may have.

Evidence statement 26: National policy and priorities – Pressures on policy makers

There is evidence from one qualitative study (Dodson et al 2009 [+], USA) regarding the impact of **pressures on policy makers** when implementing a whole system approach.

This is related to:

- a. the pressure exerted by key actors in the public sector, as well as lobbyists on behalf of the private sector (Dodson et al 2009).

5.12. Experience of obesity prevention programmes

Three studies about pupils' and parents' experiences of programmes were not amenable to synthesis using the core features structure (Curtis 2008; Khunti et al 2007; Points 4 Life 2010) and so are presented separately in this section. All of them were among those at whom various healthy living health promotion activities had been aimed. The paper by Curtis is considered first below as it covers unique issues, particularly about the unintended consequences of a school-based focus on healthy eating and increased activity. The papers by Khunti and Points 4 Life are subsequently considered together as they both consider barriers and facilitators to healthy lifestyles, albeit in different populations.

5.12.1. Obese pupils' experience of Healthy Schools activities

Curtis (2008) spoke to young people aged 11-18, in groups or individual interviews, who attended an inner-city, community based obesity intervention group in South Yorkshire. These young people discussed their experience of the Healthy Schools Programme. It is worth noting that these young people are likely to be those who felt least supported by such in-school initiatives, and this was borne out by the fact that the paper observes those that did not complete the community programme were those with the best friendship networks in school. Almost all in the study had been bullied (Curtis 2008).

These young people, who were overweight or obese, experienced Healthy Schools Programme initiatives around physical activity and healthy eating as increasing their already high visibility among their peers, and in some ways legitimising further scrutiny of their bodies and behaviour. They felt vulnerable to scrutiny and comments when involved in physical activity or when eating which could create new opportunities for persecution (Curtis 2008).

Georgie: Everyone stares at you, you become a target when it's PE, even more so, even if you're not scared because you think that you're going to become a target, and you know that you can't do that area or whatever and you become more self-conscious at which point you get bullied more.

A range of strategies to avoid participating in PE were described, including feigning illness or injury, and faking or procuring notes from their parents. Clearly, there is the potential for such activities to become less, rather than more, inclusive of the whole school population (Curtis 2008).

The participants also note that young people who are already overweight feel that anything they are seen eating is noted (Curtis 2008).

Jade:....they feel like they have to watch you eat because "Oh, Oh look at her stuffing her face", but then you're thinking to yourself I'm eating a sandwich, you're stuffing yourself with pizza and chips and all that, and chips and gravy and everything, they're eating all that and you're just like having your sandwich and there looking at you like "Oh look at her eating, look at her!" (edits in original)

The authors suggest that foods associated with dieting or "healthy eating" symbolise the need for control over the overweight body and are seen by (hostile) peers as validating their perception that there is a problem with that person which needs to be addressed. Policy initiatives, such as 5-a-day in the schools programme, can lead some foods, like fruit and vegetables as markers of a need for healthy eating (Curtis 2008).

Jannine: I'm more self conscious when I'm eating healthily than when I am not, I feel like people look at me like you know because you are fat you're going to eat

unhealthily but if you are eating healthy I think, I don't know, I just, just feel its more of a big deal that you're eating an apple or something, they like look and wonder why..... (reviewers' edit)

This is an unintended affect of the healthy eating programme – potentially making healthy food choices less, rather than more likely, in young people who are conscious of their weight. Other choices may also be unhealthy, such as the speaker below who doesn't eat at school in attempt to reduce the surveillance from peers she feels:

Kym: I don't eat anything, because I'm kind of like, I like, I still take sandwiches, well I take dip things, Weight Watchers I think they are, but I don't really eat them because I'm, I don't eat like in a cafeteria, I eat outside, and because people walk past I'm always self conscious of the fact that they'll see me like, eating Weight Watchers, and think, oh she's fat, she's on a diet, and they'll take the mickey out of me, so I just don't eat. (reviewers' edit)

Other participants also reported avoiding eating, or not eating in dining spaces for similar reasons. Curtis et al interpret their findings as indicating that the health Schools programme, which had an explicit social inclusion aim, could actually contribute to further marginalisation of young people with obesity and “play an important part in the construction of undesirable young bodies”. In addition, rather than highlighting the obesogenic nature of the environment, it reinforces individual responsibility for making healthy or unhealthy choices, imbuing these choices with morality (Curtis 2008).

Evidence statement 27: Unintended consequences of obesity reduction activities.

There is evidence from one study (Curtis (2008) [++], UK) relating to unintended consequences of a Healthy Schools programme. This suggests that such programmes can create more opportunities for some overweight and obese children to be scrutinised and criticised by their peers. Participation in sports or visibly eating foods now marked as “healthy” (such as apples) may be seen as validating the perception that there is a problem with such children that needs to be addressed. Various strategies employed by these children, (such as faking illness or avoiding foods associated with dieting) have the potential to make programmes less, rather than more, inclusive.

5.12.2. Barriers to healthy eating

Khunti et al (2007) used focus groups to glean the opinions of young people aged 11-15, and teaching staff, whose schools had been targeted with healthy eating and physical activity projects as part of a diabetes prevention programme focusing on South Asian populations in the UK. These were used to create lists factors that pupils identified as barriers to adopting a healthier lifestyles. Researchers for Points 4 Life (2010) used focus groups and interviews among specific population groups (most deprived; least deprived, Black African/Caribbean/ British; Bangladeshi/ Pakistani/ Indian female; Bangladeshi/ Pakistani/ Indian female) to describe perceived barriers to, and enablers of healthy eating and increased physical activity.

Potential barriers to healthy eating included the perception that healthy food was more expensive than unhealthy food both in school (Khunti et al, 2007) and in the shops (Points 4 Life, 2010, among most deprived and BME groups).

If the NHS wanted people to lose weight, the low fat things should be less than the full fat things, in the supermarkets it's the other way around. (Points 4 Life, 2010)

School children were less familiar with healthy options and so were unwilling to potentially waste money on trying different foods (Khunti et al, 2007). Pupils also felt that if unfamiliar options were not clearly labelled and priced, they were likely to stay with known but safe choices, like chips (Khunti et al, 2007).

Lack of motivation to choose healthy options, was also cited by pupils, with food choices being made on other grounds than health (such as taste, hunger satisfaction and peer pressure) (Khunti et al, 2007). The adult groups also cited a lack of will power about healthy eating (Points 4 Life, 2010).

Unhealthy food was seen in both studies as easily available and offering better value than healthy alternatives (Khunti et al, 2007; Points 4 Life, 2010). For school pupils, local retail outlets could replace canteen meals potentially frustrating attempts to make these more healthy. In addition, pupils enjoyed having control over their food choices at secondary school, including the freedom to make unhealthy ones, as this was not available to them either at home or in primary school (Khunti et al, 2007).

Teachers were frustrated by their lack of control over what retail outlets offered to pupils:

for all the work [the cook supervisor] is doing providing healthy eating for children, suddenly the children are going across the road [to the burger van parked outside school] for burgers and chips and they have no idea of the fat content and I have tried the legal route and I have tried everything and apparently I cant challenge that because they aren't doing anything illegal.

For adults, lack of time and stress also influenced unhealthy food choices (Points 4 Life, 2010). However it is notable that the least deprived groups identified fewer barriers than other groups, and were also the most likely to suggest that people should take personal responsibility for their own health through making healthy choices (Points 4 Life, 2010).

Evidence statement 28: Barriers to healthy eating

There is evidence from two studies (Khunti et al 2007 [-], UK; Points 4 Life 2010 [-], UK) about barriers to healthy eating in secondary school pupils (Khunti et al 2007) and an urban population (Points 4 Life 2010). This related to:

- a. Perception that healthy food is more expensive than inexpensive food (Khunti et al 2007; Points 4 Life 2010).
- b. Unwillingness of children to try unfamiliar (healthy) school options as potentially a waste of money (Khunti et al 2007).
- c. Food options informed by factors other than health (taste, hunger, peer pressure etc. Khunti et al 2007; convenience and stress Points 4 Life 2010).
- d. Unhealthy food being more readily available than healthy and, for pupils, healthy in-school options easily replaced by local retail outlets (Khunti et al 2007; Points 4 Life 2010).
- e. The least deprived groups mentioned fewer barriers than the most deprived groups (Points 4 Life 2010).

5.12.3. Barriers to physical activity

In school, poor facilities were said to have a negative impact on participation in physical activities (for example shared changing rooms and a lack of safe storage for

bikes and PE kit for extra curriculum activities) (Khunti et al, 2007). Staff acknowledged limitations in resources, and felt frustrated by this (Khunti et al, 2007). Concern about the nature of facilities on offer was echoed by South Asian women in the Points 4 Life (2010) study, who were particularly reluctant to use public facilities, preferring to exercise at home. Groups in the most deprived groups also expressed reluctance to go out at night.

Some pupils suggested that cultural commitments, such as needing to attend mosque, limited time for physical activity (Khunti et al, 2007). It was also felt that boys were more interested than girls in sports and activity. Further, the PE choices were not thought to appeal to all pupils (Khunti et al, 2007). Staff were rather defensive about this latter point, feeling that a good job was done and this led to a reluctance to implement changes.

The school pupils tended to view the potential impact of lifestyle on health as relevant to older people rather than themselves (Khunti et al, 2007).

Adults in the Points 4 Life (2010) study identified cost as a barrier to undertaking more physical activity. In addition, lack of knowledge about or access to exercise facilities was seen as problematic (Points 4 Life, 2010).

Both men and women in the Bangladeshi/ Pakistani/ Indian groups felt that home responsibilities were a barrier to finding time to exercise (Points 4 Life, 2010).

The least deprived groups in the Points 4 Life study felt that health problems were the most common barrier to exercise. However, South Asian men felt that a health scare was the biggest motivator to exercise.

Evidence statement 29: Barriers to physical activity

There is evidence from two studies (Khunti et al 2007 [-], UK; Points 4 Life 2010 [-], UK) about barriers to participating in physical activities for secondary school pupils (Khunti et al 2007) and an urban population (Points 4 Life 2010). This related to:

- a. Poor facilities, lack of information about available facilities or costly facilities had a negative impact on participation (examples of poor facilities included shared changing rooms and lack of safe kit and bike storage, Khunti et al 2007; South Asian women were reluctant to use public facilities, those in the most deprived groups were reluctant to go out at night, Points 4 Life 2010).
- b. Other commitments taking up time (such as attending mosque, children in Khunti et al 2007; home responsibilities South Asian groups in Points 4 Life 2010).
- c. Options for physical activity at school were thought to be of limited appeal (Khunti et al 2007)
- d. School pupils regarded a concern about health as relevant to older people (Khunti et al 2007).

5.12.4. Attitudes towards Points 4 Life and SALAD programmes

Attitudes towards the Points 4 Life and SALAD programmes are not reported in detail here as they add little to the broad understanding of barriers and facilitators to a *whole system approach* to obesity prevention. However, these attitudes are summarised in the ‘notes’ section of the evidence tables (Appendix 6).

6. Discussion

6.1. Statement of principal findings

Building and maintaining positive relationships between actors and organisations emerged strongly as a key concern in the synthesis. These positive relationships both permit, and are strengthened through, careful and free flowing communication within the system and well thought-out methods of engagement with a broad range of partners. Such collaborations require a shared vision which can focus efforts while permitting innovative potential activities. Particularly where novel approaches are employed, support and training for staff is required. It is important to build a critical mass of actors and organisations that recognise the wider determinants of health in a locality. A broad range of actors should be represented and, in addition, there may be a crucial role for skilled “boundary spanners” who are able to work across these organisations and link their concerns. Someone who is immersed in, and understands, local communities may be particularly valuable in this role. Overreliance on such individuals, however, may be unwise since developing many links across these networks is likely to result in a more robust system.

Challenges to strong relationships and partnership working include the impact of existing power relations between organisations, such as statutory and voluntary sector, individuals, or established organisations and community involvement. This may be addressed by using methods of advocacy and ensuring that language used is not exclusionary. As well as engaging with the community, visible senior staff support is important to lend credibility to activities. Differences between organisational structures and languages can hamper positive partnerships so this needs to be recognised and, where possible, mitigated against through development of shared language and goals.

Community engagement requires that a community’s concerns, which may not be the same as project workers’ involved in public health programmes, are recognised. Working together to address these may be necessary in order for the community to later become aligned with the concerns of health promotion staff.

The importance of partnership working for tackling complex public health problems is far from a new idea. Many localities will have extensive experience of joint working. However, this synthesis shows that this may have positive or negative effects and that poor experiences, as well as positive ones, between personnel and organisations can have a lasting legacy. The synthesis suggests that, done well, working through these existing tensions may lead to enhanced relationships and alliances. However, feedback from the PDG on this synthesis has identified the limitations of partnership working, and has stressed the importance of not glossing over the potential for unintended consequences resulting from partnership working. We note that the synthesis, whilst identifying how partnership working *can* lead to enhanced relationships and alliances, also shows how a reliance on conventional organisational structures is insufficient for implementing a ‘whole system approach’ to partnership working (see evidence statements 1 and 6) and how formal organisational links can end up working *against* a partnership approach (see evidence statement 8).

Complex programmes require sufficient resourcing, in terms of sufficient numbers of well trained staff and identifiable, long term finance for their activities. There is also a need for leadership roles, both at the strategic level and enabled at the local level, to be identifiable and supported. Local staff need to be able to take decisions as appropriate. Questions of accountability and responsibility between individuals and organisation need to be carefully managed.

Potentially pertinent findings from the HAZ and HImP studies, given the current economic and political environment, relate to the difficulties of maintaining momentum for specific public health activity in uncertain political times. These projects existed through major structural reorganisation of the health service and changing priorities in central government. Staff insecurity about their jobs, and uncertainty about future funding streams can undermine programme robustness and sustainability. It is unclear how such disruption can be avoided. Further, it is suggested that resources for crucial, but perhaps more nebulous, activities such as engaging communities and developing partnerships, can be more difficult to justify during budget cuts. The current political climate of cuts in the public sector and reorganisation in the way in which services are delivered and funded may well have an impact on the feasibility of adopting a successful whole system approach to obesity prevention.

Monitoring and evaluation can be used positively to ensure that successes are known about and shared and that changes can be made where activities are less successful. This latter requires trust between partners to allow open discussion of activities that have not been successful. In addition, it may be difficult to maintain the interest of (non-health) partner organisations if the indicators of success on which they are measured and rewarded do not reflect their role in addressing health outcomes. Staff involved in data collection need to be aware of the purpose of the information they provide, suggesting that feedback of results to participants is important.

There is a tension between funding which is attached to specific projects in the short term, and the long term vision required for a whole system approach to obesity prevention. Particularly notable was the study about “pre-engagement” work required in some circumstances to build mutual awareness and interest between community groups and statutory or research organisations which took several years.

Local activity, including partnership working, may be fostered by supportive national policy which prioritises key health areas and legitimises public health work across the community. It is less helpful where competing targets and priorities divert attention away from these areas, or where insufficient time is available for developing local priorities that balance national and local concerns. Where complex causes create a health problem, as is the case with obesity, activities are also hampered if funding and targets are attached to narrowly defined clinical areas rather than broader, whole community concerns. National policy could *enable* a whole system approach at a local level through acting as a ‘policy vehicle’ (enabling health inequalities to be promoted at a local level) or by opening a ‘policy window’ through which a whole system approach could be implemented. Key stakeholders in both the private and public sectors could exert considerable pressure on those involved with the development of public health policy.

That the engagement of a broad range of actors was seen as important in so many of the included studies is even more notable given the fact that we *excluded* studies for which issues of community engagement were a primary focus. Existing CPHE guidance about Community Engagement is clearly pertinent to this programme of work. However, we did not identify any qualitative evidence that would aid understanding of one of the secondary questions for this review, namely: Who are the

essential partners and packages of activities for a successful whole system approach to obesity prevention?

Finally, there was some evidence of unintended consequences of specific obesity prevention programmes. An in-school focus on healthy eating and physical activity was felt by some young people who were overweight or obese to expand the opportunities for their behaviour to be scrutinised and judged, in some cases leading to bullying. Their consequence avoidance of these activities may make such programmes less inclusive. Failure to ensure that everyone in the system had a shared understanding of programme goals may also have unintended consequences, as was seen in a school canteen where “no chip days” resulted in some alternatives offered that were even higher in fat.

6.2. Methodological considerations

We used the listed features of a whole system approach, developed through previous reviews and PDG input, as a framework for analysis in this review. Although we found this to be successful, we are aware that other interpretations of the data are possible. This should be regarded as the interpretation of a particular team in the context of the CPHE process to understand those factors that might help or hinder the success of a whole system approach to obesity prevention. In addition, as the features of a whole system approach are often interlinked and overlapping, it was not always easy to decide where a particular finding should sit. For example, mechanisms for enabling good relationships and developing engagement are strongly interlinked and may support each other; each strengthening the other. Further, both of these may require enhanced communication strategies to flourish. This linkage between the thematic areas is difficult to represent in a linear narrative and so there are some inevitable cross references, repetition between sections and blurring between the various features.

While we were pleased to find considerable support that the identified features of a successful whole system approach were recognised as important, there were more findings describing *what* is required (for example, “facilitative” meeting styles or developing a common language), and fewer went further to describe *how* this might be achieved.

There were surprisingly few identified qualitative research reports about obesity programmes. We had hoped to identify sufficient qualitative research relating to community wide obesity prevention activities for a meaningful synthesis. In the event, only five such reports were identified. We therefore expanded our inclusion criteria to include whole system approaches to other public health problems in the UK. Evaluations of locality wide health promotion activities accounted for 10 out of a total of 17 studies. Eight related to HAZ and HImP activities in the 1990s and 2000s. These activities related to a particular political environment and were comprised of a range of public health activities which were designed to address health inequalities. Whilst this may, in some ways, limit their applicability to the contemporary obesity prevention concerns, we believe that their explicit focus on health promotion using a whole system approach means that their inclusion can offer insights transferable to an obesity context.

We acknowledge that the inclusion criteria developed for this review may have resulted in the exclusion of studies that some would consider appropriate to include. For example, the inclusion criteria about clarity of reporting on qualitative research methods used resulted in the exclusion of some studies where there was an emphasis on the application of a conceptual policy model. Furthermore, some such studies may not have been identified by the search strategy. This is a reflection of the balance between sensitivity and specificity that it is necessary to strike when trying to locate studies in a complex area; increasing sensitivity and decreasing specificity can quickly result in unrealistic numbers of studies (within the resources available) to screen for inclusion. Future reviews in the area of whole system approaches may benefit from assessing the impact of introducing additional terms at the scoping stage so that their impact on study yield can be assessed. We also note that the ongoing evaluation of key whole community programmes such as 'Healthy Towns' meant that research on such initiatives remained unpublished at the time of our searches.

Of the five papers focusing on obesity that were included, three focused solely on those at whom obesity prevention activities were aimed. The findings from these studies, while offering insights into the way in which specific programmes are received, particularly potential unintentional impacts, were not amenable to synthesis through the whole system approach framework. It may be considered a limitation of the synthesis that so few papers directly related to obesity informed the review.

However, we believe that it is a strength that the evaluations of HAZ and HImP inform this synthesis. The programmes of work described in them had the chance to mature, which most whole system approaches to obesity prevention have not yet had the chance to do. Further, the range of packages of activity and organisational partners that were involved has obvious parallels with those proposed for locality wide activities to obesity prevention. The mechanisms by which such activities and partnerships are developed and sustained are likely to be similar, whether the target is to address health inequalities, or to reduce obesity. It is possible that a different method such as realist review (Pawson 2006) could have enabled greater insight into the ‘context-mechanism-outcome configurations’ in which programmes were located, thereby allowing inferences across programme types to be more clearly made.

The inherent breadth of a whole system approach means that *all* areas of policy and practice are unlikely to be covered exhaustively. For example, it is likely that further evidence about the role played by ‘boundary spanners’, the impact of short-term funding, and the nature of partnerships with non-statutory agencies could be located using a wider search strategy. Future reviews in this area may, within the resources available, benefit from developing a search strategy that includes such concepts. Consideration should also be given to specifically including health inequalities as a concept in the search strategy.

Generally, the included studies were rated as poor (seven papers were rated [-]) with only two appraised as very strong ([++]). However, we remain cautious about interpreting such results given the lack of consensus within the research community about what constitutes a fatal flaw in qualitative research as well as the lack of agreed reporting standards. These are compounded by often low word counts in journal articles restricting the detail provided.

6.3. Further research

Developing whole system approaches to obesity prevention should include comprehensive methods for monitoring and evaluation that include quantitative assessment of process and outcome measures as well as qualitative research which explores *how* positive cross sectoral partnerships are developed and maintained.

Qualitative research methods, including action research and observational techniques, may be particularly valuable.

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