Health-integrated planning at the local level in England: impediments and opportunities

1. Introduction

The significance of the built environment for human health and well-being is now well established in academic circles (Barton, 2009, for a systematic review of evidence on this topic see WHO, 2010). There are advice and guidance documents reflecting this growing consensus from national and international bodies (Barton and Tsourou, 2000, DoH, 2007). The most recent national policy guidance in England, the National Planning Policy Framework (CLG, 2012) itself highlights "health and well-being" as a key facet of sustainable development, to be properly addressed through plans and development projects. But there remains a strong suspicion, supported by extensive non systematic evidence, that local plans and related policy documents are not taking health on board.

This article reports on a research project that sought to test the validity of this suspicion and point the way to good practice. It reports on a series of connected studies commissioned by the National Institute of Health and Clinical Excellence (NICE) which involved systematic reviews of evidence together with case studies. This aimed to examine the degree to which UK, mainly English, local planning authorities incorporate health in their land use plans and development decisions. The research was carried out in 2010-2011 prior to a series of political and planning policy changes. In November 2011 the Localism Act gained Royal Assent. This decentralises many functions from national to local government, not least spatial planning. However not all the provisions of the Act apply to Scotland and Wales. March 2012 saw publication of the National Planning Policy Framework (NPPF) (CLG, 2012). Applying only to England this streamline national planning policy guidance into a consolidated set of priorities on which to base local plans and decision-making development proposals. We will discuss the extent to which the findings from these interlinked studies are relevant and applicable in the new policy context It however it is too early to draw any conclusion on a new policy regime.

We will first summarise the theoretical approach and methods used to address the research questions. Second, we will report some key findings. Thirdly, we will highlight examples of good practice as well as key barriers to such integration, and opportunities for improvement, drawing the lessons for England.

2. Theory: built environment, planning and health

2.1 The built environment as a broad determinant of health

This research focussed on the degree to which, and the ways in which, the planning system and plans or development decisions by key regulatory actors impact on health and well-being, not on whether or how the built environment impacts on health. However, an understanding of links between health and the built environment is vital, since planning will influence health through changes in the built environment. In this context, health is understood as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity (World Health Organization (WHO), 1946). The body of research evidence demonstrating that the physical environment has a direct impact on health and well-being is growing (Barton, 2009; Braubach and Grant, 2010; Dannenberg et al., 2011). In addition, the Marmot review on health inequalities in the UK identifies a strong link between built environment and health inequalities (Marmot, 2010) and recommends the creation and development of 'healthy and sustainable places and communities". More specifically, Rao (2011), for instance, emphasises the impact of urban planning on non-communicable diseases in urbanised societies, while it has been demonstrated that housing and public space can impact on behaviour and the sense of community (Barton, Grant and Guise, 2010), and evidence shows that quality green spaces can encourage social interaction and greater physical activity (Croucher et al., 2007) and reduce health inequalities (Mitchell and Popham, 2008). In terms of policy development, key stakeholders have also started to identify the risks that poor urban development, transport, and living and working environments pose to human health (WHO, 2010; Greenspace Scotland, 2008). The UK government now recognises that the built environment's effect on health risk is an important problem (Wanless, 2002;

Royal Commission, 2007). The government is in particular conscious of the contribution of the built environment on obesity and health inequalities (Butland et al., 2007; Marmot, 2010) and the need to take action (DoH, 2008). Our project is therefore founded on the premise that the built environment is a determinant of human health and well-being just as a person's characteristics and hereditary, their lifestyle, the community, local economy and natural environments in which they live, their activities and the global ecosystem influence their health and wellbeing (Barton and Grant, 2006).

2.2 Development and planning processes

Improvement of the health and well-being of citizens was one of the key factors leading to the development of the planning system before the first World War, but that perspective has often been overlooked over the last century and other priorities given precedence. Some countries are seeking to ensure that health becomes central again. In England, planning policies and processes are tools of the public sector to regulate and guide development towards a vision for places (RTPI, 2007). This means that local authorities can, in theory, contribute healthy changes to the built environment through policy interventions, their local plans and planning decisions. As part of this, appraisal processes, whether compulsory or voluntary, are key tools to support the assessment of plans or projects for their potential positive and negative impacts on the environment and health. As such they can also be used by local authorities to guide healthy planning outcomes.

However, plans themselves, in the UK context, can guide but not dictate, and have to operate within what the market, in the broadest sense, can deliver. The ability of local authorities to deliver healthy built environments and communities is therefore limited since planning is only one key driver of built environment change (see Figure 1). The statutory processes intervene in the on-going market process of land development. This means that regulatory authorities may often have much less influence than the land owners, developers, investors, operators, designers, builders and users who are the other players in the development process, who can generate actual change to the human environment and can influence health and well being.

Figure 1: The planning system as part of the development process and their key stakeholders
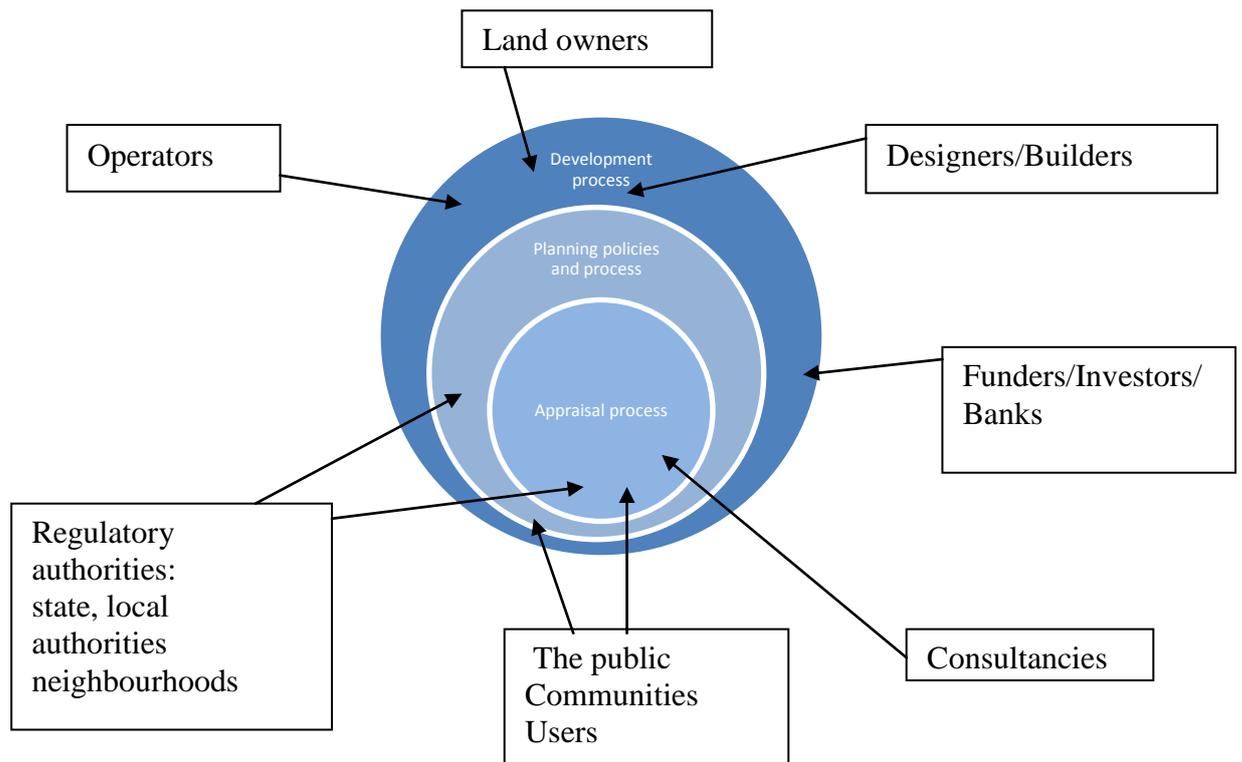
The contribution of local planning policies and processes to health must therefore be examined within that limited scope for intervention, including:

How far is health integrated into local plans and land use strategies?

How far is health integrated into plan and project appraisals?

Is this integration realised on the ground?

What are the barriers and facilitators for such integration?

2. Material and methods

The initial research questions were developed by the Programme Development Group (PDG) on spatial planning for health set up by NICE as steering committee for the reviews. The PDG commented on the methodology and on findings at key stages of the research. As a group of experts, academics and practitioners in the fields of planning and public health, the members also contributed examples of good practice to inform the various stages of the study.

In order to answer these questions, we used various methods to ensure triangulation of evidence from multiple sources. The methods and purpose for each method are summarised in Table 1 below.

Table 1: Summary of methods used to identify integration of health into planning practice in England

Research questions	Methods
How far is health integrated into plan and project appraisals? What are the barriers and facilitators of integration?	• 2 systematic literature reviews following NICE guidance • Further document analysis from two literature reviews + supplementary evidence (NICE, 2011; Colin Buchanan, 2010)
How far is health integrated in local plans and land use strategies? What are the barriers and facilitators of integration?	• Desk study of 10 British case studies of local plans (England, Wales and Scotland) • Analysis of supplementary evidence (NICE, 2011) • Desk study of 5 English and Scottish examples of health integration at plan or policy levels
What are the limitations and gaps in the evidence? What are the implications for practice and education?	• Literature review including document analysis • Analysis of supplementary evidence (NICE, 2011; Colin Buchanan, 2010) • Review of all the evidence collected

Triangulation worked in the sense that conclusions from literature and our own case studies were tested against other case studies and policy analysis undertaken by parallel Department of Health and NICE projects using different methods. The similarities of findings was striking.

The nature of the UK governance context is a challenge in itself. Some regulations or laws relevant to healthy planning (e.g. on strategic environmental assessment) apply uniformly to the whole of the UK while each country of the UK has its own planning system, albeit based on the same principles of plan-led decision-making and

sustainable development. Whilst our research was focused on lessons for England, we also looked at some examples of good practice in Scotland and Wales which could be easily transferable to the English context in terms of tools (e.g. impact assessment) and substantial strategies even if the regulatory contexts differ within the UK.

The first key element of the research, the systematic reviews of literature searched for evidence of the effectiveness of different UK planning appraisal processes (i.e. Environment Impact Assessment - EIA, Sustainability Appraisal/Strategic Environmental Assessment – SA/SEA, Health Impact Assessment - HIA and their variations) in considering the impact of land use plans or strategies and development projects. We focussed on impact over a broad range of health aspects including physical activity, mental well-being, environmental health, accidental injury and the cross-cutting issue of health inequalities (UWE, 2011a, 2011b, 2011c).

The second key element of the study broadened the research beyond appraisals and explored integration into plans themselves: core strategies, transport plans and action area plans. This involved desk studies of ten local plans in England, Wales and Scotland (NICE, 2011; UWE, 2011c). The analysis started to point towards some examples of good practice in Britain on health integrated practices.

Further research then allowed us to identify some of the key factors preventing or facilitating integration of health into planning at the local level (UWE, 2011c and d) as well as to draw some lessons for research and practice. The full methodology which included quality appraisal of evidence, standardised data extraction form and definition of all criteria used has been published (UWE, 2011a, b, c, d). Specific finding on appraisals have also been published (Carmichael et al. 2012; Gray et al., 2011).

4. Results and discussion

We will now review the findings and comment on their significance. First, we will examine to what extent health outcomes are considered in plan and project appraisals in the UK. Secondly, we will assess health integration into local plans. From these

findings, we will then discuss the impediments and opportunities for integrating health into the planning process and draw some conclusions for UK practice in section 5.

4.1 Health integration into plan and project appraisal

Our research identified a small body of empirical literature assessing the value, challenges and opportunities of integrating health in the planning process through appraisals in Britain (UWE, 2011, a, b, also for an international analysis, see Gray et al, 2011). We examined the degree to which plan and project appraisal processes (e.g. SA/SEA, EIA or HIA in Britain) incorporated health, whether recommendations arising from health appraisal translated into the development process and whether outcomes were as anticipated. The research findings below are based on 17 peer reviewed publications, evaluating 17 plan appraisals (mainly HIAs) and 16 project appraisals (HIAs and EIAs). The paucity of evaluation of sustainability appraisals (SA), the key appraisal of plans, was noted.

The research identified evidence of integration within the EIA, SA/SEA and HIA of a variety of health outcomes. As far as EIA is concerned, evidence demonstrates that the EIA process is generally effective in considering and assessing environmental health issues such as air quality, noise pollution, but other key health issues such as levels of physical activity, mental well-being and health equity are rarely considered. The evaluation studies we reviewed did not provide details of implementation or subsequent monitoring of health impacts, though in one case (a new runway in Manchester airport) all the recommendations have been acted upon (Douglas et al, 2007). The author undertaking the broadest review reaches the conclusion that there are three mutually reinforcing obstacles to incorporating health effectively in EIA: the difficulty of making predictions on impacts, the lack of health expertise, and the lack of an interdisciplinary approach (Sutcliffe, 1995).

Our research also identified evidence that HIA had influenced plans and projects leading to modifications in proposals and their implementation – particularly when appraisal was started early in the process and benefited from the willing participation

of project initiators and the planning authority. In terms of process, only one case study reported HIA effectiveness in terms of completion of all stages from health recommendations, to implementation and post adoption evaluation (Greig et al., 2004). Those involved felt the process was useful, indeed successful, in improving the plans, and (in some cases) empowering local communities and environmental interests. Keys to success were seeing the HIA as part of an iterative process throughout plan preparation, and the active involvement of planners with health and other professionals. All HIA considered broad health issues, yet the scope of some of the HIAs reviewed was limited in respect of physical activity, mental well-being, health equity and distributional effects while environmental health issues figured greatly (e.g. air quality, noise) similar to the main health focus of EIAs.

HIAs also helped to improve the working relations between planning departments, public health professionals and community stakeholders, and thus may encourage better liaison and collaboration in the future. One before-and-after study (the only such study reviewed) revealed the difficulty of accurate forecasting of health impacts. We found no evidence on effectiveness of HIA to deliver healthy planning at post development stage as we could not find any study evaluating that stage. Some good practice examples were uncovered, including for instance use of HIA to secure health benefits through the project decision process for the extension of Manchester Airport (Douglas et al, 2007).

Only one paper of good quality considered the health context of SA/SEA with three case studies examined including core strategy preferred option report, local transport plan and scoping report and key issues and strategy options for a local development plan (Fischer et al, 2010). The absence of academic review of the legally required plan appraisal tool is regrettable and needs rectifying.

As for other forms of appraisals, only two case studies met the inclusion criteria: one of an Equality Impact Assessment of a supplementary planning document (PAS 2008) and an Integrated Impact Assessment of a strategic level spatial development plan (Plant 2007). Whilst both case studies considered a wide range of health issues, including physical activity, and made recommendations that were incorporated into the plans, no evidence of policies being evaluated post- adoption was available. Both

highlight the potential benefits of extending or perhaps redesigning the usual appraisal processes of SA/SEA. Indeed development plan monitoring processes are not adequate in monitoring health outcomes.

4.2 Health integration into development plans

The review of plans focussed on ten British local authorities which had prepared core strategies or equivalent (UWE, 2011c) complemented by case study research on seven local development frameworks (NICE, 2011). While it cannot claim to represent an authoritative picture of the whole country, it does indicate very clearly both the wide range of current experience and key barriers and opportunities. The case studies examined offered a broad UK coverage and many types of authorities. The selection was based on these criteria:

- A submitted core strategy or equivalent
- A range of local authority and settlement types
- A spread across Britain
- Some good practice examples, some standard practice

Table 3 below summarises key features for each case study.

Table 3: list of local plans examined

	Local Authority	Region	Characteristics
1	Lancaster City (Core Strategy 2008)	North West	• One of the few LPAs in region with a core strategy • Small city
2	South Tyneside (Core Strategy 2007)	North East	• One of the few LPAs in region with a core strategy • Metropolitan borough
3	Horsham (Core Strategy 2007)	South East	• Pressure for development • Growth area
4	North Northants Joint Planning Unit (Core Strategy 2008)	East Midlands	• A joint planning unit comprising Kettering, Wellingborough, & East Northants. • Major growth area
5	South Cambridgeshire District (Core Strategy 2006)	Eastern Region	• Large number of development plan documents • Rural area

6	London Borough of Redbridge (Core Strategy 2008)	London	• North East London
7	Plymouth City (Core Strategy 2006)	South West	• Well advanced LDF • Regeneration • Joint working with South Hams District • Largely urban
8	South Hams District (Core Strategy 2006)	South West	• Well advanced LDF • Joint working with Plymouth Council • Mainly rural
9	City of Swansea (UDP 2008)	Wales	• Unitary Authority • Has an adopted Unitary Development Plan • Large city
10	City of Glasgow (City Plan 2009)	Scotland	• Unitary Authority • Regeneration • Good planning & health • Conurbation

We searched for evidence that health issues had been included in core strategies (or unitary development plan or local plan strategic policies), area action plans (or development management policies), local transport plans and regional spatial strategies (or structure plans) and for evidence of consistency and reinforcement between levels.

It is clear that some of the strategic/regional plans, and some of the development plans, have made health and well-being central to the plan. The fact that some authorities perform quite impressively in relation to health, while others do poorly as we will illustrate below highlights the important conclusion that it is not primarily the planning system which inhibits health-integrated plans. This conclusion is shared by concurrent research (Colin Buchanan, 2010) which emphasised that some planning authorities are "forward thinking", and further highlighted the fact that planning policy in England puts no requirements on local and, now abolished, regional, planning authorities to provide health evidence, nor does it formally require health integration. This allows considerable freedom for interpreting healthy planning at the local level and explains the significant differences in coverage in relation to health between local plans. The attitudes, resources and knowledge of the key players and the rationale for the difference between the exemplary local authorities and others is

not fully explained by the evidence available. However, multi-sector and broad local sustainable communities strategies and partnerships developed by local authorities do seem to offer a key driver for health integrated planning by setting objectives to be delivered specifically by core strategies (Colin Buchanan, 2010; NICE, 2011). Conversely, effectiveness is seriously eroded when the Sustainable Community Strategies give little guidance on specific health outcome for planning (NICE, 2011).

Many – probably a large majority – of regional plans and core strategies we examined treated the spatial determinants of health in an inadequate way – either by considering only a limited agenda, or by not explicitly considering health and well-being at all. In general, in all our examples, the pattern established by the development plan is then reflected in related plans. All the Area Action Plans (AAP) in areas where core strategies featured health fully or partially, themselves had explicit health-oriented policies demonstrating determination to carry principles through to detailed policy. In one case (South Hams) the AAP was much more explicit and comprehensive than the broader plan. The Local Transport Plans (LTP) were all found to be consistent with the AAPs, reinforcing the healthy elements particularly in relation to physical activity. Plymouth and Glasgow stand out however as they have made health and well-being central to their local plan. In both cases the rhetoric of broad health objectives is translated into policies explicitly intended to achieve healthy goals. Health inequality is the most significant issue, with physical activity also important. At this level these could well be appropriate, as both can only be tackled effectively through overarching city-wide strategies.

Plymouth and Glasgow demonstrate seamless planning policy to improve health and health equality. From the limited evidence, the underlying reason may well be because of the need for those cities to take fundamental action to overcome an unacceptable and worsening level of deprivation, health inequality and urban decay. In both cases there must have been the political will to press for action, and stakeholder agencies were willing to join partnerships to prepare and sign up to the policy delivery mechanisms. More specifically, in both cities, strong partnerships have been built between planning and health agencies. In Plymouth the establishment of a Health Action Zone in 1998, and subsequently joint working in the Devonport Regeneration Community Partnership, have been influential. In Glasgow, the

membership of the WHO Healthy Cities programme, with its strong emphasis on 'healthy urban planning', and the multi-agency 'health action plan' have helped engagement. The Who Healthy Cities Programme was also found by research in other case studies as the only key initiative to have spatial planning as a driver to address determinants of health (NICE, 2011).

What this research does not tell us, however, is how far the good intentions sometimes encompassed in plans are actually being realized in practice. Implementation relies on development projects coming forward and being approved which progressively move the shape of settlements towards health-promoting environments.

There is however an important issue to be considered in relation to the significance of implicit as opposed to explicit health content in plans. Only the plans of Plymouth and Glasgow explicitly recognised health issues in their core strategies to a reasonably full degree, i.e. made an explicit link between health issues and the formation of objectives and policies. In the Plymouth Core Strategy in particular, the strategic objectives were continually expressed in 'health terms' or terms that gave the impression that wellbeing, accessibility and equality lay at their heart, and an objective was devoted to delivering community wellbeing. Horsham, Lancaster, the London Borough of Redbridge and Swansea contain some explicit reference to health issues in their core strategies, but these are not frequent within the documents. South Hams, South Cambridgeshire, South Tyneside and North Northamptonshire's core strategies only occasionally or rarely link objectives and policies to health issues but whilst South Cambridgeshire does not explicitly deliver health in its core strategy, its strong focus on 'sustainability' means that there is an implicit concern for some aspects of health, and some health-related policies are included. As for the explicit recognition of health in planning implementation documents, Plymouth, Glasgow and South Hams' AAP/DMPs were all explicit in recognising health within objectives and policies. London Borough of Redbridge, South Cambridgeshire and Horsham do not explicitly recognise health issues to any great degree, yet many of the policies within the individual AAPs would contribute to positive health outcomes. Examples of such policies include the promotion of walking and cycling networks, removal of street clutter, comprehensive lighting schemes and expanding the retail offer to ensure accessibility. Swansea (in its development management policies) includes a mix of

explicit and implicit references. South Tyneside and North Northamptonshire AAPs' generally fail to link policies with health issues altogether.

Overall, the evidence from the case studies is that authorities that wish to strongly promote health integrated planning are able to do so in the present dispensation. Conversely, it is clear that most authorities have found neither the motivation nor the institutional culture/structures to progress very far down the healthy planning road, even if some have at best a limited range of explicit and/or implicit health-oriented policies particularly around sustainability. The case of the South Cambridgeshire AAP for a major urban extension, where physical activity, mental well-being and social equality were supported by a good range of policies shows that there is nothing (in the absence of implementation evidence) to say that good policies under the guise of sustainable development will be any less effective at delivering healthy outcomes than good policies with an explicit health perspective.

There still remain uncertainties about the degree to which the best intentions of plans are implemented on the ground. These case studies suggest that there may be modest adjustments to the planning system which could make a difference: one is a stronger obligation to encompass health in plan and project appraisal; another is guidance on scoping, which could result in more efficient use of resources as well as health integration and better plans.

In summary, three key findings characterised health integration into local plans: firstly four authorities did well, or very well, especially in relation to health inequalities and physical activity, but generally speaking local authorities were mediocre or poor in integrating health into planning policy. Secondly, where integration occurred, there was generally good consistency between plans at all levels in an authority, from rhetoric, to policy, to detailed plans. Finally, the system did not impede effective health integration, although it does not at present require effective health integration.

5. Discussion and conclusion: health integrated planning in England

The following section draws on our own literature review and the parallel studies to highlight the difficulties experienced by many authorities in integrating health, and the factors that facilitates it.

5.1 Impediments

Firstly number of different evidence sources demonstrated that many aspects of the planning process hinder the effective consideration of health outcomes by planners. Planning regulations were perceived by some authors to be inflexible, and failing to highlight health in appraisal processes. Concerns were also raised about gaps in the quality and range of the local evidence base supposed to underpin the 'soundness' of plans and allowing planning permission, as well as inadequate scoping processes in plans, resulting in the exclusion of health and well-being as objectives. Health outcomes are rarely used as grounds for refusing planning permission (NICE, 2011).

Our literature review analysis suggests that those responsible for decisions on, and assessments of, planning proposals often view health in narrow terms, focussing on physical environment concerns such as air quality, rather than recognising the role of the social environment and other broader determinants of health. This narrow focus is seen to be primarily a result of a lack of engagement between health and planning professionals, coupled with the rigid boundaries around the development of knowledge between these two professions, different cultures between the various stakeholders, with differing terminologies and languages, priorities and structures (UWE, 2011c). Lack of understanding of the roles that different organisations and individuals hold is also factor in that respect (Colin Buchanan, 2010). Furthermore case study research in England shows that spatial planners have a weak knowledge of how they can influence the determinants of health (NICE, 2011).

5.2 Facilitators of good practice

Good practice occurs when the health sector takes a pro-active approach to development planning and partnering with local planners. Where partnership exists, it is more advanced in relation to the planning of healthcare facilities - health professionals often do not yet see planning as a core business (Colin Buchanan, 2011;

NICE, 2011). A number of good practice examples have nevertheless emerged involving the use of "broker" agency such as the London's Healthy Urban Development Unit (HUDU) advising local authorities and health agencies on the planning of health facilities through the use of legal planning agreements, extracting financial support from developers and bridging the divide between the two sectors. Evidence review and case study research (in the cases of GLA, HUDU, Plymouth, Glasgow and Bristol) also suggests that broader collaboration can be made effective through a range of methods, including:

- the preparation of best practice guidelines,
- joint strategy preparation,
- joint appraisal exercises,
- the development of health action zones which involve housing, transport and economic units as well as health and planning,
- the establishment of a WHO Healthy Cities project, embedding of public health expertise in planning units and of planning expertise in public health units.

The Bristol and Plymouth case studies (UWE, 2011d and NICE, 2011) stress the value of joint appointments between health authority and local authority. This has been found to break down silo barriers and greatly assist the integration of health into planning policy and decisions. It can take the form of a jointly appointed director of public health, and a dedicated officer with explicit health and planning responsibilities. There are also real benefits if the health authorities are engaged in the process of plan-making at an early stage, so as to influence the core agenda of the plan. According to the Manchester, Bristol as well as Plymouth case studies, this should also apply to major developments: the public health authority can influence the nature of the initial advice given to applicants. Changes to move the public health function into local authorities in England may be beneficial in this respect.

Critical to success is the political and professional commitment at local level. Is there political commitment to health and well-being all along the decision-making process? Our research in London showed that a local authority's remit to integrate health in their planning decisions does not necessarily guarantee that health outcomes will be

considered in individual development decisions. Further research is needed to examine how the rhetoric of plans and strategies is implemented on the ground, how planning and other departments prioritise health when defining the purpose and scope of plans and projects. The appraisal processes, in this regard, should be seen as integral to the whole decision-making process and ensure health objectives help shape the options that are considered. We found in Manchester, Plymouth and Bristol that a pre-application HIA, with the health and planning authorities helping with scoping, can enable key issues to be addressed in advance and mitigation incorporated at the outset when it is likely to be much more effective. HIA has been identified as a trigger for mutual learning (NICE, 2011).

5.3 Implications of the 2012 National Planning Policy Framework

The English planning system is at a turning point. Our assessment occurred as the Government was about to radically reform the system and increase the planning remit of local authorities and neighbourhood planning within a broader "Localism" agenda including the simplification of the raft of planning policy statements and guidance into a single document, the National Planning Policy Framework (NPPF). It will be interesting, in time, to examine whether the new system offers better opportunities for planners to consider health outcomes of their decisions or if it will prevent progress being made.

At the time we carried out our research, the English planning system did not contain any specific planning policy guidance or planning policy statement on health. It has some excellent non-statutory healthy environment guidance in the fields of urban design, sustainable building design, local transport and street design, open space, green-space and recreation, for instance *By Design* (DETR and CABE 2000), the *Manual for Streets* (DfT, 2007) or the *Code for sustainable homes* (DCLG), 2009), but the potential health benefits are not always sufficiently explicit and major gaps in official guidance (except at the broad policy level) occur in relation to, for example, accessibility, social inclusion and strategic policy. This is likely to reduce the ability of local authorities to plan healthy urban environments. On one hand, as the UK government promotes more 'localism' it might be argued that national guidelines and guidance are no longer appropriate. Even before the new UK 2010 Coalition Government, UK planning regulations required evidence backing standards to be

locally based where possible. On the other hand, while Building Regulations and traffic design requirements remain centrally defined, in some other spheres documents *recommend* levels and set 'benchmarks', or specify a process, rather than statutory obligations. So there is still very much a place for national guidelines.

This lack of policy guidance or planning policy statement on health has been, to an extent, corrected. The 2012 NPPF defines the key term "sustainable development" (which is intended to be the guiding principle of planning policy) by specifying economic, social and environmental dimensions. The social dimension puts health and well-being centre stage. This at last removes the excuse for inaction by some practicing planners, that health is not a material consideration in planning decisions. The NPPF does, though, lack precision on how to interpret healthy planning and how to monitor achievements on the ground. The National Indicators (used until 2011) to assess and compare local authority performance, included targets relevant to health and well-being. Although they have been abolished, it could be argued that they were useful tools to promote healthy environments, and had important health implications. They should they continue to be used by local authorities for local monitoring. Similarly, until the 2011 planning reform, the annual monitoring of progress against a wide range of indicators in the English planning system (similar but not identical in the devolved administrations in Scotland and Wales) offered an important and systematic mechanism for promoting healthier environments even if the discretionary elements within the annual monitoring meant that some authorities used more and better health-related indicators than others. Annual reports also carefully monitored progress in achieving healthier environments where specific official guidelines to assist that aim did not exist. Whilst the need to submit these annual monitoring reports to the Government has been ended, local authorities still need to inform the local community of progress. They can therefore continue to be a useful tool for local authorities to review policy and its implementation. To give an example, Plymouth, one of the local authorities that scored highly in our research in terms of mainstreaming of health into its planning documents used their annual report to highlight strengths and weaknesses and show how the weaknesses were to be addressed. We would therefore recommend local authorities to continue on using them.

Finally, the new NPPF suggests more joint working between public health and planning, an issue that clearly defined as key in the promotion of healthy planning both by our evidence review and case study research. Local planning authorities when drawing their development plans *should work with public health leads and health organisations to understand and take account of the health status and needs of the local population (such as for sports, recreation and places of worship), including expected future changes, and any information about relevant barriers to improving health and well-being* (CLG, 2012). The move of the public health function into local authorities in 2013 in England offers new opportunities in this respect (DH 2010). It will be interesting in time to examine if this policy ambition has the desired results in producing healthier environments.

In summary, our key conclusion is that well attested research evidence is quite scarce, for example in relation to sustainability appraisal and health. In addition, the level of integration of health into plans in England depends not so much on the planning system per se as on the leadership, commitment and knowledge of politicians and practitioners involved. As our research showed further, the barriers to health integration are organizational and professional silos, ignorance, resources, and a reactive planning regime. This suggests that planning agencies need to forge good partnerships with public health, transport, housing and economic development decision- makers, and develop proactive, healthy plans. The new planning regime and move of the public health function into local authorities in 2013 in England will give policy opportunities for the consideration of health outcomes in planning decisions, and research should in time evaluate if results have been achieved on the ground.

References

Barton H. and Tsourou C., 2000. Healthy urban planning. Spon Press, London and WHO, Copenhagen.

Barton, H. and Grant, M., 2006. A health map for the local human habitat. Journal for the Royal Society for the Promotion of Health 126 (6), 252–253.

Barton, H., 2009. Land use planning and health and well-being. Land Use Policy 26S, S115-123.

Barton, H., Grant, M. and Guise, R., 2010. Shaping neighbourhoods for local health and global sustainability. Routledge, London.

Braubach, M. and Grant, M. (Eds) 2010. Evidence review on the spatial determinants of health in urban settings. In WHO, Urban Planning, Environment and Health: From Evidence to Policy Action, Meeting Report. WHO, Copenhagen, pp. 22-97.

Butland, B., Jebb, S., Kopelman, P., McPherson, K., Thomas, S., Mardell, J. and Parry, V., 2007. Foresight tackling obesities: future choices - Project Report, Government Office for Science, London.

Community and Local Government (CLG), 2012. National Planning Policy Framework. CLG: London.

Carmichael, L., Barton H., Gray S., Lease H, Pilkington P., 2012. Integration of health into urban spatial planning through impact assessment: identifying governance and policy barriers and facilitators. Environ. Impact Assess. Rev. 32 (1): 187-194.

Colin Buchanan, 2011. A review of the extent to which the spatial planning system supports the delivery of the government's health, wellbeing and social care objectives. Colin Buchanan and Partners Ltd: London.

Croucher K., Myers L., Jones R., Ellaway A., Beck S., 2007. health and the physical characteristics of urban neighbourhoods: a critical literature review, Final Report. Glasgow Centre for Population Health, Glasgow.

Dannenberg, A., Frumkin, H. and Jackson, R., 2011. Making healthy places – designing and building for health, well-being and sustainability. Island Press, Washington.

Department for Communities and Local Government (DCLG), 2009. Code for Sustainable Homes, DCLG, London.

Department for Transport (DfT), 2007. Manual for Streets, DfT, London.

Department of Health (DoH), 2008. Draft guidance on health in strategic environmental assessment, DoH: London.

Department of Health (DoH), 2008. healthy weight, healthy lives: a cross-government strategy for England, DoH, London.
Department of Health (DoH), 2010. Healthy lives, healthy people, DoH: London..

Department of the Environment, Transport and the Regions (DETR) and CABE, 2000. By design: urban design in the planning system - towards better practice, London, Thomas Telford Publishing.

Douglas M., Thomson H., Jepson R., Hurley F., Higgins M., Muirie J. and Gorman D. (Eds.), 2007. Health impact assessment of transport initiatives – a Guide: NHS Health Scotland, Edinburgh.

Fischer T., Matuzzi M. and Nowacki J., 2010. The consideration of health in SEA. Environ. Impact Assess. Rev. 30 (3), 200-210.

Glasgow Centre for Population Health, 2007. Piloting HIA as a method of integrating health into planning: a case study of the draft east end local development strategy. Glasgow Centre for Population Health, Glasgow.

Gray, S., Carmichael L., Barton, H., Mytton, J., Lease, H., Joynt, J., 2011. The effectiveness of health appraisal processes currently in addressing health and wellbeing during spatial plan appraisal: a systematic review. BMC Public Health, 11: 889.

Greig S., Parry N. and Rimmington B., 2004. Promoting sustainable regeneration: learning from a case study in participatory HIA. Environ. Impact Assess. Rev. 24, 255-267.

Greenspace Scotland, 2008. Greenspace and quality of life: a critical literature review. Greenspace Scotland, Stirling.

Marmot, Sir M., 2010. Fair Society, Healthy Lives – The Marmot Review. Department of Health: London.

Mitchell, R. and Popham, F., 2008. Effect of exposure to natural environment on health inequalities and observational population study. Lancet 372, 1655–1660.

National Institute for Health and Clinical Excellence (NICE), 2009. Methods for the development of NICE guidance, 2nd Edition, NICE, London.

National Institute for Health and Clinical Excellence (NICE), 2011. Study of local spatial planning process. Report prepared by Strategic Solutions. NICE, London.

Planning Advisory Service (PAS), 2008. Equality and diversity: improving planning outcomes for the whole of the community. PAS, London.

Plant P., Herriot N. and Atkinson S., 2007. Healthy planning in London. Town and Country Planning 2007, 50-51.

Rao, M., Barten, F., Blackshaw, N., Lapitan, J., Galea, G., Jacoby, E., Samarth, A. and Bucley, E., 2011. Urban planning, development and non-communicable diseases. Planning Practice and Research 26 (4), 373-391.

Royal Commission 2007. Royal commission on environmental pollution - twenty sixth report: the urban environment, HMSO, London.

Royal Town Planning Institute (RTPI), 2007. Shaping and delivering tomorrow's places: effective practice in spatial planning. RTPI: London.

Sutcliffe J., 1995. EIA: a healthy outcome. Project Appraisal 10 (2), 113-124.

University of West of England, 2011a. Spatial Planning and Health - The effectiveness and cost effectiveness of health appraisal processes currently in use to address health and wellbeing during project appraisal. Report prepared for the National Institute for Health and Clinical Excellence, NICE, London.

University of West of England, 2011b. Spatial Planning and Health - The effectiveness and cost effectiveness of health appraisal processes currently in use to address health and wellbeing during plan appraisal. Report prepared for the National Institute for Health and Clinical Excellence, NICE, London.

University of West of England, 2011c. Spatial Planning and Health - Identifying barriers and facilitators to the integration of health into planning. Report prepared for the National Institute for Health and Clinical Excellence, NICE, London.

University of West of England, 2011d. Spatial Planning and Health - Integrating health into the planning process. Report prepared for the National Institute for Health and Clinical Excellence, NICE, London.

Wanless, D., 2002. Securing our future health: taking a long-term view. Final Report. HM Treasury, London.

World Health Organization, 1946. Preamble to the Constitution of the World Health Organization, WHO, Geneva.

WHO Europe, 2010. The Parma declaration on environment and health at http://www.euro.who.int/__data/assets/pdf_file/0011/78608/E93618.pdf - accessed 11 Nov 2010.

WHO Europe, 2010. Urban planning, environment and health – from evidence to policy action, WHO Europe: Copenhagen