

# **Planning Out Obesity**

**by**

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A thesis submitted in partial fulfilment for the requirements of the degree of  
Master of Philosophy at the University of Central Lancashire

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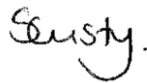
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# Abstract

The increase in obesity levels is not only an international health crisis but also a social and financial burden. Traditional health promotion approaches to address the problem have received limited success. The collaboration of a number of diverse sectors, for example social, economic, and environmental, has been identified as a fundamental requirement to reverse the situation. The aims of this doctoral research are to provide an understanding of how the built environment impacts on obesity and to investigate how health is integrated into the core functions of town and country planning in the UK.

This research was carried out using a mixed methods approach including stakeholders from multiple disciplines in order to obtain a diversity of voices. This reflects the postmodern perspective underpinning this thesis. Firstly a survey was undertaken to establish the existing use of Health Impact Assessment in the determination of planning proposals. This was followed up with semi-structured telephone interviews and online web-based questionnaires with Healthy City coordinators, planning policy officers and development planners. The empirical data was analysed using thematic coding and SPSS and Excel software packages.

This research has shown that whilst the built environment evidently has the potential to improve health and wellbeing, it can also have a negative impact on health which in turn can lead to sedentary lifestyles and obesity. This study also found that the use of Health Impact Assessments in the determination of development proposals in England is very limited and sporadic. This reflects varying levels of commitment by planners in the use of HIA in the planning process - even though through a web-based questionnaire there was a consensus of opinion that HIA facilitated a focus on health and wellbeing. This research suggests that further interdisciplinary collaboration between the Healthy Cities Project and planning is likely to lead to positive outcomes for the UK planning system particularly through the integration of HIA in the planning process.

Through approaching the obesity crisis from a planning perspective this thesis is a contribution towards the closure of the interdisciplinary gap in the literature and current research.

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# Abbreviations

BCA	Ben Cave Associates
BMI	Body Mass Index
CABE	Commission for Architecture and the Built Environment
CCW	Countryside Council for Wales
CHDP	City Health Development Plan
CHP	City Health Profile
COED	Concise Oxford English Dictionary
CS	Core Strategy
DECC	Department of Energy and Climate Change
DEFRA	Department for Environment, Food and Rural Affairs
DoH	Department of Health
EA	Environment Agency
EIA	Environmental Impact Assessment
ES	Environmental Statement
HDA	Health Development Agency
HFA	Health For All
HIA	Health Impact Assessment
HSCWB	Health Social Care and Well Being
HUP	Healthy Urban Planning
IA	Integrated Appraisal
IAC	InterAcademy Council
IAIA	International Association for Impact Assessment
IPCC	Intergovernmental Panel on Climate Change
JSNA	Joint Strategic Needs Assessment
LA	Local Authority
LAA	Local Area Agreement
LDF	Local Development Framework
LDP	Local Development Plan
LPA	Local Planning Authority
LSP	Local Strategic Partnership
NAW	National Assembly for Wales
NHS	National Health Service
NICE	National Institute for Health and Care Excellence
NOO	National Obesity Observatory
NPHS	National Public Health Service
NPPF	National Planning Policy Framework
ONS	Office for National Statistics
PAS	Planning Advisory Service
PASW	Predictive Analytics SoftWare
PCT	Primary Care Trust
PHO	Public Health Observatory
RES	Regional Economic Strategies
RPG	Regional Planning Guidance
RTPI	Royal Town Planning Institute
SA	Sustainability Appraisal
SCS	Sustainable Community Strategy
SEA	Strategic Environmental Assessment
SPSS	Statistical Package for the Social Sciences
TCPA	Town and Country Planning Association
UCLan	University of Central Lancashire
UDP	Unitary Development Plan
UN	United Nations
UNCED	United Nations Conference on Environment and Development
WelTAG	Welsh Transport Planning and Appraisal Guidance
WHIASU	Welsh Health Impact Assessment Support Unit

WHO	World Health Organisation
WLGA	Welsh Local Government Association

# 1 CHAPTER ONE: INTRODUCTION TO THE RESEARCH

## 1.1 Introduction

*'Obesity is a significant health and social problem, which has reached pandemic levels'* (Lake and Townshend, 2006:262). Globally, incidence of obesity has more than doubled since 1980. In 2008 it was estimated that 1.5 billion adults were overweight and in 2011 it was estimated that 500 million adults were obese which has resulted in overweight and obesity being the fifth leading risk for global deaths (World Health Organisation, 2011)<sup>1</sup>. This increase is occurring across both the developed and developing world (Poortinga, 2006).

Obesity is often perceived as a result of gluttony and laziness; a result of the poor lifestyle choices selected by individuals. Although this opinion has some legitimacy, epidemiology suggests that other factors outside the control of the individual, such as genetic factors, can subconsciously impact on the lifestyle decisions made (Lake and Townshend, 2006). Another of these 'subconscious' factors is the built environment (Butland et al., 2007) as *'planning policies have facilitated if not actually fostered the powerful trends towards car-dependent, sedentary and privatized lifestyles, with their negative effects on health'* (Barton et al., 2009:i91). Obesity and the built environment are the key themes of this research.

This thesis will explore these key themes: obesity and the built environment, from their historical connectedness to their subsequent split to become two distinctive and separate disciplines recognised in the UK today through a literature review, a Freedom of Information request, telephone interviews, and two online surveys. This mixed research approach will facilitate a thorough review and investigation of the impact of the Healthy Cities movement, Health Impact Assessment and Healthy Urban Planning on the UK planning system. This thesis will then discuss how the key themes can be brought back together through the conclusions drawn from the analysis of the empirical data collected and finally it will proffer recommendations for further research.

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<sup>1</sup> This figure rose in 2013 to 2.1 billion adults (The Lancet, 2014).

## 1.2 The motivation for the research

There are many non-communicable diseases whose causes we generally accept without question, for example:

- Smoking can give you cancer;
- Too much alcohol can cause cirrhosis of the liver; and
- Eating too much and exercising too little can contribute to obesity related diseases such as cardiovascular disease and diabetes.

All these statements are supported by solid scientific research and evidence and quite honestly have become an everyday acceptance.

However, recent research has also demonstrated that the aetiology of obesity is multi-faceted and complex and although lifestyles and personal choices are a major contributory factor and should not be ignored many other factors can also make a negative contribution to the condition. The recent research claims that one of these factors is the built environment. This research looks at these claims and focuses on how the built environment contributes to the current obesity epidemic. It also investigates how this trend can be reversed so that the built environment only imposes a positive impact on obesity and, more holistically, on health and wellbeing.

In 2007 the Foresight report 'Tackling Obesities: Future Choices – Project Report 2<sup>nd</sup> Edition' (Butland et al., 2007a) had recently been published and attracted a lot of media attention particularly reporting the claims of the link between the built environment and obesity (BBC, 2007) although the BBC had reported on the connections between town planning a year earlier (BBC, 2006). The connections between the built environment and obesity seemed so obvious and yet so distant to the reality of the planning systems processes and actions. The fast food environment and the physical environment can both be considered to be products of the planning system through land-use regulations and planning policies and processes.

Early research included a survey of the planning policy officers in the Welsh local planning authorities (LPAs). Through this research it was discovered that most planning officers were not aware of the Foresight report (Butland et al., 2007) and only one person had taken the time to read it. This was a shocking discovery which suggests that many planning officers could not readily accept how the decisions made

through the planning process are likely to affect not only the economy and physical structure of an area but also how this in turn could affect the health and wellbeing of the people and communities. The enthusiasm for this topic alongside the poor and blinkered insight shown by the planning fraternity of the wider implications of their decisions has been the motivation to investigate this subject further and this thesis represents, in part, an account of the journey from local authority planner to full-time post-graduate researcher.

### 1.3 Justification

*'As Hippocrates, the Romans, and Jung knew, our physical environment affects our physical and mental health'* (Jackson, 2003:1383) but *'more research is needed to examine the specific mechanisms that link (the perceptions of) the environment to obesity and health'* (Poortinga, 2006:2835). There appears to be a lack of understanding of the impacts of the built environment on health by planners (Wakefield, 2003; Srinivasan et al., 2003; Jackson, 2003b); this research addresses that issue as *'there is a real need for an improved evidence base for planning...'* (Barton, 2005b:285). This research is further supported by Booth et al., (2005) whose evaluation of research into the obesogenic environment revealed the connections between the built environment and obesity and they called for planners and health practitioners to collaborate in order to facilitate positive changes to the built environment and for further research of the obesogenic environment.

Jackson (2003a:191) in a review into *'the state of the science on the impacts of urban design on human health and well-being'*, states that society today is increasingly aware that *'...human health is inextricably linked with environmental condition. Therefore it is useful to explore methods and patterns of human settlement and landscape modification for their potential adverse effects on human as well as environmental health'*.

The autonomous work of health and planning is also noted by Barton who states that *'Health authorities have been charged with providing services for those who are ill...public health programmes focus on infectious diseases and addiction (tobacco, alcohol, drugs) rather than healthy environments. Planning authorities are equally blinkered...local councils, encouraged by government until recently, consider the*



*purposes of town planning are economic development and environmental protection rather than health promotion' (Barton, 2005b:281).*

Considering the settings approach to health promotion through the Healthy Cities movement and Health Impact Assessments (HIA) is further supported by Poland et al. as they conclude that *'using settings as an organizational framework for research and development in health promotion, then, might be to link health promotion more effectively to the goals and aspirations of stakeholders who will support it and sustain it'* (Poland et al., 2000:342). The Healthy Cities movement and particularly HIA advocate the involvement of all stake-holders particularly the vulnerable and marginalized groups. Also, the flexibility of the HIA process allows it to be adapted to any policy, plan, programme or project and therefore consequently 'settings' which will enable targeted and appropriate interventions to be developed.

According to Racioppi et al. *'there is increasing recognition within the disciplines of planning and public health of the importance of the urban environment and its influence on healthy lifestyle choices, especially physical activity'* (Racioppi et al., 2005:302) and *'a pressing need remains for more concerted research to identify mechanisms by which the built environment adversely and positively impacts health and to develop appropriate interventions to reduce or eliminate harmful health effects'* (Srinivasan et al., 2003:1446). The UK has an opportunity to build on existing work and pioneer a new long-term and integrated approach that sets a global standard for success through population based solutions, including studies of the built environment while incorporating the value of multidisciplinary research (Butland et al., 2007; (Perdue et al., 2003) and *'if public health and planning departments could form a real alliance beneath the banner of human well-being and quality of life, it would be a powerful force for good'* (Barton, 2005b:286).

It has been recognised that *'a number of different groups will influence the nature of settings, including those not traditionally involved in 'health' who may or may not be aware of their potential contribution in this regard...for example...urban planners'* (Green and Tones, 2010) and this thesis will attempt to demonstrate to all planners the effect their decisions could have on health of people and communities.

Baric (1993) as quoted in Green and Tones (2010:439) suggests that *'to achieve the status of a health promoting setting, the following conditions should be met:*

- *The creation of a healthy working and living environment*
- *The integration of health promotion into the daily activities of the setting*
- *The creation of conditions for reaching out into the community’.*

It seems that HIA, Healthy Cities and HUP could contribute to the success of health promoting settings. These approaches could also provide *‘a longer term approach ... to investigate the environments that promote high energy intake and sedentary behaviour ... Shaping the environment to better support healthful decisions has the potential to be a key aspect of a successful obesity prevention intervention’* (Lake and Townshend, 2006:262).

In their ‘call to action on obesity’ (DoH, 2011:24) the UK government are committed to *‘helping people make better choices for themselves and their families by...making changes to the environment that address the wider determinants of obesity...’* This provides further evidence of the acceptance of the effect of the built environment on obesity by central government and a further justification for planners to recognise the impact of development proposal decision have on the health and wellbeing of the people. This correlates with the WHO which has stated that:

*‘Local authorities have great potential and a major role to play in creating the environment and opportunities for physical activity, active living and a healthy diet...’* (WHO, 2006b:3).

## 1.4 Research aims, questions and objectives

### 1.4.1 Aims

Two aims set the context for this research:

- To develop an understanding of the effect of the built environment on obesity; and
- To discover if health is integrated into the functions of the town and country planning system in the UK.

These aims were formulated in order to assess the appropriateness of placing health considerations during the decision making element of the planning process.

The aims are addressed through the research questions and objectives.

#### 1.4.2 Questions

The aims were developed into two research questions:

- i. Does the UK planning system ensure it does not have a negative impact on obesity?; and
- ii. Is the World Health Organisation's Healthy Cities project an opportunity for the planning system to integrate health into the UK planning process through the use of Health Impact Assessment (HIA) and Healthy Urban Planning (HUP)?

The first research question will be answered predominantly through Chapter 4 and Chapter 5. In Chapter 4 the historical partnership between public health and planning is investigated and in Chapter 5 the use of impact assessments to consider health throughout the planning process is investigated.

The second research question will be answered through Chapter 6. This Chapter introduces and discusses the concepts of Healthy Cities through healthy settings and two of the core themes of the Healthy Cities projects: HIA and HUP.

#### 1.4.3 Objectives

The following objectives were employed to meet the aims of this research and answer the research questions:

- i. To reflect on the historical partnership of health and planning and to review the current literature asserting the link between the built environment and the aetiology of obesity;
- ii. To investigate the existing use of HIAs in the determination of proposed development and land-use proposals, by undertaking a survey of all the local planning authorities in England; and
- iii. To investigate if HIAs and HUP, key themes of the WHO's Healthy Cities project, are being integrated into the core functions of town and country planning in the UK.

The first objective will be met through Chapter 4. This chapter examines the current research that claims the built environment is a contributing factor to the obesity crisis through a comprehensive literature review.

The second objective will be met through Chapter 5. This chapter discusses the gradual development of impact assessments and predominantly those impact assessments which form part of and pertain to the planning process in the UK.

The third objective will be met through Chapter 6. This chapter investigates the concepts of Healthy Settings, Healthy Cities, HIAs and HUP.

The second and third objectives will also be met through the empirical research conducted for this thesis: the telephone interviews and online questionnaires. The data collected through these methods is presented and discussed in Chapters 7 and 8.

A full description of all the Chapters is provided at 1.5.

*‘The obesity epidemic is reversible ... [but] this can only be done by comprehensive action, since the root of the problem lies in the rapidly changing social, economic and environmental determinants of people’s lifestyles’*  
(WHO, 2006b:2).

This thesis through the research aims, questions and objectives will provide the background for future research.

## 1.5 Outline of the thesis

### Chapter 1: Introduction to the research

This chapter commences with the motivation for this research. This chapter presents the research aims, questions and objectives and the focus of the empirical research, i.e. HIA through Healthy Cities and HUP.

The layout of the thesis is then described to equip the reader with a brief outline of the narrative of the thesis and a brief overview of how the aims and objectives will be met.

Finally this chapter will state the justification for the research and its uniqueness. It is important that the thesis is able to address the research aims and objectives and show how it intends to provide a positive and original contribution to the existing research.

## Chapter 2: The Research Focus, Definitions and Epistemological and Theoretical Perspective

This chapter explains the rationale behind the focus of this research: the UK planning system and its contribution to the obesity epidemic. This chapter then continues by defining a number of the key words and phrases used throughout this thesis. The purpose of this is to inform the reader of the definition that had been used during this research.

This chapter is completed by identifying and discussing the epistemological and theoretical position of the researcher and the research: namely constructionism and postmodernism respectively.

## Chapter 3: The Research Methodology and Methods

This chapter details the research methods and methodology that were utilised in the collection of the data for this research. This chapter is laid out in the chronological order in which the different stages took place.

This chapter explains that this research adopted a mixed methods approach for the collection of the empirical data. The simple rationale for selecting the different data collection methods is to ensure the appropriate methods to gather the richest data and information were used.

This chapter is completed with a statement with regard to ethics and confirmation that ethical approval for my research project was sought and received from the appropriate university ethical committee.

## Chapter 4: Health and Planning

This chapter provides an overview of the connections between the built environment and obesity and the main limitations of the UK planning system to deal with the obesity

situation which it is partly responsible for creating the obesogenic environments we have today.

Firstly it re-examines the historical connection between health and planning and how the unsanitary conditions and unhealthy environments of the late 18<sup>th</sup> and early 19<sup>th</sup> centuries, mainly the consequence of the industrial and agrarian revolutions, led the way for the first health acts which gave provision to local authorities to clear slums and install sewers. This is testimony that good planning and health are interrelated and reliant on each other.

This chapter then considers the aetiology and determinants of obesity and the methods used to assess this highly complex and costly debilitating lifestyle disease. The use of BMI to assess overweight and obese, although accepted and used globally as the primary indicator of the disease, has been demonstrated to be a rather crude measurement for the use at the individual level and a more accurate indicator would be the use of the waist measurement indicators. However, this is a separate issue beyond the scope of this study and does not detract from the adverse effect of the built environment on obesity and overweight.

This chapter also considers the Smart Growth Network in the USA. Planning can be recognised over the decades through different theories and concepts and the Smart Growth principles embrace many of the concepts recognised as necessary for achieving sustainable development and it seems likely that if the Smart Growth philosophy was embraced by the planning profession it could help to ensure that the goal of sustainable development is achieved.

This chapter also explores other concepts and approaches to the global obesity crisis from the sociological approach suggested by Nick Crossley (Crossley, 2004) to the subsidised agricultural approach put forward by Michael Pollan (Pollan, 2003). It is important to recognise the work of diverse and varied disciplines in the challenge to reverse the current obesity crisis. The aetiology of obesity is very complex and involves many disciplines and it is likely that only through promoting and securing a joined up approach will the current trend in global rises in obesity start to decline.

## Chapter 5: Impact Assessments

This chapter provides an overview of a number of different types of impact assessment specifically those that play a significant role in relation to land-use planning and a particular emphasis is placed on the emergence of health impact assessments.

This chapter commences with an introduction to impact assessments by reiterating their purpose in the decision making process. The chapter provides an in-depth discussion of four impact assessment methods in particular:

- Sustainability Appraisal (SA);
- Strategic Environmental Appraisal (SEA);
- Environmental Impact Assessment (EIA);
- Health Impact Assessment (HIA).

This chapter concludes by providing a brief overview of other notable impact assessments that are available.

#### Chapter 6: Healthy Settings, Healthy Cities and Healthy Urban Planning

This chapter introduces and discusses the concepts of Healthy Settings, Healthy Cities, and HUP; concepts which have the full support of the WHO. This chapter begins with the reaffirmation of the importance of health considerations in all policies and sectors and also provides the policy context for the concepts discussed.

This chapter goes on to introduce the settings approach to public health promotion, an approach which is widely considered to be the foundations of the global Healthy Cities movement. Following on from this, the chapter goes on to discuss the concepts of Healthy Cities and HUP. This chapter also discusses Joint Strategic Needs Assessment (JSNA) which provides a framework for assessment of needs rather than an assessment of impacts.

#### Chapter 7: Engaging with the Stakeholders: Findings

This chapter brings together and presents the empirical data collected from the on-line surveys and telephone interviews. The chapter also provides a brief overview of the conclusions of Chapter 4: Health and Planning; Chapter 5: Impact Assessments; and Chapter 6: Healthy Settings, Healthy Cities and Healthy Urban Planning. The findings

are discussed and analysed and demonstrate how they attempt to answer the research questions and objectives.

## Chapter 8: Discussion

This final chapter briefly summarises what was undertaken and the principal findings that emerged to meet the research aim and answer the research questions and objectives (Swetnam, 2004). The chapter provides details of the broader significance of the findings and the academic contribution to knowledge. This chapter also identifies the limitations to the study. Finally this chapter will proffer recommendations for practice and policy and provide sources of supporting research.

## Bibliography and Appendices

The thesis is completed with a full bibliography and an appendix which consists of:

- The Freedom of Information request;
- The telephone interview questions: Healthy Cities Coordinators;
- The telephone interview questions: Planning Policy Officers;
- The telephone interviews: Development Planners;
- The online survey questions: Healthy Cities;
- The online survey questions: Health and Planning;
- FOI Data: Details of the HIAs declared through the FOI request;
- FOI Data: Details of the EIAs and Design and Access Statements identified through the FOI request;
- FOI Data: Details of the HIAs identified through the FOI request;
- FOI Data: Details of the Policy and/or Guidance for HIA; and
- FOI Data: Review of the HIAs declared.

### 1.6 The uniqueness of this research

The uniqueness of this research is that it considers the obesity issue from the UK planning perspective and the outcome will aim to empower planning practitioners to develop a more holistic understanding of the impact of planning decisions on health. The planning system and the planning profession have the responsibility to implement



the Governments' commitment to sustainable communities by promoting development and land-use planning that encourages healthier lifestyles and behaviours through the design of developments and the location and prevalence of fast food outlets in communities.

The current debates discussing the link between the planning system and obesity are primarily taking place in disciplines such as health, economics and sociology with the research predominantly taking place in Australia and America. For example, in the development of the Foresight Report (Duggan et al., 2007) there were 43 key science experts and lead authors of evidence reviews but only one 'expert' had an environmental background and none had a specific planning background. This research will contribute to filling that gap and will hopefully encourage more studies from planning experts and academics which will position the UK planning system as a promoter and facilitator of healthy lifestyles and behaviours and will place it at the forefront of the debates. It will also firmly reconnect the health and planning disciplines and have a positive impact on the effect of the built environment on not only obesity but also holistic health and wellbeing.

There seems to be quite a narrow opinion that obesity is simply a choice of lifestyle, the result of prolonged gluttony and laziness and quite frankly a lack of control. This research will show that not all the lifestyle choices people make are solely their own choice and that environmental factors play a part – how big a part depends on each individual - and as a result it is hoped to change that opinion dramatically. Although individual choice will always be a factor there are many external factors that also contribute to the aetiology of obesity.

## 1.7 Summary

This chapter began by explaining the motivation for this research, where the interest in the topic of the relationship between the built environment and obesity began. Then the research aims and objectives and the focus of the research, Health Impact Assessment, Healthy Cities and Healthy Urban Planning were laid out.

This chapter has set the context for this research and shown how the research questions and objectives will frame the study.

The layout of this thesis has been laid out to equip the reader with a brief outline of the narrative of the thesis and a brief overview of how the aims and objectives will be met.

Finally, this chapter stated the justification for the research and its uniqueness. It is important that the thesis is able to address the research aims and objectives and show how it tends to provide a positive and original contribution to the existing research.

The UK Government states: *'the job for Government and its partners at national and local level is to transform the environment so that it is less inhibiting of healthy lifestyles, to provide the information and practical support we need to make healthier choices to prevent weight gain, and to secure the services we need to help us to tackle excess weight'* (DoH, 2011:4). This thesis will provide a building block for further research to inform government and its partners how the planning system can contribute to achieve this transformation of the environment.

The next chapter concentrates on the focus of this research and presents brief introductions to Healthy Cities, HIA and HUP. It provides definitions for the key words and phrases particularly as they pertain to this research. These key words and phrases are: health, settings, planning, environment, obesity and the obesogenic environment.

## 2 CHAPTER TWO: THE RESEARCH FOCUS, DEFINITIONS AND EPISTEMOLOGICAL AND THEORETICAL FRAMEWORK

### 2.1 Introduction

This chapter explains the rationale for this research: firstly the UK planning system and its contribution to the obesity epidemic; and secondly health and how it is referred to in this research: to reflect the benefits of health in planning and promoting a more holistic approach to healthy environments.

The key terms and phrases used throughout this thesis are also discussed and defined as they pertain to this research.

This chapter then proceeds to identify the epistemological and theoretical position underpinning this research and informing the methods and methodology: namely constructionism and postmodernism respectively.

### 2.2 The focus of this research

The empirical component of this research concentrates on the UK planning system and the built environment, generally considered to be a product of the planning system, and how these can connect with public health in the battle against the obesity epidemic gripping the world today which *'requires greater awareness in these sectors about their influence on public health, and more capacity to include the health dimension in urban developments and transport planning processes'* (Racioppi et al., 2005:303). This research also focuses on the World Health Organisation (WHO) project: Healthy Cities; and Health Impact Assessment (HIA) and Healthy Urban Planning (HUP) key themes of Phase IV of the Healthy Cities project. The main geographical area of empirical focus to answer the research questions was the UK, particularly England.

The focus on the WHO Healthy Cities projects and particularly the theme of Healthy Urban Planning is supported by the WHO's commitment to building healthy public policy. This commitment can be traced back to 1986 and the Ottawa Charter for Health

Promotion which introduced the concept of not only designing policies to promote health (for example, banning cigarette advertising) but also designing policies that can be acknowledged to have an impact on health (for example, transport, education, economics) (Lock, 2000).

In the UK the wider health implications of public health policy have become prominent and important specifically through the following WHO projects and strategies:

- Health for All by the Year 2000;
- The Healthy Cities strategies; and
- (Local) Agenda 21.

(Lock, 2000)

### 2.2.1 Healthy Cities

*'The Healthy Cities concept is both an old and a new one: old in as much as people have been striving to make cities healthier since the dawn of urban civilisation, new in its manifestation as a major vehicle for health promotion – the new public health – in the pursuit of achieving Health for All' (Hancock, 1993:14). 'The starting point for the Healthy Cities project was the recognition that cities have a significant role to play in promoting health and they are in a unique position to implement public health measures that reflect current thinking about ecology and the environment ... a recipe for quality living in an urban environment' (Tsouros and Draper, 1993:25-26).*

The WHO Healthy Cities project was formally launched in 1986 (Davies and Kelly, 1993) and was seen as *'a means of legitimizing, nurturing and supporting the process of community empowerment'* (Tsouros, 1990 as cited by Davies and Kelly, 1993:3). A project that arose out of *'an awareness of the links between public health and urban planning'* (Duhl and Sanchez, 1999:1) and from the Healthy Settings and Health for All strategies. The Healthy Cities project renews its themes every four to five years.

According to the WHO European Healthy Cities Network webpage (<http://www.euro.who.int/en/what-we-do/health-topics/environment-and-health/urban-health/activities/healthy-cities/who-european-healthy-cities-network/phases-iv-of-the-who-european-healthy-cities-network> [Accessed 15.5.12]) each phase had a main aim or a number of core themes.

In the first phase of the project, 1987 to 1992, the main aim was to introduce new ways of working for health in cities and in the second phase, 1993 to 1997, there was a greater emphasis on healthy public policy and all-encompassing city health planning.

In the third phase of the project, 1998 to 2002, the core themes were:

- Equity;
- Sustainable development; and
- Social development.

This phase particularly focused on integrated planning for health development which was to be achieved through the formation of a city health development plan. The city health development plan was intended to address:

- Inequality in health;
- Poverty and health;
- Social exclusion; and
- The needs of vulnerable groups.

This work led directly on to and provided the foundation for Phase IV of the Healthy City project from 2003 to 2008. The core themes of Phase IV were:

- Healthy urban planning;
- Health impact assessment;
- Healthy ageing; and
- Physical activity/active living.

Phase V of the Healthy Cities project is currently underway and runs from 2009 to 2013. This phase is supported by the Zagreb Declaration for Healthy Cities (WHO, 2009). The core themes of Phase V are:

- Caring and supportive environments;
- Healthy living; and
- Healthy urban environments and design.

As the UK has a number of designated Healthy Cities and the core themes described above, particularly from phase III onwards, closely correspond to my research themes and directly to urban planning, it was appropriate to study the impacts and outcomes of participating in the project through conducting research with co-ordinators and urban

planners from the designated cities. This research approach to discipline integration fully aligns with the postmodern perspective of this research.

### 2.2.2 Health Impact Assessment (HIA)

The WHO considers HIAs as an important tool in a framework for action needed to address the obesity epidemic (WHO, 2006). The WHO regard the use of HIA as '*a means of assessing the health impacts of policies, plans and projects in diverse economic sectors using quantitative, qualitative and participatory techniques*' which '*helps decision makers make choices about alternatives and improvements to prevent disease/injury and to actively promote health ... and well-being across sectors*' (WHO, 2012).

There are a number of definitions of HIA a few noteworthy ones are detailed here:

*'A combination of procedures, methods and tools by which a policy, programme or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population'*

(Welsh Health Impact Assessment Support Unit website).

*'Assessment of the change in health risk reasonably attributable to a project, programme or policy and undertaken for a specific purpose'*

(Birley, 1995).

*'A structured method for assessing and improving the health consequences of projects and policies in the non-health sector. It is a multidisciplinary process combining a range of qualitative and quantitative evidence in a decision making framework'*

(Lock, 2000:1395).

When considering HIA in the context of land-use planning, Quigley et al., (2006) define the undertaking of HIA as a process:

*'.....a systematic process through which health hazards, risks and opportunities can be identified and addressed upstream in the development planning process, to avoid the transfer of these hidden costs and to promote multisectoral responsibility for health and well-being.'*

HIA is not only a process in its own right, i.e. stand-alone, but it was also a key theme of Phase IV of the Healthy Cities Project (See 2.2.1) and also continued to be a priority in Phase V of the Healthy City project '*...making health, health equity, social justice and sustainable development key values...for developing ...cities and introducing appropriate processes to assess health impact and ensure capacity-building to enable all sectors to maximise their contribution ...*' (WHO, 2009a:4).

### 2.2.3 Healthy Urban Planning (HUP)

The purpose of including HUP in this thesis is to find out if it really does place health at the heart of urban planning and how that is achieved. Healthy urban planning means planning for people and it promotes the idea that the city is much more than buildings, streets and open spaces, but a living, breathing organism, the health of which is closely linked to that of its citizens. Conditions in cities, sometimes compounded by urban planning practices, can be detrimental to health. Healthy urban planning focuses on the positive impact that urban planning can have on human health, wellbeing and quality of life, and reflects WHO's broad definition of health (Barton and Tsourou, 2000).

HUP '*...in the simplest terms should mean planning that (a) is not unhealthy and (b) promotes health...urban planners must understand and accept that their decisions have consequences, both intended and unintended, that could potentially lead to ill health within communities*' (Duhl and Sanchez, 1999).

HUP was a key theme of Phase IV of the Healthy Cities Project (See 2.2.1). The 12 HUP objectives also link to the spheres of the health map (Figure 2.1) which are:

- Promoting healthy lifestyles (especially regular exercise);
- Facilitating social cohesion and supportive social networks;
- Promoting access to good quality housing;
- Promoting access to employment opportunities;
- Promoting accessibility to good-quality facilities (educational, cultural, leisure, retail and health care);
- Encouraging local food production and outlets for healthy food;
- Promoting safety and a sense of security;
- Promoting equity and the development of social capital;

- Promoting an attractive environment with acceptable noise levels and good air quality;
- Ensuring good water quality and healthy sanitation;
- Promoting the conservation and quality of land and mineral resources;
- Reducing emissions that threaten climate stability.

(Barton and Grant, 2013:S132)

The main purpose of HUP is to build neighbourhoods and communities whose foremost concern is the health and wellbeing of the people. Barton and Tsourou (Barton and Tsourou, 2000:22) state:

*'Healthy urban planning involves planning practices that promote health and wellbeing and has much in common with the principles of sustainable development. It means focusing on humans and how they use their environments in planning rather than simply concentrating on buildings and economics'.*

This will only be achieved through the explicit integration of health into the planning process which in turn will only be realised through collaborative working between planning and health professionals in the first instance ensuring community participation at all times.

## 2.3 Definitions

It is important to define a number of key words and phrases to clarify their general use and meaning and their use and meaning as they pertain to this research. These words and phrases are 'health', 'settings', 'planning', 'environment', 'obesity' and 'the obesogenic environment'.

The words that have been selected to be defined are significant to this research and the purpose of providing these definitions is to articulate their meanings pertinent to this particular research and to ensure that readers of this research from a non-health and non-planning background are fully informed.



### 2.3.1 Health

Naidoo and Wills suggest that health is '*a contested concept that is variously defined according to place and time (Naidoo and Wills, 2008:375).*

According to the Concise Oxford English Dictionary (COED, 2006:658) 'health' is defined as

*'the state of being free from illness or injury; a person's mental or physical condition'.*

A medical definition by MediLexicon, an online medical dictionary, provides three definitions of health:

- *The state of the organism when it functions optimally without evidence of disease or abnormality.*
- *A state of dynamic balance in which an individual's or a group's capacity to cope with all the circumstances of living is at an optimal level.*
- *A state characterized by anatomic, physiologic, and psychological integrity, ability to perform personally valued family, work, and community roles; ability to deal with physical, biologic, psychological, and social stress; a feeling of well-being, and freedom from the risk of disease and untimely death.*

(MediLexicon International Ltd, n.d).

The definition of health adopted by the Charter of the World Health Organisation (WHO, 1946) states:

*'Health is not only the absence of disease but a state of physical, mental and social well-being. The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being, without distinction of race, religion, political belief or economic or social condition.'*

The WHO definition is the definition of health for the purposes of this research as this definition of health '*...makes clear that health should be a central concern of the many professions which impinge on the physical, social and economic factors affecting health, including town planners*' (Barton, 2005a:344) and '*it is widely recognised that*

*health is determined by a range of environmental, social and economic influences and that the health of the people, places and the planet are interdependent'* (Orme and Dooris, 2010:425).

In their call for a definition of global health, Koplan et al. conclude that *'Global health emphasises transnational health issues, determinants, and solutions; involves many disciplines within and beyond the health sciences and promotes inter-disciplinary collaboration; and is a synthesis of population-based prevention with individual-level clinical care'* (Koplan et al., 2009:1995).

Naidoo and Wills provide a description of a lifestyle that is beneficial to health: *'a way of living based on identifiable patterns of behaviour. Lifestyle is often presumed to be a matter of personal choice. However, lifestyles are determined by the interplay between an individual's personal characteristics, social interactions, and socio-economic and environmental living conditions'* (Naidoo and Wills, 2008:377). This definition reflects the work of Barton and Grant.

Barton and Grant have built on a model of health proposed by Whitehead and Dahlgren (1991) to develop a *'health map for the local human habitat'* which demonstrates how the *'environment in which we live is a major determinant of health and well-being'* (Barton and Grant, 2006:252). The health map is shown at Figure 2.1 This health map has been *'tested, developed and re-tested'* by the authors and represents *'a visual tool for both communicating and analysing the health-settlement relationship'* (Barton and Grant, 2006:252).



Figure 2.1: The health map (Barton and Grant, 2006)

The health map, shown at Figure 2.1 provides a visual interpretation of the impact of the environment on people. People are shown at the core of the figure and the encompassing circles demonstrate the determinants of health and well-being in the neighbourhoods. This figure also reflects Hancock (1993:17) in that it *'recognises that the determinants of health are multifactorial, incorporating both physical and social environmental determinants from the individual level to that of our culture and the global ecosystem'*.

The health map directly correlates with this research as it addresses the *'urban development process, and more particularly the design and planning of settlements...the built environment. Thus planners can see their place in determining health'* (Barton and Grant, 2006:253). Also, the authors state *'the model can...contribute to sustainability and health impact assessment'* (Barton and Grant, 2006:253). This is another connection with this research as it will investigate the use of health impact assessments in the planning process.

### 2.3.2 Settings

A 'setting' is defined in the COED (2006:1317) as

*'the surroundings of a place or the location where an event happens'.*

The WHO defines a setting as a place:

*'...where people actively use and shape the environment; thus it is also where people create or solve problems relating to health. Settings can normally be identified as having physical boundaries, a range of people with defined roles, and an organizational structure. Examples of settings include schools, work sites, hospitals, villages and cities.'* (WHO Healthy Settings website).

Wenzel (Wenzel, 1997) defines settings as

*'...the places where individuals live, work, love and play which are interpreted as the context for communication and interaction between individuals and professionals'.*

This is further supported by Nutbeam (Nutbeam, 1998:362) who defines settings as

*‘...not only places where people engage in environmental, organisational and personal factors which interact to affect health and wellbeing on a daily basis but where people actively use and shape the environment to generate solutions to promote their individual health and wellbeing’.*

It is appropriate to consider the settings approach to health promotion in this research because *‘settings come equipped with readily definable structures, routines, pathways of entree and of change, are relatively stable over time, are less amorphous than community or “society” and are more easily operationalized than a focus on specific risk groups’* (Poland et al., 2000:12). Furthermore, it has been argued that *‘consideration needs to be given to the variability between settings, pre-existing social relationships in the setting and the permeability of its boundaries’* (Green and Tones, 2010: 438). Therefore, according to Green et al. (2000) as quoted in Green and Tones (Green and Tones, 2010:438) *‘The view of settings...be expanded to also include the following:*

*Arenas of sustained interaction, with pre-existing structures, policies, characteristics, institutional values, and both formal and informal social sanctions on behaviour’* (Green, 2000:23).

This definition could also describe any local planning department. It is also important to recognise that successive UK governments have given legitimacy to the settings approach through its inclusion within a number of health strategies. The first of note was ‘The Health of the Nation – a strategy for health in England’, published in 1992 which (as quoted in Dooris et al., 1998:34) stated that:

*‘Opportunities to work towards the achievements of the targets, and indeed of other health gains, will be...enhanced if action – above all joint action – is pursued in various discrete “settings” in the places where people live and work. Such settings include “healthy cities”, healthy schools, healthy hospitals, healthy workplaces, healthy homes [and] healthy environments. They offer between them the potential to involve most people in the country’.*

For the purposes of this research the definition proffered by Nutbeam (1998) is the definition used.

### 2.3.3 Planning

For the purposes of this research 'planning' will be used interchangeably with the terms 'town planning', 'town and country planning' and 'urban planning'. This is due to the different resources used during the research process and represents how 'planning' has been described over time. The COED does not proffer a definition for 'planning' therefore the planning literature was interrogated to find a meaning.

Barton and Grant (2013:S129) ask *'What is the purpose of town planning? Is it to create a beautiful environment, or a well-functioning settlement, or a fairer society? Is it to facilitate economic development? Or is it to ensure long-term sustainability, attempting to reduce our ecological footprint?' and they provide an answer that it is '...about human health, and planning human settlements which offer the best opportunity for people now and in the future to enjoy good quality of life.'*

Town planning, according to Ward (2004:1), is *'essentially concerned with shaping the future'* whilst at the same time having regard to the *'physical structures and urban arrangements inherited from the past'*. Thompson (2007:157) advises that *'Sir Patrick Abercrombie, an influential English planner in the early 20<sup>th</sup> Century, described the principle of planning quite simply as beauty, health and convenience'*.

According to Rydin (2011:22) one of the underlying principles for planning was

*'...to plan different uses of land so as to promote local well-being and economic prosperity.'*

Sutcliffe describes planning as *'an essential administrative activity throughout the industrialized world'* that *'can be recognised as a coordinated effort, usually undertaken by public authority, to secure an efficient and socially acceptable use of land by a variety of potentially conflicting function'* (Sutcliffe, 1980:2).

This view is supported by Cullingworth and Nadin who state that the planning system in the UK is *'...essentially a means for conciling conflicting interests in land use'*. (Cullingworth and Nadin, 2006:1).

Town planning has played a significant role in the availability of effective physical environments that encourage healthier lifestyle choices (Tsouros, 1989) and can be traced as far back as the formation of the Health of Towns Association on 11 December 1844, whose purpose was to facilitate knowledge sharing through interdisciplinary working to bring about changes in the law to improve public health (Ashton, 2002). Rydin concurs with this statement and states planning

*'...is to be found at the very centre of the complex mess of technology, politics, culture and economics that creates our urban society and its physical presence'.*

(Rydin, 2011:1-2).

Northridge et al. (2003:119) suggest that planning is

*'.....concerned with the unseen yet real social, political, economic, and historical processes that generate the visible physical configurations of land-use patterns, transportation infrastructure, open space, and density, all of which can plausibly be considered as important determinants of population health'.*

According to Cullingworth and Nadin (Cullingworth and Nadin, 2006:2) planning is

*'...a process concerned with the determination of land uses... The broad objective of the UK system has been for many years to regulate the development and use of land in the public interest. From 2004 a much wider purpose has been added to contribute to the achievement of sustainable development.'*

Rydin (2011:12) defines planning as

*'...a means by which society collectively decides what urban change should be like and tries to achieve that vision by a mix of means.'*

The phrase 'town planning' came into general use between the period 1890 and 1914 and planning was 'so firmly on the scene by 1914 that the nineteenth century might fairly be designated as the most crucial period in its evolution' (Sutcliffe, 1980:3).

The definition which most resonates with this research is the one proffered by Cullingworth and Nadin (2006).

#### 2.3.4 Environment

Following on from the format of the previous definitions, the COED has also been used to establish a definition for 'environment'. The dictionary provides two definitions for 'environment':

- 1) *'The surroundings or conditions in which a person, animal, or plant lives or operates; and*
- 2) *The natural world, especially as affected by human activity'.*

(COED, 2006:477).

There isn't a definition of 'environment' in the Town and Country Planning Acts but it is generally regarded to include the natural and built environments and it is often described as environments built by humans for humans (Hancock, 2000). In planning terms the environment is generally considered to not only include the physical environment, for example: cycle paths, accessibility; but it also includes the use of premises such as fast food outlets, restaurants, supermarkets and grocery shops which shape the 'food environment'. The 'food environment' has been described as a concoction of cheap, high fat foods and 'super-size' menus with little or no encouragement or opportunity to participate in physical activity and a lifestyle that exists on low levels of physical activity (Hill and Peters, 1998).

The term 'built environment' doesn't have a statutory definition in UK planning legislation either but it is generally considered to be the consequence of development. Health Canada as reported in Hancock (2000:152) describes the built environment as follows:

*'... part of the overall ecosystem of our earth. It encompasses all of the buildings, spaces, and products that are created, or at least significantly modified, by people. It includes our homes, schools, and workplaces, parks, business areas, and roads. It extends overhead in the form of electric transmission lines, underground in the form of waste disposal sites and subway trains, and across the country in the form of highways.'*

Srinivasan et al. (2003:1446) describe the built environment as:

*'human modified places such as homes, schools, workplaces, parks, industrial areas, farms, roads and highways.'*

Therefore it follows that the built environment consists of three elements:

- 1) Physical design;
- 2) Land-use patterns e.g. residential, commercial, office, industrial; and
- 3) Transportation systems

(Lake and Townshend, 2006).

A similar definition of the built environment is proffered by Papas et al. in which they state:

*'the built environment encompasses a range of physical and social elements that make up the structure of a community and may influence obesity ..... encompassing aspects of a person's surroundings which are human-made or modified, as compared with naturally occurring aspects of the environment'*

and the environment can be defined as

*'all that is external to the individual'* (Papas et al., 2007).

Rao et al. claim that the built environment affects indoor and outdoor physical environments and social environments and subsequently health and quality of life and includes urban design, transportation systems and land-use planning and policies that affect communities in urban, rural and suburban areas (Rao et al., 2007). *'The evidence suggests that the built environment – the places where we live, work and play – has a profound influence on health'* (Ashe et al., 2007:141).

According to Younger et al. the built environment influences personal choices which in turn are likely to affect health by affecting physical activity, respiratory and cardiac health, injury risk, social connectedness and mental health (Younger et al., 2008).

It is important to note that as planning academics and practitioners have had limited involvement in the research to date it is likely that 'environment' has been defined and



interpreted in many different ways. Therefore for the purposes of this research the environment consists of three elements to encompass the built environment and food environment discussed above:

- 1) Physical design e.g. buildings, cycle paths, accessibility;
- 2) Land-use patterns e.g. residential, commercial, office, industrial which it also includes the commercial use of land or premises such as fast food outlets, restaurants, supermarkets: generally premises which makeup the food environment; and
- 3) Transportation systems.

#### 2.3.5 Obesity

The COED defines obesity as a derivative of obese, which in turn is defined as:

*‘grossly fat or overweight’*

(COED, 2006:985).

However, this research is concerned with the medical definition of obesity. The Merriam-Webster online dictionary defines obesity as:

*‘a condition characterized by the excessive accumulation and storage of fat in the body’*

(<http://www.merriam-webster.com/dictionary/obesity>: Accessed 29.3.12)

Quite simply obesity occurs when there is a sustained imbalance between the amount of energy consumed and the amount used up (Prentice and Jebb, 1995). *‘Physical activity is a key determinant of energy expenditure, and thus is fundamental to energy balance and weight control’* (WHO, 2004:4).

A further definition of obesity proffered by the World Health Organisation is *‘abnormal or excessive fat accumulation that may impair health’* (WHO, 2011). Figure 2.2 shows the major mechanisms and factors determining energy balance (Lenard and Hans-Rudolf, 2008).

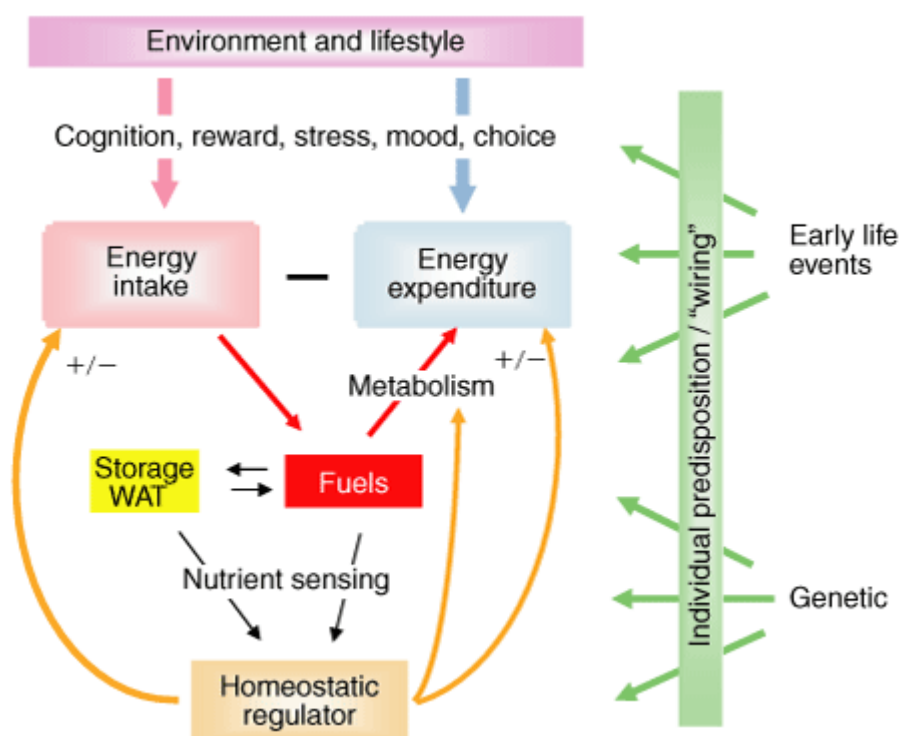


Figure 2.2: Major mechanisms and factors determining energy balance (Source: Lenard and Hans-Rudolf, 2008:S12)

When it comes to measuring obesity *‘there are many factors that affect body weight: height, sex, age, body build, bone density, and muscle mass to name some of the major sources of weight variation among people’* (Power and Schulkin, 2009:24). The Body Mass Index (BMI), a mathematical value, is one of a number of tools used to calculate how healthy a person’s weight is as it is *‘...easy and inexpensive to obtain and it is minimally invasive to individuals’* (Power and Schulkin, 2009:26) although *‘it remains the prime indicator for the definition of obesity today and is highly correlated with health risk’* (Gilman, 2010: xi). The calculation is weight (w) in kilograms divided by height (h) in metres then dividing the result by height in metres again. It is usually expressed as  $(w \div h) \div h$  (National Health Service Direct website).

The following table (Table 2.1) shows the classifications of obesity using the BMI index:

<u>Classification</u>	<u>BMI Principal cut-off points</u>
<u>Underweight</u>	<u>Less than 18.50</u>
Severe thinness	Less than 16.00
Moderate thinness	16.00 – 16.99
Mild thinness	17.00 – 18.49
<u>Normal Range</u>	<u>18.50 – 24.99</u>

<u>Overweight</u>	<u>Greater than or equal to 25.00</u>
Pre-obese	25.00 – 29.99
<u>Obese</u>	<u>Greater than or equal to 30.00</u>
Obese class I	30.00 – 34.99
Obese class II	35.00 – 39.99
Obese class III	Greater than or equal to 40.00

Table 2.1: BMI classification table (Source: Department of Health)

BMI is accepted globally as the most widely used measure for obesity monitoring as it is easy, cheap and non-invasive. It does however have some shortcomings: it is only a proxy indicator of body fatness and although useful at the population level it may not be accurate for assessing weight status at the individual level because it does not present any information of the distribution of body fat and does not allow for height and body shape (National Obesity Observatory) and *‘...even Western scientists, while using BMI models, doubt their accuracy. The range has been altered downward over time to include more and more individuals in higher risk categories’* (Gilman, 2010:xiv).

According to Eberwine *‘A shortcoming of BMI is that it fails to distinguish between excess fat and muscle. ...In general, however, BMI correlates closely with more direct measures of body fat and is a strong predictor of health problems associated with obesity’* (Eberwine, 2002:6).

In individual adult assessments waist measurement is considered a more accurate indicator of obesity and the WHO and the Department of Health (UK) suggests that a waist measurement which exceeds 94cm (37 inches) for men and 80cm (32 inches) for women increases the risk of developing obesity related illnesses.

Not only is obesity an excessive fat accumulation that presents a risk to health, it is a major risk factor for a number of chronic diseases such as diabetes and cardiovascular diseases (WHO). The impact of this health risk is not only to the individual but also to the economy through the rising costs of treating obesity and obesity related illnesses. The dramatic rise in obesity rates is a huge financial burden for the UK National Health Service as the annual cost of overweight and obese individuals is currently estimated to be £4.2billion and is forecast to more than double by 2050 if no action is taken (Butland et al., 2007a). According to the DoH (DoH, 2011:16) the financial costs of overweight and obesity now cost the NHS £5.1bn. This includes costs for specialist

equipment, for example: stronger beds and trolleys; and the requirement for specialist staff attending more complex births by obese women, which bring additional costs.

In the Foresight report (Butland et al., 2007) the scale of the problem is reviewed in Chapter 2 and the summary of the key points is reproduced here at Table 2.2.

<ul style="list-style-type: none"> <li>• Several health conditions are associated with overweight and obesity, including type 2 diabetes, hypertension, coronary heart disease, stroke and cancer.</li> </ul>
<ul style="list-style-type: none"> <li>• Being overweight has become the norm for adults.</li> <li>• In 2004, 23.6% of adult men and 23.8% of adult women were obese.</li> <li>• In 2003/2004, the mean BMI of UK adults was 27kg/m<sup>2</sup>, the healthy range being 18.5 – 25kg/m<sup>2</sup>.</li> <li>• The rates of obesity have more than doubled in the last 25 years.</li> <li>• The rates of obesity are estimated to rise, by 2035, to 47% and 36% for adult men and women respectively. By 2050, 60% males and 50% females could be obese.</li> </ul>
<ul style="list-style-type: none"> <li>• The total annual cost to the NHS of overweight and obesity (i.e. the treatment of obesity and its consequences) was estimated in 2001 at £2 billion, and the total impact on employment may be as much as £10 billion.</li> <li>• By 2050, the NHS cost of overweight and obesity could rise to £9.7 billion, with the wider cost to society being 49.9 billion (at today's prices).</li> </ul>

Table 2.2: The scale of the problem: summary of key points (Source Butland et al., 2007:41)

However, obesity can also *'reduce people's prospects in life, affecting individuals' ability to get and hold down work, their self-esteem and their underlying mental health'* (DoH, 2011:5) not only affecting their health but also their wellbeing.

There is no dispute that obesity rates have risen phenomenally over the last 20 years (Crossley, 2004) to the situation now of an 'obesity epidemic' (Hill and Peters, 1998) and a global phenomenon (Wareham et al., 2005) and no country has managed to reduce the burden of obesity solely by using public health approaches (Swinburn, 2008) . Expressed in simple terms weight gain occurs when energy (calories) consumption exceeds energy output (physical activity) and through the discovery of FTO, the obesity-susceptibility gene it has even been acknowledged that obesity can

no longer be regarded as an individual's fault (WHO, 2006; Crossley, 2004; Hill and Peters, 1998).

Power and Schulkin in their book investigating the interaction of human biology and the environment state that *'...the increase in human obesity is due to a mismatch between adaptive biological characteristics of our species and the modern environment, which has changed dramatically from the one under which we evolved'* (Power and Schulkin, 2009:5). This leads us succinctly onto the 'obesogenic environment'.

#### 2.3.6 The obesogenic environment

Giskes et al. introduce the concept of the 'obesogenic food environment' which is *'thought to facilitate high energy intakes by increasing access to stores that promote unhealthy food choices, such as takeaway and fast food shops, convenience stores and other outlets that are less likely to sell healthy food choices. Areas that may also be associated with physical activity environments that promote decreased energy expenditure and sedentariness'* (Giskes et al., 2010:2).

The COED definition for 'environment' has already been discussed at 2.3.4. The dictionary also provides a definition for 'obesogenic':

*'tending to cause obesity'*

(COED, 2006:985).

The concept of the obesogenic environment has received widespread popularity over the last two decades and its use has become more frequent (BBC). The term was first coined in the 1990s as a hypothesis that might explain the current obesity pandemic (Duggan et al., 2007). According to the Foresight Tackling Obesities: Future Choices – Project Report 2<sup>nd</sup> Edition (Butland et al., 2007a), the obesogenic environment refers to the role environmental factors have in influencing nutrition and physical activity. The report proceeds to claim that obesity is a consequence of the built environment and therefore the obesogenic environment is alleged to be a significant driver behind the growth in obesity. Power and Schulkin concur with this when they state *'...obesity is an inappropriate adaptive response to modern living conditions'* (Power and Schulkin, 2009:11). Barton also reflects on this and conveys that *'we are...quite literally building unhealthy conditions into the fabric of our cities, towns and villages'* (Barton, 2005b:281).

The WHO have also recognised the effect of the environment on obesity *‘Our modern ‘obesogenic’ environments with the combination of unhealthy diet and physical activity, have serious implications for obesity levels, particularly among children as well as contributing to other non-communicable diseases such as diabetes’* (WHO, 2006:8).

A more in-depth definition of the obesogenic environment is offered by Dr. Ala Alwan (Alwan, 2008) who stated *‘...it’s the way we live our lives today: the sedentary lifestyles, the consumption of processed foods and drinks and the technological advances’*.

This is the definition used in this research.

A recent article on the BBC website asks ‘Who, What, Why: What is an ‘obesogenic’ environment?’ and it is defined as *‘areas with plentiful outlets selling high calorie foods and places where walking is difficult. In simple terms, environments that encourage people to eat unhealthily and not do enough exercise’* (BBS, 2014).

Another term which originates from the global obesity epidemic is ‘globesity’. According to Gilman this term was first coined by the World Health Organisation in 2001 to *‘label the worldwide epidemic of obesity’* (Gilman, 2010: ix and 174) and the term was defined further in a 2002 report by the Pan American Health Organisation and reported by Gilman which *‘places the blame not on individuals but on globalisation and development...’* (Gilman, 2010: xiv). This definition is reiterated by Eberwine who also states that *‘The growing body of public health literature on the “globesity” epidemic places the bulk of the blame not on individuals but on globalisation and development...’* (Eberwine, 2002).

## 2.4 Epistemological and theoretical perspective

The overall aim of his research, to understand how the built environment affects obesity and to investigate how holistic health is integrated into the core functions of town and country planning particularly through Health Impact Assessment (HIA) and the WHO strategies: Healthy Cities and Healthy Urban Planning. The construction of an epistemological and theoretical framework was fundamental to ensure the

robustness and validity of this research and *'to understand town planning properly, it is essential to understand how it has developed'* (Ward, 2004:1).

Crotty (1998:2-3) espouses four basic elements which inform one another throughout the research process:

- *Methods*: the techniques or procedures used to gather and analyse data related to some research question or hypothesis.
- *Methodology*: the strategy, plan of action, process, or design lying behind the choice and use of methods to the desired outcomes.
- *Theoretical perspective*: the philosophical stance informing the methodology and thus providing a context for the process and grounding its logic and criteria.
- *Epistemology*: the theory of knowledge embedded in the theoretical perspective and thereby in the methodology.

This chapter will continue to discuss the epistemological and theoretical perspective elements of the research process as defined by Crotty and applied to this research (Crotty 1998). The methodology and methods elements will be considered in a following chapter.

#### 2.4.1 Epistemology

Epistemology is the nature and origin of knowledge (Greed, 2000) and is

*'...concerned with different ways of knowing'* (Dear, 2000:43).

The epistemological approach selected to guide this research had to have significance and empathy to the purpose and process of planning and planners, people and the environment. The epistemological perspective of this research is constructionism.

Crotty (1998:42) defines constructionism as:

*'...all knowledge, and therefore all meaningful reality as such, is contingent upon human practices, being constructed in and out of interaction between human beings and their world, and developed and transmitted within an essentially social context.'*

Crotty also states that *'constructionism claims ...that meanings are constructed by human beings as they engage with the world they are interpreting'* (Crotty, 1998:43). These definitions are further supported by Greed (2000) who, using constructionism and constructivism interchangeably, states that the theory allows for multifarious realities and conceptualisations of the community; emphasising culture, multiplicity of views, and planning for diversity (Greed, 2000).

The process of planning in the UK, as defined earlier in this chapter, is to control land-use and development in the pursuit of the social, political and economic interests of the population (Cullingworth and Nadin, 2006; Northridge et al., 2003). Constructionism *'as an approach to the social sciences draws its influences from a number of disciplines, including philosophy, sociology and linguistics, making it multidisciplinary in nature'* (Burr, 2003:2). This definition of 'social constructionism' is further expanded by Naidoo and Wills who state it as *'the theoretical perspective suggesting that all knowledge and discourse (as well as ideology and representations) are socially constructed within a context in which different groups of people have differing interests and priorities, and therefore represent only a partial truth'* (Naidoo and Wills, 2008:381)

The epistemological approach of this research is sympathetic to the definition of the process of planning and health (see 2.3.3 and 2.3.1 respectively).

#### 2.4.2 Theoretical perspective

It is important that the theoretical perspective provides a way to look at the world and make sense of it; and also supply the philosophical stance underlying the chosen research methodology and methods (Crotty, 1998). *'Planning theory has increasingly emphasized the critical importance in a pluralistic society of inter-agency communications'* (Barton and Grant, 2008:137) which allows for diversity, different layers and dimensions and multiple truths. It therefore appears to be appropriate that the theoretical perspective of this research is postmodernism.

Planners have reinvented themselves many times throughout the history of planning as: *'technical experts, urban designers, umpires, economic planners, property developers, environmental police, social engineers, corporate managers, facilitators, advocates and entrepreneurs. Planners have operated, and survived under a range of governments, and espoused a variety of political ideologies and theoretical stances'* (Greed, 2000:253) but the planning system has consistently failed to achieve a healthy



outcome, rather it has replaced one set of illnesses (communicable) with another (non-communicable).

Planning has always been, and continues to be, a highly contested discipline consistently encountering many different points of view, opinions and arguments and has shifted between the analytical debate (what is urban planning?), the urban form debate (what is a good urban plan?) and the procedural debate (what is a good planning process?) (Yiftachel, 1989). Postmodernism is also a highly contested and contestable theory (Cheek, 1999), a '*contradictory, slippery thing*' (Ward, 2010:xiv).

The development of the theoretical perspective to guide this research was through approaching the study from the perspective of a town planner. This is to ensure it reflects and encapsulates both the background of the researcher and the subject of the thesis. *'Planners carry with them professional assumptions about the need to regulate and order urban space and about the ways in which they should do this. They also work within a planning system that embodies past political assumptions about the institutional location, purpose and instruments of planning policy. And, not least, they have to live with the consequences of past planning decisions, expressed within the fabric of towns and cities'* (Ward, 2004:1).

According to Hedgcock planning is rooted in a tradition of modernism (Hedgcock et al., 1991) and modernist planning, which had dominated from the inter war years continued to dominate planning in the post war period, through the Town and Country Planning Act 1947. This was seen as a positive system of planning (Taylor, 1998) until the late 60s early 70s. *'In this modernist view of planning there is an assumed certainty that reality can be controlled and perfected and that a universal internal logic may be uncovered which can be rationally and objectively manipulated by those with the appropriate professional expertise'* which *'...enabled the planners to appear to disengage themselves from the interests of any particular group, remain politically neutral and act in the public interest'* (Hedgcock et al., 1991:221).

These decades saw the recognition of modernist planning as placing too much information on planners which was seen to be affecting their ability to rationalise their options so, in turn, the planners had become judgemental, drawing on the established norms, patterns and expectations (Rydin, 2011) rather than remaining impartial.

According to Eagleton (1996) the early beginnings of postmodernism appear to be rooted in the United States. However, there is much discourse surrounding an exact definition of postmodernism (Cockerham et al., 1997). Smart (1992:39) as cited by Cockerham et al. (1997:332) defines postmodernity as *'a modification or change in the way(s) in which we experience and relate to modern thought, modern conditions, and modern forms of life, in short to modernity ... postmodernity is focused on transformations in society, culture, economics, technology, communications, and politics'* and *'by the mid-1980s, postmodernism had blossomed into what can sometimes seem like a catch-all term for just about anything'* (Ward, 2010:1). Eagleton, in a critique of postmodernism, states that postmodernism has a *'zest for plurality, multiplicity [and] ... open-endedness'* (Eagleton, 1996:120).

Postmodernism is a breakdown of traditional paradigms which allows different ways of thinking about planning and provides a return to the more traditional values which reflect the definition and purpose of the epistemological perspective of this research. Post-modernism legitimises a move towards an engagement with diversity and fragmentation, epitomised by the local state (Hedgcock et al., 1991) and provides us with the recognition that the city is fragmented, planners are fragmented and therefore our practice is fragmented (Dear, 2000). According to Rydin *'post-modern planning theory celebrates multiple epistemologies'* (Rydin, 2007:52).

Bertens (1995:9) as cited by Cheek (1999:384) describes postmodern approaches as more *'a set of intellectual propositions' than a single theoretical approach able to be clearly delineated'*. According to Cheek (1999:385) *'postmodern approaches emphasize that reality is plural, and there is not just one way or position from which to view, understand, or characterize that reality'*. This approach allows the planners and health practitioners to *'engage in a form of reflexivity, in which the analysis of practice involves multiple layers, multiple truths, and multiple voices'* (Cheek, 1999:385) which accords with the fragmented and diverse communities of the UK today.

Postmodernists believe that 'power' is central to understanding planning and that planners can be in a very influential position because 'power' is embedded in all of us and with particular regard to planners their 'power' has a huge influence on the built environment. Michel Foucault, a French philosopher 1926 – 1984, was an ardent advocate of post-modernism and the influence of 'power' and unlike Max Weber,

Foucault believed that 'power' isn't top down or, like Marx, 'power' isn't structural, but that 'power' is chameleon like in the way it is expressed.

The planning and regeneration provisions of the Localism Bill published by the UK government on 13<sup>th</sup> December 2010<sup>2</sup> and currently making its way through the Bill making process in parliament will amongst a number of changes to planning and regeneration provisions:

- abolish Regional Spatial Strategies;
- amend the Community Infrastructure Levy, which allows councils to charge developers to pay for infrastructure. Some of the revenue will be available for the local community;
- provide for neighbourhood plans, which would be approved if they received 50% of the votes cast in a referendum; and
- provide for neighbourhood development orders to allow communities to approve development without requiring normal planning consent.

(<http://services.parliament.uk/bills/2010-11/localism.html>)

This reinforces the shift of planning from the macro-level to the micro-level (Greed, 2000) as post-modernism conditions '*are characterized by a fragmentation of traditional centers of authority and accelerated individualism*' (Cockerham, 1997:332).

This research also involves health so it is important that the theoretical position also supports that aspect as well. Cheek's research (Cheek, 1999:391) provides evidence that postmodern approaches to health can affect practice and '*postmodern approaches offer one way of thinking deeply about nursing and health care*'. The postmodern approaches to health promote '*diversity in lifestyle choices and push people toward greater individual responsibility*' (Cockerham et al., 1997:332), it is also clear that postmodernism aligns with broader approaches focused on addressing the wider determinants of health and adopting a salutogenic perspective (Kickbusch, 1996; Antonovsky, 1986 ). Indeed, Healthy Cities, the WHO approach investigated in this research through HIA and HUP, can be regarded as a postmodern approach to health (Davies and Kelly, 1993). According to Davies and Kelly (1993:7) '*The Healthy Cities programme is a political programme which is about a change in power relations in respect to health*' and '*an emphasis on health displaces an emphasis on disease, in*

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<sup>2</sup> On 15 November 2011 the Localism Bill received Royal Assent and became an Act

*research for Healthy Cities the focus should be on the origins of health rather than the origins of disease'* (Davies and Kelly, 1993:160).

Postmodernism is a late 20<sup>th</sup> Century movement which emphasises the co-existence of a multiplicity and a variety of situation dependent ways of life. As a result of postmodernism, planners will be much less inclined to lay a firm claim to there being one single 'right way' of engaging in urban planning and will be much more open to different styles and ideas of how to plan. Therefore postmodernism provides a suitable context and background for the methodology and methods utilised in the main focus of this research, namely planning, health and healthy cities.

## 2.5 Summary

The purpose of this chapter was to explain the rationale behind this thesis. The chapter started by stating the focus of this research, which included a brief description of the research themes: Healthy Cities, Health Impact Assessment and Healthy Urban Planning. This was followed by a definition of the key terms used throughout this research was provided: health, settings, planning, environment, obesity and the obesogenic environment.

For ease of reference the key terms and the definitions relating to this research are reiterated here at Table 2.3:

Health	Health is not only the absence of disease but a state of physical, mental and social well-being. The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being, without distinction of race, religion, political belief or economic or social condition.
Settings	Not only places where people engage in environmental, organisational and personal factors which interact to affect health and wellbeing on a daily basis but where people actively use and shape the environment to generate solutions to promote individual health and wellbeing.
Planning	A process concerned with the determination of land uses...The broad objective of the UK system has been for many years to regulate the development and use of land in the public interest. From 2004 a much wider purpose has been added to contribute to the achievement of sustainable

	development.
Environment	The environment consists of three elements to encompass the built and food environments: 1) Physical design; 2) Land-use patterns; and 3) Transportation systems.
Obesity	Abnormal or excessive fat accumulation that may impair health.
Obesogenic environment	The way we live our lives today: the sedentary lifestyles, the consumption of processed foods and drinks and the technological advances.

Table 2.3: The key terms and definition used in this research

This chapter then went on to provide the epistemological and theoretical perspective underpinning this research, which are constructionism and postmodernism respectively. These were selected due to their resonance with the definitions noted above, with the overall focus of the study and with the perspective of the researcher. Constructionism and postmodernism allow for multiplicity of views, diversity and many layers which underpin the UK planning system.

The following chapter will provide the details of the methods and methodology selected to gather and analyse the empirical data.

### 3 CHAPTER THREE: THE RESEARCH METHODOLOGY AND METHODS

#### 3.1 Introduction

As already discussed in the preceding chapter, Crotty (1998) espouses four basic elements to the research process namely: methods, methodology, theoretical perspective and epistemology. It has also been suggested that *'Some approaches emphasize the centrality of the natural or built environment...Often such approaches encompass the idea that such things can have effects, impacts, agency or life, outside of human intention or reaction, as well as being connected with them'* (Mason and Dale, 2011:10). The theoretical perspective and epistemology were discussed in the preceding chapter therefore this chapter will focus on the research methods and methodology, important factors in the research process, underpinning this research into the effect of the built environment on obesity and more holistic health and wellbeing.

According to Crotty (1998:3) methods are:

*'the techniques or procedures used to gather and analyse data related to some research question or hypothesis'*

and methodology is:

*'the strategy, plan of action, process or design lying behind the choice and use of particular methods and linking the choice of methods to the desired outcomes'.*

Bryman (2004:27) describes a research method as:

*'.....simply a technique for collecting data. It can involve a specific instrument, such as a self-completion questionnaire or a structured interview, or participant observation whereby the researcher listens to and watches others'.*

An important component of this study was the selection of the appropriate methods and methodologies which would go beyond urban planning to inform and underpin the whole thesis subject area of urban planning and health (Crotty, 1998) because *'...the methods we use influence the quality of the knowledge we can generate...'* (Mason and Dale, 2011:2).

This thesis explored the aims and objectives predominantly through multi-method qualitative research and processes by garnering the nature and characteristics of individual views and opinions from a range of sources involved in the main subject areas; and the use of coding to analyse the empirical data collected.

The methods employed to investigate the research objectives were:

- A literature review: this sought to answer the first objective and reflect on the historical partnership of health and planning, through a review of the current literature asserting the link between the built environment and the aetiology of obesity;
- A survey of Local Planning Authorities: this provided the information required to answer the second research objective, to investigate the existing use of Health Impact Assessments in the determination of proposed development and land-use proposals; and
- Semi-structured telephone interviews and two web based on-line questionnaires: these provided the information required to answer the third research objective, to investigate how Health Impact Assessments and Healthy Urban Planning, key themes of the WHO's Healthy Cities project, are being integrated into the core functions of town and country planning in the UK.

### 3.2 The literature review process

The literature review was a fundamental component of the research process and continued from the outset of this research throughout. It was important to identify the academic literature that would drive and underpin this research. The literature selected for the review was initially selected through the University of Central Lancashire (UCLan) library catalogue database, ISI Web of Knowledge website and the search engine Google Scholar. These were selected to ensure a comprehensive search which would cover all disciplines and genres and multiple and diverse sources.

The purpose of the literature review was to begin to address the aims of this research and the research questions (see Chapter 1: Introduction). Initially the key words and phrases used to identify potential literary articles and books were: obesity, health,

planning and built environment. These key words and phrases were used in numerous combinations as follows:

- Obesity and planning;
- Health and planning;
- Obesity and built environment; and
- Health and built environment.

As the literature review and the research progressed the key words and phrases were expanded to include Healthy Cities and Health Impact Assessment and the following combinations shows the main search criteria used:

- Obesity, planning and Healthy Cities;
- Obesity, planning and Health Impact Assessments;
- Health, planning and Healthy Cities;
- Health, planning and Health Impact Assessments;
- Obesity, built environment and Healthy Cities; and
- Health, built environment and Healthy Cities.

As obesity has only become a major global concern over the last 20 years or so it seemed it would be appropriate to search for articles from 1990 to the present. The graph below at Figure 3.1 represents the number of articles available on Google Scholar only using the keywords: health and obesity and the exact phrase: built environment. This clearly demonstrates the dramatic increase in interest in the research subject area since 1990. This demonstrates that the dateline chosen was appropriate and realistic.

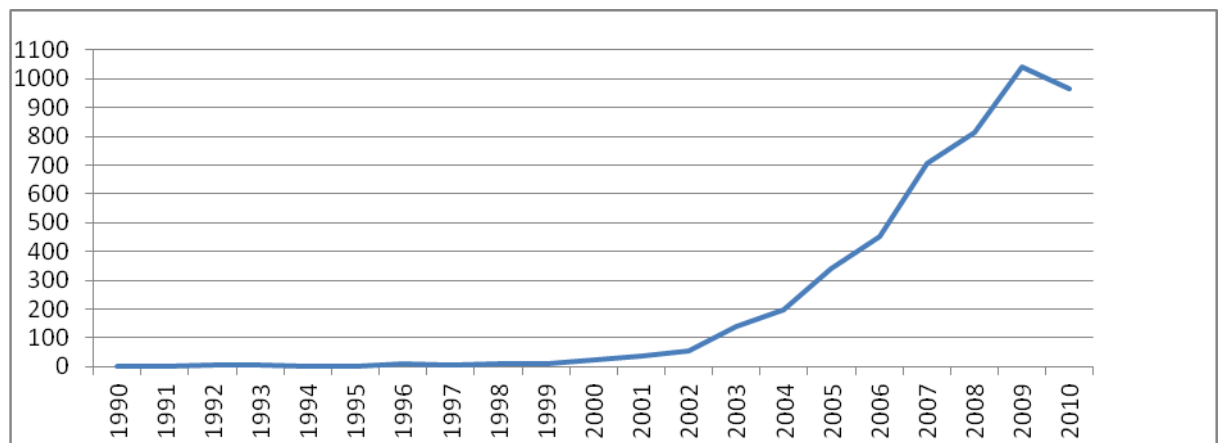


Figure 3.1: Numbers of urban planning and obesity related articles on Google scholar



Initially the title of each article was reviewed alongside the keywords and phrases and if it appeared to be sympathetic to the subject area and the research aim, questions and objectives then the abstract would be read. Once an article had been selected the bibliography of that article were also examined to identify possible further reading that could inform this research.

The recent upsurge in the field of urban planning and obesity, and holistic health, made the literature review a long and slow process and of course it was a process that continued to evolve in order to ensure the thesis was as up to date as possible. Also, only articles available in English were selected.

### 3.3 The survey of the 354 local planning authorities in England

The literature review identified the use of HIAs as an assessment tool to evaluate both the positive and negative effects of a plan, policy, project or proposal on health. The literature review and the volume of companies who offer HIA services suggested that there was extensive use of HIA in the UK; therefore establishing the actual usage of HIA in the assessment of land-use proposals in the UK became a primary goal of this study. Examples of users and advocates' of the use of HIA in the planning process includes Ben Cave Associates (a consultancy), the Welsh Health Impact Assessment Support Unit (part of Public Health Wales) and IMPACT - International Health Impact Assessment Consortium (based in the Division of Public Health, a WHO Collaborating Centre for Public Policy Research on Social Determinants of Health, at the University of Liverpool).

The UK has both one tier and two tier local government structures: the one tier structure refers to unitary authorities (e.g. metropolitan authorities such as Manchester; others such as Blackpool); the two tier structure refers to areas where services are provided across both county and district/borough councils. Metropolitan (or county) councils are usually established in the larger towns and are responsible for all services whereas the district/borough councils have limited responsibility for smaller geographical areas overseen by a metropolitan (or county) council. England was the area chosen for this particular element of this study due to the differing planning practices and legislation of the devolved Governments of Scotland, Wales and Northern Ireland particularly in relation to town and country planning.

The legislative process for planning in the UK involves both central and local government. One of the main responsibilities of Parliament is to approve new laws which the Government has developed. The Government also has the responsibility to implement the new legislation. This process also extends to amendments to legislation. The local planning authorities (LPAs) in the UK are responsible for the assessment and determination of land use and development proposals and the implementation of national town and country planning legislation and the formulation of Local Development Documents (LDDs). In a one tier local government structure the planning function is overseen by the unitary authority (metropolitan/county) and in a two tier local government structure the planning function is overseen by the district/borough council.

Therefore the second stage of the study was the natural progression from the identification of HIA in the literature review to ascertaining the existing use of HIAs in the determination and assessment of land use and development proposals (planning decisions). As such it became clear that it would be necessary to approach the LPAs to elicit the appropriate information regarding the current use of HIAs in the land use planning process.

As the objective of the study was to ascertain the extent to which planning is fostering an environment susceptible to obesity and to argue for a mandatory role for health impact assessments in the assessment of land use development policies, plans and proposals it was absolutely necessary to ascertain the current use of HIAs in the determination of land-use and development proposals.

### 3.3.1 Choosing the data collection method

There were a number of options available to elicit the information that this thesis required. One of the options was to conduct a survey and some of the most popular methods generally selected to conduct a survey include:

- An on-line web survey such as Survey Monkey or Bristol Online Surveys;
- Email;
- Telephone interviews; and
- Observations/workshops

Through the experience of working in a LPA the researcher was able to identify the use of the Freedom of Information Act (FOI) 2000 as a survey method that could be engaged to obtain the data required and at the same time ensure a high response rate. The high response rate would be achieved simply through the mandatory requirement of the FOI Act that all requests made to a public body (of which the LPAs are) have to be responded to within 20 working days.

Section 1 (1) of the FOI Act 2000, c. 36, Part 1 Right to Information states:

*Any person making a request for information to a public authority is entitled—*

*(a) to be informed in writing by the public authority whether it holds information of the description specified in the request, and*

*(b) if that is the case, to have that information communicated to him.*

Section 10 (1) of the same part of the Act states:

*Subject to ... a public authority must comply with section 1(1) promptly and in any event not later than the twentieth working day following the date of receipt.*

(United Kingdom Government, 2000).

The geographical area selected to investigate the use of HIA by LPAs was England only. This is due to the differing land-use planning legislation and processes between England, Scotland, Wales and Northern Ireland. The LPAs in the UK are responsible for land-use planning policy at the local government level. They are also responsible for deciding the majority of land-use planning proposals; the exception to this would be if the proposal is of national significance such as major infrastructure or likely to give rise to significant controversy or effects; the application will then be either determined by the Planning Inspectorate (on 1 April 2012 the Planning Inspectorate became the agency responsible for operating the planning process for nationally significant infrastructure projects (NSIPs). (The National Infrastructure Planning website, 2012) or the Secretary of State for Communities and Local Government.

As the LPAs are responsible for the assessment and determination of land-use proposals it follows that they would be the appropriate sample to direct the survey to. The Directgov website (<http://www.direct.gov.uk>) was accessed to obtain the details of all the local authorities (LAs) in England: this search resulted in identifying a total of 354 LAs. This was a far greater number than anticipated or expected. It would have

been an impossible task due to the time constraints to search every application for land use planning permission on each local authority website or attend each planning office in person to search through each planning application. Table 3.1 displays the number of planning applications which were decided during the initial stages of this research and is shown to illustrate the insurmountable task of reviewing each application to check whether or not a HIA had been declared for one person to undertake.

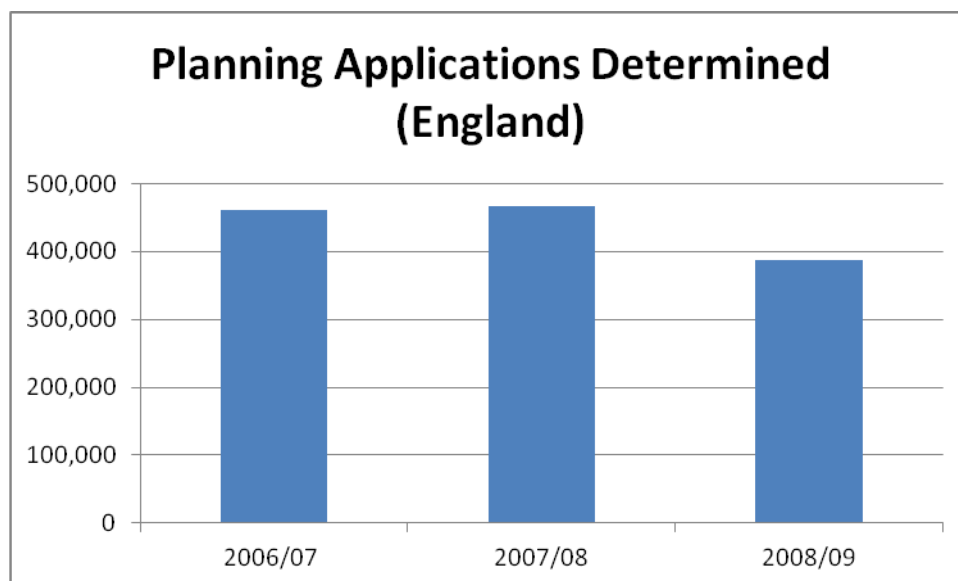


Table 3.1: Planning applications determined (England) (Source: DCLG)

Therefore the use of the FOI Act to extract the information was deemed the most appropriate method to use.

### 3.3.2 The survey

One of the reasons the FOI process was chosen was because under the regulations of the Act the public has a right to access public records held by local councils. A response to such a request is mandatory and must be made within 20 days; therefore an excellent response rate was anticipated. It was decided to issue the FOI request to each LPA rather than a sample. This was due to the small amount of data that was being requested and the method chosen to make the request using the internet. The Directgov website was invaluable in this process as it provided a link to each LA website.

The FOI request was submitted to each LPA using one of two methods:

- 1) By email to the nominated FOI officer or department (a mandatory requirement of the Act) when that information was available on the website otherwise it was sent to the generic planning department email address; or
- 2) By completing an online enquiry FOI form; if one was available on the website.

The details at Table 3.2 highlight the advantages and disadvantages of both methods that were identified during the process.

	<b><u>Advantages</u></b>	<b><u>Disadvantages</u></b>
Email	Quick; Undeliverable emails identified immediately; Where the details of the FOI officer were available it allowed following up the initial enquiry easier;	Unable to obtain delivery receipts; If sent to a generic email address it would make it more difficult to follow-up if necessary;
Online enquiry form	Confirmation of enquiry usually received straight away; Reference number usually allocated straight away by return email	No details of who or where the enquiry was being directed in the majority of cases;

Table 3.2: Email v. online enquiry form

The FOI request consisted of four requests:

1. The total number of HIAs that have been submitted as a supporting document for a planning application from 2005 to date;
2. Whether or not the HIA was submitted on a voluntary or compulsory basis as part of the planning application process;
3. The description and reference number of the planning application each HIA corresponds to;
4. An electronic copy of each document or the cost for photocopies of the documents.

The content of the FOI request was discussed beforehand with my supervisory team although the actual wording of each query was not discussed prior to submitting the request to the LAs.

The survey took place over a period of six months from April 2010 to September 2010. This included the first request and two further requests and/or reminders where appropriate. The first requests were sent during April 2010 and it took a total of three days to submit the request to each LPA. Initially there was a huge response but this slowed over the coming weeks and after approximately four months there were only forty responses outstanding. After checking that the first request had been sent, a second request was sent, using the appropriate reference number where available, at the beginning of September 2010. This resulted in a further thirty four responses being received. This represents an exceptionally high response rate of 98.31%.

#### 3.3.3 Change method?

Although it was time consuming sending the 354 FOI requests the method would remain the same if the exercise were to be repeated. Although the negative responses hadn't been anticipated at least it was a response. It is considered that if the request had been made by another method which involved the LPA responding voluntarily rather than using the FOI procedure the response rate would have been considerably less.

#### 3.3.4 Choose different criteria?

As this survey was the starting point for this research it is considered that the questions were appropriate for the purpose of this research.

The first question asked for the number of HIAs submitted in support of a planning application since 2005. This date was chosen because it was deemed to be unlikely that a significant number of HIAs would have been submitted previously due to the relatively short length of time they have been an accessible form of measuring health impacts in the planning arena. Providing a time period for the information is required is also a mandatory requirement under the FOI regulations.

The core research area is the links between obesity and the built environment but it was felt that it would have been too descriptive to request details of HIAs which had specifically considered the positive and negative impacts on obesity so this was not

included in the request. Therefore, Questions at 3 and 4 of the FOI request would enable a check to be made for those criteria if necessary.

### 3.4 Interviews

The results of the FOI survey demonstrated the slow and sporadic uptake of HIA by the UK planning system. Therefore the purpose of the telephone interviews was to establish how HIA and HUP, core themes of the Healthy Cities movement and with health at their core, are being incorporated into the planning process; is the Healthy Cities movement a missed opportunity for the planning system to integrate health into the planning process? Conducting interviews would provide an opportunity to obtain detailed information from a varied and diverse selection of participants.

Interviews are *'probably the most widely employed method in qualitative research'* (Bryman, 2004:319). They *'investigate approaches that result in descriptive textual information, in contrast with quantitative methods where results are usually summarised numerically'* (McMillan and Weyers, 2007:123) and qualitative research usually *'involves individuals or small samples ... carefully selected, and they may not be representative of the population as a whole, but that is not necessarily an issue, because the value of qualitative research derives from the authentic and case-specific detail that it can encompass'* (McMillan and Meyers, 2007:125). According to Swetnam (2004:65) *'an interview is not a conversation but a structured way of obtaining information on a focused content'*.

The value of undertaking interviews in this research was to use open and/or open-ended questions as they *'tend to produce a variety of responses from a blank response to very detailed answers. Responses to open questions can be useful to enrich a report with authentic quotes illustrating representative points of view or opposing, polarised viewpoints'* (McMillan and Weyers, 2007:127).

#### 3.4.1 Choosing the type of interview

According to Bryman (2004:113) there are a number of major types of interview:

- Structured interview;
- Standardized interview;
- Semi-structured interview;

- Unstructured interview;
- Intensive interview;
- Qualitative interview;
- In-depth interview;
- Focused interview;
- Focus group;
- Group interview;
- Oral history interview; and
- Life history interview.

Only two of these approaches to interviews were considered appropriate for this research: structured and unstructured. The differences between each style of interview are shown in Table 3.3.

<b><u>Structured Interviews</u></b>	<b><u>Unstructured Interviews</u></b>
<ul style="list-style-type: none"> <li>• Also known as a standardized interview;</li> <li>• The administration of an interview schedule by an interviewer;</li> <li>• All interviewees are given exactly the same context of questioning – each respondent receives the same interview stimulus as any other;</li> <li>• This style of interviewing ensures that interviewees' replies can be aggregated – reliability is only achieved if replies are in response to identical cues;</li> <li>• Interviewers read out questions exactly and in the same order as they are printed on the schedule;</li> <li>• Questions are usually specific and often offer the interviewee a fixed range of answers (often called closed, closed ended, pre-coded, or fixed choice);</li> <li>• The structured interview is the typical form of interview in survey research.</li> </ul>	<ul style="list-style-type: none"> <li>• An interview using an interview schedule with the topics listed but with few specific and no fixed questions;</li> <li>• These interviews aim to be carried out 'in-depth';</li> <li>• Individual unstructured interviews are expensive;</li> <li>• Often described as 'guided conversations';</li> <li>• This style of interviewing allows more complex issues to be probed;</li> <li>• A more relaxed and informal atmosphere may obtain more in-depth information;</li> <li>• The data are time-consuming and difficult to collect and analyse;</li> <li>• There are greater opportunities for interviewer bias.</li> </ul>
(Adapted from Bryman, 2004:110)	(Adapted from Bowling, 2009:407-408)

Table 3.3: Structured v. unstructured interviews



A structured approach to the interviews was considered the most appropriate method for this research in order *'for all interviewees to be given exactly the same context of questioning'* because *'it promotes standardization of both the asking of questions and the recording of answers'* (Bryman, 2004:110). The use of this technique was also considered the most appropriate to avoid bias and in *'reducing error due to variation in the asking of questions and greater accuracy in and ease of processing respondents' answers'* (Bryman, 2004:110). Although the interviews were structured in so much as the questions were asked in a specific order, only one of the 10 questions was closed (pre-coded). The main questions were deliberately open or open-ended so the respondents could answer as they wanted (Bryman, 2004).

#### 3.4.2 Choosing the telephone interview method

As already discussed there were a number of interview approaches that could have been employed to collect the information required. There were two approaches that were considered for this research: face-to-face interviews and telephone interviews.

The decision to undertake telephone interviews rather than face-to-face interviews was made for the following reasons:

- Time: the UK designated Healthy Cities are spread throughout the UK, from as far North as Glasgow, to Brighton and Hove in the South. Although the decision of which designated cities to include in this research had not been made the potential time spent arranging and undertaking face-to-face interviews and organising travel arrangements would have had a significant negative impact on the time available to conduct this research and the financial resources available.
- Resources: As already noted there would be a negative financial impact when conducting face-to-face interviews.

Once it had been decided that telephone interviews would be undertaken there were two main processes to complete prior to the actual interviews taking place. Firstly the selection of the appropriate designated UK Healthy Cities to use as case studies for this research to select the respondents (See 3.4.3) and, secondly, the formulation of the interview questions (See 3.4.4).

### 3.4.3 Selecting the Healthy Cities for this research

The first component of the telephone interview process prior to the interviews taking place was achieved through accessing the World Health Organisation website dedicated to the Urban Health and the Healthy Cities movement (<http://www.euro.who.int/en/what-we-do/health-topics/environment-and-health/urban-health/activities/healthy-cities>). The data obtained confirmed there were fourteen designated Healthy Cities in the UK. It was then decided, through collaboration with the supervisory team, that this research would select two of the UK designated Healthy Cities as case studies. It also seemed appropriate to interview not only the Healthy City coordinators of the selected case studies but both a planning policy officer (sometimes referred to as a Forward Planning Officer) and development planning officer from each city. The rationale for selecting the different respondents was due to their different roles and responsibilities. These are shown in Table 3.4.

<b><u>Healthy City Co-ordinator</u></b>	<b><u>Planning Policy Officer</u></b>	<b><u>Development Planning Officer</u></b>
<ul style="list-style-type: none"> <li>• Usually health professionals</li> <li>• Crucial in influencing local health priorities</li> <li>• Provide strategic direction, support, advice and guidance</li> <li>• Contribute extensively to the development of WHO'S Healthy City policies</li> <li>• Develop active operational and strategic partnerships and networks with Public authorities, Government departments and Voluntary and Community organisations in the city</li> <li>• Ensure the effective and efficient management of Healthy Cities' staff, the development of budgets, financial controls and information systems and the provision of properly audited accounts, delivering the optimum results within budgetary limits.</li> </ul>	<ul style="list-style-type: none"> <li>• Draft and preparation of Local Development Frameworks (policies, guidance etc)</li> <li>• Monitoring of policies</li> <li>• Data collection/site investigation</li> <li>• Background research</li> <li>• Multidisciplinary working</li> <li>• Public consultation</li> <li>• Prepare analysis and reports</li> </ul>	<ul style="list-style-type: none"> <li>• Process planning applications</li> <li>• Pre-application advice and meetings</li> <li>• Appeal casework</li> <li>• Approval of planning conditions</li> <li>• Validation of planning applications</li> <li>• Site inspections and consultations</li> <li>• Preparation of committee reports</li> <li>• Liaise with other council departments and other bodies</li> <li>• Implement the policies and procedures of the council with regard to the control of development</li> </ul>

Table 3.4: The roles and responsibilities of the respondents

The cities chosen for this research were Liverpool and Manchester. They were chosen because they have both been designated WHO Healthy City for a significant period of time: Liverpool from Phase I in 1988 and Manchester from Phase III in 1998 and because they had retained the same coordinator since at least Phase III.

The initial approach to the Healthy City coordinators was made during a meeting held in Cardiff in autumn 2010. All the co-ordinators were approached and provided with an overview of the research before being asked if they were interested in becoming involved. This process also reaffirmed Manchester and Liverpool as the most appropriate case studies selected for this research as the co-ordinators had extensive experience of the Healthy Cities movement and were involved in both Phase III and Phase IV of the project and the subsequent Phases of the movement and they were both happy to be involved in this research. At the same meeting the involvement of a number of other Healthy City coordinators was discussed in order to pre-review the questions as part of a pilot exercise in order to assure the quality and appropriateness of the questions; the coordinators from Sheffield and Stoke tentatively agreed to do this.

This initial contact with the Healthy City coordinators for Manchester and Liverpool was followed up by email. The email contained the following information:

- The rationale for selecting Liverpool and Manchester as the case studies;
- Requesting details of appropriate planning and planning policy officers who may be willing to take part in this research;
- Contact details for the researcher; and
- The possible inclusion of the research findings to be to be included on the agenda of the next Healthy City coordinators focus group meeting in January 2011.

Also, the initial contact with the Healthy City coordinators for Sheffield and Stoke was followed up with an email which included the pilot copies of the proposed interview questions as they had indicated their agreement to be involved with pre-viewing the questions. The email contained the following information:

- The purpose of the pilot stage of the interview questions;
- The date to provide comments/feedback by;

- The researchers' contact details; and
- A request that the email be forwarded to the appropriate planning and planning policy officers for their feedback and/or comments.

Initially an attempt was made to contact all the selected participants by telephone but this was unsuccessful. Therefore it became obvious that the most appropriate approach would be by email.

As expected the email approach was more successful. Within a couple of days two interviews had been arranged and a couple of days later the third interview had been organised. This left three prospective interviews outstanding and the details of the proposed development planner to be interviewed for one of the case study cities, the latter as a result of the co-ordinator preferring to follow up the initial email they had sent requesting their participation rather than pass their details on to the researcher without the knowledge or permission of the potential participant.

It was important that the participants did not feel obliged to agree to take part in the research and once the interview had been arranged a follow-up email was sent to each participant confirming the interview arrangements. It was also agreed to email the set of questions several days prior to the interview, to enable the participants to gather and research any information they may feel would be necessary and appropriate to answer the questions fully. Also, importantly, during the telephone conversations arranging the interviews, the participants were advised that they could withdraw from taking part in the research at any time.

All the participants selected to take part in the interviews are considered valid and reliable as they are all involved in various roles with the Healthy Cities projects in their cities.

#### 3.4.4 Formulating the telephone interview questions

Formulating the questions was the second component of the telephone interview process. The FOI data was the starting point in the formulation of the questions. A number of the questions were developed from the document 'Phase IV (2003-2007) of the WHO Healthy Cities Network in Europe: Goals and Requirements' (WHO, 2003). This particular document was used by cities to inform their framework to meet the

themes of that particular phase: specifically health impact assessment and healthy urban planning which are the core themes of this research.

This document was selected because it clearly sets out the requirements necessary for a city to achieve a Healthy Cities designation; therefore the participants, all stakeholders in the Healthy Cities project in their particular city, should be familiar with the wording and phrasing. This was crucial in order to obtain relevant informative responses to the interview questions as possible.

Another resource used to formulate the questions was 'Healthy Urban Planning: a WHO guide to planning for people' (Barton and Tsourou, 2000). This book was a valuable source of information regarding HUP.

In all there were four drafts before the final preview questions were selected. Initially one set of questions was devised to be used for all the participants. However, after discussion with the supervisory team it was agreed that it would be appropriate to devise a different set of questions for the co-ordinator, the development planning officer and the policy planning officer to reflect their different roles and backgrounds - although it was agreed that it was likely that some of the questions would apply to all three.

Once the questions had been agreed they were sent to the two previewers, the Healthy Cities coordinators for Sheffield and Stoke. One of the previewers replied almost immediately but a response was not received from the other. The previewer who did respond made a number of observations although after much consideration and reflection this did not result in any amendments being made to the questions.

#### 3.4.5 The telephone interviews process

Undertaking telephone interviews involved a limited amount of resources and minimal time was spent in the organising of the interview schedule through the use of email. The telephone recording equipment used was readily available at the university at no cost and was easy to set up and use. As face-to-face interviews had also been considered at the early stages of this element of the research, Table 3.5 below highlights the advantages and disadvantages of face-to-face-interviews versus telephone interviews.

	<u>Advantages</u>	<u>Disadvantages</u>
Face-to-face interviews	Opportunity to meet the interviewees;	Travel expenses; Time spent travelling; Limited or no influence on the environment where the interview takes place
Telephone interviews	Easy to arrange; Simple to record electronically; No time spent travelling; Low cost	Unable to see and act upon non-verbal signs;

Table 3.5: Advantages and disadvantages of face-to-face interviews and telephone interviews

It was decided that the telephone interviews should be recorded for transcribing later. The benefit of this would be that it would mean less reliance on memory and notes, and the recording and transcribing would be a more accurate record of the interview. The potential negative outcome of recording the interview would be if the recording equipment failed or the recording was deleted prematurely. This was prevented from happening by ensuring time was spent practising using the equipment in advance of any of the interviews taking place and that the equipment was in good working order before the start of each interview.

A timetable was drafted for the interview process to ensure there would be enough time to complete the exercise including the transcribing. The first draft is shown at Table 3.6.

<u>Date</u>	<u>Action</u>
11 November '10	Supervisory meeting – finalise questions
By 19 November '10	Have all telephone interviews arranged (liaise with MD)
W/c 22 November '10	Complete telephone interviews
29 November '10	Supervisory meeting – discuss initial findings
December '10 – early January '11	Transcribe interviews, collate and analyse findings. Produce report. Consider article for publishing??

Table 3.6: Proposed timetable for telephone interviews

As was the usual practice the proposed timetable was discussed with the supervisory team and it became obvious that the timetable was a little too ambitious and should be reconsidered. The amended timetable is shown at Table 3.7.

<u>Date</u>	<u>Action</u>
29 November '10	Supervisory meeting – finalise questions
Beginning December '10	Have all telephone interviews arranged (liaise with MD)

December '10	Complete telephone interviews
December '10 to early January '11	Transcribe interviews, collate and analyse findings. Produce report.
Early January '11	Supervisory meeting – discuss initial findings
21 January '11	Focus group at Healthy Cities Network Meeting
February '11	Complete analysis and chapter
	Consider article for publishing??

Table 3.7: Revised timetable for telephone interviews

It was immediately obvious that the revised timetable was more realistic. It was also more precise and focused on each step of the process.

Eventually the six telephone interviews were scheduled to take place and as agreed the questions were emailed to each of the respondents at least two days prior to the interview taking place in order for the respondent to be fully prepared. This led to one of the respondents completing the responses in writing and emailing them back before the scheduled interview time. When the respondent was contacted it was confirmed that the respondent did not expect to add to the written responses during the proposed telephone interview and subsequently cancelled the interview, which was accepted but quite disappointing.

The remaining five interviews took place over a period of nine days at the times selected by the participants. The interviews were recorded using telephone recording equipment borrowed from the University of Central Lancashire (UCLan). Time was spent in the days preceding the interviews familiarising the use of the recording equipment and ensuring the equipment was in good working order. The recording equipment involved the attachment of a recording device onto the telephone handset.

The interviews were transcribed immediately following their completion to ensure as accurate a transcription as possible. It was intended to attempt to contain each interview to a maximum of 45 minutes, which was achieved in every case. However, the time it would take to complete the transcribing of each interview was unexpectedly long but necessary to ensure a complete and accurate record of the conversation was made. The recording was replayed at least five times and as soon as the researcher was satisfied that the transcription was accurate the recording was deleted.

All the participants were advised at the start of the interview that it was to be recorded and their permission to do this was obtained. It was also guaranteed that the information would be treated confidentially and the recording would be deleted once it

had been transcribed. Each of the interviewees was offered a copy of the transcription if required but they all declined.

During all the interviews notes were also taken to supplement the recording and contribute to a more accurate transcription.

The initial telephone interview findings were collated and developed into a presentation which was presented to a meeting of the UK Healthy Cities Network which was held in Liverpool a month after the interviews were completed (January 2011).

#### 3.4.6 Change method?

The telephone interviews were the most appropriate interview method for this research due to the limited time and resources available. If the research were to be conducted again it is likely the same method would be chosen. However, by undertaking telephone interviews a networking opportunity was missed.

#### 3.4.7 Choose different criteria?

The questions developed for the interviews were based on Healthy Cities and HUP literature which directly correlated with this research aim, objectives and questions. The questions were pertinent and relevant and therefore appropriate to this research.

### 3.5 Online questionnaire surveys of UK Healthy City coordinators and planning officers

It was during the discussion following the presentation at that meeting of the UK Healthy Cities Network one of the Healthy City coordinators suggested that it would be interesting to see the results if all the Healthy City coordinators were given the opportunity to respond to the questions.

This suggestion was given further thought and consideration, and it was decided that it was an idea worth following up. However, being conscious of the time it would take to arrange and undertake a further eleven interviews and also the time to then transcribe the interviews it was decided that the use of an online web based questionnaire would be a more appropriate method to gather the responses. It is worth noting here that



questionnaires are often referred to as surveys and for the purpose of this research they are considered to be the same and the terms are used interchangeably.

According to Mason and Dale (Mason and Dale, 2011:7) '*...surveys can build pictures of ...by establishing links and connections...*' and it is in this spirit the survey method was considered to be an appropriate method to gather this information.

As Bristol Online Surveys had been used by the researcher previously it was established that UCLan had an account and arranged for access to that account. Once this had been done the questionnaire was developed from the interview templates and sent to the Healthy City co-ordinators who had not been included in the initial telephone interviews.

It became evident when analysing the telephone interview responses that development planning officers had not been included in the interview process. This was an oversight as it had been expected that the Healthy City co-ordinators following the initial email enquiry to nominate appropriate development planning officers to take part in the telephone interviews had nominated appropriate officers. It was only during the collation of the responses that their omission became obvious.

In order to redress this oversight and as access to a Bristol Online Survey account had already been secured it was decided that the questions could easily be adapted into a web based questionnaire as they had been for the Healthy City co-ordinators questions and emailed to the planning departments of the WHO designated Healthy Cities in the UK.

Both the online surveys questions were reviewed by the supervisory team to ensure accuracy but it was decided that it wasn't necessary to pilot the questionnaires as they had already been piloted prior to the telephone interviews taking place.

Each survey was given its own unique name and web address. The survey sent to the local authority planning departments was called Health and Planning and the web address was <http://www.survey.bris.ac.uk/uclan/healthandplanning>. The survey sent to the Healthy City coordinators was called Healthy Cities and the web address was <http://www.survey.bris.ac.uk/uclan/healthycities>.

Both the surveys were launched on 3 February 2011 with an initial closing date of 3 March 2011. The websites of the LAs were checked and although unable to locate personal email addresses for the planning officers, generic email addresses for the planning departments were available. An email with the link to the survey website was sent to these generic email addresses with a request to forward the email to all the appropriate planning officers.

The closing dates of both web surveys were extended to 17 March 2011. This was because of the initial disappointing poor response rate. Further emails were sent to draw attention to the amended survey closing date in an attempt to garner more responses. Table 3.8 shows the schedule for the launch of both surveys and also the date reminders were sent. The launch and all the reminders were sent by email. The dates are the same for the launch and reminders sent to the Healthy City coordinators.

<u>Local Authority</u>	<u>Survey sent</u>	<u>Reminder 1</u>	<u>Reminder 2</u>
Swansea	3/2/11	4/3/11	14/3/11
Manchester	3/2/11	4/3/11	14/3/11
Preston	3/2/11	4/3/11	14/3/11
Carlisle	3/2/11	4/3/11	14/3/11
Glasgow	3/2/11	4/3/11	14/3/11
Brighton and Hove	3/2/11	4/3/11	14/3/11
Cardiff	3/2/11	4/3/11	14/3/11
Derry/Londonderry	3/2/11	4/3/11	14/3/11
Newcastle Upon Tyne	3/2/11	4/3/11	14/3/11
Belfast	3/2/11	4/3/11	14/3/11
Stoke on Trent	3/2/11	4/3/11	14/3/11
Liverpool	3/2/11	4/3/11	14/3/11
Sheffield	3/2/11	4/3/11	14/3/11
Sunderland	3/2/11	4/3/11	14/3/11

Table 3.8: Timetable for the launch of the online surveys

The following table, Table 3.9, shows the distribution of the responses to each survey in relation to the date of the survey launches and the dates of the reminders.

	3/2/11 to 3/3/11	4/3/11 to 13/3/11	14/3/11 to 17/3/11	Total
Health and	6	8	5	19

Planning Survey				
Healthy Cities Survey	3	1	1	5

Table 3.9: Details of survey responses in relation to launch and reminder dates

As is evident above, the surveys had a limited response. This was not unexpected for the Healthy Cities survey as there are a limited number of designated Healthy Cities in the UK. However, the poor response rate to the Health and Planning survey was unexpected as the initial goal was for 70 responses.

### 3.5.1 Choosing the data collection method

There are a number of data collection methods synonymous with questionnaires, notably mail and online methods. The mail method purely entails producing the questionnaires then posting them out, remembering to include a reply paid envelope for the response. The online method requires the use of a host website, such as Bristol Online Surveys or Survey Monkey, which is used to build the questionnaire, often using templates available on the website, the link to the questionnaire (also known as the URL - Uniform Resource Locator) is then emailed out to perspective respondents to access and complete online.

There are a number of advantages and disadvantages to both these methods and these are displayed in Table 3.10.

	<b><u>Advantages</u></b>	<b><u>Disadvantages</u></b>
Mail	More control over who receives the questionnaire;	Huge financial postage costs; Slow; No record/proof of delivery; Relies on the respondent returning the completed questionnaire; Very time-consuming to produce the questionnaire
Online	Quick; Limited costs; Immediate access to the	Limited control over who respondent;

	responses; Secure	
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Table 3.10: Advantages and disadvantages of mail and online questionnaires

It is clearly evident from the above table that the advantages of using an online web-based questionnaire far exceed those of using the more traditional mail method.

### 3.5.2 The online questionnaires

There are a number of websites available to host an online questionnaire e.g. Survey Monkey, Survey Toll and Bristol Online Surveys. Bristol Online Surveys (BOS) were selected to use as the host for the online questionnaires as the university already had an existing account, therefore authorisation to use the website and subsequent access were easily obtained. Also, the researcher had had experience of BOS as the method had been used in previous research which provided some experience of the capabilities of the method.

### 3.5.3 Change method?

The use of an online questionnaire was the right choice to make. It allowed the questionnaire to be delivered electronically and therefore quickly to all the intended respondents. It also allowed the respondents to complete it and then not to have to bother about it again because once it had been completed they didn't have to return the questionnaire through the post.

### 3.5.4 Choose different criteria?

The criteria chosen for the questionnaires are considered to be appropriate for this research. The questions chosen allowed the limited identification of the respondents to establish the geographical area and job title only of each respondent and then continued on to ask questions pertinent and relevant to this research.

Possibly the only change I would make if I were to repeat the study would be to ask more questions. Although I have given little thought to what those questions would ask. Whilst I was developing the questionnaires I was conscious of the length of time that would be required for them to be completed as the majority of questions were open and required more than the selection of a yes or no answer. It was important that people

were not deterred by this. This was particularly relevant as no reward was offered for participation.

### 3.6 Data analysis

The analysis of the data collected is an integral part of all research. Swetnam (2004:83) advises to '*consider first the amount of data that has been collected and secondly the level of measurement involved*'.

According to Hardy and Bryman (2004:3) analysis is a process used to answer the research question by:

*'...identifying certain patterns, noting their frequency, determining the contexts under which they occur always, sometimes, or never, (we) make sense of the data'.*

Mason and Dale state that analysis involves '*...reading data (e.g. texts of interview transcripts) with a critical analytic attitude*' (Mason and Dale, 2011:21). The analysis of the data, according to Swetnam (2004), will need to be summarised and the method selected will depend on the amount of data that has been collected. Swetnam details four basic scales in analysing data (Swetnam. 2004:84) which are shown here at Table 3.11:

<u>Qualitative</u>	<u>Quantitative</u>
<u>Nominal Scales</u> : naming or categorising scales used for classifying. Whatever codes are used the scale can only be used for counting from such questions as: Are you in full-time employment? Yes/no.	<u>Interval Scales</u> : have the properties of ordinal scales but the points on the scale are equal. The researcher sets the units and origin of the scale and must be careful not to make too many assumptions about the intervals.
<u>Ordinal Scales</u> : place data in some order, the relative positions of people or things, for example a scale ranks them from the highest to the lowest without specifying the distance between positions. A typical ordinal scale would use a code such as: strongly agree 1 to strongly disagree 5. Only a limited range of	<u>Ration Scales</u> : are common in physical sciences as they have equal intervals and an actual zero point. Used for measuring characteristics such as length, time and weight they have higher mathematical and statistical potential than others but limited relevance to social scientists whose area of interest involve

statistics may be applied and such scales should not really be averaged.	human behaviour.
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Table 3.11: Four basic scales in analysing data (Adapted from Swetnam, 2004:84)

The empirical data gathered for this research was obtained through the mixed qualitative and quantitative methods selected to answer the research questions. This data was analysed through thematic coding and partly through the use of SPSS and Excel Software. These two methods were selected because in the social sciences '*...There is a regrettable lack of tools available for the analysis of qualitative material*' (Attride-Stirling, 2001:385).

Coffey et al. state that '*Postmodernism, in recognizing and celebrating the diversity of types and representations, encourages a variety of genres. It also encourages the blurring and mixing of genres*' (Coffey et al., 1996:6.2) which lends support to the use of a mixed methodology approach undertaken for this research.

### 3.6.1 Thematic Coding

Saldana describes a code as '*most often a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data*' (Saldana, 2009:3). Saldana continues to explain that '*coding is not a precise science; it's primarily an interpretive act*' (Saldana, 2009:4). According to Bowling '*coding is a method of conceptualising research data and classifying them into meaningful and relevant categories ...*' (Bowling, 2009:364).

The coding of the data should be carried out as soon as it is collected which can also involve categorising the data if not already done in the original questionnaire, for example, in relation to location or job title (Wisker, 2001). For example, interview data could be coded by the interviewer while the interview is taking place (Bowling, 2009).

For the purposes of this research, coding was used to identify themes. A theme is '*a phrase or sentence that identifies what a unit of data is about and/or what it means*' (Saldana, 2009:139). In the first analysis of the data collated from the questionnaires the themes were identified and a range of variables were created and entered into the SPSS Software package. However, the software package was unable to produce required data sets therefore the data was re-coded and the number of variables

reduced. The main purpose of this recoding was to facilitate the limitations of the software package.

Hardy and Bryman (2004:7) state that:

*'The techniques of analysis should be sufficiently transparent that other researchers familiar with the area can recognize how the data are being collected and tested, and can replicate the outcomes of the analysis process.'*

The use of the analysis procedures utilised in this research by other researchers familiar with the research topic would produce reproduce the results and findings (see Chapter 6).

This research underwent two cycles of coding. The first cycle of coding involved coding the data by reviewing each response to identify the main word or phrase and attribute a number for input into the SPSS software to carry out the analyse. For example, question 5 of the questionnaire completed for the Health and Planning Survey asked the respondent what they understood by the concept of Healthy Urban Planning. This generated the following coding/variables (Table 3.12):

<u>Code</u>	<u>Description</u>
1	Public transport
2	Walking
3	Cycling
4	Improve health and wellbeing
5	Health built into plan-making
6	Support for allotments
7	Provision of leisure facilities
8	Environments that encourage healthy lifestyles

Table 3.12: Example of first coding/variables

These variables were then input into the SPSS software. However, the SPSS software does not recognise more than one selection in the variable box. This was resolved by grouping together common variables and this resulted in following code/variables being drawn up (Table 3.13):

<u>Code</u>	<u>Description</u>
1	No comment
2	Promoting public transport, walking and cycling
3	Planning that influences health and wellbeing
4	Design for active lifestyles
5	Integrating planning and health policies

Table 3.13: Example of second coding/variables

### 3.6.2 Statistical Package for the Social Sciences (SPSS) and Excel

Dunleavy (2003) advocates the use of graphs to present data as they are simpler to analyse and also provide the reader with a better understanding as long as they are clear and comprehensible. Dunleavy describes eight main types of charts with a brief description of their use and points to watch out for. These are displayed in Table 3.14.

<u>Type of chart</u>	<u>Use</u>
Vertical bar chart	For simple over-time data; You have other appropriate comparative data & the labels for each bar are short enough to fit underneath it
Horizontal bar chart	There is comparative data where the labels for each bar are too long to fit underneath columns easily
Pie chart	To show the shares of something or percentages
Percentage component chart	To show the shares of something or percentages vary across a number of different cases or areas
Grouped bar chart	To show how the levels of several indices vary across a number of different cases or areas or time periods
Line graph	To show continuous over-time data
Layer chart	To show how the relative size of two positively associated variables varies across time
Scatterplot or 'X and Y' graph	To show how the level of a dependent variable (shown on the vertical Y axis) varies depending on the level of an independent variable (shown on the horizontal X axis)

Table 3.14: Chart types (Adapted from Dunleavy, 2003:173-180)

There are a number of computer software packages available to produce the graphs mentioned above, namely Excel and the Statistical Package for the Social Sciences (SPSS) computer software, previously known as Predictive Analytics SoftWare (PASW) and Excel.



These software packages were selected as the tools that would be used to enhance and contribute to the visualisation and presentation of the data.

However, it soon became apparent that the SPSS software was unable to undertake the production of a visual diagram using the initial codes that had been identified and recorded. Therefore, the data were re-coded in order to address the limitations of the software analysis capabilities (See 3.6.1 above).

Excel, a part of the Microsoft package, was used to record the findings of the FOI survey, the first collection of empirical data relating to the use of Health Impact Assessments (HIA) by local planning authorities in England. This software is very similar to the SPSS software but is a more basic tool.

It was decided that due to the low numbers of responses and the time required to become proficient in the use of the computer aided software packages to analyse the empirical data collected it became apparent that the analysis of the data clerically and then through the Excel software was the most appropriate method for the coding and analysis in this instance.

### 3.7 Reliability and validity

This research was accepted and presented at two international conferences namely the 16<sup>th</sup> International Sustainable Development Research Conference (ISDRC) held in Hong Kong in 2010 and the 20<sup>th</sup> International Union for Health Promotion and Education (IUHPE) World Conference on Health Promotion held in Geneva in 2010. The abstracts and the subsequent full papers were fully peer reviewed.

The paper presented at the ISDRC was titled 'Sustainable Development in the UK: What's obesity got to do with it?' This paper argued that it is time to confront the global obesity crisis through the planning system and called on the government to place a statutory obligation on planning authorities to include health as a material consideration and the Primary Care Trusts as statutory consultees in the processing and determination of development and land-use proposals.

The title of the paper presented at the IUHPE was 'Urban planning: a sustainable solution to the obesity crisis'. This paper focussed on the role of urban planning in tackling the obesity crisis by promoting sustainable development through a settings approach.

Feedback to articles which were submitted to the Planning, Practice & Research journal and the Journal of Environmental Policy & Planning agreed the subject of planning and obesity was interesting and worthy of publication.

This research was also presented to the British Federation of Women Graduates (North West) at their annual conference following an invitation from the organising committee.

The outcome of the telephone interviews with the Healthy Cities coordinators was presented at a meeting of the UK Healthy Cities coordinators held in January 2011. The feedback received from this presentation led to the development of the telephone interview questions into an online web-based questionnaire that was sent to all the UK Healthy Cities coordinators. This process should be considered as 'respondent validation' as the results of the initial telephone interviews were reported to the respondents and their peers in order to facilitate feedback (Bryman, 2004)

The validity of the questions is an important task within the research process (Hardy and Bryman, 2004). The telephone interview questions were emailed to two of the existing Healthy City project coordinators who had not initially been selected to take part in the research. However, only one of the coordinators provided a response. The comments received and the actions taken are recorded here in Table 3.15.

<b><u>Comment</u></b>	<b><u>Action</u></b>
Might it be useful to ask them all the same questions – I couldn't really understand why they are so different across the planning policy and development teams (might also use terms planning policy and planning development)	The questions were written differently to accommodate different roles and responsibilities of each of the disciplines; Amended 'Planner' to 'Development Planner' and 'Policy Planner' to 'Planning Policy Officer'
I am not sure that most planners would be aware of healthy city and their role within it (first question, general section) – might be worth asking them if they are aware that they are a healthy city rather than their role within it?	Question amended from 'What is your role in the Healthy Cities project' and developed into two questions: 'Are you aware that Manchester/Liverpool is a Healthy City' and

	'Do you have a role in the Healthy Cities project? If yes, please provide details of your tasks.'
In policy planner section, might be good to reorder some of the questions e.g. 11 before 10	Agreed. Questions reordered as per suggestion.
I like the question re HIA becoming statutory – (they are also useful for master-planning and spatial plans)	Comment noted.
Is it worth asking about health and sustainability appraisal – often they think this is enough – be interested to know what indicators people use in their SA's	The Sustainability Appraisal is not a key theme of this research and therefore this suggestion was not acted upon.
Also be interested to know how people are measuring outcomes, we are not nearly there with this yet	The final question already addressed this issue.

Table 3.15: Response to pilot interview questions

The validation of the questions through this process ensured a robust foundation for this research.

It is also important to ensure any research is undertaken through a meticulous approach. According to Bowling the researcher should:

- *Be honest about his or her theoretical perspective and/or values from the outset;*
- *The research should be conducted in an explicit and systematic way in relation to the design, data collection, analysis and interpretation; and*
- *The investigator must aim to reduce sources of error and bias.*

(Bowling, 2009:381).

This research meets all of these requirements. The theoretical perspective of this research has been laid out in Chapter 2.4, the researcher's background is presented in Chapter 1.2, the methods and methodology have been discussed in Chapter 3 and error and bias were reduced by the used of open-ended questions.

### 3.8 Ethics

Ethical issues are an important consideration when conducting research (Bryman, 2004). Bryman (2004:506) identifies four areas in which ethical concerns particularly arise:

1. Whether harm comes to participants
2. Informed consent
3. Invasion of privacy
4. Deception.

Swetnam (2004:8) expands on these four areas:

- *No harm should come to participants in the research either physically, mentally or socially;*
- *Particular care is taken not to exploit the vulnerability of children, the elderly, the disabled or those disadvantaged in any way;*
- *No physical or environmental damage should be caused;*
- *Wherever possible participants are informed of the nature of the work and give their consent;*
- *The research follows equal opportunities principles;*
- *Anonymity and privacy, where requested, are guaranteed and honoured; and*
- *Nothing is done that brings your institution into disrepute.*

UCLan provide guidance regarding the university's ethical regulations and these were consulted in the preparation of the documentation required to obtain ethical approval for the research to progress. The application for Safety and Ethical Approval for my research was submitted to the ethics committee of the School of the Built and Natural Environment on 22 October 2009 and was subsequently approved. The application submitted in support of this research fully complied with the University's ethical principals in the conduct of the research being undertaken.

### 3.9 Summary

This chapter has contributed to laying the foundations and providing the framework to address the aims of this thesis. This chapter has done this by detailing the research methods and methodology that was utilised in the collection of the empirical data for this research. This chapter has been laid out in the chronological order in which the empirical data was collected: the literature review, the FOI request, telephone interviews and two web-based online questionnaires.

This research has adopted a mixed method approach for the collection of the empirical data. The simple rationale for selecting the different data collection methods was to ensure the appropriate methods to gather the best possible information were used. This approach of course also supports the selection of postmodernism for the theoretical stance underpinning this research to engage with a diverse and multiple approaches.

This chapter described the literature review process; from the selection of the key words and phrases to ensure a comprehensive search which covered all disciplines and genres and multiple and varied sources, to the ongoing review of the literature throughout the whole process.

It went on to present the rationale behind the use of the FOI Act 2000 to survey the local planning authorities in England to ascertain the current use of HIAs in the determination of land-use and development proposals. The use of the FOI Act ensured an extremely high response to the survey was achieved.

The FOI survey was followed by the telephone interviews. This chapter has shown that the use of interviews is a resource that enables the collection of detailed information from a varied and diverse selection of participants. The telephone interviews were structured as the questions were asked in a specific order however, all but one of the questions were deliberately open-ended to allow the respondents to answer as they wanted. The respondents selected to take part in this research were the most appropriate due to their experience of the Healthy Cities projects.

The use of the online questionnaire surveys was also discussed. The Bristol Online Survey was selected as the most appropriate host for the online surveys because the researcher had previous experience of using this software and UCLan had an existing account with them. The use of an online survey method allows the collation and analysis of results quickly.

Following on from discussing the data collection methods the chapter continued by describing the data analysis process including the thematic coding and the use of analytical software packages SPSS and Excel.

The chapter also discussed the reliability and validity of the research through the presentation of the research at international conferences and piloting the telephone interview questions with appropriate specialists.

The chapter is suitably completed with a statement with regard to ethics and confirmation that ethical approval for my research project had been sought and received from the appropriate university ethical committee.

The following chapter will further contribute to addressing the first aim of the thesis: to develop an understanding of how the built environment impacts on obesity. This will be achieved by presenting the literature review which investigated the historical link between health and planning and the current claims that the built environment is a factor in creating the obesogenic environments we live in today.

## 4 CHAPTER FOUR: HEALTH AND PLANNING

### 4.1 Introduction

This chapter examines the current research that claims that the built environment is a contributing factor to the global rise in obesity levels through the emergence of obesogenic environments created by the land-use planning system. This contributes to meeting the first aim of this thesis which is to develop an understanding of how the built environment impacts on obesity; the first research question which is how can the planning system evolve to ensure it only imposes a positive impact on obesity?; and the first objective: to reflect on the historical partnership of health and planning and to review the current literature asserting the link between the built environment and the aetiology of obesity.

This comprehensive review begins by looking at and the clarifying the meaning of the built environment and obesity which then leads onto a discussion of the obesogenic environment. The chapter continues with an investigation into the historical partnership between public health and land-use planning and a further investigation into the relationship today.

This whole process involved a review of literature selected using the keywords:

- Obesity and planning;
- Health and planning;
- Obesity and built environment; and
- Health and built environment.

These keywords were selected because they closely resonate with the topic of this research. The initial keywords, obesity and planning, resonate most with this research, after all it is the title of the study. The term obesity was then replaced by health in order to generate a greater amount of resources. As discussed at 2.3.4 the built environment is often considered to be a product of the planning system and it is this environment that is being investigated in this research. Therefore, the search was repeated substituting planning for built environment.

As the second aim of this research was to investigate how health is integrated into the core functions of the town and country planning system in the UK the literature search was expanded to include a number of initiatives, identified from the initial literature search, namely Healthy Cities and HIAs as the understanding of the topic developed. These keywords were then added to the original keywords and the following phrases were drawn up:

- Obesity, planning and Healthy Cities;
- Obesity, planning and Health Impact Assessments;
- Health, planning and Healthy Cities;
- Health, planning and Health Impact Assessments;
- Obesity, built environment and Healthy Cities; and
- Health, built environment and Healthy Cities.

These search terms and phrases were then input into a number of databases which resulted in a substantial amount of potential studies and articles to review as part of this research.

The databases explored were:

- The UCLan library catalogue database;
- ISI Web of Knowledge website: and
- The search engine Google Scholar.

Alongside this, and in order to keep up to date with the topic throughout the research period, the National Obesity Observatory (NOO) website (<http://www.noo.org.uk/>) was accessed and a connection made to electronically receive a weekly digest of new national and international research, reports, resources and news relating to obesity and its determinants.

The use of multiple terms and phrases corresponds with the theoretical stance of this research, postmodernism through the multiple layers of the keyword search.

This literature review starts by providing background information for the built environment and obesity. In order to find solutions to the negative effect of the built environment on obesity and, more holistically, health and wellbeing, it is important to reflect on the evolution of the UK planning system and public health.



## 4.2 The built environment

The built environment is generally considered to be the product of the policies and processes of the UK planning system and although theoretically considered to be apolitical and neutral, the UK planning system has often been perceived as being economically, and to a lesser degree politically, driven since the correlation of planning and health became dissociated and developed into two separate and distinct disciplines during the early part of the 20<sup>th</sup> century.

Sustainable communities were at the centre of the UK Labour Government's (1997-2010) sustainable development strategy, *Securing the Future* (2005) the principles of which are quite clearly embedded in the ideology of New Urbanism. This strategy has been taken forward by the current Conservative Party and Liberal Democrat Coalition Government (2010-2015), which has subsequently published its sustainable development vision 'Mainstreaming Sustainable Development: The Government's vision and what this means in practice' (DEFRA, 2011) - the purpose of which is *'to build on the 2005 strategy through recognising the needs of the economy, society and the natural environment, alongside the use of good governance and science'* (DEFRA, 2011:2).

Climate change is not only a major threat to achieving sustainable development but it also has a detrimental effect on health. Therefore means to combat climate change must also be high on the agenda of the UK planning system. Early indications suggest that specific policies aimed at securing sustainable development or combating climate change offer the potential for achieving beneficial effects on health.

Sustainable development and climate change are affected by land-use planning and the built environment which in turn become core components in the aetiology of obesity. All these components are influenced by the policies and actions of the UK planning system and therefore can be considered as having a negative impact on obesity.

### 4.3 A lean history of obesity

Obesity is not a modern phenomenon. Haslam and Rigby (2010) recount the historical evidence that shows that obesity has been a part of civilization over the ages although they do concede that the modern history of obesity can be traced back to the 18<sup>th</sup> century and obesity was commonplace in Victorian Britain. Their report is succinctly summed up by their comment '*What we may conclude from the past is that the potential to become obese is certainly not new, but the development of obesity on the scale of a global population pandemic certainly is*' (Haslam and Rigby, 2010:86). Bray (2009) details the landmarks in the history of obesity since the 17<sup>th</sup> century and these are replicated at Table 4.1.

<b>17<sup>th</sup> Century</b>	
1614	First use of beam balance to measure metabolism
1679	First dissections of obese cadavers
<b>18<sup>th</sup> Century</b>	
1727	First English language monograph on obesity
1760	Monograph on the treatment of obesity
1780	Disease classification that includes obesity
<b>19<sup>th</sup> Century</b>	
1810	Treatise on Corpulence (Wadd)
1826	Diet-based method for weight loss
1835	Obesity quantified as weight/(height squared)
1863	First widely popular diet book published
1866	Sleep apnoea described as a complication of obesity
1896	First human calorimeter constructed
<b>20<sup>th</sup> Century</b>	
1900/01	Description of syndrome of hypothalamic obesity
1916	Proposed gastric mechanism for hunger
1927	Dinitrophenol <sup>3</sup> used to treat obesity
1937	Amphetamine used to treat obesity
1947	'Android' (central) obesity predisposes to diabetes and cardiovascular risk
1967	First use of behavioural therapy to treat obesity
1968	Association for the Study of Obesity founded in the UK
1986	International Association for the Study of Obesity founded
1998	International classification of obesity and Global Epidemic of Obesity identified

Table 4.1: Landmarks in the history of obesity since the 17th Century (Adapted from Bray, 2009)

<sup>3</sup> Dinitrophenol is a highly toxic compound that increases fat metabolism and was formerly used in weight control (Merriam-Webster, 2011).

What this table highlights significantly is the fact that obesity is not a recent health topic for concern but that it has been the subject of research, not merely in the investigation of the causes but also in the treatment of the disease, for a number of centuries. What is startling in these findings is that it took over 200 years for an international obesity task force to be established.

Power and Schulkin concur with this but also go further *'obesity is not new, but to have countries where up to a third of the population is obese is a very recent occurrence'* and *'The biology of obesity is very broad and quite complex'* (Power and Schulkin, 2009:7 and viii). Obesity is a highly complex issue for society and a costly debilitating lifestyle disease (Department of Health). However, in his book discussing the biography of obesity Gilman states that *'Obesity is not itself a disease but rather a phenomenological category that reflects the visible manifestation of body size, which potentially can have multiple (as well as multifactorial) causes'* (Gilman, 2010:ix).

*'The prevalence of overweight and obesity is increasing in developing countries'* (WHO, 2004:2) and globally in 2005, 1.6 billion adults were estimated to be overweight of which at least 400 million were obese (WHO website). The WHO have predicted that by 2015 this could increase to 2.3 billion overweight adults of which more than 700 million will be obese.

In England in 2007, 60.8% of adults (those aged 16 or over) were overweight or obese, of which 24% were obese. This shows a slight decrease from 61.6% in 2006 but is still a lot higher than the 15% recorded in 1993 (Health Survey for England). However, in 2007 the rate of children overweight or obese in England was 28.6% and this shows an increase from 27.7% in 2006 (Health Survey for England).

It has also recently been reported that an obesity-susceptibility gene, FTO (fat mass and obesity associated gene), has been discovered. Although it is widely regarded to only affect obesity by about 1% (Loos and Bouchard, 2008) this gene flaw can lead to severe obesity in children (BBC News, 2009). Power and Schulkin also report that *'...a vulnerability to obesity has a genetic component'* (Power and Schulkin, 2009:17).

Obesity is globally recognised as an extremely complex disease and research has demonstrated that solutions are unlikely to be found solely using public health

initiatives. Action is required by a wide range of stakeholders from different sectors in order to achieve positive sustainable results and reverse the rise in obesity levels.

#### 4.4 The obesogenic environments

As already discussed in a preceding chapter at 1.4.6, the concept of the obesogenic environment was conceived in the 1990s and has grown in popularity ever since.

Kirk et al. (2010) bring attention to '*the complexity of the obesogenic environment*' (Kirk et al., 2010:116) and suggest that the '*lack of a cohesive definition or framework creates potential for confusion over the role of the environment, misinterpretation of research findings and missed opportunities with respect to possible avenues for environmental intervention*' (Kirk et al., 2010:109). This claim is supported by an article by Chaput et al. (2011) who have concluded, through their review of the literature, that the obesogenic environment, which they define as including television viewing, video game playing, cognitive working, music listening and sleeping, also promotes the overconsumption of food. Through this review they were able to identify that, particularly for children, over the past several decades there has been a significant decrease in outdoor recreation and sleep duration and an increased independence on electronic media.

The outcome of our sedentary lifestyles has also been very eloquently demonstrated by the Disney Pixar film WALL-E (2008). This animated film depicts an Earth left barren and abandoned by humans who had not heeded the warnings of living unsustainably and who discovered they had no alternative but to create a new world in space. This new world depicts the humans as fat and lazy, moving from one place to another in automated armchairs. These images of humans as overweight and obese creatures living a predominantly sedentary lifestyle, gives an uncomfortable prediction of the obesogenic environments of the future, environments created by humans for humans.

#### 4.5 Historical partnership of public health and land-use planning

The identification of connections between the environment and health can be traced as far back to the Romans and Greeks in the century 200 B.C. who considered not only the locations of cities and buildings but also that the drainage of buildings and

dwelling were important health considerations (Rosen, 1993) and '*Ancient Greek philosophers and medical thinkers seeking rational explanations for disease studied and discussed the relationship between health and environment*' most noteworthy of whom was Hippocrates (Franco and Williams, 2000:9).

The connection between health and the environment was evident to the Hippocratic writers. They observed that '*the environment was an important factor in people's health and well-being. Infection resulted when environmental influences involving air, water, food, or other aspects of life and health – whether seasonal or otherwise – destabilized people's "humoral equilibrium"*' (Franco and Williams, 2000:10).

The historical link between public health and land-use planning and the origins of town and country planning in the UK can be traced back to the early health acts of the 19<sup>th</sup> century (Cullingworth and Nadin, 2006; Barton et al., 2009). In the UK the Town and Country Planning system evolved from the unhealthy environments and unsanitary conditions primarily created and exacerbated by the industrial and agrarian revolutions from the late 18<sup>th</sup> century and early 19<sup>th</sup> century (Lake and Townshend, 2006; Northridge and Sclar, 2003; Rydin, 2003; Pilkington et al., 2008; Barton, 2005). These revolutions brought new manufacturing industries, the growth of services industries and tourism to the urban landscape and to the rural landscape new inventions and processes and this led to the rapid growth of towns (Rosen, 1993). While these revolutions allowed industry to flourish the health and welfare of the workers deteriorated and through the sanitary reform movement this led to the development of public health (Rosen, 1993). This combination of dramatic changes to the urban and rural landscapes continued in the post war years of the 20<sup>th</sup> century and has contributed to a constant steady flow of people from rural areas to the towns and cities.

This migration of people from rural to urban areas has had a detrimental effect on the towns (Thompson, 2007). The towns grew at a rate that outpaced the civic betterment movement which was concerned with improvements to sewage, water supplies and poor housing which was not properly controlled or regulated (Rosen, 1993). The 1840 Select Committee on the Health of Towns report and the Royal Commission on the State of Large Towns in 1845 led to the Public Health Act 1848 which introduced building bylaw control to allow slum clearance and the installation of sewers by the central and local government units accountable for health created by the act which in turn led to the beginning of planning control (Booth, 2003; Rydin, 2003; Hamlin and

Sheard, 1998). These bylaws were further strengthened by the 1858 Local Government Act which allowed municipal councils to make model bylaws for the control of development and the 1875 Public Health Act which enabled the municipal councils to impose dimensional standards for all new development (Booth, 2003). *'The 19<sup>th</sup> century development of biological, especially Darwinian, concepts of the "web of life" and the role of the environment and adaptation influenced public health science'* (Poland et al., 2000:13).

However, despite these Acts, the migration of people from the countryside to the towns continued to cause problems in the towns, a situation which was acknowledged by Ebenezer Howard in 1898 when he wrote '... a single question having a vital bearing upon national life and well-being on which all persons ... would be found to be fully and entirely agreed' concerning the detrimental effect of the mass exodus of people from the rural areas to the already congested cities (Howard, 1898).

Concerns over the deterioration of the health of the people and malnutrition continued into the 20<sup>th</sup> century and after reports in the press claimed that two-thirds of young men had been rejected by the army because of poor health the Inter-Departmental Committee on Physical Deterioration was set up and its report published in 1904. The purpose of the commission, set up by the government, was to prove that the people of Great Britain were not deteriorating. Interestingly the commission only included one physician, Dr Tatham who, contrary to his title, was a statistician rather than a doctor of medicine. The report led to the government adopting a package of measures to improve the physique and health of children (Barker, 2007).

In 1909 the introduction of the first planning legislation, the Housing and Town Planning Act signified that health and planning were no longer perceived as being interdependent on each other and as the squalor and decay of the 19<sup>th</sup> century gave way to improvements in the environment in the 20<sup>th</sup> century there was a corresponding decrease in interest in the effect of the built environment on health (Rao, et al., 2007; Pilkington et al., 2008). The 1909 Act was the first attempt to address land use problems such as the lack of amenity land and it provided local authorities with powers to build new houses and to clear existing inferior housing (Moore, 2005). The Housing and Town Acts matured in 1919 with the introduction of the concept of development control which evolved into the Town Planning Act 1925. The first Town and Country Planning Act 1932 enabled local authorities to prepare planning schemes for any land

in England and Wales and was further supported by the 1935 Restriction of the Ribbon Development Act which required proposed development within 220 feet of classified roads subject to control and in 1943 the Act was further extended to include all land in England and Wales to be subject to control. Then finally the Town and Country Planning Act 1947 which has provided the bedrock for development control practised today.

Planning and health had become two separate and distinct disciplines and a *'rather more diffuse understanding of physical well-being which embraces problems of pollution and the need for healthy recreation .....remains present in the general concern for environmental control'* (Booth, 2003:55) and has *'helped undermine the social credentials of planning'* (Barton, 2005b:339).

This signalled the beginnings of UK town planning as an economic commodity and a new public health concerned with other epidemiological causes of health rather than the environment (Pilkington et al., 2008). In the latter decades of the 20<sup>th</sup> century planning was dominated by the *'...Thatcherite philosophies of economic development and narrowly interpreted environmental protection. The result has been that we have built – and are still building – unhealthy conditions into our towns and cities'* (Barton and Grant, 2008:130) and health and planning continued to be two distinct and separate disciplines.

However, inter-sectoral working and partnerships for health already exist in the UK. Every region of the UK has the health and wellbeing of its people and community at the forefront of its policy. In Wales, Health Social Care and Wellbeing Strategies (HSCWB) which are mandatory through Section 40 of the National Health Services (Wales) Act 2006 and the Health, Social Care and Wellbeing Strategies (Wales) (Amendments) Regulations 2007, places a legal obligation upon each local health board and local authority in Wales to jointly formulate and implement a strategy for the health and wellbeing of the local population and have regard to that strategy in exercising their functions. The HSCWB evolved from the local needs assessment carried out by the National Public Health Service (NPHS) and the purpose of the strategy is to prepare preventative action to improve health and reduce the risk of ill health. The Act and Regulations require the setting up of HSCWB Strategic Partnerships which, as a minimum, must include statutory, voluntary, community and private sector stakeholders (WLGA website).

In England, Section 116 of the Local Government and Public Involvement in Health Act 2007 requires Primary Care Trusts (PCTs) and LAs to produce a Joint Strategic Needs Assessment (JSNA) of the health and wellbeing of their local community. Through Local Area Agreements (LAAs) the stakeholders, the Directors of Public Health, Adult Social Services and Children's Services identify the current and future health and wellbeing needs of the local community in light of existing services and is used to inform future service planning taking into account evidence of effectiveness. Put succinctly, the JSNA identifies 'the big picture' in terms of the health and wellbeing needs and inequalities of the local population (DoH website). JSNAs are discussed further at 6.6.

#### 4.6 The link between the UK planning system and obesity today

Obesity is becoming one of the world's biggest health problems. Throughout the UK obesity rates have reached epidemic levels with the proportion of obese adults (defined as men and women aged 16 or over) increasing from 14.9% in 1993 to 24.0% in 2007 and to 26% in 2010 (Health Survey for England, 2007 and 2010). Current research suggests that inactive lifestyles are at least as important as diet in the aetiology of obesity (Prentice and Jebb, 1995). Researchers claim that the built environment acts as an inhibitor to physical activity and promotes sedentary lifestyles and have placed the blame for this firmly with the UK planning system.

The primary function of the UK planning system has ethical overtones in that its purpose is to protect the environment from inappropriate development and to regulate land-use for all people and communities and to '*...secure consistency and continuity in the framing and execution of national policy with respect to the use and development of land*' (Jones et al., 2005). Research suggests that through the creation of obesogenic environments the UK planning system consistently fails to achieve this goal (Burgoine et al., 2011; Duggan et al., 2007; Lake and Townshend, 2006; Townshend and Lake, 2009). Table 4.2 illustrates how the UK planning system today remains as much a fundamental component in tackling health as it did over 150 years ago.



<u>Environment &amp; Disease 1856</u>	<u>Environment &amp; Disease 2006</u>
Lack of sanitation	Sedentary lifestyles
Cholera	Poor diet
Water quality	Smoking
Tuberculosis	Traffic
Overcrowding	Obesity
Hunger	Coronary heart disease
Poor diet	Asthma
Infant mortality	

Table 4.2: Comparison of Environment & Disease 1856 & 2006 (Duggan et al., 2007)

Table 4.2 also reaffirms the claims by Jackson (2003b:1382) who states *‘Public health has traditionally addressed the built environment to tackle specific health issues such as sanitation, lead paint, workplace safety, fire codes, and access for persons with disabilities. We now realise that how we design the built environment may hold tremendous potential for addressing many of the nation’s greatest current public health concerns, including obesity, cardiovascular disease, diabetes, asthma, injury, depression, violence, and social inequities’*.

Lavin et al. (2006) undertook a review which demonstrated the enormous influence which the built environment, a product of the planning system, has on health. The model reproduced here at Figure 4.1 is sympathetic to this research. It displays the varied components of the built environment that contribute to overall health and wellbeing of the individual and *‘illustrates pathways ... which impact on mental, social and physical health’* (Metcalf and Higgins, 2009:297). This purpose of the diagram at Figure 4.1 is a pathway to show how public policy affects health; how infrastructure decisions, planning and transport policy affect access to food; how agricultural policy dictates what is grown and where; and how fiscal policy affects price. All of these lie outside the health sector but they all have an impact on health, both positive and negative.

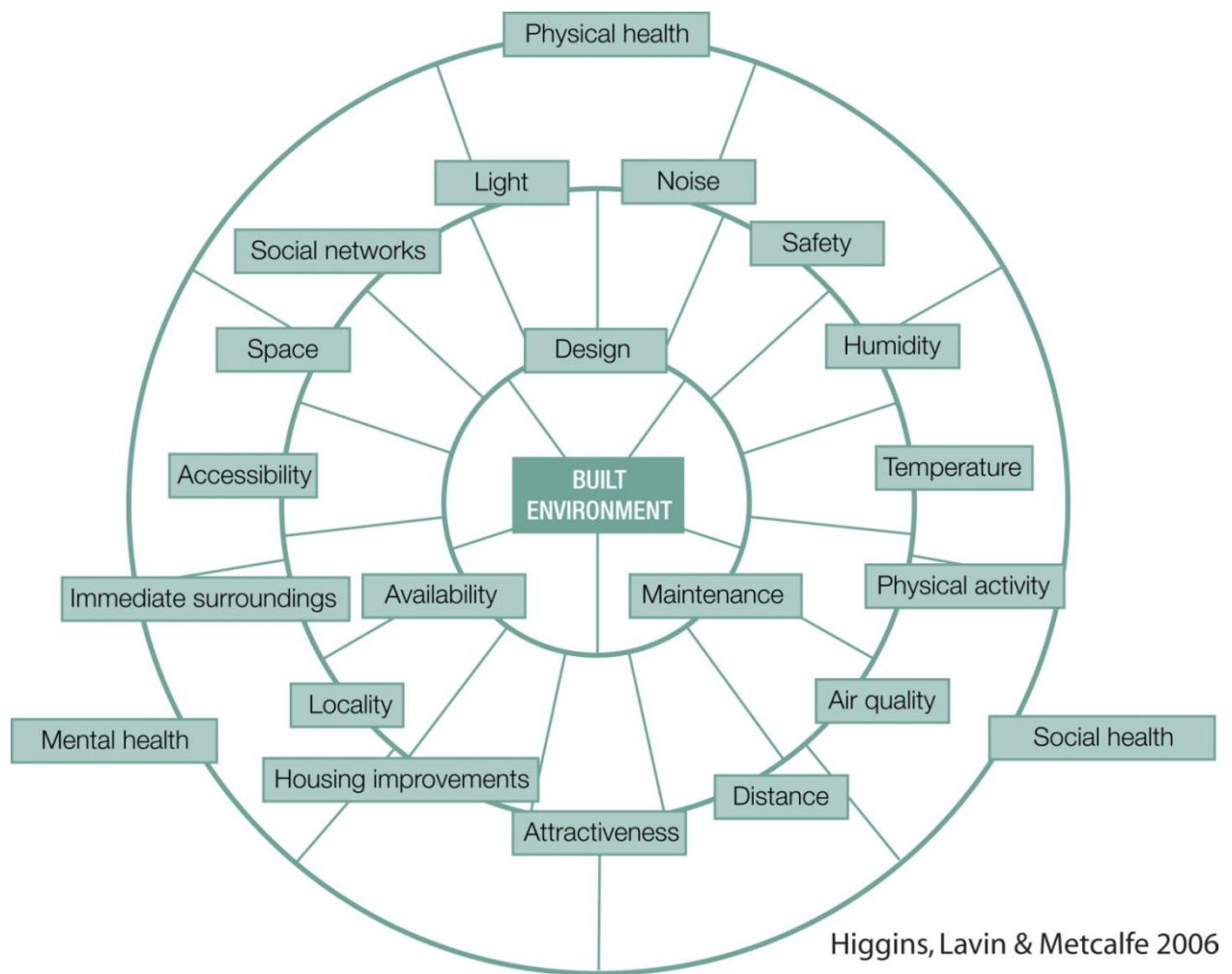


Figure 4.1: How the built environment influences health (Source: Metcalfe and Higgins, 2009:298)

The primary data source of information espousing the link between the UK planning system and obesity that prompted this research is the Foresight<sup>4</sup> report published in 2007 'Tackling Obesity: Future Choices – Project Report 2<sup>nd</sup> Edition'. This was commissioned by the then Chief Scientific Adviser Sir David King who wanted to examine the question 'How can we deliver a sustainable response to obesity over the next 40 years?' (Butland et al., 2007:5). It was the publication of this report which led to increased media commentary in the UK reporting the link between the built environment and the rise in obesity levels (BBC News, 2007; Morris, 2007).

The link between the built environment and obesity was also identified in 2007 by the report 'Building Health' produced jointly by the National Heart Forum, Living Streets and the Commission for Architecture and the Built Environment (CABE – the

<sup>4</sup> Foresight is run by the Government Office for Science under the direction of the Chief Scientific Adviser to HM Government.

Government's adviser on architecture, urban design and public space) which was initially funded by the Department of Health.

Capon (2007:155) identifies three main problems with the current pattern of urban development:

1. *'Limited opportunities for incidental physical activity and associated sedentarism;*
2. *Concentration of food retail in regional centres and associated local food insecurity; and*
3. *Physical separation of residential areas from employment'.*

It is clearly evident from current research that the built environment has a negative effect on health and wellbeing (Pilkington et al., 2008). However it is also clear that the link which has steadily weakened throughout the 20<sup>th</sup> century needs to be re-established in order to address the obesity crisis today ( Barton and Grant, 2006; Ewing et al., 2003; van Kamp et al., 2003;).

The built environment's influence on diet and physical activity is a key theme in the current literature as a contributing factor to obesity and it therefore follows it should be a key factor in the prevention and treatment of obesity. The links between health and the built environment have been on the research agenda for some time particularly the link between urban design and walking and cycling i.e. physical activity (Lake and Townshend, 2006) . In a study of the relationship between people's perception of the social and physical environment and walking behaviour which involved structured interviews with a national sample of 4265 adults aged 16-74 years the evidence indicated that the physical environment does influence physical activity (Foster et al., 2004) . According to Wareham et al. (2005) physical activity takes place in a variety of different environments i.e. in transportation, domestic life, occupation and recreation. Popkin et al. (2005) in their review on environmental influences on food choice and physical activity also agree that environmental factors influence obesity-related behaviours, particularly physical [in] activity.

The UK town and country planning system influences all these environments through walking and cycling routes, design of developments, location of industrial development and food outlets and provision of open and green spaces. Although planning has continued to address environmental issues such as air pollution, a specific focus on

health and wellbeing has taken a back seat (Thompson, 2007). This is evident in another exploration of the relationships between both neighbourhood walkability and neighbourhood safety and individuals' exercise, body mass, weight-related chronic conditions and overall health carried out by Doyle et al. (Doyle et al., 2006) when they concluded that in order to promote physical activity and have a positive impact on health, planners should consider walkability and safety in the design of developments in order to promote and create healthy lifestyles through healthy cities and Ewing et al. conclude that their research provides *'added support for the hypothesis that urban form affects health and health-related behaviors'* (Ewing et al., 2003:579). This added support for the purpose of this research which is to establish if the built environment makes you fat and is further justification for this research.

In an analysis of physical activity and obesity prevention, Wareham et al. (2005) suggest that if environmental influences such as transport policy are a powerful influence on physical activity and therefore a strong driver in the current obesity crisis then it is important that opportunities are sought to assess the impact of environmental changes brought about by deliberate policy intentions such as cycle paths.

Research into the effect of green exercise on physical activity (Pretty et al., 2007) , which shows there is a direct health benefit, calls for nature and green space to be central to policies and strategies from a variety of disciplines including policy makers, planners, developers, environmental managers and the health sector and health providers and improved land-use planning can be a cost-effective way to mitigate climate change and promote public health (Younger et al., 2008).

The increase in obesity levels also has a detrimental effect on infrastructure which has led to the emergence of *obecities* (Marvin and Medd, 2006). Marvin and Medd go on to compare the obesity crisis in the population with the sewer problems occurring due to the disposal of fat into the sewers in densely populated and restaurant areas. This comparison goes on to explain that the fat put into the sewers is done so on a voluntary basis and almost regarded as a necessity due to the high costs of fat disposal and therefore obesity can be seen as a voluntary choice made by an individual who possibly opts to consume higher fat foods due to their lower cost, 'super-size' and extensive choice and locations in communities (Marvin and Medd, 2006).

In developing a critical understanding of the connections between health and planning it is helpful to explore the question ‘what determines our health?’ The answer is obvious when examining the determinants of health as shown in Table 4.3.

<b><u>Individual factors</u></b>	<b><u>Social &amp; environmental factors</u></b>	<b><u>Institutional factors</u></b>
Genetic Biological Lifestyle	Physical Community Economic conditions	Capabilities, capacity & jurisdiction of public sector services
Age Level of activity Smoking Alcohol intake Employment status Life skills	Access to services Air, water & soil quality House Land-use Urban design	Availability of services: <ul style="list-style-type: none"> <li>• Health</li> <li>• Transport</li> <li>• Educational</li> <li>• Employment</li> </ul>

Table 4.3: The determinants of health

These determinants of health are displayed more visually in The Health Map shown at Figure 2.1. This Figure (Figure 2.1), developed by Barton & Grant (2006) based on the health map by Whitehead and Dahlgren (1991) demonstrates the interrelatedness of the individual, social, environmental and institutional factors which influence the health of people. This figure is a visual tool for both communicating and analysing the health/settlement relationship. It is also a dynamic tool that provides a basis for dialogue and provokes enquiry. It provides a focus for collaboration across professions such as planners, public health, ecologists, and urban designers and across such topics such as transport, air quality, community development and economic development. This is a highly respected model which shows the interface between health, ecology and sustainable development and it clearly demonstrates how planning impacts at different levels.

In their exploration between Vehicle Miles of Travel at the county level as it relates to obesity and physical activity in California using data from the California Health Interview Survey 2001, the US 2000 Census, and the California Department of Transportation, Lopez-Zetina et al. conclude that *‘Given the association between obesity and physical activity-at both the individual as well as the ecological level- efforts*

*to reverse the obesity epidemic will require an interdisciplinary research approach between urban planners, public health researchers, and policy makers with the ultimate goal of identifying strategies and incentives that accommodate walking and other forms of physical activity in daily life' (Lopez-Zetina et al., 2006:662).*

Ellis et al. (2010), in their guidance 'Spatial Planning for Health: A guide to embedding Joint Strategic Needs Assessment in spatial planning,' identify that planning for health and wellbeing requires a co-ordinated evidence based approach to planning at the regional, local and neighbourhood levels, development management of individual schemes, and monitoring and review of both policies and completed schemes. Figure 4.2 illustrates the interconnectedness through a joined up approach of planning and health. This figure develops the 'health map' at Figure 2.1 further by demonstrating the interconnectedness of health and planning and the benefits of a joined up approach (Ellis et. al. 2010).

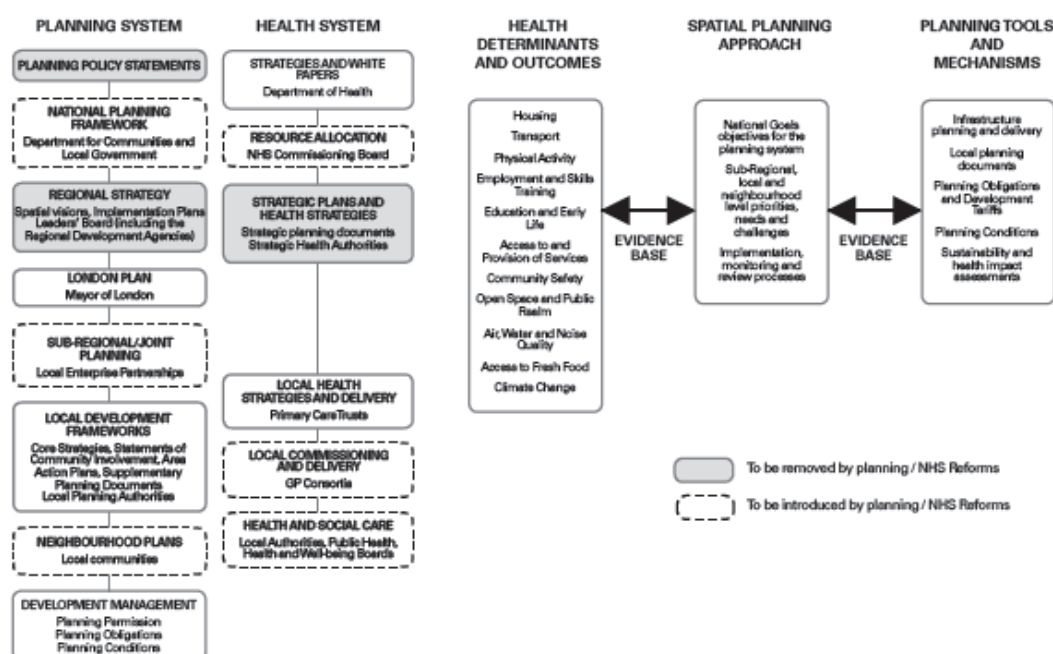


Figure 4.2: Delivering on health and wellbeing outcomes through the joint health and planning evidence base (Ellis et al., 2010:23)

It follows therefore that the 'environment' is not only considered to be the open spaces, the walkability of neighbourhoods, the transport links, the provision of cycle lanes and routes but also includes the location and frequency of fast food outlets, restaurants, supermarkets and grocery stores although there is limited research available in the UK exploring the link between the food environment and obesity (Lake and Townsend, 2006).

In their recent 'call to action on obesity' (DoH, 2011:28) the government has identified that one *'of the opportunities for harnessing the reach of local government includes...making the most of the potential for the planning system to create a healthier built environment – for example, by ensuring that buildings and spaces are designed in a way that makes it easy for people to be active'* and recognised that *'A number of local areas have also taken steps to use existing planning levers to limit the growth of fast food takeaways, for example by developing supplementary planning policies'*.

The DoH (DoH, 2011:46) state *'planning is a powerful lever and a major contributor in influencing the wider determinants of health. At community level, the planning system is increasingly recognised as a vital tool for influencing the environment in a way that builds and supports strong, vibrant and healthy communities'*. One of the principal planning principles of the proposed National Planning Policy Framework (NPPF) is that *'planning policies and decisions should take account of and support local strategies to improve health and wellbeing for all...one of the proposed requirements is that local planning authorities should work with public health leads and health organisations to understand and take account of the health status and needs of the local population...This should promote engagement between the local authority, healthcare organisations, local community representatives and other interested parties to ensure that local and neighbourhood plans reflect the needs and priorities of local communities'* (DoH, 2011:47).

Michael and Yen considering reports within the USA draw conclusions that can easily be translated to the UK to use in the fight against obesity: *'Successful strategies to enhance the built environment have the potential to improve health and prevent obesity. Research on the influence of the built environment is a great example of collaboration between social epidemiologists (public health scientists studying contextual factors) and practitioners (city planners and urban design specialists'* (Michael and Yen, 2009:411).

In America, Active Living Research and Smart-Growth communities are leading the way in addressing the link between the obesity crisis and the built environment and research has identified that the design of neighbourhoods is significant in the availability and accessibility of fresh foods and the ability to undertake physical exercise and activity (Huang, 2009).

Handy et al. (Handy et al., 2002) suggest that urban planners have for some time been concerned with the link between planning and health however, through the experience of working in a local planning authority and undertaking a survey of the planning policy officers in Wales in 2008 (unpublished) it appears to suggest that the planning profession at the local and service delivery level do not consider health as a major priority or material consideration when making decisions on proposed development. Planners need to evaluate and reflect on what they do and the decisions they make and observe how they can encourage healthier lifestyle choices (Popkin, 2009) by promoting healthy & sustainable development (CABE, 2009).

This review of literature clearly demonstrates that there is an urgent need for town and country planning and public health professionals to reconnect in order to tackle the obesity crisis and for the planning profession to recognise their actions form part of the public health agenda (Pilkington et al., 2008; Northridge and Sclar, 2003). The majority of studies into the connection between planning and obesity and/or health come from outside the UK and are primarily undertaken in the US and Australia. This research concentrates on the UK and therefore the outcomes will have a direct influence on the UK planning system and in turn have a positive outcome on the health of the UK population.

#### 4.7 Sustainable development and health

The terms 'sustainable development' and 'sustainability' are used with a laissez-aller attitude. The COED (2006:1452) defines 'sustainable' as:

*'able to be sustained'*

and goes on to point out that 'sustainability' and 'sustainably' are derivatives of 'sustain'. 'Sustain' is defined as:

- '1. strengthen or support physically or mentally;*
- 2. keep (something) going over time or continuously;*
- 3. suffer (something unpleasant);*
- 4. uphold or confirm the justice or validity of...'*



The COED (2006:392) defines 'development' as:

- '1. the process of developing or being developed;*
- 2. a new product or idea;*
- 3. an event constituting a new stage in a changing situation;*
- 4. an area of land with new buildings on it.'*

By defining the words 'sustainable' and 'development' it allows the reader to begin to appreciate and understand how the phrases 'sustainable development' and 'sustainability' have been globally recognised and used.

In government literature and academia one of the most widely accepted and universally quoted definitions of 'sustainable development' is:

*'....development that meets the needs of the present without compromising the ability of future generations to meet their own needs'*

(Brundtland, 1987)

The UK Government is committed to sustainable development by '*stimulating economic growth and tackling the deficit, maximising wellbeing and protecting our environment, without negatively impacting on the ability of future generations to do the same*' (DEFRA, 2011:2).

The World Health Organisation espouses health at the core of sustainability and not merely a minor consideration (Barton and Grant, 2008). For over 20 years there has been a realisation that the current model of development is unsustainable, quite simply we are living beyond our means - from the loss of biodiversity through deforestation or over fishing to the negative effects our consumption patterns are having on both the environment and climate.

Internationally the concept of sustainable development was first raised at the United Nations Conference on Environment and Development (UNCED), also known as the Earth Summit in Rio de Janeiro in 1992.

This summit, which followed the publication of the World Commission on Environment and Development Report 'Our Common Future' (Brundtland, 1987), produced three

Agreements: Agenda 21 – a comprehensive programme for global action in all areas of sustainable development; The Rio Declaration on Environment and Development – a series of principles defining the rights and responsibilities of States; and The Statement of Forest Principles – a set of principles to underlie the sustainable management of forests worldwide (Younger et al., 2008: UNCED, 1992).

Although the Earth Summit in Rio is often understood to be the starting point for sustainable development, it is clear that there were many precursors. For example, the World Health Organisation has been a driving force in promoting health as a resource for everyday life and not merely the object of living for more than 30 years starting with the UNICEF/WHO International Conference on Primary Health Care in Alma-Ata 1978. Subsequently, there have been Global Conferences on Health Promotion, starting with the First held in Ottawa in 1986 (WHO, 2009) through to the Eighth held in Helsinki in 2013. One of the main themes running through all these conferences has been the creation of supportive environments, through the recognition of the inextricable links between people and their environments. The rationale behind the creation of supportive environments is not dissimilar to the definition of sustainable development expressed by the Brundtland report, as WHO state:

*'The overall guiding principle for the world, nations, regions and communities alike, is the need to encourage reciprocal maintenance – to take care of each other, our communities and our natural environment.'*

(WHO, 1986)

Globally there is increasing support for the principle of sustainable development, particularly from the proponents of climate change and driven by concerns about the obesity crisis and consequently this will only encourage development that fulfils economic, socio-health and environmental priorities (Barton and Grant, 2008).

The UK Government have produced their vision for a sustainable development strategy in the document 'Securing the Future' which was launched by the UK Government in 2005. This document reaffirms the goal of sustainable development as a global challenge to ensure all peoples of the world secure basic needs to achieve a better quality of life now and for future generations and this strategy builds on the 1999 strategy 'A Better Quality of Life'.

This strategy catalogues the four priorities recognised by the UK Government required to achieve sustainable development:

- Sustainable consumption and production: changing the way products and services are designed, produced, used and disposed of – in short, achieving more with less;
- Climate change and energy: reducing greenhouse gas emissions in the UK and worldwide whilst at the same time preparing for the climate change that cannot be avoided;
- Natural resource protection and environmental enhancement: understanding the limits of the natural resources that sustain life, such as water, air and soil; and
- Sustainable communities: looking after the places people live and work, for example, by developing green, open spaces and building energy-efficient homes.

There were 68 indicators which were used to review the progress of the strategy and annually since 2004 the Department for Environment, Food and Rural Affairs (DEFRA) produced a report in the form of a small booklet titled 'Sustainable Development Indicators in Your Pocket'. This report presented and assessed the indicators of measures of everyday concerns including health, housing, jobs, crime, education and the environment in a useful and accessible format. The printed version of the booklet was replaced by a pdf download version in 2010. However since the change in Government in 2010 there have been no further updates whilst a new set of indicators are developed.

Sustainable development is an important contributor to achieving healthy sustainable communities. If development is poor and unsustainable then the negative consequences will lead to a loss of biodiversity, negative effective on consumption patterns, irresponsible planning, urban sprawl, lack of green spaces and ultimately have a negative effect on the quality of health and well-being of people and communities (Hancock, 2000).

The Rio + 20 Earth Summit is taking place 20-22 June 2012. This conference marks the 20<sup>th</sup> anniversary of the first UNCED and the adoption of Agenda 21. This is a conference at the highest level, including Heads of State and Government or other representatives and will result in a focused political document which addresses the

themes of: (a) a green economy in the context of sustainable development poverty eradication; and (b) the institutional framework for sustainable development (United Nations Rio+20 webpage, 2011).

However, it should be noted that not everyone yields to the concept that the widely accepted and often referred to definitions of 'sustainable development' noted above are a good thing. Beckerman (1994) argues that it has been defined in such a way that it is either morally repugnant or logically redundant (Beckerman, 1994) and confers that the environment should be managed in a 'socially optimal manner' (p 191). Sarah Amsler also explores this theme and argues that sustainability has '*...[a] role as a heuristic device for communicating critiques of existing conditions, re-orienting attention towards alternative futures, and evoking a sense of urgency about the need for individual and social action*' (Amsler, 2009:117).

#### 4.8 Climate change and health

The planning system also has the potential to impact on carbon emissions and climate change. Climate change is a key public health threat and there is a growing focus on synergy between policy goals relating to climate change and obesity and the potential for planning to impact on both.

Climate change often referred to as global warming is a hotly contested subject and it would be reprehensible not to include reference to both sides of the debate here. The Department of Energy and Climate Change (DECC) created in October 2008 by the UK government to bring together energy policy and climate change policy provide a very basic and unscientific definition of climate change as the average weather experienced over a long period of time. The DECC has seven strategic objectives with the overall aim of managing the changes to the environment, economy and to secure future energy supplies and these are shown in Table 4.4.

1	Secure global commitments which prevent dangerous climate change
2	Reduce greenhouse gas emissions in the UK
3	Ensure secure energy supplies
4	Promote fairness through our climate energy policies at home and abroad
5	Ensure the UK benefits from the business and employment opportunities of a low

	carbon future
6	Manage energy liabilities effectively and safely
7	Develop the Department's capability, delivery systems and relationships so that we serve the public effectively

Table 4.4: DECC Seven strategic objectives (Source: DECC website)

It is internationally accepted that human-induced climate change is an urgent global issue and if left to continue unabated on its current course the outcome will be a rise in temperatures and sea levels, more rainfall which will result in floods and storms, and more heat waves and droughts and it will therefore follow there will be a negative impact on health (Younger et al., 2008) . However, the relationship between land-use planning and climate change is not so widely acknowledged or reported. The built environment, often described as the consequence of land-use planning and human intervention, includes buildings such as homes, shopping centres, offices; roads; access to transport services; and green space. The built environment is influenced by many different sectors, each of which has their own goals and targets and until now they have rarely come together.

According to DECC climate change includes temperature, wind and rainfall patterns over a long period of time. There is little doubt that mankind's actions from the industrial and agrarian revolutions are the main cause of increased global temperatures over the past century through the emission of greenhouse gases such as carbon dioxide (CO<sub>2</sub>), methane and nitrous oxide which in turn contribute to the greenhouse effect. The main actions which lead to these gases being released into the atmosphere are the burning of fossil fuels and deforestation.

The result of the greenhouse effect is an increase in global temperatures. In turn this will lead to global sea levels rising, continued melting of the ice caps glaciers, significant changes in rainfall patterns and intensification of tropical cyclones such as hurricanes and globally there will be more intense heat waves, droughts and flooding (DECC). These negative consequences of unabated climate change will impact on food and water supplies and in turn are likely to lead to tensions between peoples and migration of people culminating in both mental and physical health problems (Lever-Tracy, 2008; McMichael and Woodruff, 2004).

The Stern review (Stern, 2007) is very resolute about the global health impacts of climate change. The review states that access to water, food production, health and the environment, all basic elements of life for people, would be affected and globally hunger, water shortages and coastal flooding would have a devastating effect as the world warms. Internationally the UN Framework Convention on Climate Change and the Kyoto Protocol provide the foundation for current worldwide collaboration although the concerns surrounding climate change can be traced as far back as The World Conservation Union Meeting in Copenhagen in 1954.

The Kyoto Protocol is the international commitment to addressing greenhouse gas emissions which was adopted in Kyoto on 11 December 1997 and so far 184 parties have ratified the document. The use of Kyoto as the name of the agreement is merely used to acknowledge the achievements of the third Conference of the Parties (COP) to the United Nations Framework on Climate Change (UNFCCC), also referred to as COP3, held in Kyoto, Japan, December 1997. The road to Kyoto can be traced back over 50 years.

The outcome of the United Nations Climate Change Conference held in Copenhagen in 2009, generally referred to as COP15, and was the Copenhagen Accord, an agreement by all parties to continue to be bound by the Kyoto Protocol. However, the main purpose of COP15 was to negotiate and establish a new commitment for reducing greenhouse gases from 2012, when the existing commitment to the Kyoto Protocol ends. Unfortunately as all the parties were unable to reach a consensus the issue will be discussed further at the next meeting due to be held in Mexico in 2010 but time for action may be running out if the predicted catastrophic threats of human-induced climate change are to be avoided. At COP16, held in Cancun, Mexico in 2010, the main outcomes were an agreement to establish a Green Climate Fund, Climate Technology Centre and network and a second commitment period for the Kyoto Protocol. At COP17, held in Durban, South Africa in 2011 the main outcomes were the Durban Platform, a roadmap to a global legal agreement applicable to all parties and a further agreement to adopt a second commitment period of the Kyoto Protocol in 2012.

The Foresight Tackling Obesities: Future Choices – Project Report (Butland et al., 2007) draws parallels between obesity and climate change which are shown in Table 4.5.

1	Failure to act at an early stage is already having significant and undesirable consequences.
2	The policy discourse is vibrant but is not yet being matched by a requisite, measureable change in the right direction by society, governments and the economy.
3	The environment determinants remain widely misunderstood and under-researched, while policy drifts towards individualised responsibility.
4	There is a danger that the moment to act radically and coherently will be missed and that the responsibility of reversing population-wide obesity will be lost.
5	In addition, unlike climate change, obesity is being normalised, even as the trend accelerates and the evidence grows. Many actors, individuals and institutions recognise their roles but feel powerless or uncertain about how to act. However, there is an opportunity to create greater synergies between these two issues where action to tackle both issues has mutual benefit.

Table 4.5: Parallels between obesity and climate change (Source: Butland et al., 2007:72)

The Foresight report also identifies that cross-over and synergies of policy goals for climate change and obesity are likely to provide reciprocal and multiple benefits. This is a view also put forward by Huang in his paper which calls for a joined approach to promote environmental sustainability and obesity prevention: *‘evidence suggests that factors such as...land use, urban design, and transportation design...have an impact on both climate change as well as obesity outcomes’* (Huang, 2009:S60).

There are a small number of sceptics who denounce that the planet is warming due to human-induced climate change as utter nonsense but the climate scientists have remained steadfast (Andreadis and Smith, 2007). The recent revelations regarding leaked emails which allege to confirm the sceptics beliefs that human-induced climate change data has been tampered with is one such attempt to undermine the scientists. This has resulted in the Intergovernmental Panel on Climate Change (IPCC), an independent group of scientists who advise many international government members on climate change, in partnership with the UN calling on the InterAcademy Council (IAC), an umbrella organisation for various international scientific academies, to undertake an independent review of all the climate data to ensure the robustness of their processes and procedures are undoubtedly without reproach. The Commons Science and Technology Committee reported on 31/3/10 (BBC News, 2010) that they

found no evidence to support the claims that climate change data had been corrupted and manipulated and therefore the reputation of the research unit remained intact.

If the IPCC, DECC and UN just to name a few of the many supporters of human-induced climate change are to be believed then the time for procrastination is over. Professor James Lovelock, the scientist behind the Gaia Theory, goes even further by claiming that it's too late to save the planet and that our only chance is for the earth to save herself ('Today' programme, BBC Radio 4, 30.3.10). Climate change, like obesity, is a complex problem, and similarly it is not insoluble (Butland et al., 2007a). If the effects of climate change continue as predicted by the advocates then although the road from Kyoto will be full of obstacles, twists and turns, every effort should be made to prevent the predicted catastrophic outcome if climate change is allowed to continue unchecked and ignored. This review has demonstrated the parallels between obesity and climate change therefore it follows that policy goals to achieve a positive outcome in climate change will also have a beneficial effect on obesity and vice versa (Butland et al., 2007).

#### 4.9 Different approaches to the obesity crisis

In the USA in an attempt to re-configure planning from the low-density, automobile-oriented, greenfield development, the Smart Growth Network provides '*a framework for making development decisions that result in vibrant, diverse, economically healthy communities which have a strong sense of place*' (Durand et.al., 2011:e174) and the 10 smart growth principles are shown in Table 4.6. However, in the same report the authors concede that '*while there are numerous studies on concepts that can be linked to smart growth principles, such as walkability and mixed land use, an explicit connection between smart growth and improved health has not yet been demonstrated*' (Durand et al., 2011:e175) and '*it is still not known whether smart growth can yield changes in body mass*' (Durand, et al., 2011:e179) but '*it is suggested that the potential impact of smart growth principles on health could be increased by the systematic inclusion of a health component to community planning*' (Durand et al., 2011:e181). The Smart Growth movement are also called the New Urbanists and the Congress for the New Urbanism '*advocates intergenerational, mixed-use pedestrian-friendly neighbourhoods design*' (Michael and Yen, 2009:409).



Smart growth principles	
1	Create a range of housing opportunities and choices
2	Create walkable neighbourhoods
3	Encourage community and stakeholder collaboration
4	Foster distinctive, attractive communities with a strong sense of place
5	Make development decisions predictable, fair and cost effective
6	Mix land uses
7	Preserve open space, farmland, natural beauty and critical environmental areas
8	Provide a variety of transportation choices
9	Strengthen and direct development towards existing communities
10	Take advantage of compact building design

Table 4.6: Smart Growth principles (Adapted from Durand et al., 2011:e174)

Since the introduction in 1986 the WHO's Healthy Cities project has attracted more than 1,300 cities and towns from 29 countries. The Healthy Cities movement is a dynamic concept and places health high on the political and social agendas.

Another initiative launched by the WHO in 1997 is HUP. This concept focuses on the positive impact of urban planning on health and wellbeing and promotes the city/town/region as a living breathing organism through the integration of health and sustainable development. HUP is a fundamental requirement for Healthy Cities. HUP promotes stronger engagement between urban planners, populations and politicians to improve the quality of the urban environment and public spaces.

The WHO's Healthy Cities project and HUP initiative will be discussed further in Chapter 6 Healthy Settings, Healthy Cities and Healthy Urban Planning.

Swinburn et al. (1999) have developed a conceptual model for understanding the obesogenic environment and a practical tool for prioritising research and intervention strategies. Known as ANGELO (Analysis Grid for Environments linked to Obesity) the basic framework dissects the environment into size (macro and micro) by type: physical (what is available); economic (what are the costs); political (what are the 'rules'); and socio-cultural (what are the attitudes and beliefs (Swinburn et al., 1999) . This basic framework was further developed by Raine et al. (2008) in their State of the Evidence Review on Urban Health and Healthy Weights as they considered its use was valid as it had been piloted at the population level by Swinburn et al. (1999).

Crossley (2004) examines the obesity crisis from a sociological position, asking 'How could there be an obesity crisis in a society as conscious of the body and as concerned with thinness as ours is alleged to be?' This is a very interesting concept and Crossley concludes that obesity is a social fact and is a reflection of social change. Although an interesting concept it is one which requires further investigation and research which unfortunately is beyond the scope of this report.

Another concept is put forward by Michael Pollan, a Knight Professor of Journalism at the University of California at Berkeley and a published author, in an article published in the New York Times on October 12, 2003 which encourages us to '*look for the causes behind the causes.....very simply.....when food is abundant and cheap, people will eat more of it and get fat*'. Pollan goes on to claim that the '*source of all calories (is) the farm.*' Pollan argues that the over production of food encouraged by farm subsidies from the US government is in direct conflict with the governments campaign against the obesity crisis and the pressures faced by the farming industry tends to be focussed on the marketing strategies for food on targeted audiences such as children.

#### 4.10 UK approaches to tackling the obesity crisis

The UK Government is committed to ensuring that we live within our environmental limits to ensure a better quality of life now and for future generations through sustainable development. Sustainable development is generally defined as '*development which meets the needs of the present without compromising the ability of future generations to meet their own needs*' (Brundtland, 1987:8). The UK Government have set out their vision and how it will be achieved '*by recognising the needs of the economy, society and the natural environment, alongside the use of good governance and sound science*' in their document 'Mainstreaming sustainable development' (DEFRA, 2011:2).

There are also a number of impact assessments available to land-use planners to assess the possible negative and positive impact of plans, policies, programmes or projects on the health of the population. These include:

- Sustainability Appraisal (SA): To promote sustainable development through the integration of social, environmental & economic considerations

- Strategic Environmental Assessment (SEA): The assessment of the effects of certain plans and programmes on the environment
- Environmental Impact Assessment (EIA): An environmental statement describing the effects of development on the environment & proposed mitigation
- Health Impact Assessment (HIA): A combination of procedures, methods & tools that systematically judges effects of a policy, plan, programme or project on the health of a population

The SEA and EIA both originate from an EU Directive and require a formal environmental assessment of certain plans, programmes and development proposals which are likely to have significant effects on the environment, to identify the likely significant effects, both positive and negative, and proposed mitigation measures. The SA is a mandatory assessment method under the Planning and Compulsory Purchase Act 2004 and is used during the preparation and/or revisions of regional and local planning documents and policies. All three assessments have a requirement to consider health but this is usually narrowly focussed and rarely, if at all, considers the effects on obesity.

This is where HIA can contribute a better understanding for the UK planning system of the impact on health and specifically obesity. HIA, similar to the previous assessment methods noted above, considers the wider effects of both local and national plans, policies, programmes and proposals on the health of the people and due to the flexible nature of undertaking an HIA can specifically target the effects of the plans, policies, programmes and proposals on obesity where required.

The use of HIA will be discussed further in the following chapter alongside the other impact assessments which are utilised in the planning process. Healthy Cities and HUP will be discussed in chapter 6.

#### 4.11 Summary

This chapter has provided an overview of the connections between the built environment and obesity from the historical background underpinning the evolution of

the planning system to the current and the limitations of the UK planning system to deal with the obesity situation even though research demonstrates it is partly responsible for creating the obesogenic environments that exist today.

Firstly it re-examined the historical connection between health and planning and how the unsanitary conditions and unhealthy environments of the late 18<sup>th</sup> and early 19<sup>th</sup> centuries, the consequence of the industrial and agrarian revolutions, led the way for the first health acts which gave provision to local authorities to clear slums and install sewers. This is a clear testimony that good planning and health are interrelated and reliant on each other.

The use of BMI to assess overweight and obese, although accepted and used globally as the primary indicator of the disease, has been demonstrated as a rather crude measurement for the use at the individual level and a more accurate indicator would be the use of the waist measurement indicators. However, this is a separate issue beyond the scope of this study and does not detract from the effect of the built environment on obesity and overweight.

The chapter also explored the connections between sustainable development and climate change with health. It is important to recognise these relationships as the built environment can also affect these issues. Tackling climate change and promoting sustainable development are a core component in attaining sustainable communities, a priority of the UK Government, which has at its nucleus the health and wellbeing of people and the population. There is a pressing need to understand and address the human impacts on climate change and consequently the impacts of climate change on human health and put an end to this destructive cyclical trend. However, whilst the effects of sustainable development and climate change on health are separate areas of research, converging issues and their influence on sustainable communities should be noted accordingly. It is clear however that policies to combat climate change or secure sustainable development will have a positive impact on obesity and health.

This chapter has introduced three concepts with the aim of securing healthy and sustainable planning - Healthy Cities, HUP and HIA. These methodologies will be considered further in separate chapters. These chapters will evaluate the principles of HUP, Healthy Cities and HIA in order to ensure that the likely health impacts are a primary consideration of all development and land-use proposals.

The chapter also considers other concepts and approaches to the global obesity crisis from the sociological approach suggested by Nick Crossley (Crossley, 2004) to the subsidised agricultural approach put forward by Michael Pollan. It is important to recognise the work of all disciplines in the challenge to reverse the current obesity crisis. The aetiology of obesity is very complex and involves many disciplines and it is only by promoting and securing a joined up approach will the current trend in global rises in obesity start to decline.

This review considers that the UK planning system now has to embrace new theories and approaches to ensure that the components of healthy and sustainable planning are fundamental to the UK planning system and a core component and material consideration in new development proposals.

However, it should be noted that the existing research doesn't identify the built environment as the sole cause of obesity but is one of a number of determinants that together can lead to obesity (Butland et al., 2007). The obesity problem cannot be tackled by one discipline alone but requires a joined up approach from other sectors and stakeholders and although changes to the environment are likely to lead to the sedentary being more active, physical activity is not a stable behaviour as each person has different determinants in their approach to physical activity and interacts with the environment on a number of levels (Lake and Townshend, 2006).

This chapter has reflected on the historical partnership of health and planning and reviewed the current literature that is asserting the link between the built environment and obesity and has therefore answered the first research objective.

Through the review of HIA, HUP and the Healthy Cities projects, this chapter has identified methods which allow the planning system to evolve to ensure it only imposes a positive impact on obesity and has therefore contributed to answering the first research question.

At this point, through this research links have been identified and demonstrated between obesity and the built environment and the severe burden this has placed on the UK National Health Service. This research will now look at existing methods or tools which could challenge the long standing processes of land-use planning to

provide more leptogenic environments – a solution to the obesogenic environments being created currently.

## 5 CHAPTER FIVE: IMPACT ASSESSMENTS

### 5.1 Introduction to chapter

This chapter builds on the previous chapters which identified a number of methodologies that assess the effects and impacts of health on policies, plans, programmes or projects. The main focus of this chapter is to discuss the gradual development of impact assessments and predominantly those impact assessments which form part of and pertain to the planning process in the UK. There are four main assessment methods which will be presented and discussed here: Environmental Impact Assessment (EIA), Strategic Environmental Assessment (SEA), Sustainability Appraisal (SA) and Health Impact Assessment (HIA).

This chapter links to the second aim for this thesis: to investigate how health is integrated into the core functions of the town and country planning system in the UK, by answering, in part, the second research objective: to investigate the use of Health Impact Assessments in the determination of proposed development and land-use proposals which had been developed to answer the first research question: How can the planning system ensure it only imposes a positive impact on obesity?

Generally, impact assessments are not a vigorous, linear process that is set in stone or one that requires certain boxes to be ticked or decisions taken in a particular order to following a set of rules. In order to be a thorough and valuable process that can provide significant input into decision making, impact assessments should encourage and embrace multiple views and operate within different layers and dimensions.

Therefore the primary objective of this chapter is to provide the background information for the emergence of HIA through the other impact assessments and particularly its connection and use within the land-use planning system in the UK.

### 5.2 Introduction to impact assessments

*'It is widely accepted that the health of a population is determined by a range of factors and the greatest scope for improving the public's health lies outside the control of the NHS'* (Lock, 2000:1395). The purpose of the use of impact assessments in decision making is to promote public participation and engage the appropriate experts and stakeholders to:

- Influence the adequacy of the decision;
- Promote equity; and
- Promote openness and transparency throughout the decision making process.

(Webler et al., 1995).

According to Carmichael et.al. (2012:187) *'The aim of impact assessment in planning is to assess the impacts of projects, plans or policies on a range of social, environmental and economic variables, with the aim of minimising negative effects and maximising positive impacts.'*

According to Barton and Grant (2008) there are five main rules that will ensure a thorough impact assessment is conducted:

- 1) The objectives of any proposal or plan need to be clear and comprehensive in relation to sustainable development and health;
- 2) The process of appraisal should be open and inclusive, drawing on the different kinds of knowledge and expertise that are available;
- 3) The process should allow for iteration throughout the development of a proposal/plan to enable effective scoping to facilitate a creative, learning approach shared between the investors, professionals and stakeholders;
- 4) The appraisal should be as rational and systematic based on evidence where possible; and
- 5) The whole process is justified if it successfully improves and legitimizes decisions, and ensures complementary action by others.

There are a number of impact assessments, including some that are a mandatory requirement through legislation, to assess the health impacts of certain policies, plans, programmes or projects and these are shown in Table 5.1.



<u>Impact Assessment</u>	<u>Policy</u>	<u>Plan</u>	<u>Programme</u>	<u>Project</u>	<u>Mandatory</u>
Environmental Impact Assessment (EIA)		✓	✓	✓	✓
Strategic Environmental Assessment (SEA)	✓	✓	✓		✓
Sustainability Appraisal (SA)	✓	✓		✓	✓
Health Impact Assessment (HIA)	✓	✓	✓	✓	

Table 5.1: Impact assessments and their application

The impact assessments noted above are covered by European and UK legislation and guidance which is shown in Table 5.2. Please note that this table is not a definitive list of all legislation and guidance pertaining to the assessments being discussed but is a reflection of the legislation and guidance for the assessments in the context of town and country planning in the UK.

<u>Impact Assessment</u>	<u>European legislation</u>	<u>UK legislation</u>	<u>Other guidance</u>
Sustainability Appraisal (SA)		S19(5) of the Planning and Compulsory Purchase Act 2004	Planning Policy Statement 1: Delivering Sustainable Development
Strategic Environmental Assessment (SEA)	European Directive 2001/42/EC; The UNECE <sup>5</sup> Protocol on Strategic Environmental	Environmental Assessment of Plans and Programmes Regulations 2004	

<sup>5</sup> United Nations Economic Commission for Europe

	Assessment (2003)		
Environmental Impact Assessment (EIA)	European Directive 85/33/EEC as amended by Directives 97/11/EC, 2003/35/EC and 2009/31/EC	Town and Country Planning Act 1990; Town and Country Planning (Environmental Impact Assessment)(England and Wales) Regulations 1999	Circular 02/99: Environmental Impact Assessment
Health Impact Assessment (HIA)			Saving Lives: Our Healthier Nation; Technical Advice Note 21; Draft Ministerial Interim Planning Policy Statement 02/06; WelTAG; Minerals Technical Advice Note 2

Table 5.2: EU & UK impact assessment legislation and guidance (Source: Taylor and Blair-Stevens, 2002)

These impact assessment, or tools, used alone or in combination, '*can enhance the identification of potential health impacts before a development approval is granted or a planning policy finalised making cities healthier places for all*' (Thompson, 2007:157).

This chapter will now discuss each of the impact assessments noted in Table 5.1 in more detail.

It should be noted at this point that SA and SEA are considered by some practitioners as the same process whilst others consider that SEA forms part of a wider SA which considers all social and economic effects of the plan programme or policy (APHO<sup>6</sup> website). However, for the purposes of this study they are discussed independently and considered as separate and distinct entities.

### 5.3 Sustainability Appraisal

<sup>6</sup> Association of Public Health Observatories

According to Counsell and Haughton (2006:922) SA '*has emerged as a key technique in ensuring planning documents attend to sustainable development*' and it was '*...advocated by central government in the late 1990s as a means of assessing both Regional Planning Guidance (RPG) and Regional Economic Strategies (RES), with the approach subsequently being adopted by those preparing development plans, regional housing strategies, regional waste strategies and others*'.

The purpose of a SA provides a clear set of criteria for LPAs to assess the long term economic, social and environmental sustainability impacts of regional and local plans and policies whilst also reflecting on national concerns and to provide consistency to the SA process (Counsell and Haughton, 2006; Jones et al., 2005; PPS12;) and '*is undertaken in order to support decision-making about the options for, or the refinement of, a course of action – a development project, plan or policy*' (Barton and Grant, 2008:131). In the UK, sustainability appraisal became a mandatory requirement by S19 (5) of the Planning and Compulsory Purchase Act 2004 and must be undertaken in the preparation or revisions of regional and local planning documents. Planning Policy Statement 1 (PPS1): Delivering Sustainable Development advises at 26(v) that planning authorities should:

*'Take account of the range of effects (both positive and negative) on the environment, as well as the positive effects of development in terms of economic benefits and social wellbeing. Effects should be properly identified and assessed through the sustainability appraisal process, taking account of the current quality of the environment in the area and any existing environmental issues relevant to the plan.'*

(PPS1, © Crown Copyright)

The SA process should:

- Provide a sound evidence base – set objectives and develop the baseline;
- Be integrated from the outset;
- Be transparent;
- Be open to public participation – consult on the scope of the sustainability appraisal;
- Inform the decision making process; and
- Facilitate the evaluation of alternatives – refine options and assess the effects.

The LA must produce and publish the SA report alongside the draft development plan document. This report must set out how the appraisal was carried out and how options were assessed and carried forward.

In the UK, the SA process incorporates the requirements of the EU Strategic Environmental Assessment (SEA) Directive which was transposed into English law by the Environmental Assessment of Plans and Programmes Regulations 2004 (the SEA Regulations) (PAS website). The requirements to undertake a SA and SEA are distinct although the conditions for each can be satisfied through one process (www.communities.gov.uk; PPS12). SEA is discussed in depth at 5.4.

#### 5.4 Strategic Environmental Assessment

SEA is '*...process that aims to integrate environmental and sustainability considerations in strategic decision-making*' (Therivel, 2004:3) and '*(The) ultimate aim of SEA is to help protect the environment and promote sustainability*' (Therivel, 2004:7). SEA developed out of the recognition that the environmental impact assessment of specific projects does not allow sufficient scope for the examination of the effects of a combination of projects and a commitment to sustainable development requires that a strategic approach to the environment be adopted (APHO website). SEA has evolved predominantly to increase awareness of environmental concerns alongside social and economic issues throughout the decision making process (Jones et al., 2005).

Internationally the earliest legislation with regards to SEA is the US National Environmental Policy Act 1969 (Jones et al., 2005). However in the UK an SEA is a mandatory requirement under European Directive 2001/42/EC known as the Strategic Environmental Assessment (SEA) Directive. This directive requires a formal assessment of the impacts of certain plans and programmes which are likely to have significant effects on the environment to '*...provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development...*' (postnote 223, July 2004). The directive was entered into UK legislation through the Environmental Assessment of Plans and Programmes Regulations 2004.

The SEA has many similarities and is often undertaken in tandem with EIA and is regarded as having its origins in the EIA process (Jones et al., 2005). An SEA is mandatory and applies to policies, plans or programmes which are:

- prepared for agriculture, forestry, fisheries, energy, industry, transport, waste/ water management, telecommunications, tourism, town & country planning or land use and which set the framework for future development consent of projects listed in the EIA Directive.

OR

- have been determined to require an assessment under the Habitats Directive.  
(<http://ec.europa.eu/environment/eia/sea-legalcontext.htm>)

The aim of SEA is to '*...provide decision makers and affected stakeholders with timely and relevant information on the potential environmental impacts of a PPP (policy, plan or programme) in order to modify the PPP to make it environmentally more sound*' (Jones et al., 2005:6). According to Jones et al., 2005:6:

A policy is '*the inspiration and guidance for action*';

A plan is '*a set of co-ordinated and timed objectives for implementing the policy*';

A programme is '*a set of projects in a particular area*'.

The SEA facilitates:

- *Early consideration of environmental impacts (including those that are cumulative);*
- *The examination of a broad array of potential alternatives;*
- *The generation of standard mitigation measures; and*
- *The opportunity to address a wide range of impacts, including those that are cumulative, synergistic, indirect, long range, delayed and global.*

(Jones et al., 2005:6)

SEA applies to major spatial plans at the national, regional and local levels including local authority plans for minerals, waste and transport and is carried out concurrently with the preparation of the plan (APHO website).

The generic stages of the SEA process are details in Table 5.3 which has been adapted from Jones et al., (2005:19 Table 2.1).

Generic SEA phase	Key considerations
Screening	Examine aims and objectives of plan and its overall purpose. If significant environmental effects then SEA is required
Scoping	Consider if plan meets requirements of relevant policies, environmental protection objectives etc. Identify key environmental issues central to particular plan being assessed
SEA objectives/criteria	Develop series of SEA objectives/criteria against which performance of plan will be predicted. Targets and indicators based on these criteria can be used as basis of a strategy to monitor implementation of plan
Consideration of alternatives	Identify costs, benefits and environmental impacts of other realistic alternatives to meeting plan's objectives
Collection of baseline data	Target data gathering effort on issues identified during scoping phase, this provides a platform to examine predicted impacts against anticipated changes in future environment without plan
Impact prediction	Identify impacts of plan policies using baseline environmental data. Focus on cumulative, synergistic, secondary and long-term impacts to increase comprehensiveness
Impact evaluation	Consider acceptability of plan and alternatives, looking at significance of predicted environmental impacts
Develop mitigation strategy	Mitigation should be considered throughout the SEA process, enabling continual refinement. The residual impacts of chosen alternatives must be addressed
Develop monitoring strategy	Relate to environmental targets and indicators identified during scoping. Is plan achieving its objectives and mitigation measures working effectively?
Prepare report	The report should be made publically available and document the main findings and include a non-technical summary
Instigate review mechanism	Is the report sufficient for decision making? Consider an independent review
Consultation and public participation	Not a separate stage as public and relevant stakeholders should be involved throughout the process particularly important during the early SEA stages

Table 5.3: SEA phases/processes

Throughout the process of the SEA the requirements of the decision-maker should be at the forefront to ensure it is as influential as possible in the final outcome (Jones et al., 2005).

The UK has devolved administrations for Scotland, Northern Ireland and Wales and although there are different levels of devolved responsibilities in each country (Leeke et al., 2003) SEA has been fully incorporated into legislation for each nation through statutes and regulations. These regulations and the designated consultation bodies identified each of the legislation are shown in Table 5.4.

<u>UK Country</u>	<u>Legislation</u>	<u>Statutory SEA Consultee</u>
England	The Environmental Assessment of Plans and Programmes Regulations 2004 (SI 2004/1633)	Countryside Agency; English Heritage; English Nature; Environment Agency
Northern Ireland	The Environmental Assessment of Plans and Programmes Regulations (Northern Ireland) 2004 (SR 2004/280)	Department of the Environment; Northern Ireland Environment Agency
Scotland	The Environmental Assessment of Plans and Programmes (Scotland) Regulations 2004 (SSI 2004/258)	Scottish National Heritage; Scottish Environment Protection Agency; Historic Scotland
Wales	The Environmental Assessment of Plans and Programmes (Wales) 2004 (WSI 2004/1656 (W170))	Cadw; Countryside Council for Wales (CCW); Environment Agency (EA)

Table 5.4: SEA legislation in the devolved administrations of the UK

## 5.5 Environmental Impact Assessment

Globally the origins of EIA can be traced back to the US National Environmental Policy Acts of 1969 and broadly defined the application of EIA should lead to the rejection or amendment of proposals which are likely to have a significant adverse impact on the environment (APHO website).

In the UK an EIA is a mandatory requirement under European Directive 85/33/EEC as amended by Directives 97/11/EC, 2003/35/EC and 2009/31/EC. The underlying principle of this directive is the statutory requirement of public participation to ensure robustness of the outcomes of the appraisal and is therefore an EIA can be considered an ‘...*anticipatory, participatory environmental management tool*’ (RTPI, 2001). It is the ultimately decision of the local authority if an EIA is required but it is the responsibility of the developer to undertake the process and provide the report in the form of an Environmental Statement (ES).

The directive requires the developer to compile an ES describing the likely significant effects of the proposed development on the environment and proposed mitigation measures. An EIA is a statutory requirement for a wide range of developments under the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 and The Town and Country Planning (Environmental Impact Assessment (England) (Amendment) Regulations 2007.

Circular 02/99: Environmental Impact Assessment (DCLG, 1999) and ‘Environmental Impact Assessment – a guide to procedures (DCLG, 2000)’ were published by the UK government to advise local planning authorities how the regulations governing EIA should be implemented. Together with the requirements of the Directives these documents provide the triggers for the identification of the requirement for an EIA to be commissioned.

As with SEA there are a number of main stages that are required to be undertaken to ensure a robust and thorough assessment have been carried out. These stages are shown in Table 5.5.

<u>Stage</u>	<u>Key requirements</u>
Project preparation/Baseline	Initial site identification Alternatives/Options Consideration of environmental impacts Project objectives Nature and purpose Land use profile <ul style="list-style-type: none"> <li>• Landscape and ecology of the specific site and surrounding area</li> </ul>



	<ul style="list-style-type: none"> <li>Physical characteristics of the proposed development</li> <li>Land-use requirements during construction and operational phases</li> </ul> Sustainability
Screening	Screening opinion Screening tools Consultation
Scoping	Scoping opinion Scoping report Consultation
Impact assessment	Technical analysis (An estimate, type and quality, of expected residues and emissions resulting from the construction and operation of the proposed development) Significance Mitigation Design review Consultation
Environmental Statement (ES)	Related to scoping Required content: <ul style="list-style-type: none"> <li>Non-technical summary;</li> <li>Outline the main alternatives;</li> <li>Technical reports</li> </ul> Mitigation Consultation
Evaluation of the ES	Comply with procedures Mitigation/Environmental Action Plan (EAP) Consultation
Post decision practices	Conditions/obligations EAP/Monitoring

Table 5.5: SEA stages (Source: Atlas Planning website)

Unlike SEA, the EIA is undertaken by the developer, i.e. the person wishing to undertake the development. This poses some risks and should be a further consideration when the local authority reviews the environmental report:

- The developer will have his own interests at the forefront;
- The developer will want to keep any costs in the preparation of the report to a minimum;
- The report may be heavily weighted to the benefit of the developer after all, he has paid for the report.

The European Commission are currently undertaking a review of the Directives governing EIA and in particular:

- i) The overall view of the functioning and effectiveness of the EIA Directive;
- ii) The need to amend the EIA Directive;
- iii) The possible policy options for review; and
- iv) The areas to be improved and/or amended.

(<http://ec.europa.eu/environment/eia/home.htm>)

There are also negative aspects to EIA. It can be considered to neither '*...take a holistic view of the environment nor does it facilitate effective participation by stakeholders...Importantly, in relation to unintended health impacts, many EIAs fail to examine indirect, cumulative or interactive impacts in any depth at all. The rational planning process stipulates that viable alternative schemes should be evaluated – but this rarely happens in EIA*' (Barton and Grant, 2008:132). An EIA does not typically include an assessment of the health effects, and when it does, it may be narrowly focused and only quantitative in nature (WHO website) and the assessment of health effects is likely to be biased towards bio-physical health determinants rather than a holistic view that also includes important wider determinants (Quigley et al., 2006).

## 5.6 Health Impact Assessments

According to Harris-Roxas and Harris (2011:397-8) '*the development of HIA as a field can be traced back to three distinct but related resources ... characterised as:*

- *Environmental health: broadly characterised as positivist in its approach to evidence and causality;*
- *A social view of health: sees the way the HIA is conducted as important, in order to facilitate organisational partnerships and learning. They tend to be social constructionist in their approach to evidence and causality; and*
- *Health equity: have tended to be social constructionist or structuralist in their epistemological orientation'.*

The overall purpose of HIA is to achieve health gain, as added value, from policies, plans, programmes and projects that are directly and indirectly related to health. Health Impact Assessment is a tool for systematic analysis of the health consequences of urban development and management that can contribute to decision making and the development of a more integrated approach to policies and programmes and is a way of ensuring that those people who are most vulnerable to the causes of ill health stand to gain as much as possible (Capon, 2007; WHIASU, 2004; WHO, 2005). Davenport et al. (2006:196) succinctly state that *'HIA seeks to provide decision makers with information to mitigate the negative and maximise the positive impacts on health and health inequalities'* and Metcalfe and Higgins (2009:299) describe it as *'a systematic process which makes the links between other sectors and health'*.

HIA has attracted many definitions and a few noteworthy ones are recorded here:

*'A combination of procedures, methods and tools by which a policy, programme or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population'*

(WHO, 1999)

*'A structured method for assessing and improving the health consequences of projects and policies in the non-health sector. It is a multidisciplinary process combining a range of qualitative and quantitative evidence in a decision making framework'*

(Lock, 2000:1395)

*'.....a systematic process through which health hazards, risks and opportunities can be identified and addressed upstream in the development planning process, to avoid the transfer of [these] hidden costs and to promote multisectoral responsibility for health and wellbeing. The production of public health management plans with safeguards, mitigating measures and health promotional activities is an integral part of HIA.'*

(Quigley et al., 2006:1)

deLeeuw as quoted in Ison (2009:64) describes HIA as *'a methodology that*

- i. Has developed logically from a social model of health that underpins an intersectoral approach to intervention*
- ii. Applies evidence from a variety of secondary sources to the subject and*

iii. *Acknowledges the political and professional context of the undertaking’.*

Lock (2000) builds on deLeeuw’s description noted above and further summarises HIA. This summary is shown in Table 5.6:

Health impact assessment is a structured method for assessing and improving the health consequences of projects and policies in the non-health sector
It is a multidisciplinary process combining a range of qualitative and quantitative evidence in a decision making framework
Applications include national policy appraisal, local urban planning, transport, and water and agricultural projects
Benefits include improved interagency collaboration and public participation
Limitations include a lack of agreed methods and gaps in the evidence base for health impacts

Table 5.6: Summary of the HIA process (Source: Lock, 2000)

Lock (2000) continues and proposes a list of economic, political, social, psychological, and environmental factors that determine population health which are considered through HIA. These factors these are noted in Table 5.7:

<u>Factor</u>	<u>Description:</u>
Biological factors	age, sex, genetics
Preconceptual and in utero exposure	maternal nutrition and health during pregnancy
Personal behaviour and lifestyle	diet, smoking, alcohol, exercise, risk taking
Psychosocial environment	family structure, community networks, culture, social exclusion
Physical environment	air, water, housing, transport, noise, waste disposal
Socioeconomics	employment, education
Public services	Quality of, and access to, childcare, transport, shops, education, leisure, health, and social services
Public policy	Economic, welfare, crime, transport, and health policies

Table 5.7: Factors that determine population health (Source: Lock, 2000)

Veerman et al., (2007) state that the HIA seeks to:

1. Predict the future consequences of possible decisions regarding projects, programmes or policies for health; and
2. Inform policy decisions on the basis of these predictions.

The NHS and the Health Development Agency in their document '*Introducing health impact assessment (HIA): Informing the decision-making process*' provide a succinct description of HIA as a '*...developing process that uses a range of methods and approaches to help identify and consider the potential – or actual – health and equity impacts of a proposal on a given population*' (2002:3)

The WHO's interest in HIA can be traced back to the late 1990s through the environmental impact assessment process and water resource development (Ison, 2009). Initially HIA was intended to assess non-health proposals on the determinants of health and to provide decision makers with recommendations of how the proposal should be modified to enhance the positive health benefits and negate the negative health benefits (Ison, 2009).

The main aims of HIA are to maximise positive health impacts, minimise negative health impacts and reduce health inequalities. HIA provides a methodical and flexible structure to assess both the positive and negative effects on the wider determinants of health (WHIASU, 2004) in order to influence the decision making process in an open and structured way (Lock, 2000). HIA also supports interdisciplinary collaboration to ensure positive health outcomes from non-health policies are a major consideration (Ison, 2009).

HIA is based on five values: democracy, equity, sustainable development, ethical use of evidence and a comprehensive approach to health. The grounds to employ HIA are:

- It promotes a participatory approach that values the views of the community: particularly the people who will be affected by, or have an interest in, the decision;
- The best available evidence is provided to decision makers;
- It promotes health and reduces inequalities;
- It is a positive approach: it allows health benefits to be maximised and health hazards to be minimised;
- It is appropriate for policies, programmes and projects;

- Timeliness and flexibility;
- It has links with sustainable development;
- Many people can use HIA
- It identifies the connections between health and well-being and other policy areas;
- It promotes evidence and knowledge based planning and decision making;
- It makes the decision making process more transparent; and
- It has the potential to reduce demand on NHS and social care services by investing in healthy policies, programmes and projects that prevent ill health.

(Quigley et al., 2006; WHIASU website; WHO website)

There are five steps to consider when undertaking an HIA which offer a systematic means of gathering the necessary information. These steps are detailed in Table 5.8 and discussed further below.

<u>Stage</u>	<u>Purpose</u>
Screening	To establish if a HIA is required and the scale using informed opinion and the evidence already available
Scoping	To establish the terms of reference and the agreed strategy for the assessment
Assessment/Appraisal	A systematic review to identify and consider a range of evidence to establish the health impacts, negative as well as positive by experts, decision-makers and relevant stakeholders
Reporting	To collate and present the information in the most appropriate format for the intended audience
Monitoring and evaluation	To determine its usefulness and effectiveness in the decision making process

Table 5.8: The five key stages of HIA (Adapted from HDA, 2002; WHIASU, 2004; Quigley, 2006)

Screening: This first stage will allow the identification whether or not a HIA is required and will also determine whether or not the HIA should be rapid (usually completed within hours or days) or in-depth (completed within weeks or months). This is a relatively fast stage that should be undertaken as early as possible and should include input from public health professionals, relevant experts and representatives from key stakeholder groups. It provides a

systematic way of deciding whether an HIA could usefully be undertaken. It is important that this stage is recorded and the reasons to undertake a HIA or not are justified.

Scoping: This purpose of this stage is to ensure that the HIA is carried out timeously, involves the appropriate stakeholders, sets the physical boundary, clarifies the resources available and required, the scale of the assessment, the setting up of a steering group, roles and responsibilities and the identification of the appropriate stakeholders. The decisions made at this stage should be based on the resources, for example skills and time, available.

Assessment/Appraisal: This is the key stage in the HIA process. This is the information and data gathering phase and a combination of both quantitative and qualitative methods will usually be employed. The evidence is gathered from all the appropriate resources, experts and stakeholders identified in the scoping phase and include published academic literature and case studies. This evidence provides a current overview of the area and population which will also be beneficial in subsequent evaluation. The assessment should assess the likelihood, scale and timing of the impact and the distribution of the probable effects.

Reporting: All reports of the HIA process should be collated and produced in the most accessible form for the intended audience and include a non-technical summary.

Monitoring and evaluation: Evaluating the impact and influence of the HIA on the decision-making process provides the stakeholders with evidence that the process has been carried out appropriately and effectively. It is particularly valuable to evaluate how the information was used; its usefulness as seen by its target audience(s) and whether or not it influenced the decision making process and developments.

(Veerman et al., 2007; WHIASU, 2004; HDA, 2002)

There are generally two methods in which a HIA is undertaken: rapid appraisal or in-depth assessment (Lock, 2000). The method selected is usually dependent on the time and resources available to carry out the assessment.

A fundamental element of the HIA process is the identification and involvement of the appropriate stakeholders from diverse backgrounds and perspectives which facilitates an opportunity for joint learning and partnerships (HDA, 2002). There isn't a definitive list of relevant people who should be included but they usually comprise:

- The local community/public: particularly vulnerable groups;
- Developers;
- Planners;
- Local/national governments;
- Voluntary agencies, nongovernmental organisations;
- Health workers at local, national or international levels;
- Employers and unions;
- Representatives of other sectors affected by the proposal;
- The commissioner(s) of the HIA;
- The decision makers; and the network of people and organisations that will carry out the HIA.

(WHO website)

The main positive attributes of HIA are its flexibility and transparency. HIA utilises techniques and skills that can be adapted and tailored to individual circumstances. As a valuable tool in the decision-making process HIA is effective at different levels and in a range of contexts such as:

- Policy development and analysis;
- Strategy development and planning;
- Programme and/or project development;
- Commissioning or providing services;
- Resource allocation and capital investment;
- Community development and planning;
- Preparing or assessing funding bids; and
- Developing sustainable approaches and initiatives.

(HDA, 2002:3)



At the local level, the flexibility of HIA affords it the potential to make a contribution to many areas of activity and, in particular, can provide a valuable tool to support the work of Local Strategic Partnerships<sup>7</sup>, and the development of related work, for example:

- Neighbourhood Renewal;
- Community Strategies;
- Local and Regional Transport and Land Use Plans;
- Health Improvement and Modernisation Plans (HIMPS);
- Best Value approach in Local Government;
- Integrated Pollution Prevention Control (IPPC) Regulations;
- Equity Audits;
- Regeneration initiatives; and
- New power for councils to promote the wellbeing of communities.

(HDA, 2002:4)

In their overview of healthy public policy for a keynote speech at the 8<sup>th</sup> International Health Impact Assessment Conference, Metcalfe and Higgins (2009:300) conclude that *'...the HIA approach can support and provide the opportunities for public decision-makers to make healthier choices.....however, more consideration needs to be given to the impact that policies in all sectors have on health'*.

The National Assembly for Wales (NAW) declared their support for the use and development of HIA as a tool to develop more awareness of health by sectors outside the health service and to ensure decisions on policies and developments are informed by understanding their impact on health in 1999 in their guidance document 'Developing Health Impact Assessment in Wales' (NAW, 1999).

The use of HIA is further supported by the UK Government Select Committee on Health Third Report (House of Commons, 2004) which recommended that major planning proposals should be subject to HIA as a statutory requirement to ensure health is integrated with planning and encourage the joined-up solution that is required.

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<sup>7</sup> Non-statutory partnerships established by the Local Government Act to bring together local councils, other public sector agencies, the business sector and voluntary and community organisations.

In the Foresight Tackling Obesity: Future Choices – Obesogenic Environments – Summary of Discussion Workshops (Duggan et al., 2007) the workshop participants felt there was considerable scope for more creative use of planning powers by building in HIA and involving public health professionals in the planning process (Duggan et al., 2007:7).

Building healthy public policy was a key component in the World Health Organisation (WHO) Ottawa Charter for Health Promotion in 1986 the concept of which includes policies designed specifically to promote health (for example, banning cigarette advertising) and policies not dealing directly with health but recognised as having a health impact (for example, transport, education, economics) (Lock, 2000). The Ottawa Charter defines a healthy public policy approach as '*an explicit concern for health and equity in all areas of policy*' (as quoted in Metcalfe and Higgins, 2009:296).

The WHO has become a leading advocate in the development and use of HIA which can be traced back to the Gothenburg Consensus Statement 1999 (WHO, 1999). This paper intended to create a common understanding of HIA and clarify some of the main concepts and feasible approaches to carry out HIA at international, national and local levels (WHO, 1999).

The WHO also formally acknowledged an inter-sectoral approach to health development through the Health for All declaration and HIA became a core theme in for Phase IV of the WHO Health City project (Ison, 2009). This led to the establishment of four sub-networks to support the development of the four core themes of Phase IV of the Healthy City project and each network city had to participate in one of the sub-networks comprising of a group of cities organised by a lead city and supported by at least one academic institution and an expert advisor (Ison, 2009).

In 2005 the WHO published a toolkit of five documents for use in introducing and implementing HIA at the local level:

1. Health impact assessment – from vision to action
2. Health impact assessment – a training module
3. Health impact assessment – how can it support decision-making?
4. Introducing health impact assessment in Trnava: a case study
5. Introducing health impact assessment in Bologna, Italy: a case study.

The toolkit was the product of the Promoting and Supporting Integrated Approaches for Health and Sustainable Development at the Local Level across Europe (PHASE) Project which was funded by the European Commission. The aim of the Phase Project was to promote the integration of health and social aspects into sustainable development by focusing on and introducing the process of HIA (WHO, 2005).

In an international review of HIA two distinct cliques for HIA were identified. The first clique are passionate about undertaking HIA on all policies, plans, programmes and projects whereas the other clique suggest that HIA should be integrated with other forms of assessment such as EIA and SEA (Vohra, 2007).

The HIA process also has its flaws. Lock (2000) claims a major criticism of HIA is that the methods of collecting and analysing evidence are not sufficiently rigorous to withstand scrutiny and challenge and the current evidence base for many health determinants is inadequate for accurately informing a process.

There also seems to be a lack of monitoring and evaluation of HIA, specifically when that HIA has been instrumental in securing a positive outcome of a planning proposal. Davenport et al.(2006:196) support this assertion in their review to identify the factors associated with the success of a HIA in integrating health considerations into the final decision and implementation of a planned policy, programme, or project when they state *'The past decade has witnessed a substantial growth in HIA activity ... Somewhat surprisingly however, given that HIA explicitly seeks to influence decision making, there have been few approaches to identify the factors associated with its success in doing so.'* But Lock (2000:1397-8) believes *'that methods of collecting and analysing the evidence are not sufficiently rigorous to withstand scrutiny and challenge [because] The evidence base for many health determinants is inadequate for accurately informing a process of assessment'* however Lock does concede that once *'many methodological problems ... including how to measure health impacts'* are identified and there is a *'balance between resource costs and depth of analysis'* then HIA *'may be the means to improve attainment of healthy public policy,[and] enhance intersectoral collaboration...'*

Therefore, Health Impact Assessment (HIA) can be described as a tool to evaluate the impacts and outcomes, both positive and negative, of proposed policies, plans, projects

and proposals on health and wellbeing. The outcomes of the HIA should also provide recommendations of how the likely outcomes can be either enhanced (positive) or mitigated against (negative).

## 5.7 Other resources for impact assessment

There are many noteworthy impact assessment resources available and a small number are selected here to demonstrate the diversity of advocates. The inclusion of a resource here is not intended as an endorsement of that resource but merely as recognition of the variety and diversity of resources available in the UK.

International Association for Impact Assessment (IAIA): established in 1980 the IAIA is a global network bringing together researchers, practitioners and users from many disciplines and professions for advancing innovation, development and communication of best practice in impact assessment. The mission of the IAIA is to provide the international forum for advancing innovation and communication of best practice in all forms of impact assessment so as to further the development of local, regional, and global capacity in impact assessment.

(IAIA website [Accessed 7/7/2011])

Welsh Health Impact Assessment Support Unit (WHIASU): the WHIASU is based in the Cardiff Institute of Society, Health and Ethics at Cardiff University and is funded by the Welsh Assembly Government. The key roles of WHIASU are:

- To support the development and effective use of HIA in Wales through building partnerships and collaborations with key statutory, voluntary, community and private organisations in Wales;
- To provide direct information and advice to those who are in the process of conducting HIAs; and
- To contribute to the provision of new research, and provide access to existing evidence, that will inform and improve judgements about the potential impacts of policies, programmes and projects.

(WHIASU website)

Ben Cave Associates (BCA): since 2001 Ben Cave Associates have been working locally, regionally, nationally and internationally for the public and private sectors:

- Addressing human health through impact assessment
- Improving the consideration of health within public policy

(BCA website)

#### The Spectrum Approach:

The Spectrum Approach is a methodology that combines the three elements of sustainable development i.e. economic, environmental and social, with the fundamental necessity to include appropriate stakeholders and build inter-sectoral awareness and partnership and provides a tool for improving the quality of proposed development projects or policies and builds on the HIA methods and relates to the whole sustainability agenda (Barton and Grant, 2008).

## 5.8 Summary

This chapter evolved from the previous chapters which had identified a number of methodologies that are often utilised to assess the effects and impacts of policies, plans, programmes and projects. This chapter concentrated on the four main impact assessments that are used during the planning process: Environmental Impact Assessment, Strategic Environmental Assessment, Sustainability Appraisal and Health Impact Assessment.

This chapter has partly contributed to meeting the second objective of this research. The second objective was to investigate the existing use of HIAs in the determination of proposed development and land-use proposals by undertaking a survey of all the local planning authorities in England. It was important to fully explain the rationale for selecting the use of HIAs in the planning process as the target for the survey. This chapter has explained how the HIA process has developed as a tool to assess the health impacts of policies, plans, programmes and projects.

This was achieved by first providing an introduction to impact assessments. This revealed that the main purpose of using impact assessments in the decision making process was to promote public participation and to involve suitable experts and stakeholders from the beginning of the process. The chapter continued by providing a detailed breakdown and description of the different and varied impact assessments, their application and their legislative background.

The chapter has established that: a SA is applied to policies, plans and projects and is a mandatory requirement under S19(5) of the Planning and Compulsory Purchase Act 2004; a SEA is applied to policies, plans and programmes and is mandatory under European Directive 2001/42/EC and the Environmental Assessment of Plans and Programmes Regulations 2004; an EIA is applied to plans, programmes and projects and is mandatory under the Town and Country Planning Act 1990 and the Town and Country Planning (Environmental Impact Assessment)(England and Wales) Regulations 1999; and a HIA is applied to policies, plans, programmes and projects and is not a mandatory requirement but has support from a number of governmental documents such as Technical Advice Note 21, Draft Ministerial Interim Planning Policy Statement 02/06, WeITAG<sup>8</sup> and Minerals Technical Advice Note 2.

This chapter has provided an overview of a number of impact assessments specifically those that play a significant role in relation to land-use planning and particularly the emergence of health impact assessments and their potential positive contribution to the UK planning process.

This chapter has described the interdisciplinary aspect of all the impact assessment methodologies. The process is not linear or fixed but adaptable, flexible and transparent. All the impact assessments discussed here require collaboration with multiple stakeholders from diverse backgrounds. This promotes participation from multiple voices from many dimensions and layers to ensure that the final decision and any recommendations are well-founded, appropriate and have a positive impact on health.

It is clearly evident from the literature that impact assessments are considered a fundamental necessity for the UK planning system in creating sustainable healthy communities. It is also evident that the use of health impact assessments throughout

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<sup>8</sup> Welsh Transport Planning and Appraisal Guidance

the planning process will lead to a better understanding of health issues and the impact of the planning system on them. This will ultimately reduce the negative health impacts of the built environment and contribute to tackling the obesity crisis. Many reports call for the plethora of assessments to be integrated into one process which retains health at the core of the process but also incorporates local, national and international sustainability and environmental concerns (Barton and Grant, 2008).

The following chapter will introduce and discuss the WHO concepts of healthy settings, Healthy Cities and Healthy Urban Planning and their connection to land-use planning in the UK.

## 6 CHAPTER SIX: HEALTHY SETTINGS, HEALTHY CITIES AND HEALTHY URBAN PLANNING

### 6.1 Introduction

This chapter introduces and discusses the concepts of healthy settings, Healthy Cities and HUP and their relationship to land-use planning in the UK. These concepts were identified not only through the literature review but also from the background research for this thesis which included defining obesity and the built environment then researching the themes that correlate to them. This chapter will also briefly present JSNA, a mandatory process in the UK which brings together LAs and Primary Care Trusts (PCTs). JSNAs are considered here because they provide a framework that assesses needs rather than impacts.

This chapter will contribute to answering the second research question: Is the Healthy City movement an opportunity to integrate health into the planning system? and the third research objective: To investigate how Health Impact Assessments and Healthy Urban Planning, key themes of the WHO's Healthy Cities project, are being integrated into the core functions of town and country planning in the UK. The main focus of this chapter is to provide the background to settings, Healthy Cities, and HUP and in particular to highlight the relationship between health and planning throughout these processes.

The approaches of healthy settings, Healthy Cities and HUP are all considered here because of their interconnectedness. Healthy settings provides the foundation for the three approaches; the Healthy Cities programme, often referred to as a global movement, is the best known example of a successful healthy settings approach; and HUP became a core theme of the WHO European Healthy Cities Network during Phase IV and in Phase V was incorporated as a priority issue within the theme 'Healthy Urban Environment and Design'.

The declaration from the International Conference on Primary Health Care held in Alma-Ata, USSR (now known as Almaty currently located in Kazakhstan) in September 1978 states:



*'The Conference strongly reaffirms that health, which is a state of complete physical, mental and social wellbeing, and not merely the absence of disease or infirmity, is a fundamental human right and that the attainment of the highest possible level of health is a most important world-wide social goal whose realization requires the action of many other social and economic sectors in addition to the health sector'*

(WHO/UNICEF, 1978)

This statement reaffirms the 1946 WHO definition of health and also sets the context for future programmes and the basis for a global public health movement.

The WHO is concerned with the healthy settings approach for the prevention of disease *'Urban populations are becoming increasingly sedentary, for example from rapidly increasing levels of motorized transport, urban sprawl and reduced opportunities for daily physical activity in housing, occupational and school settings'* (WHO, 2006b:8).

The settings approach enables a holistic approach to health promotion through settings and the best known successful example is the long term Healthy Cities programme initiated and implemented by the WHO in 1986 which, for over 20 years *'...has served as a unique multi-country public health local action initiative that takes account of and responds to emerging public health threats and their implications for the urban environment'* (WHO, 2009:3).

## 6.2 The Policy Context: Health for All and (Local) Agenda 21

In 1977 the WHO Strategy of Health for All by the Year 2000 laid the foundations for the subsequent Health 21 Targets and the Healthy Cities movement therefore it is appropriate to discuss the strategies here to provide the background to the European Healthy Cities project. The overarching purpose of the Health for All (HFA) strategy was to ensure global health equity for all peoples by the year 2000. The HFA strategy is supported and reinforced by a number of documents, declarations and conferences which are displayed in Figure 6.1.

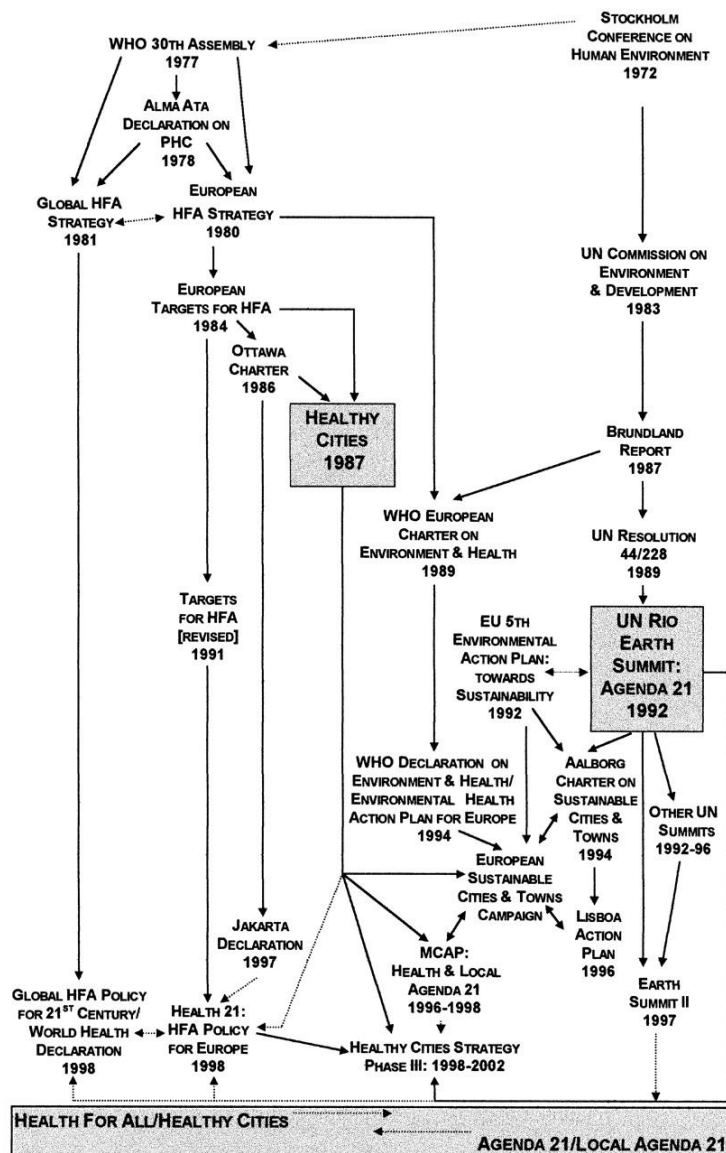


Figure 6.1: Health for All and Agenda 21: origins and developments (Dooris, 1999)

Figure 6.1 also shows the synergy between the WHO's strategies of Health 21: Health for All and Healthy Cities and the UN's frameworks of Agenda 21 and Local Agenda 21.

The Health21 targets (WHO, 1999b) are 21 objectives for health improvement for the 21<sup>st</sup> century. There are six targets which directly correlate with this research:

- Target 8: Reducing non-communicable diseases such as obesity;
- Target 10: A healthy and safe physical environment;
- Target 11: Healthier living;
- Target 13: Settings for health;

Target 14: Multi-sectoral responsibility for health; and  
Target 20: Mobilising partners for health.

(WHO, 1999b)

In 1992, the Earth Summit on Environment and Development in Rio saw the naissance of Agenda 21 which set out a programme of action for sustainable development into the 21<sup>st</sup> century to address environmental, social and economic aspects of development (Dooris, 1999:367). The overarching principle of Agenda 21 was to develop a programme of action for attaining sustainable development through 4 main areas shown in Table 6.1. According to Barton *'the targets set out in the agreement extend well beyond primary health care, and it is made clear that the responsibility is multi-agency'* (Barton, 2005b:283).

<p><u>Social &amp; economic development</u></p> <p>Such challenges as: International cooperation; Poverty; Sustainable consumption; Population; Health; Settlements; and Integrating environment and development.</p>	<p><u>Resource management</u></p> <p>Including: Atmosphere; Land resource planning; Deforestation; Fragile ecosystems; Rural development; Biodiversity; Biotechnologies; Oceans; Fresh water; and Waste management.</p>
<p><u>Strengthening the participation of major groups</u></p> <p>Including such previously marginalised groups as: Women; Children; Indigenous peoples; and Nongovernmental organisations.</p>	<p><u>Means of implementation</u></p> <p>Includes: Finance; Institutions; Technology transfer; Sciences; Education; Capacity building; International institutions; Law; and Information for decision making.</p>

Table 6.1: The four main areas of Agenda 21 (Adapted from WHO, 1997:28)

Health is a fundamental dimension of (Local) Agenda 21 '*...the work developed by Healthy Cities projects shows some of the best models of how the health component of local Agenda 21 should be pursued*' (WHO, 1997:48-49). Chapter 28 of Agenda 21 focuses on the role of local government in developing and implementing local strategies for sustainable development and this led to what became popularly known as Local Agenda 21 (LA21) (Dooris, 1999) which puts '*municipalities under an obligation to build bridges across the organizational chasms that segment governance*' (Barton, 2005a: 340). The 1996 Charter of European Cities and Towns towards Sustainability, also known as the Aalborg Charter, further endorsed the shift in emphasis from Agenda 21 at the global and country level to the local level and the rebranding of the strategy as Local Agenda 21.

### 6.3 Healthy Settings

The settings approach to public health promotion has been advocated since the mid-1980s through the leadership of the WHO and has been reinforced through the Ottawa Charter for Health Promotion (Poland et al., 2000; WHO, 1986), the Sundsvall Statement on Supportive Environments for Health (WHO, 1991) the theme of which was '*creating supportive environments for health*' (Poland et al., 2000: 11) and the Jakarta Declaration on Health Promotion into the 21<sup>st</sup> Century (Dooris, 2006; WHO, 1997) which '*strongly endorsed the "settings approach" to health promotion*' (Poland et al., 2000:11).

Poland et al. provide a clear and extensive definition of settings when they state: '*settings can be conceptualized as both a) physically bounded space-times in which people come together to perform specific tasks (usually oriented to goals other than health) and b) arenas of sustained interaction, with pre-existing structures, policies, characteristics, institutional values, and both formal and informal social sanctions on behaviour*' (Poland et al., 2000: 23). Green and Tones claim that '*this view resonates with a postmodern conceptualization of organizations that acknowledges the complex interplay of factors that shape them*' (Green and Tones, 2010: 438). This view also resonates with the constructionist and postmodern perspective of this thesis.

The theory and practice of the settings approach reflects an ecological model of health promotion, a systems perspective and whole system organisation and development (Dooris, 2006) and '*the emergence of the settings-based approach...has been*

*influenced by a range of developments within health promotion, public health and environmental and social policy. It has been guided by a recognition that health gain can be most effectively and efficiently achieved by investing outside the health care sector' (Dooris et al.,1998:23) and 'it is therefore evident that the effectiveness of a whole-system approach to health [and sustainability] will be determined not only by the involvement and participation of individuals within and across the setting but also by the quality of relationships between different organizations, networks and individuals' (Orme and Dooris: 2010:428).*

Therefore, in general terms and for the purpose of this research, a setting is considered to be a dynamic complex system which involves inputs, throughputs, outputs and impacts which is characterised by integration, interconnectedness, interrelationships and interdependencies as defined by Dooris (Dooris, 2006). This concept recognises that settings are unpredictable and interact with other settings and are complex and open (Dooris, 2009).

The settings approach to health reflects an ecological model of health promotion and demonstrates a shift from traditional health practices to a more holistic process as demonstrated in Table 6.2 (Dooris, 2006). The settings concept aims to '*integrate health within the culture, routine life and core business of a specific setting*' (Dooris, 2009:30) and in the context of the built environment it will enable the built environment to connect and improve the health and wellbeing of the wider community (Dooris, 2009).

<b><u>Traditional Health Practice targets</u></b>	<b><u>The Settings Approach targets</u></b>
Illness	Salutogenesis
Individuals	Populations
Single health issues	An holistic view

Table 6.2: From traditional health practices to the settings approach (Dooris, 2006)

Healthy settings can be considered to encourage promotion of health through various actions including the physical environment, organisational development and structure, administration and management. Health promotion through settings enables individuals to gain greater access to services and can bring communities together providing greater equity in health.



Figure 6.2: Settings as dynamic complex systems (Dooris, 2006)

The healthy settings approach evolved from the 1980 WHO Health for All Strategy (WHO Healthy Settings website) and became more clearly defined in the Ottawa Charter for Health Promotion in 1986 which states '*Health is created and lived by people within the settings of their everyday life; where they learn, work, play and love*' (Dooris, 2004; Dooris et al., 1998; WHO, 1986) and Agenda 21. The HFA strategy not only pursues public health issues such as water quality it also promotes a comprehensive approach to health policies (Milewa and deLeeuw, 1996). The Sundsvall Statement on Supportive Environments for Health (WHO, 1991) with its emphasis on the creation of supportive environments and Jakarta Declaration on Leading Health Promotion into the 21<sup>st</sup> Century (WHO, 1997b) with its emphasis on the value of settings, have also affirmed the importance of and influenced the healthy settings movement and set the foundations towards establishing an holistic and multifaceted approach to healthy settings and to the integration of health with sustainable development (WHO Healthy Settings website). The United Nations Rio Declaration on Environment and Development (UN, 1992) and Agenda 21 (UN, 1993) also supported the settings approach to health (Dooris, 2004). The WHO regard the

settings approach as a strong tool to protect public health and foster responsible development and a useful, dynamic method to improve overall quality of life (WHO Healthy Settings website).

According to the WHO Healthy Settings website healthy settings approaches have been implemented many different ways in multiple arenas; these areas are shown in Table 6.3.

Ageing	Cities	Homes	Hospitals
Islands	Markets	Municipalities & Communities	Prisons
Schools	Universities	Villages	Workplaces

Table 6.3: The Healthy Settings approaches (Source: [http://www.who.int/healthy\\_settings/types/en/index.html](http://www.who.int/healthy_settings/types/en/index.html))

Figure 6.3 shows how the healthy settings approaches have been implemented globally. The Healthy Cities approach in Europe and particularly in the UK is the main focus of this research.

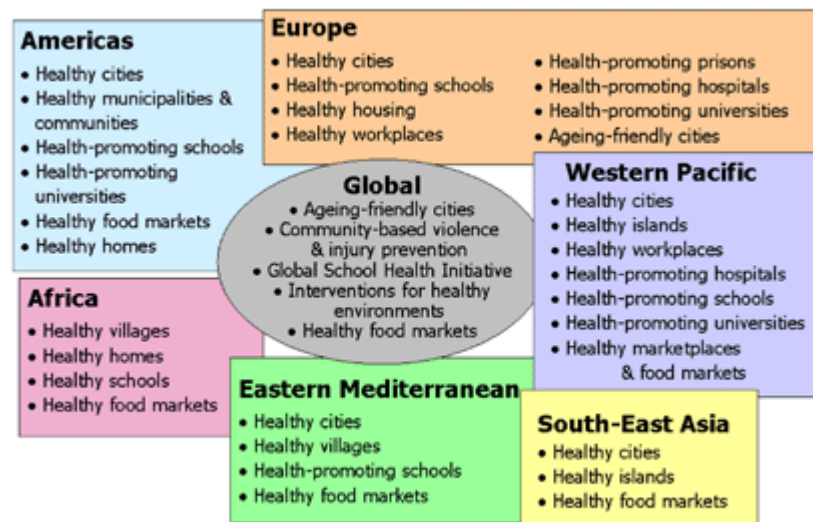


Figure 6.3: Global Healthy Settings Initiatives (Source: [http://www.who.int/healthy\\_settings/regional/en/](http://www.who.int/healthy_settings/regional/en/))

Dooris (Dooris, 2009) proposes three characteristics to the settings methodology: an ecological model (a move from individual causes of ill health towards a more holistic approach); a systems perspective (organisational theory informed by the ecological

model); and whole system development and change (develop a joined up approach through organisational and/or community development to apply whole system thinking).

According to the WHO Healthy Promotion Glossary (Nutbeam, 1998), 'settings for health' will normally have physical boundaries, a range of people with specified roles and an organisational structure (Nutbeam, 1998). In considering the built environment as a setting, it is clear that a number of essential stakeholders can be readily identified; notably the local planning authority, local government, local populations, developers and community groups as a minimum. However, in comparison to institutional settings such as prisons or universities, it is more challenging to identify a clear boundary, which could potentially impact on the ability to produce effective policies and strategies to address health in such a way. *'The organizational development process seeks to identify how health can make the system perform better and how a commitment to and investment in health can be embedded within the structures, mechanisms, culture and routine life of the learning organization'* (Dooris et al., 1998:28). Therefore the organisational structure that would need careful consideration in the context of the built environment as a setting for health whose boundaries are likely to be permeable and overlap in situations such as communities and neighbourhoods. This raises questions for the development of an effective organisation structure in areas of potential overlap and an example of this would be *'individuals, through their actions (intentionally or otherwise), assist in shaping and reproducing the organizational structures of the setting as surely as the setting, with all its cultural and institutional baggage'* (Poland et al., 2000:27).

Consequently, as already noted, settings generally display physical boundaries such as hospitals, universities, prisons, and this may be an issue when considering the built environment as a setting. Where would the boundary be drawn? Could there be settings within settings and how would they interact with each other? However, this issue has already been recognised by Dooris when he states *'Health issues do not respect the boundaries of settings, people live their lives within and outside a variety of different settings and one setting may be located within the context of another'* (Dooris, 2004:53).

Green and Tones argue that *'If the settings approach is to avoid the risk of increasing the health gap in society, it will need to address the needs of marginalized groups and*



*include (as yet) unconventional and challenging settings'* (Green and Tones, 2010:437) and it appears that the 'built environment' would fall into this context.

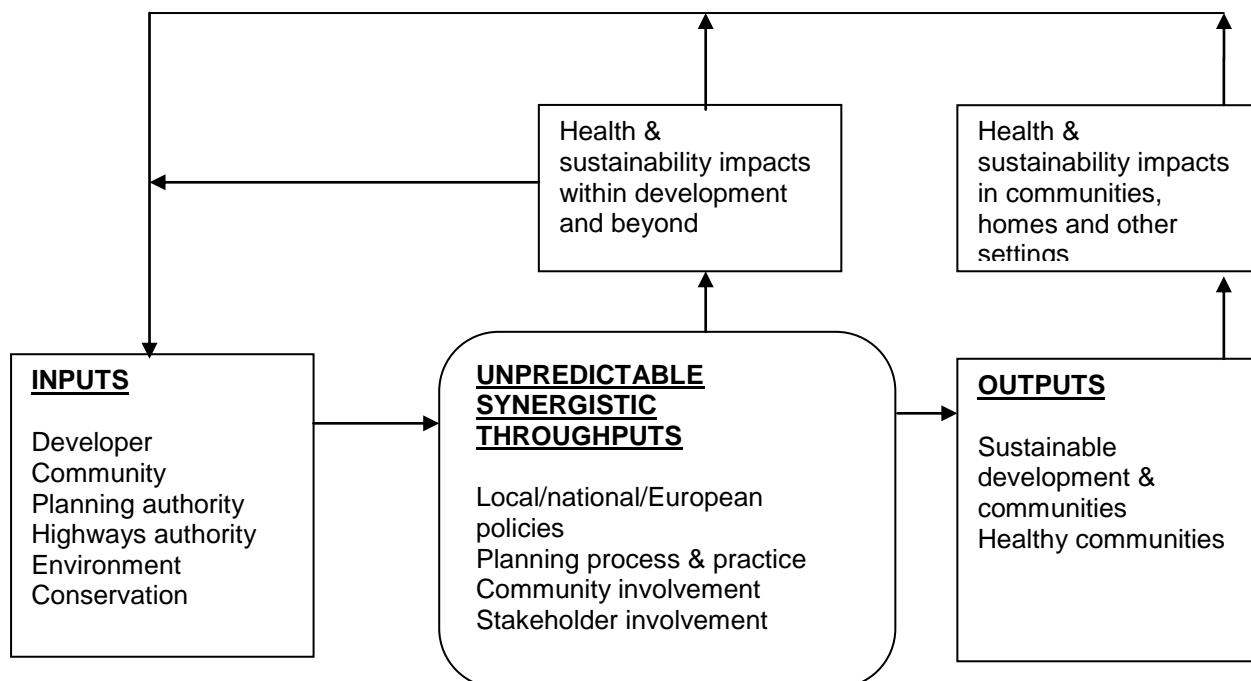


Figure 6.4: The built environment setting as a system (adapted from Dooris, 2006)

The figure above (Figure 6.4) shows the built environment setting as a system. It shows how the process is cyclical and diverse with multiple layers and dimensions. What the diagram doesn't convey robustly is the unpredictability of the system. The unpredictability arises from occurrences such as a change of government or government priorities and the level of the commitment from external stakeholders and the community (inputs and outputs). Unpredictability could also arise from the permeable nature of the boundary of the built environment as already discussed earlier in this chapter.

An example of the consideration of the built environment as a setting for health has been through the WHO initiatives for healthy cities, villages and municipalities. These are all areas that are different to the general definition of the built environment (see Chapter 1), broadly perceived as the consequence of development, as they can be considered to have a boundary, albeit not always a delineated one, whereas the built environment is generally regarded as more permeable. Dooris appears to concur with this when he writes '*...it is arguably easier to demonstrate whole system change within a small clearly defined settings such as a primary school than in a large multi-layered setting such as a university let alone a city*' (Dooris, 2006:59).

However, in their exploration of 'community' as a setting, Boutilier et al. consider 'community' to encompass *'families, friendship networks, neighbourhoods, political jurisdictions (e.g., the town, the city), interest groups, and formal government and non-government organizations...the experience of community is less about the physical space in which people interact than the pattern and nature of relations that exist between people'* (Boutilier et al., 2000:250). This is an important point to consider as the built environment has been described as *'encompassing a range of physical and social elements that make up the structure of a community and may influence obesity...'* (Papadopoulos et al., 2007:129) and also discussed in Chapter 1 of this thesis, which demonstrates the interconnectedness of the built environment and community especially within a 'setting'.

Dooris states in an overview of the history, theory and practice of healthy settings states *'...Healthy Cities is perhaps the best-known international example of an initiative that has been retrospectively incorporated under the label 'healthy settings'* (Dooris, 2004:50). This chapter will now consider the Healthy Cities programme.

## 6.4 Healthy Cities

Healthy Cities is a global movement with networks established in all six WHO regions:

- African Region;
- South-East Asia Region;
- Eastern Mediterranean Region;
- Region of the Americas;
- European Region; and
- Western Pacific Region.



Figure 6.5: The WHO Regions  
Source: [http://www.who.int/health\\_financing/countries/en/](http://www.who.int/health_financing/countries/en/)

According to the WHO website *'a healthy city is defined by a process, not an outcome'* and *'A healthy city not only listens, reacts and responds to meet basic and changing needs, it responds in such a way that it aids the people or groups using it to learn'* (Duhl, 1986:15). Initially the Healthy Cities movement arose from the HFA Strategy (WHO, 1999b) and the concept of the healthy city is to create new coalitions for health to address the ecological and social challenges of the twenty-first century (Kickbusch, 1989). The focus of the Healthy Cities movement is *'health promotion and it has been ahead of the game in espousing joined up thinking, inter-agency collaboration and sustainable development'* (Barton, 2005b: 283).

The WHO Healthy Cities movement is a long-term international development project that seeks to put health on the agenda of decision-makers in the cities of Europe and to build a strong lobby for public health at the local level and ultimately the project seeks to enhance the physical, mental, social and environmental wellbeing of the people who live and work in the cities of Europe (Tsouros, 1995).

According to Ashton (Ashton 2002:12) the *'roots of the WHO's Healthy City Project go back well before the first project planning group meeting in Copenhagen in January 1986'* and can actually be traced to *'11 December 1844, when the first branch of the Health of Towns Association was formed at a meeting in Exeter Hall, London'*, an organisation set up to respond to the unhealthy repercussions of rapid urbanisation caused predominantly by the industrial revolution.

A healthy city is continually improving both physical and social environments and resources to support people to perform all functions of life and reach their maximum potential (Nutbeam, 1998) and a healthy city is one that is conscious of health and committed to securing the necessary processes and structures to achieve it (Tsouros 1995) and a healthy city project must have a strong awareness of overall societal developments and remain in touch with the political and social realities the world over (Kickbusch, 1989).

Tsouros states that the Healthy Cities movement aims to construct physical and social environments that provide all populations with equality and equity in health (Tsouros, 1989). Tsouros (1989:73) also states:

*'All human beings have an equal right to health. This principle of social policy is the foundation of the WHO strategy for Health for All and the Healthy Cities movement. Health for All implies equity and the challenging target for politicians and decision-makers is to reduce social differences in health and ensure that all people have equal opportunities to develop and maintain their health to the full'.*

The concept of healthy cities emerged from the WHO Regional Office for Europe in 1985 to provide a local basis for implementing the principles of the WHO strategy HFA and the Ottawa Charter for Health Promotion with a primary purpose to focus action for health promotion a highly visible and community-supported enterprise at the city level (Kickbusch, 1989) and the following year the WHO European Healthy Cities programme was established and designated the first 11 participating cities and is regarded as the point the HFA Strategy became a working project (Ashton, 2002). Healthy Cities are usually the principal focus of policy formation and implementation (Milewa and deLeeuw, 1996) and are broadly expected to implement the HFA principles from large cities to small villages with the responsibility for implementing the strategy with local government, health boards, environment agencies, voluntary and community groups (Milewa and deLeeuw, 1996) through a commitment to community participation and inter-sectoral collaboration (Ashton et al., 1986). Ashton states that *'Healthy Cities would mark the point at which the WHO strategy of Health for All by the Year 2000 was taken off the shelves and into the streets of Europe'* (Ashton, 2002:13) as the Healthy Cities project has its origins in the strategy and is based on the European targets for health (Dooris, 1999; Ashton et al., 1986).

As the concept of the WHO Healthy Cities programme is supported by the Health for All and (Local) Agenda 21 strategies consequently there will be an influence on urban planning as detailed by Barton and Tsourou (2000) and shown in Table 6.4:

<u>Equity</u>	Everyone has the right to health and to attain health through access to safe, clean and efficient housing, environments and transport.
<u>Sustainability</u>	The Healthy Cities concept is underpinned by the principles of sustainability which advocates the importance of health considerations in the decision making process.
<u>Inter-sectoral cooperation</u>	Historically urban health issues were initially addressed by joined up working between health practitioners and planning, a link that was severed in the early 20 <sup>th</sup> century but a link that is now fundamental in addressing the health issues of the 21 <sup>st</sup> century.
<u>Community involvement</u>	The involvement of an informed community is a core component of Healthy Cities. It is their health so it is only right that they have an equitable role in shaping their communities.
<u>International action and solidarity</u>	Planning practice can vary between towns, cities and countries. The Healthy Cities process encourages the dissemination of good practice and the sharing of experiences, good and bad.

Table 6.4: The principles of the WHO Healthy Cities programme (Barton and Tsourou, 2000)

The ultimate aim of the Healthy Cities movement is for attainment and equity in health for all peoples through:

- Developing profiles to improve the health of the local population;
- To view health holistically;
- Identifying problems;
- Developing appropriate strategies
- Promoting health at the local level; and
- Community involvement.

(Webster and Lipp, 2009).

All the cities across Europe are welcome to join the Healthy Cities movement but they must demonstrate:

- *How health, planning, transport, and regeneration agencies in the area are intending to work together with citizens to improve quality of life;*
- *How health objectives are going to be integrated into plan-making;*
- *How health criteria are going to be systematically used to assess development projects'.*

(Barton, 2005b:283).

Table 6.5 briefly outlines the five phases and the core themes of each phase of the WHO European Healthy Cities Network. Although each phase is attributed to a specified time period it is expected that the designated cities continue to strive to build on existing frameworks and principles through each subsequent phase. Cities can apply to join the project at any time and are supported throughout the process by the WHO and also country specific networks.

<b><u>Phase</u></b>	<b><u>Dates</u></b>	<b><u>Core themes</u></b>
I	1987 – 1992	New ways of working for health
II	1993 – 1997	Healthy public policy City health planning
III	1998 – 2002	Equity Sustainable development Integrated planning for health development
IV	2003 – 2008	Healthy ageing Healthy urban planning Health impact assessment Physical activity and active living
V	2009 - 2013	Caring and supportive environments Healthy living Healthy urban environment and design

Table 6.5: Phases and themes of the Healthy City projects

The themes of the various phases of the Healthy Cities projects require a strategy to support the implementation and attainment of specified targets. From Phase II the use of the City Health Profile (CHP) and from Phase III the City Health Development Plan

(CHDP) has become a primary requirement of the Healthy Cities process and have been included in all the subsequent phases (Webster and Lipp, 2009). The foremost function of the CHDP is to *'provide cities with a means to build and maintain strategic partnerships for health and to develop a platform to encourage all sectors to focus their work on health and quality of life'* (WHO, 2001:1).

The CHP is *'a public health report that brings together key pieces of information on health and its determinants in the city and interprets and analyses the information'* (WHO, 1998b:3). The CHP is important as it collates the baseline information of the city and informs the City Health Development Plan (CHDP). As a minimum, the CHP should include:

- Demographic information;
- Health status;
- Socio-economic conditions;
- Lifestyles;
- Physical environment and infrastructures;
- Physical and social infrastructures;
- Public health policies and services; and
- Identification of inequalities.

(WHO, nd; Webster and Lipp, 2009)

The CHP process should utilise many varied data sources including:

- National surveys undertaken by government departments, statistical services or other agencies on a regular basis;
- Census data;
- City council statistics;
- Healthy Cities indicators database;
- University departments of medicine, public health, social science, economics or education;
- Institutes of epidemiology;
- Health service data derived from hospital or primary care facilities;
- Environmental monitoring services;
- Voluntary agencies;
- Commercial organisation (e.g. for tobacco, alcohol or food sales);

- Statutory health examinations; and
- Local surveys.

(WHO, nd:30)

It is essential that the production, content and impact of the CHP are evaluated and the outcome is reported in subsequent CHPs (WHO, nd).

The City Health Profile should not be confused with the City Health Development Plan. They are separate and distinct documents.

The City Health Development Plan (CHDP) should include three key elements:

- The city's vision and values for health;
- An integrated strategy for health development; and
- Operational plans.

(WHO, 2001)

It is important to note the difference between the CHP and the CHDP: *'the CHP deals mainly with the control of risk factors and the promotion of healthy lifestyles and the CHDP puts increased emphasis on the determinants of health'* (WHO, 2001:2).

The success of the Healthy Cities movement has been influential in the generation of a number of other Healthy Settings approaches including Healthy Schools, Healthy Workplaces, Healthy Hospitals, Healthy Prisons and Healthy Neighbourhoods (Ashton, 2002).

It is appropriate at this point to demonstrate the links between the WHO European Healthy Cities programme and HIAs that were discussed in Chapter 5. The WHO recognised the benefits of using HIA to support decision makers and developed three approaches to support the integration of HIA into the European Healthy Cities Network (WHO-EHCN) towards the end of Phase III and as a core theme in Phase IV:

- a) The PHASE Project – Promoting and Supporting Integrated Approaches for Health and Sustainable Development at the Local Level across Europe
- b) Making the methodology of HIA one of core themes for work by Healthy Cities during Phase IV (2003-2008)



- c) Setting up a sub-network in HIA to take forward the development, introduction and mainstreaming of the methodology within WHO-EHCN.

(Ison, 2009:i65)

The success of the Healthy Cities programme is that it has now evolved into a global movement with a strong European-wide involvement (Edwards and Tsouros, 2008:3) and *'it provides a framework in which an integrated and holistic approach to public health can be pursued, one in which policy, the environment, social matters, behaviour and biomedical interventions can each take their rightful place side by side'* (Ashton, 2002:14).

## 6.5 Healthy Urban Planning

Barton reports that *'According to VicHealth (the Victorian Health Promotion Foundation in Australia) there are four key reasons why planning health into the environment is positive for population health. Good planning can:*

- *Reduce the inequalities that exist in access to transport for different socio-economic groups and vulnerable groups in the population, such as the elderly or children;*
- *Increase the amount of incidental physical activity necessary to reduce the burden of disease, disability and mortality due to sedentary lifestyles by improving walkable, mixed use communities;*
- *Contribute to the improved health of the population by the reduction of air and water pollution and greenhouse emissions, combating the threat of climate change;*
- *Contribute to a changed social environment by improving the liveability of street, making them safer and improving communication between people and therefore improving community cohesion.'*

(Barton, 2005b:281).

Urban health has been a key underlying theme driving the WHO European Healthy Cities Network. This is particularly reflected through HUP; a component of Phase III, a core theme in Phase IV and a key issue within the 'Healthy Urban Environment and Design' theme in Phase V. HUP can trace its foundations to the mid-1990s through the

involvement of the WHO European Healthy Cities Network in the European Sustainable Cities and Towns Campaign which *'recognised the interrelationship between health and sustainable development and triggered growing interest in the links between health and planning policy'* (Barton et al., 2003:8). *'The first WHO Seminar on Healthy Urban Planning, held in Milan, Italy in 1999, marked the beginning of this initiative'* in the European region (Barton and Tsourou, 2000:158).

Initially the main focus of HUP was to *'bridge the gulf between planning and health and give greater momentum towards healthy, sustainable cities'* (Barton, 2005b:283). The key to HUP in Europe is *'integrated programmes, across departmental and agency responsibilities, with commitment from key decision-makers and awareness-raising at grass-roots level'* (Barton, 2005a: 386). This main focus has evolved overtime and the main purpose of HUP is to build neighbourhoods and communities whose foremost concern is the health and wellbeing of the people. Barton and Tsourou (2000:22) state:

*'Healthy urban planning involves planning practices that promote health and wellbeing and has much in common with the principles of sustainable development. It means focusing on humans and how they use their environments in planning rather than simply concentrating on buildings and economics'.*

This will only be achieved through the explicit integration of health into the planning process which in turn will only be realised through collaborative working between planning and health professionals in the first instance ensuring community participation at all times.

Barton and Tsourou (2000:12-22) have adapted the 12 key determinants of health into strategic health objectives for planning and these are displayed in Table 6.6.

<b>From: Social and environmental determinants of health</b>	<b>To: Strategic health objectives for planners</b>
Personal lifestyles	Healthy lifestyles
Social cohesion	Social cohesion
Housing	Housing quality
Work	Access to work

Access	Accessibility
Food	Local, low-input food production
Safety	Safety
Equity	Equity
Air quality and aesthetics	Air quality and aesthetics
Water and sanitation	Water and sanitation quality
Soil and solid waste	Quality of land and mineral resources
Global climate	Climate stability

Table 6.6: Strategic health objectives for planners (adapted from Barton and Tsourou, 2000:12-22)

The policy and actions of the planning system has an influence on each of these strategic health objectives shown in Table 6.6, whether it is intentional or otherwise. Clear policies and guidance from central government through to local planning authorities which considers health from the outset and puts health at the core of policies and plans will ensure that health objectives are positively met.

It is evident from viewing Table 6.1 and Table 6.6 together that there are clear overlaps and mutually beneficial objectives and themes that planning can focus on to address health issues alongside sustainable development and vice versa.

Levels of HUP activity vary across the European region and as cities can be designated at any time the following Table 6.7 shows how activity and the number of designated cities has changed during the phase.

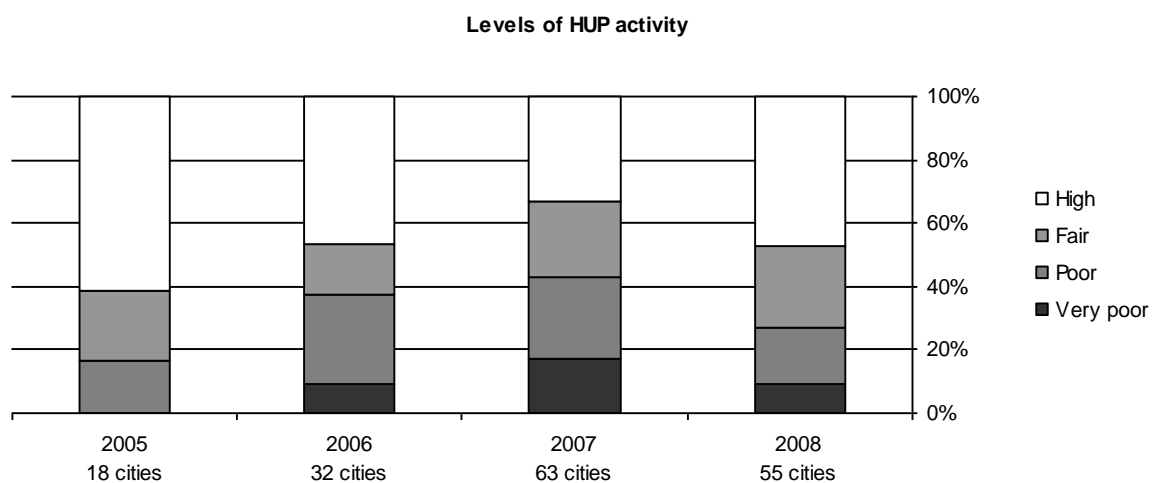


Table 6.7: Levels of HUP activity (Source: HUP ART report July 2008)

Under HUP, the *'health/planning relationship is not seen as being only about specific, discrete aspects – as for example air quality or road accidents – but about the whole nature of human settlements...the planners and urban designers have a specific remit to co-ordinate the process of physical habitat change, which in turn affects health and well-being'* (Barton, 2005b: 283).

## 6.6 Joint Strategic Needs Assessment

The approach to this thesis has been an iterative process and unlike the chapters in a book of fiction, this thesis has involved continuous reflection and review. It is in this spirit that JSNA is included here. In Chapter 7.0, where the empirical data are formally presented, the JSNA was a recurring theme identified through the empirical data collected and it is therefore appropriate to introduce the concept at this point.

JSNA is *'a tool to inform more effective and targeted service provision and priorities for commissioning; and for spatial planning, [to] identify gaps in current and future provision in line with local/country-wide housing growth and regeneration targets'* (Ellis et al., 2010:42). The requirement for English LAs and PCTs to undertake JSNA was established by Section 116 of the Local Government and Public Involvement in Health Act 2007 (DoH, 2007). According to the Department of Health (DoH) JSNA is:

*'a process that will identify the current and future health and wellbeing needs of a local population, informing the priorities and targets set by Local Area Agreements<sup>9</sup> and leading to agreed commissioning priorities that will improve outcomes and reduce health inequalities'* (DoH, 2007:3).

The JSNA:

- *'Describes a process that identifies current and future health and wellbeing needs in light of existing services, and informs future service planning taking into account evidence of effectiveness;*
- *Identifies the "big picture" in terms of the health and wellbeing needs and inequalities of a local population';*

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<sup>9</sup> Local area agreements are three-year action plans for achieving better outcomes and are the main way for central government and local services to work together. ([www.idea.gov.uk/idk/core/page.do?pagelId=900887](http://www.idea.gov.uk/idk/core/page.do?pagelId=900887)).

- Will identify the health and wellbeing needs of local areas;
- Will provide a framework to examine all the factors that impact on health and wellbeing of local communities, including employment, education, housing, and environmental factors;
- Is a tool to identify the health and wellbeing needs and inequalities of a local population to inform more effective and targeted service provision; and
- Will identify priorities for commissioning. Local partnerships should set out explicitly how they are going to prioritise based on the information contained within the JSNA.

(DoH, 2007:7;12;17).

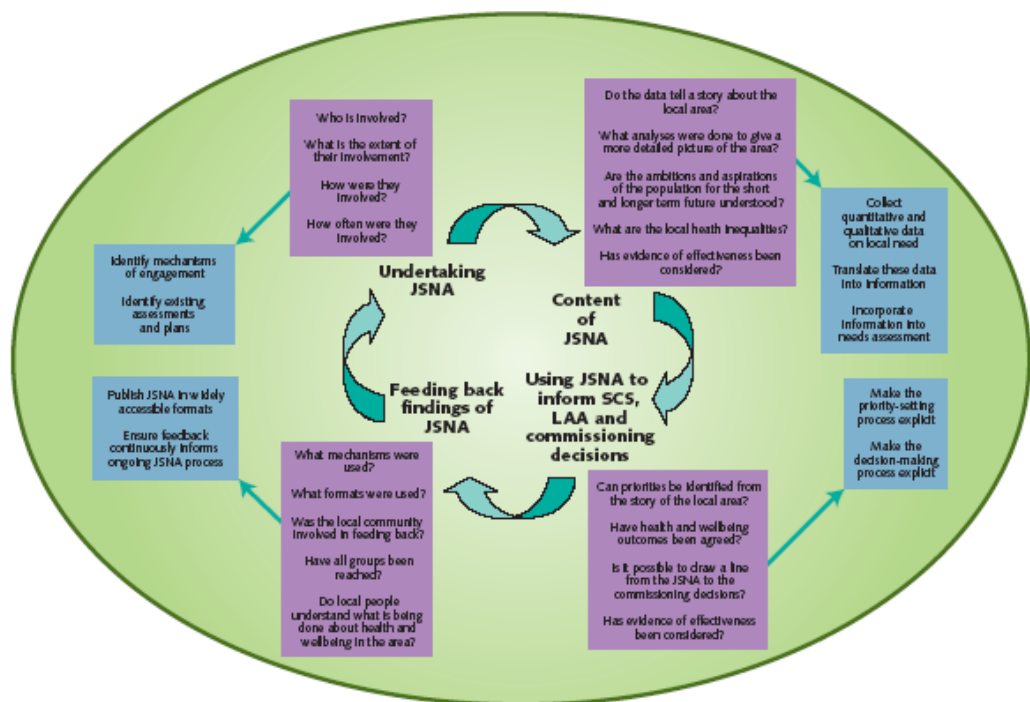


Figure 6.6: The Joint Strategic Needs Assessment process (DoH, 2007:8)

JSNA is a perpetual process which is visually described in Figure 6.6 and each will be distinctive reflecting local issues and concerns (DoH, 2007). The main stakeholders undertaking the JSNA process are:

- The Director of Public Health;
- The Director of Adult Social Services;
- The Director of Children's Services; and

- The Directors of Commissioning and Finance.

Other stakeholders in the JSNA process are:

- Statutory partners in the Local Strategic Partnership<sup>10</sup> (LSP);
- Providers from the public, private and third sectors; and
- Members of the local community.

This will ensure full and comprehensive local knowledge of local needs and requirements from a wide-range of perspectives and ensuring all groups, particularly vulnerable and marginalised groups (DoH, 2007).

The Health and Wellbeing Boards, established by the Health and Social Care Act 2012 will develop the JSNAs as follows:

- 'They will bring together clinical commissioning groups and councils to develop a shared understanding of the health and wellbeing needs of the community. They will undertake the Joint Strategic Needs Assessment (JSNA) and develop a joint strategy for how these needs can be best addressed. This will include recommendations for joint commissioning and integrating services across health and care.
- Through undertaking the JSNA, the board will drive local commissioning of health care, social care and public health and create a more effective and responsive local health and care system. Other services that impact on health and wellbeing such as housing and education provision will also be addressed.' (Department of Health, 2012).

## 6.7 Summary

This chapter followed on from the preceding chapter and discussed Healthy Settings, Healthy Cities and Healthy Urban Planning. The chapter began with the reaffirmation of the importance of health considerations in all policies and sectors and the underlying policy context for the concepts discussed in this chapter.

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<sup>10</sup> Local Strategic Partnerships (LSPs) are non-statutory bodies responsible for collectively agreeing the Sustainable Community Strategy and Local Area Agreements and overseeing their delivery (DoH, 2007: 10).

As the starting point the chapter introduced the settings approach to public health promotion. This approach can be considered to encourage the promotion of health through various actions including the physical environment, organisational development and structure, administration and management and is included in this research as it is often regarded as part of the foundations of the Healthy Cities movement.

The chapter then went on to discuss the concepts of the Healthy Cities movement and HUP. These are all concepts with the full support of the WHO which could have a positive effect on the planning system in the UK by integrating health at all stages of the planning process. The Healthy Cities movement is a global movement and is a process, not an outcome to encourage and promote health through joined up thinking, inter-agency collaboration and sustainable development at all levels. HUP is planning that promotes health and wellbeing by focusing on humans and how they use their environments.

The chapter was completed with an introduction to JSNA and a brief overview of other approaches to and resources for impact assessments. The JSNA is a means that allows the LA and PCT to identify current and future health and wellbeing needs of a local population to set priorities and targets that will improve outcomes and reduce health inequalities.

The settings approach to health promotion and the Healthy Cities and HUP concepts require collaboration and intersectoral partnerships between multiple stakeholders from diverse backgrounds to ensure a positive health outcome is achieved. It is possible that through the JSNA process these partnerships can be established and nurtured.

The following chapter presents the results and findings of the empirical data collected from the surveys, telephone interviews and online web based surveys.

## 7 CHAPTER SEVEN: ENGAGING WITH THE STAKEHOLDERS: FINDINGS

### 7.1 Introduction

This chapter will present the empirical data collected from the surveys and telephone interviews designed and undertaken for this research and will contribute to answering the second and third research objectives: To investigate the existing use of Health Impact Assessments in the determination of proposed development and land-use proposals by undertaking a survey of all the LPAs in England; and To investigate how the Health Impact Assessments and Healthy Urban Planning, key themes of the WHO's Healthy Cities project, are being integrated into the core functions of town and country planning in the UK.

The data will be presented in the order in which it was collected:

1. The FOI survey of the LPAs in England to establish the extent to which HIAs are used;
2. The telephone interviews which focused on the Healthy Cities project, HIA and HUP in the context of the UK planning system from the perspective of the Healthy City co-ordinators and policy planning officers; and
3. The two online web based surveys:
  - a. The first survey also focused on the HCP, HIA and HUP from the perspective of the Healthy City coordinators not included in the telephone interviews; and
  - b. The second survey focused on the HCP, HIA and HUP from the perspective of the planning policy officers and the development planning officers of the UK designated Healthy Cities.

The results of the FOI survey demonstrated the slow and sporadic uptake of HIA in the UK and the purpose of the telephone interviews was to establish if HIA and HUP, core themes of the Healthy Cities movement, are being incorporated into the planning process.



## 7.2 Review of Chapters 4, 5 and 6

The findings from the literature review are comprehensively presented in Chapters 4: Health and Planning, Chapter 5: Impact Assessments and Chapter 6: Healthy Settings, Healthy Cities and Healthy Urban Planning, and therefore only a brief synopsis will be included in this chapter.

Chapter 4: Health and Planning. This chapter provided an overview of the connections between the built environment and obesity. It began with the historical background underpinning the origins of the planning system from the health concerns of the 19<sup>th</sup> century to the present day limitations. The chapter also discussed the dominant use of BMI to assess overweight and obese and detailed alternative assessment methods, such as waist circumference, as a more accurate predictor. The connections between sustainable development, climate change and health were also discussed and it was noted that policies developed to combat climate change or secure sustainable development are also likely to have a positive impact on health. The chapter also presented other concepts and approaches to addressing the global obesity crisis; the sociological approach and the subsidised agricultural approach. The chapter concluded that the obesity crisis cannot be tackled by one discipline in isolation and will require a collaborative, joined-up approach.

Chapter 5: Impact Assessments. This chapter provided a detailed description of the four main impact assessments currently used during the planning process namely: EIA, SEA, SA and HIA. This chapter concluded that impact assessments are a fundamental necessity for the UK planning system to embrace in order to make a positive contribution in creating sustainable communities and to tackle the obesity crisis.

Chapter 6: Healthy Settings, Healthy Cities and Healthy Urban Planning. This chapter discussed Healthy Settings, Healthy Cities and Healthy Urban Planning including the underlying policy context for these concepts. These concepts have the full support of the WHO and this chapter demonstrated that they could have a positive effect on the UK planning system through integrating health at all stages of the planning process from the formulation of planning policies and strategies to the determination of development and land-use proposals. The chapter also included an overview of JSNA, which is a methodology that allows the LA and PCT to jointly identify current and future

health and wellbeing needs of a local population to set priorities and targets that will improve outcomes and reduce health inequalities.

### 7.3 Survey of local planning authorities in England

Chapter 3 introduced the general concept of Impact Assessments and, in particular, HIA and Chapter 5 went on to discuss them more comprehensively. Following on from this work a survey of the 354 local planning authorities in England was carried out to establish the existing use of HIA in the land-use planning process.

The methodology selected for the data collection was a request made using the Freedom of Information Act 2000 which resulted in a total of 254 requests being sent either by email or through the LAs website. The use of this Act contributed significantly to the total of 347 responses which were received, a response rate of over 98%, in which a total number of 39 HIAs were initially declared. This exceptionally high response rate to a survey was not unexpected due to the legal obligation placed on local authorities by the Act to respond to such a request within a specific timescale.

Thirty five LPAs either refused to provide the information: citing it was publically available on their website; were unable to provide the information because it was not recorded in any readily accessible format other than reviewing each planning application that had been submitted; or the LPA refused by claiming an exemption to having to provide the information as the cost of complying with the request would exceed the appropriate limit set out in the Act.

In total 31 LPAs declared 39 documents which they purported to be HIAs. The 39 HIAs that were declared were subsequently reviewed through the LPA's website and the most significant outcome was that although they were reported as HIAs, not all 39 were actual standalone HIA documents. The documents can be placed into three categories and these are displayed in Table 7.1.

<u>Document type</u>	<u>Number</u>
Stand-alone HIA	14
Submitted under other legislation/regulations i.e. EIA and Design and Access statements	21
Document not readily available	4

Table 7.1: Breakdown of documents declared through FOI survey

The LPAs were also asked if the documents had been submitted on a voluntary or compulsory basis. The responses received found that:

- 28 documents were submitted on a voluntary basis; and
- 11 documents were submitted on a compulsory basis, such as local planning policy requirements.

There appears to be a lack of understanding or awareness of what HIA actually is. Of the 39 documents declared as HIAs, on further investigation only 14 were actual HIAs. This equates to approximately a third of all the documents declared. A possible reason that so many were incorrectly declared as HIAs could be that health may have been considered in the report.

The negative responses tended, maybe falsely, to give the impression, that the respondents were only submitting a response due to the legal requirement for them to do so. However, it is unlikely that a less formal approach would have generated such a high response rate.

A search of the websites of the relevant local authorities was undertaken to find the 14 HIAs declared by the respondents. This resulted in locating 12 of the HIAs. These were then reviewed to establish if they were fit for purpose; that they did in-fact place health at the centre of the assessment. The review was undertaken using a review package established by Ben Cave Associates (available at [http://www.bcahealth.co.uk/pdf/hia\\_review\\_package.pdf](http://www.bcahealth.co.uk/pdf/hia_review_package.pdf)).

The review package is used in the HIA training delivered by the Welsh Health Impact Assessment Support Unit which is part of Public Health Wales. This training was undertaken by the researcher to enable a working knowledge of the HIA process.

The results of the review are shown at Appendix 11. The review required the assessment of four subject areas, namely: Context, Management, Assessment and Reporting and then applying an Overall Score. Each subject area (not including the overall score) had different criteria to be scored against. The assessment criteria grading was the same for the subject areas and the overall score and is shown in Table 7.2.

<b>The grades are defined as follows:</b>	
Relevant tasks well performed, no important tasks left incomplete, only minor omissions and inadequacies	<b>A</b>
Can be considered satisfactory despite omissions and/or inadequacies	<b>B</b>
Parts are well attempted but must, as a whole, be considered just unsatisfactory because of omissions or inadequacies	<b>C</b>
Not satisfactory, significant omissions or inadequacies, some important task(s) poorly done or not attempted	<b>D</b>
Not applicable	<b>N/A</b>

Table 7.2: HIA Review Package assessment grading (Fredsgaard et.al. 2009)

As a result of the review, four of the HIAs were considered to be a 'C' standard as parts were well attempted but must, as a whole, be considered just unsatisfactory because of omissions or inadequacies. The remaining 12 were considered to be a 'D' standard as they were not satisfactory, significant omissions or inadequacies, some important task(s) were poorly done or not attempted.

However, there are certain drawbacks associated with the use of the review package. Although the review package authors are recognised in their field of expertise there is no evidence that the review package adds value to the HIA process. An email was sent to Ben Cave Associates asking for evidence that the review package was an effective tool but despite sending a reminder, no response has been received.

The results of the survey clearly demonstrated that the current standard and use of HIA in the land-use planning process is disappointingly poor and the uptake appears to be slow and sporadic.

#### 7.3.1 Unexpected outcomes

There were 34 negative responses which had been unexpected. The responses could be placed in two categories:

- 1) The LPAs do not hold the information in a readily accessible format; and
- 2) The information is not held or recorded separately from the planning application and the costs to the local authority to manually check all the planning applications would exceed the maximum costs set out in the FOI Act.

## 7.4 Telephone interviews

The participants in the telephone interviews were selected from the UK designated Healthy Cities. The two cities selected were Liverpool and Manchester. These cities were chosen because they were both designated Healthy Cities when CHDP, CHP, HIA and HUP were introduced as core components of the Healthy Cities project: Liverpool from Phase I in 1988 and Manchester from Phase III in 1998 and they had also retained the same co-ordinator since at least Phase III.

The selection of the participants was further broken down to include the Healthy City coordinators, development planning officers and planning policy officers. The Healthy City coordinators were asked to nominate appropriate planning policy and development planning officers; however, it only became evident during the interview process that those nominated did not actually include development planning officers.

Due to the differing roles and skills of the Healthy City coordinators (who are usually health professionals crucial in influencing local health priorities), planning policy officers (who are responsible for the preparation of local policies to guide future development), and development planning officers (who are responsible for the processing of planning applications in accordance with local development frameworks); three similar but different series of questions were developed. These questions were then emailed to two Healthy City coordinators who were not included in the purposive sample to provide constructive feedback and comments; although after careful consideration the questions were not altered as a result of the feedback and comments.

### 7.4.1 Healthy City Coordinator telephone interviews

A summary of the main findings of the Healthy Cities Coordinators telephone interviews are shown in Table 7.3. The purpose of presenting this here is to provide a framework for what follows.

<b>Healthy City Coordinator Interviews – Summary of Categories and Themes</b>
<b>Stakeholders</b>
Engage with diverse and multiple stakeholders (e.g. local planning authorities, NHS trusts, the voluntary sector)
<b>City Health Development Plan</b>
Develop Local Strategic Partnerships
Use and integrate within existing vehicles (e.g. Sustainable Community Strategy)
<b>City Health Profile</b>
Use a regularly updated compendium of local health indicators
Use the Joint Strategic Needs Assessment process
<b>Data Sources</b>
Use existing reliable resources and data sources (e.g. Office for National Statistics, the Department of Health and regional Public Health Observatories)
Develop a health intelligence team to manage the data
<b>Healthy Urban Planning</b>
Build capacity between the Primary Care Trust and the local authority
Integrate health throughout the new local development plan and supporting documents
Incorporate health into planning policy through supplementary planning documents
Train urban planners in health related issues
Develop strategic regeneration frameworks that fully reflect health perspectives
Set up an obesity task force that includes a senior planner
<b>Health Impact Assessments</b>
Lead the way in promoting and raising the profile of Health Impact Assessments
Focus on embedding Health Impact Assessments within the whole of the planning process
Build capacity within planning to undertake Health Impact Assessments
Integrate elements of Health Impact Assessments into Sustainability Appraisal
<b>Evaluation, Monitoring and Review</b>
Use and develop existing Public Service Agreement targets

Table 7.3: Healthy Cities Coordinators Interviews: Summary of Categories and Themes

The telephone interviews with the two selected Healthy City coordinators took place in December 2010. The telephone recording equipment, which was sourced from the university, was tested immediately prior to the interviews taking place to prevent any unnecessary and avoidable problems and to ensure it was in good working order.

### Stakeholders

It was quickly established that the main stakeholders in both the Healthy Cities projects are the city councils, NHS and the PCT. As one respondent stated:

*'In essence the whole city council and everybody, all the departments within the council will be major stakeholders, through to the NHS.'*

The voluntary sectors, politicians and non-executive directors as stakeholders were also included albeit to a lesser extent. However, the approach to the Healthy Cities designation was very different in each of the cities. One of the respondents stated that the Healthy Cities project had a very discreet presence in their city:

*'the Healthy City project is low profile and if you were to speak to those people in the city and say you are a part of the Healthy Cities project they probably wouldn't know what you are talking about.'*

#### City Health Development Plan

The development of a CHDP was at the centre of Phase III of the Healthy Cities project (Green et.al, 2009) and was a core requirement of Phase IV so it came as a surprise that neither of the cities had completed this requirement. However, it soon became clear that other, existing documents were used in their place: particularly the Sustainable Community Strategy (SCS)<sup>11</sup> developed through the LSP. As one of the respondents explained:

*'We've got a range of documents; we've not for a long time had something that was called that ... it's kind of integrated through the Community Strategy and the Business Plan and the Adults Health and Wellbeing Partnership.'*

#### City Health Profile

The CHP was a further core theme and requirement of Phase IV of the Healthy Cities project so again it came as a further surprise that a specific CHP had not been developed; however the use of existing documents produced by the PCT by both respondents was seen by both respondents as adequate to fulfil this requirement. This was further defended by one respondent who stated:

*'We've got a large range of health profile work that is carried out in the city ... we do have joint assessments which covers some work on that; we have a regularly updated compendium of local health indicators which is perhaps*

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<sup>11</sup> The Sustainable Community Strategy (SCS) is a statutory requirement and provide a long-term vision for an area to tackle local needs (IDEA website, 2010)

*closer to that City Health Profile but it's very much a statistical annex whereas the JSNA<sup>12</sup> is narrative and rounded as well, between them they cover the function of a City Health Profile.'*

#### Data sources

Both the respondents provided details of a number of existing resources and data sources including information provided by the Office for National Statistics (ONS), the Department of Health (DoH) and regional Public Health Observatories (PHO), available to the Healthy City coordinators which enabled them to secure compliance with the requirement for the CHP and CHDP. One of the respondents particularly regarded the use of a health intelligence team as a core asset:

*'We have a health intelligence team which is based partly with the Joint Health Unit here and they have access to all the mainstream routine NHS data; they use environmental data as well; they use social care data. It is a very, very wide range of data sources that is used to pull all these things together.'*

#### Healthy Urban Planning

It was clear that capacity building had been fundamental between the PCT and city council to develop closer working particularly through the development of HIA, further training for senior development planning officers, the setting up of a steering group which included the PCT, the planning department and in one city, the university, and that they all had made major contributions to the core strategy that the concept of HUP had been successfully achieved.

It was also evident that work on HUP was ongoing with the task of incorporating the concept of HUP into planning policy and building the principles into development plan documents and supplementary planning documents through the challenge of getting health integrated throughout the local development framework and the core strategy. One of the cities has produced a Guide to Development to set the context for HUP in the planning process:

*'[The guide] sets out in clear point format a wide range of guidance for how the city wants to see development happening...it's very detailed...integrated into*



*that both explicit health concerns...and a wide range of things from a health perspective...like transport and parking standards’.*

The biggest impact of HUP has been the influence it has had on developing the Core Strategies (CS) and Local Development Plans (LDP) for each city through consultation and collaboration between the local authorities and health practitioners.

Although the approaches to HUP have changed little during the previous two phases of Healthy Cities a review of the HIAs already undertaken concluded that the HIA process needs to be strengthened to ensure the equity dimension is at the forefront and also that key stakeholders should become involved from the outset. As one of the respondents commented:

*‘... because otherwise you end up with a series of recommendations ...and then gaining the commitment to deliver on those recommendations is another round, effort of work rather than having it as integral part of the process’.*

It also became evident during the interviews that the respondents were now involved in the Local Development Framework (LDF) and training the urban planners in health related issues. This was achieved by working with the regeneration team and ensuring that the strategic regeneration frameworks that cover the cities are developed so that they fully reflect health perspectives and health is incorporated suitably into them from the outset.

Further approaches or procedures in relation to HUP are planned particularly around the theme of the obesogenic environment. Obesity had become more of a priority and the respondents were investigating methods to enhance the opportunities for green space, looking at options for healthier food, both growing and supplying, and promoting physical activity and healthier eating and setting up an obesity task force which included a senior planner. Also, as planning departments shift from Unitary Development Plans (UDPs) to LDFs an opportunity has arisen to take advantage of the situation and look again at how the policies incorporate health. This is reflected in the comment made by one of the respondents:

*‘there’s been a sort of change of context for planning so we’ve had to be adapting what we’ve done before to that change of context.’*

However, the respondent continued that early results suggest there still remains a significant amount of work to further develop the policies:

*'quite a lot of work has been done around things like transport and health and regeneration and health...it's not an integrated approach yet and that's one of the things we need to work towards'.*

Therefore it appears that the training of urban planners in health related issues and undertaking further work with the regeneration team to make sure the strategic regeneration frameworks are developed fully to reflect health perspectives to ensure that health is built into them properly from the outset is a fundamental requirement to fully immerse health into the whole planning process.

#### Health Impact Assessment

The approach to HIA was wide-ranging; from one city being at the forefront of the movement, a pioneer, being directly involved in developing and promoting the concept of HIA by providing training and expertise and participation in international HIA conferences and focussing on HIA and the planning process to the other who had a conflicting approach. The first respondent stated that:

*'getting HIA into planning because that would be one of the key ways in which we could influence Healthy Urban Planning';*

However, the other respondent stated that their city did not want to become involved in formally promoting HIA in the planning process because:

*'Either you end up with something that is not possible to integrate into all your planning that is so light weight it's pretty meaningless or you end up with something that is worth doing but far too difficult and complicated to integrate across the board and in my experience that's actually been something that's not been possible to resolve...health impact assessment is a mind-set and a way of life rather than a set of processes and that much more the sort of thing we're trying to encourage that: thinking rather than encouraging the use of formal tools'.*

Ensuring the commitment of the Chief Executive of the city council, the leader of the council and the Chief Executive of the PCT has been fundamental in driving HIA in both cities as noted by one of the respondents:

*'there's been more of a sort of review of HIA and it's been built into very much part of the sustainability agenda'*

The cities were now more focused on the concept of wellbeing. The quality of the experiences of people's lives was being achieved by looking at what contributes to wellness in one city but in complete contrast, the other city has started to move away from the formal planning that HIA espouses. As stated by the respondent this city has decided to focus on:

*'building a mind-set of health impacts into people's planning rather than forcing people to use tools'.*

The future development of HIA is integral to ensuring it remains at the forefront of the planning process. However, it appears that the commitment to HIA varies considerably from city to city. One city shares the virtues of HIA with an international audience particularly through conferences and by focussing on a holistic view of health as demonstrated by the comment of the respondent:

*'the concept of wellbeing...the quality of experience of people's lives and trying to look more at what contributes to wellness rather than when often you look at health you look at the deficit model i.e. not being ill...looking at what incorporates wellness and looking at the importance of the psycho-social dimensions of health';*

However, the other city has no future development plans for HIA at this time.

#### Evaluation, Monitoring and Review

Evaluation, monitoring and review stages to measure the impacts and outcomes should be a core element and process of any successful intervention. However, it appears that this is still an area that requires a lot more consideration by both cities. There seems to be a lack of support from the development planning officers to take HIA and HUP any further than the planning decision stage, even though the policy planners are able to adapt the Sustainable Community Strategy which has to meet national targets such as Public Service Agreement targets. As one respondent stated:

*'I suppose we have put things in the Sustainable Community Strategy and largely they were things that required to be measured by government ... things like the public service agreement targets.'*

This research is limited due to the number of Healthy City Coordinators selected to take part in the interviews. Two were selected, which equates to just over 14% of the Healthy City Coordinators in the UK.

#### 7.4.2 Planning Policy Officer telephone interviews

A summary of the main findings of the Planning Policy Officers telephone interviews are shown in Table 7.4. The purpose of presenting the summary here is to provide a framework for what follows.

<b><u>Planning Policy Officer Interviews – Summary of Categories and Themes</u></b>
<b>Healthy Cities</b>
Raise awareness and actively develop Healthy Urban Planning and Health Impact Assessment Initiatives
<b>Planning, Health and Obesity</b>
Influence planning policy through the Joint Health Unit
Develop planning policies that have an impact on people's physical activity levels and mental health
Promote sustainable communities with access to facilities
Encourage a joined up approach to retail strategy particularly regarding access to healthy foods
Integrate planning policies and plans with other strategic plans to promote collaboration with appropriate stakeholders
Ensure the Local Development Framework takes into account other plans and strategies from the outset
<b>Healthy Urban Planning</b>
Use the Joint Strategic Needs Assessment process to assess health needs during the formulation of planning policies
Engage local communities
Develop strong links between planning and the Primary Care Trust
<b>Health Impact Assessment</b>
Embed Health Impact Assessments across planning and health disciplines
Health Impact Assessment is a useful tool in the planning process
Health Impact Assessment maximises the benefits and minimises the negative effects of planning policies
Build capacity and provide resources for Health Impact Assessments in the planning process
Integrate Health Impact Assessments with other statutory appraisals (e.g. Sustainability Appraisal)
Strengthen existing approaches to Health Impact Assessment within the planning process
Build partnerships between health and planning
<b>Evaluation and Monitoring</b>
Develop a continuous process of monitoring, evaluation and appraisal
Produce an annual Monitoring Report which utilises existing health indicators (e.g. Life expectancy rates)

Table 7.4: Planning Policy Officers Interviews: Summary of Categories and Themes

It had been intended to conduct telephone interviews with both planning policy officers and development planning officers. However, the selection of the appropriate officers to take part in the telephone interviews had been made by the Healthy City coordinators and unfortunately the choices had not included officers from the separate disciplines and this was not realised until after the interviews had taken place.

These four interviews consisted of two telephone interviews and two written responses. Although all the respondents had initially agreed to commit to a telephone interview one decided that, after previewing the questions, a written response was their preferred method of reply as they felt that they would not add anything else to their retorts while the other was unable to find an appropriate slot in their diary for the telephone interview to take place and therefore completed their responses in their own time. This was very disappointing after all the work undertaken to secure telephone interviews.

#### Healthy Cities

It was quickly established that all the respondents were aware of the healthy cities status of their particular city and they had all has some involvement in the project previously. They had varying roles and responsibilities within the Healthy Cities project which ranged from providing support to colleagues with a health background, to raising awareness of and actively developing and integrating HUP and HIA in phases III and IV (1998-2008) of the project and attending conferences and disseminating the findings to colleagues. It was evident that none of the respondents had held a specific and clearly defined role within the healthy cities projects and what input they had had previously has significantly diminished since the start of phase V (2009) of the project. This is supported by the comments made by the respondents:

*'I did do when Health Impact Assessments and Healthy Urban Planning was far more ... a bigger focus ... in Phase IV and I was fairly involved at that point ... but so much in Phase V.'*

*'We have been involved more actively in the past, but I have personally not been involved in the past 2 years.'*

### Planning, Health and Obesity

There was a strong consensus that the UK planning system through its policies and actions can make a positive contribution to health and stemming the rise of obesity:

*'We operate across the city with a number of strategic regeneration frameworks...they provide not only the spatial plan but also the economic, sort of social plan for the city as well in terms of its development going forward and sit underneath the core strategy which forms the unitary.. plan for Manchester. As a consequence of that we, through the Joint Health Unit, feed in terms of a commentary and policy input around health and wellbeing aspects of that planning process and around obesogenic environments we've been influential in terms of addressing issues such as transport, access to green spaces, retail and so forth'.*

*'Policies on transport and movement, urban design, building standards, access to green space, access to local shops and facilities all have an impact on people's physical activity levels and mental health'.*

*'The planning system can contribute by helping to ensure that new developments don't include unnecessary barriers to active lifestyles but, as planning only deals with new development it can't improve the existing urban environment. It also cannot change attitudes'.*

However, one respondent had a slightly different opinion:

*'I'm not sure it's as simple as that...it's one of those things I'm not sure how you'd capture it, how you'd monitor it'.*

The respondents had a range of suggestions when asked to define the healthy outcomes of the urban planning process. Some of the suggestions referred to the infrastructure of an area:

*'Good examples would be around road hierarchy, usage.'*

*'A healthy outcome would be lots of connected sustainable communities... access to decent schools and facilities'.*

*‘...locating development so as to enable active travel, etc.’*

Other suggestions raised the issue of the economic vitality of an area and the health and wellbeing benefits that can be achieved through a vibrant economy:

*‘It can contribute to regeneration activity that may help to create employment and improve the economy, thereby offering people opportunities to move their lives forward ... matters that it can influence are related to site specific design, which may affect sense of safety, morale, etc.’*

*‘a joined up approach to retail strategy across the city in terms of access to healthy foods.’*

The use of indicators was also included as a marker to identify a healthy outcome

*‘In terms of monitoring indicators, it could be a health indicator - mortality rates, life expectancy or obesity levels. In terms of environmental quality it could be access to natural green space, air quality etc.’*

In order to facilitate a healthy outcome, it is immensely important for urban planning to look to other strategic plans and to look to ways to integrate them with the planning process through collaboration with other stakeholders.

*‘All are co-ordinated through meetings, consultations, guidance, legislation, etc.’*

The CS is a key document to enable this process and particularly the LDF process which is required to take into account other plans and strategies throughout the LDF preparation and development and vice versa to secure mutually supportive environments.

*‘The LDF process is required to take into account other plans and strategies during Plan preparation and those strategies must also take into account Planning as they are developed. The Core Strategy is the spatial expression of the Sustainable Community Strategy. The Core Strategy also supports projects in documents such as the LTP.’*

### Healthy Urban Planning

For HUP to be successful it has to evolve from a concept and a theme of a project to a tangible reality. Before that can be achieved the concept has to be defined. The respondents all had their own understanding of HUP.

*'It's the implicit output of our regeneration framework for urban planning...around health and wellbeing...'*

*'It's about looking at the holistic way of how we plan cities and towns, I don't think it's just about whether we reduce obesity and how much we stop smoking and therefore how much do we reduce cancer, I think it's more about the holistic side of pulling it all together.'*

*'Planning that considers what impacts the built environment has on the health of local communities, and developing policies that encourage physical activity, as well as creating attractive environments that have positive effects on mental health.'*

*'Taking account of health impacts and outcomes when engaging in planning activity.'*

In order for the HUP concept to become a reality, it has to be integrated into the planning process. As each LA has relative autonomy in terms of how the process of implementing central government legislation and policy is undertaken it was evident that a varied approach to the integration process had taken place.

*'Through a formalised process in terms of through the Adults Health and Wellbeing Partnership, Core Strategy and other regeneration and urban planning framework documents have gone through direct consultation process with the Adults Health and Wellbeing Partnership and as a consequence then it's had the input from the Joint Health Unit and the broader, sort of, public health sector and one of the things that we did agree through that process is that in terms of the JSNA approach, the Joint Strategic Needs Assessment process, that that would be a starting point in terms of articulating or*



*understanding from the planning point of view what the health needs and requirements are in terms of developing those plans.'*

*'We did a health impact assessment of the core strategy and then we've got very strong links with the Sustainability Appraisal.'*

*'There are a number of policies within the draft publication version of the Core Strategy which all have a positive impact on health and well-being, for example, access to Local and District Centres, protection and enhancement of green infrastructure, good quality housing. The Core Strategy has also been subject to a Sustainability Appraisal and a Health Impact Assessment.'*

*'It is now required by national planning policy and guidance. It is considered in all aspects of plan making and development management.'*

The planning policies have been affected by HUP particularly in terms of guidelines around access to green spaces and transport plans and also by influencing retail strategy and district development through the CS. It became evident that the main activity undertaken in relation to HUP and the planning process has been the use of HIA and SA. However, other activities were also a key driver in ensuring HUP became a reality:

*'Engagement of local communities through healthy living services to get their views, to get that soft data from local communities as to what's important to them in terms of the urban planning process, and then in terms of more technical support through the joint health unit through the health intelligence function in the joint health unit to do parallel work around a population growth, economic growth in the city and looking at the consequences there to do the spatial planning or to do some of the technical work that underpins some of the spatial planning for health services in the city be those secondary or tertiary care services or primary community care services.'*

*'We put health very strongly into the SA process; we've also got strong links... now with the PCT particularly in Public Health so that when documents are coming out they are being sent over to the public health teams for comment.'*

As with all new ideas and concepts, regular reviews are an absolute necessity to ensure the main focus is retained and achieved whenever possible and HUP is no different. In order to achieve positive outcomes from HUP then there should be in place

a continuous process of monitoring, evaluation and appraisal. This will ensure that the concept remains at the forefront of the planning activities and is as good as it can be. An important issue is at which level should the evaluation and appraisal take place?

*'The approaches are still not as formalised as probably as they should be within the planning process, they still don't form if you like as a gateway to the planning process.'*

*'It's about now doing everything every single time so it becomes an embedded process.'*

*'It is likely that under the new Localism Bill<sup>13</sup> and Neighbourhood Planning there will be challenges in integrating health into Planning, as communities are likely to have varying levels of resources and skills.'*

*'Not particularly in the planning process itself, though in terms of planning in the broader sense, for example, at political level, then certainly. The planning system is just that, a system that could be changed at any time should there be political will to do so.'*

### Health Impact Assessment

As already discussed HIA is

*'A combination of procedures, methods and tools by which a policy, programme or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population'*

(Welsh Health Impact Assessment Support Unit website).

HIA was a core theme of phase IV of the Healthy Cities project (2003-2008) and remains a priority in phase V (2009-2013). The survey of the LPAs in England had already identified the sporadic and limited use of HIA in the determination of planning applications and it appears it is a similar situation throughout the whole of the planning process. The respondents were asked if HIA was used throughout the planning process in their city and the responses were quite negative.

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<sup>13</sup> This became the Localism Act 2011 in November 2011.

*'Not systematically, no. They have been carried out more in an ad hoc manner and that's usually relied on whether there's been interest from regeneration partners to do those pieces of work or that we've been actually able to offer those as sort of tools for local partners to use.'*

*'No, not yet. We're heading that way. I think we really would like to embed health impact assessment across both organisations to any policy and strategy so effectively any DPD or SDP, anything like that, would automatically go through a health impact assessment screening process.'*

*'A HIA has been undertaken on the publication version of the Core Strategy.'*

Although the use of HIA in the planning process is limited, which seems to suggest that it's an unwelcome process, it appears that it has been accepted albeit in varying degrees as a useful tool in the planning process:

*'I think they can be. I think that they do need to be part and parcel of the formalised part of the process; I think they need to happen early enough in the process as well.'*

*'It's mainly because of its suitability maybe because it's flexible, so you don't have to do a full HIA.'*

*'I think anything that maximises the benefits and minimise the negative effects of implementing planning policies should be used. '*

*'They potentially raise awareness of issues whilst policies are being drawn up, though anyone working on the policies should be well aware of these issues anyway, so the HIA could just be another bureaucratic hurdle. They could offer the benefit of making the reasons for policy decisions more transparent and could be used as evidence to justify policies.'*

HIA has had limited success in becoming part of the planners toolkit. It is evident that as HIA is not a statutory requirement in any part of the planning system or process, consideration should be given to including it as a statutory document in the determination of planning applications at least:

*'In essence I think it would be very valuable in terms of development control.'*

However, not all the respondents agreed with this:

*'Planning documents are subject to a number of statutory appraisals already – SA/SEA, Habitat Regulations Assessment, and Equalities Impact Assessments. If planning documents were also required to be subject to a HIA, there would need to be further capacity building/resources within planning departments.'*

*'No. If proposals accord with policies in the development plan, they will support health objectives. All health benefits can only be achieved through encouraging good quality development. The job of planners is too facilitate good quality new development in pursuit of a range of objectives and to add as much value as feasible to proposals submitted.'*

There are a number of activities that have been undertaken in relation to HIA and the planning process:

- Local consultations;
- Local mapping of services;
- Looking at the LIFT<sup>14</sup> programmes;
- HIA of the development of primary care facilities; and
- HIA of the CS.

In order for HIA to become more effective it seems likely that all the existing approaches need to be strengthened. This will only happen once it is accepted as a positive contribution to planning practice by all of the stakeholders in the planning process; from central government to local government to health professionals:

*'It's still a conversation between planners and between health professionals as opposed to having health and wellbeing embedded within the planning function.'*

*'I think you've got to have the buy in from both the planners and almost top down bottom up approaches.'*

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<sup>14</sup> NHS LIFT (Local Improvement Finance Trust) is a vehicle for improving and developing frontline primary and community care facilities.

### Evaluation and Monitoring

In order to promote the value of HIA and HUP evaluation and monitoring should be built into the process from the beginning to measure the impacts and outcomes. However, this appears to have been an afterthought and cities are now developing these mechanisms:

*'We're only just getting to that point. I think when you get your recommendations and you've got your full health impact assessment whether it's on a planning policy or anything, is about how are you going to implement the recommendations and how are you going to monitor them. What are you looking for, what are the outcomes you are looking for from that?'*

*'As part of the Local Development Framework, the City Council produces an Annual Monitoring Report which monitors the effects of the policies in the LDF. Indicators include life expectancy and open space quality.'*

### 7.5 Web based survey of the UK Healthy City coordinators

There are currently 14 WHO designated Healthy Cities in the UK and the online web based survey was directed at the Healthy Cities coordinators of the cities who had not already taken part in the telephone interviews. The rationale behind the survey was a response to a comment made during the presentation of the results of the telephone interviews with the Healthy City coordinators to the UK Healthy Cities Network meeting when it was suggested by the coordinators that they were all given the opportunity to respond to the questions.

The initial question asked the respondents which area they were based in the UK and the options available were Eire, England, Northern Ireland, Scotland, Wales and other. The area was selected because each city only has one coordinator and using cities as the selection would've allowed the identification of the respondent which was neither relevant nor the intention of the survey.

The respondents were asked to provide details of all the stakeholders in the Healthy City project. Their responses are shown in Table 7.5.

<b><u>Stakeholder/s</u></b>	<b><u>No. of respondents</u></b>
Local Authority	5
NHS/Primary Care Trust/Health Board	5
Centre for Population Health	1
Local community/Voluntary sector/local businesses	3
University	1

Table 7.5: Healthy City stakeholders

This illustrates the diversity of the stakeholders who are included in the Healthy Cities project work across the UK.

The respondents were then asked if they had developed a CHDP (a main requirement to being a designated Healthy City in Phase IV of the Healthy City projects) and, if so, how the plan had been developed.

All five respondents confirmed they had developed a CHDP however, their methods and resources varied as there is no set criteria of the stakeholders to be included in the development of the plan by the Healthy Cities project.

*'It's not called a City Health Development Plan, but the Joint Health Action Plan, developed jointly by the local authority and the NHS, serves the same purpose.'*

*'In the form of our sustainable Communities Strategy. In addition, use of our Joint Strategic Needs Assessment process.'*

The stakeholders/data sources can be broken down as follows in Table 7.6:

<b><u>Stakeholders/Data sources</u></b>	<b><u>No. of respondents</u></b>
Joint Health Action Plan	1
Public Health Annual Report	1
HSCWB Strategy	1
Children & Young People's Plan	1
Community Strategy	3
Joint Strategic Needs Assessment	1

Table 7.6: Data sources of the City Health Plan

This table illustrates the varying data sources and stakeholders involved with the development of each of the CHDPs.

Question 4 followed this theme and asked the respondents if they had developed a CHP. As with the CHDP, the CHP is a main requirement to achieving Healthy Cities designation in Phase IV of the project. All five respondents confirmed they had developed a CHP.

The respondents were then asked to provide details of how the CHP was carried out and Table 7.7 provides a breakdown of the responses.

<b><u>Data sources</u></b>	<b><u>No. of respondents</u></b>
Health & Wellbeing survey	2
Public Health Annual Report	1
2001 Census	1
Index of Multiple Deprivation	1
Hospital Data	1
Joint Strategic Needs Assessment	1
HSCWB Strategy	1
Children & Young People's Plan	1

Table 7.7: Development of City Health Profile

This table demonstrates the diverse data sources used by the respondents in the development of their CHP – as highlighted by one of the respondents:

*'range of data sources used including 2001 Census, Welsh Index of Multiple Deprivation, Welsh Health Survey, hospital data. Data sources and issues of concern identified by key partnership groups.'*

### Healthy Urban Planning

The survey then proceeded to the concept of HUP. HUP was a key theme in Phase IV of the Healthy City Projects. The respondents were asked what approaches and procedures their city is taking in relation to HUP. The responses are shown in Table 7.8.

<b><u>Approaches/procedures</u></b>	<b><u>No. of respondents</u></b>
Awareness raising	5
Evidence	1
Integrating health into planning policies	3
Capacity building	2

Health Impact Assessment	3
Collaboration	1
Developing tools	3

Table 7.8: Approaches/procedures to Healthy Urban Planning

Once again, there was a plethora of responses and numerous approaches and procedures being undertaken with regard to HUP by each of the designated Healthy Cities.

*'We are trying to incorporate HUP into everyday life within the council. It forms a major part of the Local Development Framework and Housing Strategy. We are currently working on the Green Infrastructure plan for the city and have recently completed a walkability audit of all our neighbourhoods.'*

Continuing on the topic of HUP the respondents were asked if further approaches and/or procedures were planned. All the respondents confirmed that there were.

Following on, the next question asked the respondents to provide details of the further approaches and/or procedures that are planned and Table 7.9 provides details of the responses.

<b><u>HUP approaches/procedures</u></b>	<b><u>No. of respondents</u></b>
Developing models & tools	2
'Equally Well' test site	1
Working with planners	1
Assessing LDP through HIA	1
Integrated Impact Assessment	1
Provision of land for community uses	1

Table 7.9: Further HUP approaches/procedures

Once again, the survey responses showed a number of different approaches being made by each city.

#### Health Impact Assessments

The survey then moved onto HIAs and the next question asked the respondents to describe the approaches and/or procedures their city is taking in relation to HIA. Table 7.10 shows the responses that were given.



<b><u>HIA approaches/procedures</u></b>	<b><u>No. of respondents</u></b>
Developing a screening tool	1
Training	3
Undertaking HIA	3
Awareness raising	1

Table 7.10: HIA approaches/procedures

The respondents were then asked if these approaches and/or procedures had changed during the process and three respondents confirmed they had and the remaining two confirmed they hadn't.

The three respondents who answered yes to the previous question were asked to provide details of how the approaches and/or procedures had changed, their responses are shown in Table 7.11.

<b><u>Changes</u></b>	<b><u>No. of respondents</u></b>
No response/not applicable	2
Integrated Impact Assessment	2
Screening for equality, EIA & sustainability	1

Table 7.11: Changes to HIA approaches/procedures

*'As we have moved through the phases the importance of Equity Impacts have been raised and there is now a need for a developed tool which will be an integrated impact assessment.'*

### **Impacts and Outcomes**

The final compulsory question asked the respondents how the impacts and outcomes of the approaches and/or procedures of the HUP and HIA initiatives were measured. Their responses are shown in Table 7.12.

<b><u>Measures</u></b>	<b><u>No. of respondents</u></b>
Uptake & use	3
Reduced air pollution	1
Increased pedestrianisation	1

Access to green space	1
Building in evaluation procedures	1
Tools under development	2
No mechanisms yet	1

Table 7.12: HUP & HIA evaluation methods

*‘Each HIA is monitored and assessed to determine whether recommendations from the HIA have influenced subsequent policy and practice. For HUP initiatives, success is measured qualitatively through the degree to which health has been incorporated in policy and practice.’*

*‘Uptake and use across strategic plans and modifications made as a result as short term process measures.’*

The respondents were then given the opportunity to make any further comments regarding the themes of the survey. This question was optional and disappointingly none of the respondents took the opportunity to make any further comments.

## 7.6 Web-based survey of development planning officers

The development planning officers are primarily responsible for the processing of planning applications in accordance with local development frameworks and local and national guidance. As already noted there are 14 WHO designated Healthy Cities in the UK and the details of the survey were emailed to each of the designated cities. It was difficult to estimate the number of responses that I would receive but initially I had hoped that there would be at least five from each city which would result in 70 responses. However, after sending two reminders and extending the closing date for the survey only a total of 19 responses were received. There were 11 surveys that were incomplete. These have not been included in the data analysis.

The first question of the survey asked the respondent to select their location. The respondent was offered one choice of each of the UK WHO designated Healthy Cities and also the option of ‘other’. The option of ‘other’ was provided in order to accommodate the possibility that the survey details could have been forwarded onto respondents who did not work in one of the designated Healthy Cities locations.

The 19 responses were received from five of the 14 designated Healthy Cities locations and are illustrated in Table 7.13. This was evidence that the survey had not been completed outside of the proposed sample areas.

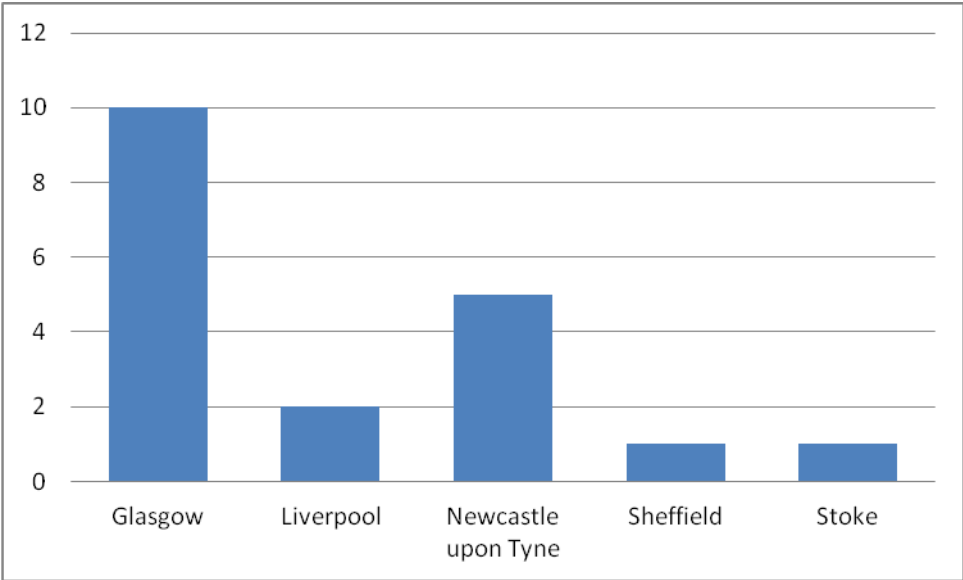


Table 7.13: Location of survey respondents

These respondents were then asked to provide details of their job titles. A number of job titles were amalgamated under one category: Development Manager includes Team Leader and Development Plans Manager; Planning Officer includes Senior Planning Officer; and Landscape Architect includes Greenspace Development Officer. The results can be seen in Table 7.14.

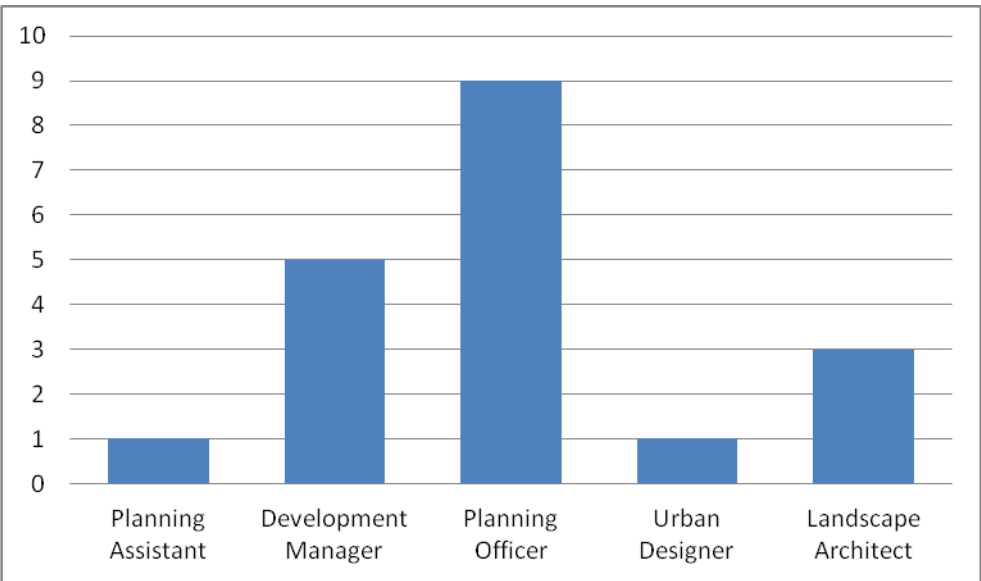


Table 7.14: Job descriptions of the survey respondents

The purpose of asking the respondents to provide details of their job title was to establish if a good general cross-section of the various and diverse disciplines within the planning department had responded to the survey.

The survey then focussed on the Healthy Cities project. The following chart at Table 7.15 summarises the responses to question 3 and question 4 of the survey which are detailed below:

Question 3: Are you aware of the World Health Organisation’s Healthy Cities Project?  
 Question 4: Is you city/town a designated Healthy Cities?

The respondents could only answer Yes or No to these questions. These questions were aimed at gauging the awareness of the HCP as this is usually regarded as the driver behind HIA and HUP.

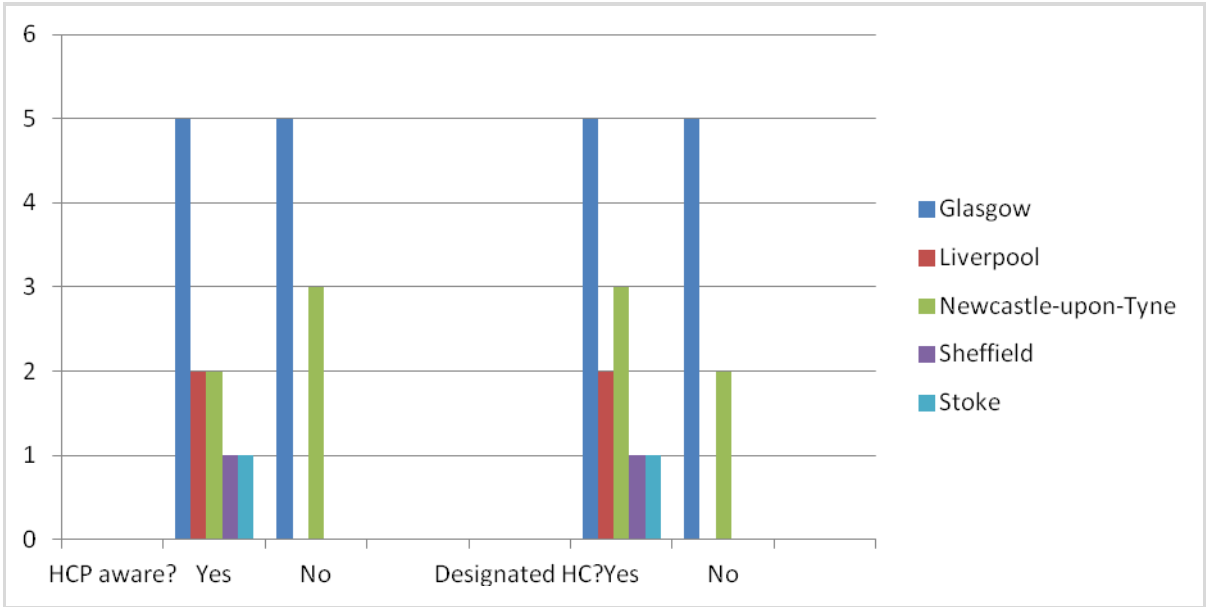


Table 7.15: Awareness of the Healthy Cities Project and in a designated Healthy City

HUP is one of the main themes of the Healthy Cities project and as such all the towns and cities surveyed have been working towards obtaining and/or retaining the designation therefore the respondents were asked to describe their understanding of HUP.

The design of this question was deliberately open in order for the respondents to provide their own answers and to prevent any bias through providing examples or prompts.

The comments received were wide-ranging: from promoting opportunities to engage in physical activity:

*'Planning in favour of public transport and walking and cycling'*

*'Strategic design issues that understand and promote active lifestyles, particularly around walking and cycling and provision of formal/informal leisure facilities.'*

*'Creating environments that encourage healthy lifestyles.'*

*'Planning an environment that allows for an active population.'*

to intertwining planning and health to improve health and wellbeing:

*'Plan-making that builds into the process from the start, identification, consideration and response to health factors.'*

*'Ensuring that the wider determinants of health are considered and addressed through planning policies; so that local environment offers people the best possible opportunities for improved health and wellbeing.'*

*'Linking planning policy and health policy together as they are both delivering on the same outcomes.'*

*'Promotion of healthy places and integration of two areas health and urban planning.'*

The many and varied responses can be grouped into five themes:

- 1 No comment
- 2 Promoting public transport, walking & cycling
- 3 Planning that influences health & wellbeing
- 4 Design for active lifestyles
- 5 Integrating planning & health policies

Five of the respondents made no comment and the remaining 12 respondents made a total of 19 comments. All the comments were then placed in one of the themes noted above.

The pie chart at Figure 7.1 shows the distribution of the responses:

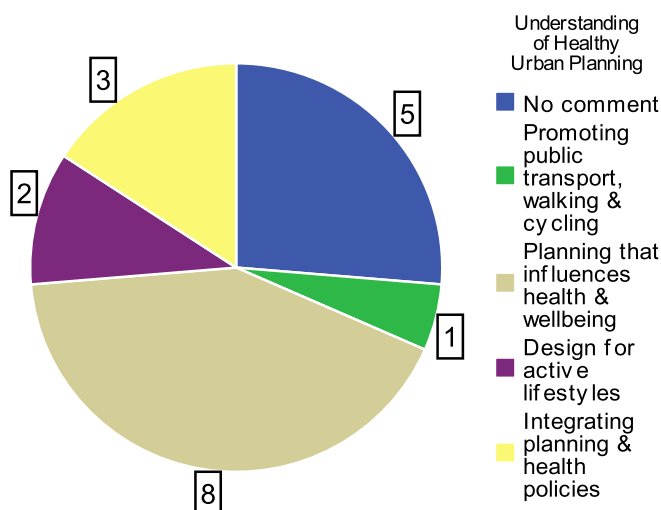


Figure 7.1: Understanding of Healthy Urban Planning

Continuing with the theme of HUP the respondents were asked what activities had been undertaken in their local authority in relation to HUP. Once again this question was deliberately designed to be open so as to achieve an unbiased response.

The responses exude the use of planning policies to raise awareness of the effect of planning on health and the use of tools to address the issue:

*'The production of a draft healthy planning SPD.'*

*'The priorities have been ensuring that the emerging LDF tackles the determinants of health and wellbeing in a holistic fashion.'*

*'The use of Health Impact Assessment in key planning documents and projects.'*

This time four of the respondents made no comment and the remaining made 19 comments. All the comments were placed in the following themes:

- 1 No comment
- 2 Cycle lanes
- 3 Healthy planning policies & design

The pie chart at Figure 7.2 shows the distribution of the responses:

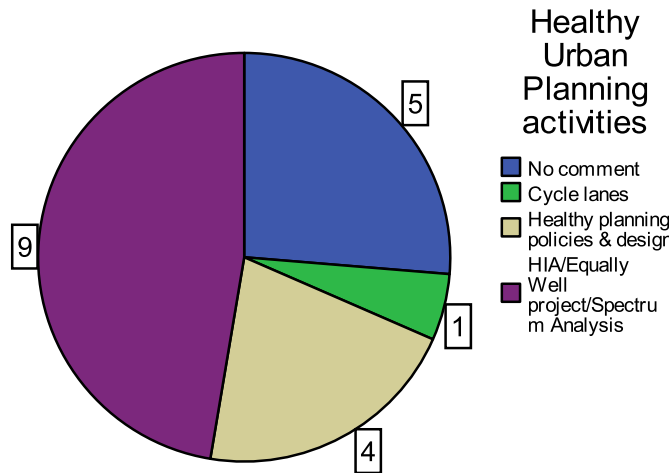


Figure 7.2: Healthy Urban Planning activities

Following on, the next question asked the respondents how health has been integrated into the planning system in their authorities. The respondents made wide-ranging comments in response to this question which varied from discourse to infrastructure:

*'Discussion only, separate from development management.'*

*'Currently considering policies to restrict the change of use to hot food takeaways near schools as part of our Core Strategy.'*

*'In so far as pedestrian and cycle access is to be provided as part of the City Plan Policy, and design policies encourage permeability and access to public transport and open space.'*

*'Taking into account the conclusions of HIA.'*

*'Sustainable forms of development in terms of appropriate location of development and availability of public transport infrastructure that reduces car journeys.'*

In total there were 31 responses which could be placed into the following five themes:

1 No comment

- 2 Walkability
- 3 Health integrated into planning policies
- 4 High quality design in new developments
- 5 HIA/Equally Well project/Spectrum Analysis

The pie chart at Figure 7.3 shows the distribution of the responses:

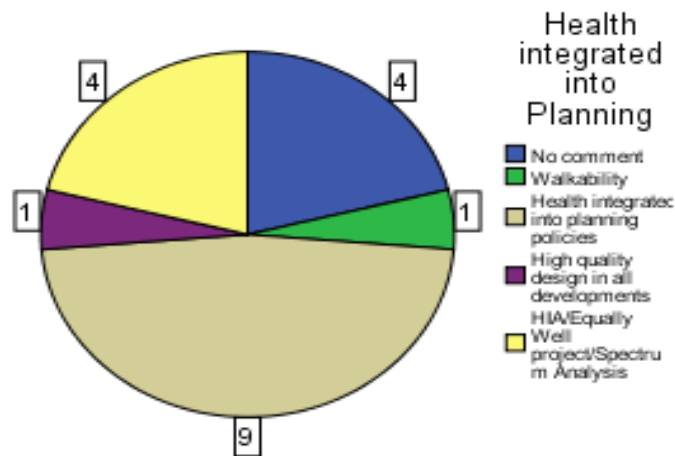


Figure 7.3: Health integrated into planning

The respondents were then asked if HIAs are used to assess development proposals (planning applications) in their LA and if HIAs should be included as a statutory document to accompany planning applications. The respondents could only answer yes or no to these questions.

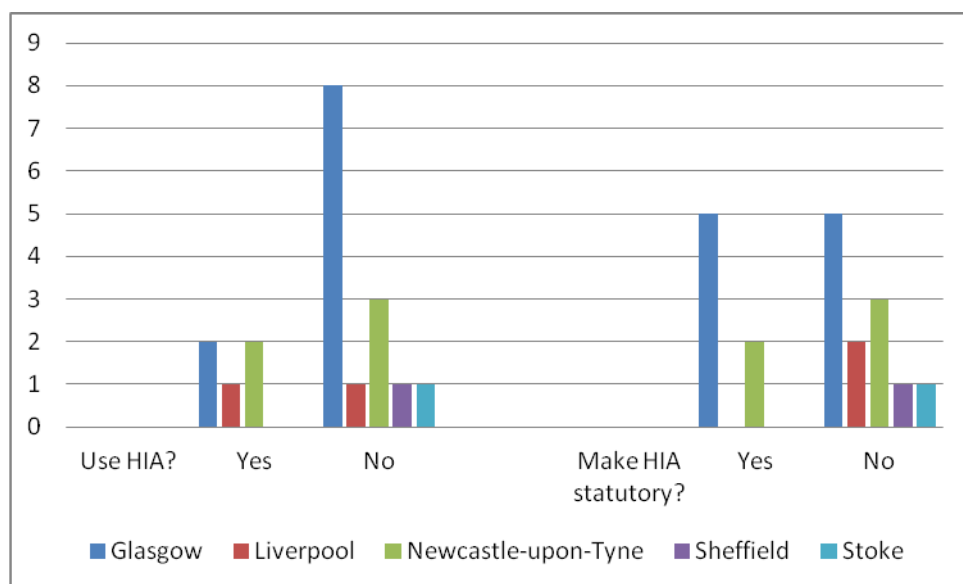


Table 7.16: HIA use in the cities and should be included as a statutory requirement



The above graph at Table 7.16 shows the responses to questions regarding the use of HIA and also attributes them to the city where the respondent is located.

The penultimate question asked the respondents whether or not they consider that the planning system through its policies and action can make a positive contribution to health and stemming the rise in obesity. The respondents could only answer yes or no to this question and the results are shown in Table 7.17.

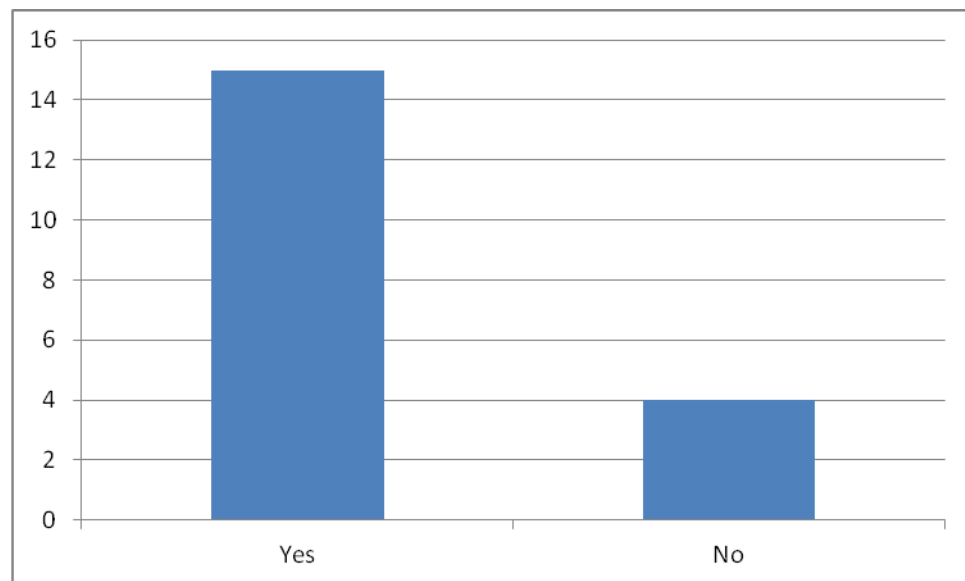


Table 7.17: Can planning make a positive contribution to stemming the rise in obesity?

This question was then broken down further to show how the respondents from each of the cities answered. The results are shown in Table 7.18.

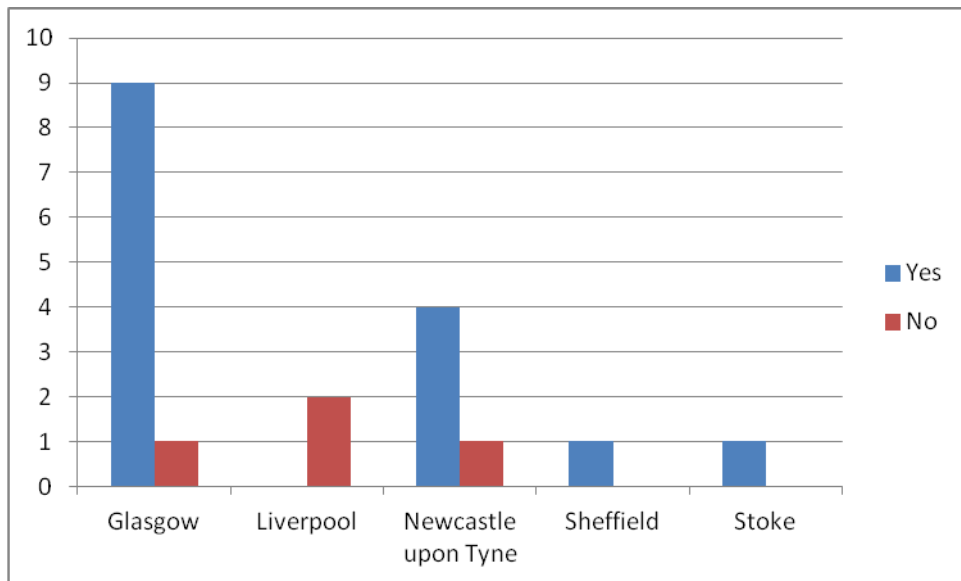


Table 7.18: Planning can positively affect obesity: response by city

The question was then broken down to show the answers by job title and these results are shown in Table 7.19.

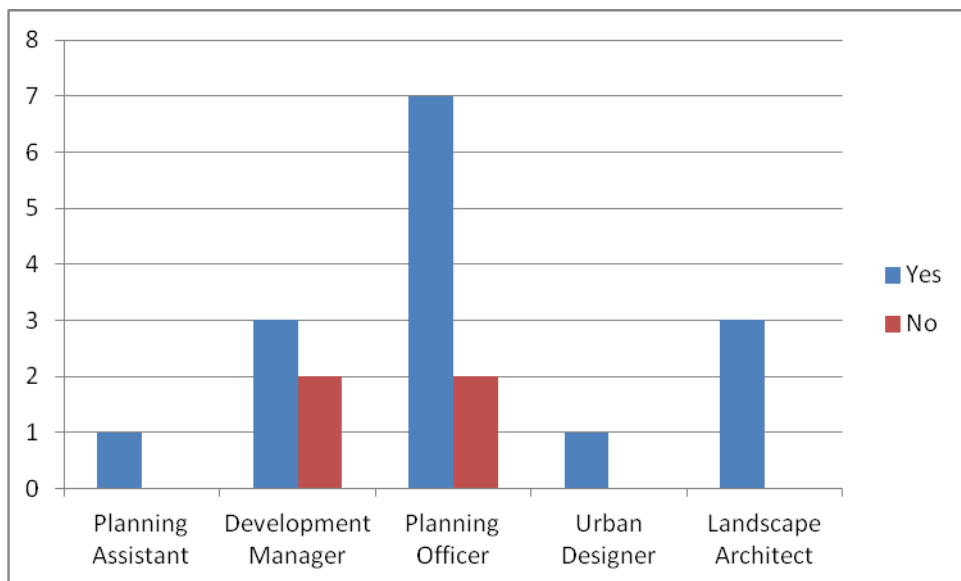


Table 7.19: Planning can positively affect obesity: Response by job title

The final question was optional and allowed the respondents to make any further comments. Disappointingly. Twelve of the 19 respondents made no comments. Below are some of the comments that were made:

*'The difficulty I have with the concept of HUP is that these issues tend to already be covered by existing development plan and national policy guidance. There is a risk that the work is being duplicated, just for the sake of it. For me it*

*is more of a tool for developers to think about health matters from the outset, rather than retrospectively bolting on solutions to make a development more acceptable.'*

*'The reliance on the planning system to reduce obesity is simply unworkable. People have freedoms/choices as to how they want to live their lives.'*

*'Understanding that healthy environments are peripheral to the planning system but are appearing as part of other evaluation frameworks – most noticeable Building for Life and the use of the Code for Sustainable Homes. It is going to be more effective if it becomes more fully integrated into design and evaluation stages.'*

*'I think planning definitely has a role to play in addressing health and the impact of development on health should be a material consideration in the planning process I'm wary of HIA becoming a statutory responsibility because of the duplication it could create ... I think that 'how' the health impact is considered needs careful consideration and any requirement would need to give sufficient scope for local authorities to adopt/adapt their own procedures.'*

*'I'm keen to promote healthier places, but I am concerned about the practicalities of integrating this into the planning system.'*

## 7.7 Summary

In this chapter the results and findings of the FOI survey, telephone interviews and online surveys have been presented. This summary will draw on the main findings under the four main topics of HIA, HCP, HUP and Evaluation, Monitoring and Review.

### Health Impact Assessment

The main findings of the FOI survey showed that the use of HIA in the determination of development proposals in England is very limited and sporadic. It was clearly evident from the telephone interviews and online surveys that both the policy planners and development planners had varying levels of commitment towards incorporating HIA into the planning process, particularly at the policy development level. There was a diverse

spectrum of approaches and commitment to HIA by the respondents; from one end of the scale being a pioneer and advocate of the process to the other end of the scale taking a less active role in promoting the process. However, there was a consensus that the strong commitment of the Chief Executive and Leader of the council and the Chief Executive of the PCT to collaboration and interdisciplinary working is a fundamental requirement to drive the use of HIA in the planning process forward. It was also unanimously agreed that HIA facilitated a focus on health and wellbeing and although it was also evident that their take up has been limited and there is no regulatory requirement for their use in the planning process they were generally regarded as a useful tool albeit not necessarily in planning.

#### Healthy Cities Project

A high level multidisciplinary commitment to the Healthy Cities Project was seen as an important requirement in achieving the Healthy Cities designation from the WHO. However, there was a clear difference in the approach by each city when communicating the extent of their involvement. Although none of the cities had produced a CHP or a CHDP they all confirmed that existing documents and a selection of diverse data sources such as JSNA, SCS, ONS and the DoH had enabled them to meet this requirement.

#### Healthy Urban Planning

Capacity building and cross disciplinary training and collaboration between the PCT, NHS and councils were seen as core requirements to delivering HUP. It was also noted that integrating health into the planning process would be an ongoing task. So far, health has had a strong influence on planning's CSs and LDFs and there was a consensus that the UK planning system can make a positive difference to health and stemming the rise of obesity particularly through using HIA to assess the health affects of planning policies such as the Core Strategy.

#### Evaluation, Monitoring and Review

This is an area where all respondents agreed that further development is required as there appeared to be a lack of any real progress in this area. Currently existing indicators are used to measure outcomes, such as mortality rates, life expectancy and obesity levels. It was clear that a framework to evaluate, monitor and review policies and decisions was a fundamental requirement to ensure that health outcomes remain at the core of the planning system.

This chapter has presented the findings from the empirical data and shown the diversity and multiple voices that have contributed to this research which, in turn, will contribute to integrating health into the UK planning system and ensuring healthy outcomes for the built environment.

The final chapter will interpret these results and findings further through discussing how they contribute to addressing the aim of this research and answering the research questions and objectives. The final chapter will also show the contribution to knowledge and understanding and draw key conclusions.

## 8 CHAPTER EIGHT: CONCLUSION

### 8.1 Introduction

The main focus of this research has always been the built environment and obesity. As the study progressed and the research developed, this focus broadened to encompass an investigation of the planning system and health and wellbeing, thereby providing a more holistic assessment of the issues.

This thesis has attempted to look at how the built environment affects health and wellbeing by investigating how it ensures that positive health outcomes are integrated into the core functions of town and country planning in the UK. It all began with a report by the Foresight project 'Tackling Obesities: Future Choices – Project Report' which identified that the built environment can make people fat (Butland et al., 2007). This Report laid the initial foundations for the interest in this topic which were developed into the research aims, objectives and questions.

This chapter aims to show that through answering the research questions and meeting the research objectives, the research aims have been achieved.

This chapter starts by reiterating the research aims, questions and objectives and discusses how the researcher believes they have been met. This chapter will then briefly discuss the broader significance of the findings and relate the findings to other studies.

This chapter also presents the limitations of this study and will proffer recommendations for further research and practice and policy.

A final reflection on the whole thesis process and a brief summary will bring the thesis to a close.

#### 8.1.1 The research aims, questions and objectives

The research aims, questions and objectives were developed to investigate the main focus of this research: the built environment and obesity. For ease of reference the research aims, questions and objectives are reiterated here:

This research had two aims:

- i. To develop an understanding of the effect of the built environment on obesity; and
- ii. To discover if health is integrated into the functions of town and country planning in the UK.

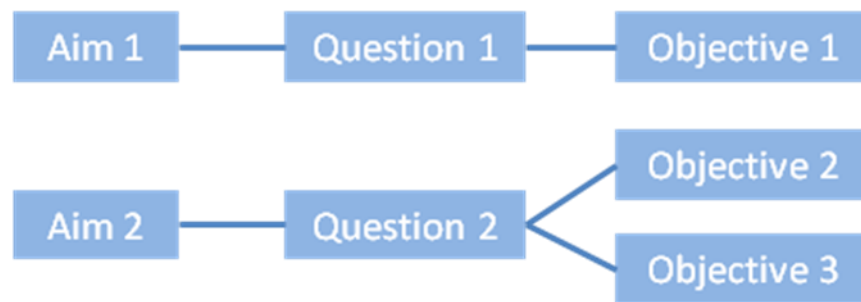
In order to allow a thorough investigation of the research aims two research questions were developed:

- i. Does the UK planning system ensure it does not have a negative impact on obesity?; and
- ii. Is the WHO's Healthy Cities project an opportunity for the planning system to integrate health into the planning process through the use of Health Impact Assessment (HIA) and Healthy Urban Planning (HUP)?

The research questions were further developed into three research objectives in order to ensure a full and thorough investigation was carried out. These are objectives were:

- i. To reflect on the historical partnership of health and planning and to review the current literature asserting the link between the built environment and the aetiology of obesity;
- ii. To investigate the existing use of Health Impact Assessments in the determination of proposed development and land-use proposals, by undertaking a survey of all the local planning authorities in England; and
- iii. To investigate if Health Impact Assessments and Healthy Urban Planning, key themes of the WHO's Healthy Cities project, are being integrated into the functions of town and country planning in the UK.

Figure 8.1 shows how the aims, research questions and objectives relate to each other.



**Figure 8.1: The relationship between the research aims, questions and objectives**

Following on directly from that Figure 8.2 shows the research methods selected to meet the research objectives:

Objective 1	Objective 2	Objective 3
<ul style="list-style-type: none"> <li>• Literature review</li> </ul>	<ul style="list-style-type: none"> <li>• Surveys</li> <li>• Telephone interviews</li> </ul>	<ul style="list-style-type: none"> <li>• Survey</li> </ul>

**Figure 8.2: The research methods selected to meet the research objectives**

The surveys consisted of:

- The Freedom of Information Request
- The Semi-structured telephone interviews
- Two on-line questionnaires:
  - Health and Planning which was sent to the Local Authorities
  - Healthy Cities which was sent to UK Healthy City Co-ordinators

## 8.2 Has the study met the aims and objectives and answered the research questions?

The literature review provided evidence that health and planning are interconnected and that in order to achieve maximum positive health impacts they should be recognised as interdependent and develop collaborative and interdisciplinary working practices. The historical connection between planning and health is unequivocal and therefore it seems apparent that in order to contribute to helping reduce the burden of obesity health and planning must come together once again. The early coalition between the two disciplines contributed to the eradication of a number of communicable diseases and poor health in the late 18<sup>th</sup> century and early 19<sup>th</sup> century,



but their dissolution during the early 20<sup>th</sup> century has led to the emergence of a number of non-communicable health issues their continued partnership could possibly have helped to evade.

The empirical data collected through this research has identified a number of methods currently available that could be used to integrate health into the planning system, albeit at varying levels and assessment. Some of these assessment methods, which have developed as a response to legislative requirements set out by Government regulations and Acts, are being implemented by the planning community. These particular regulations and Acts include SEA through the Environmental Assessment of Plans and Programmes Regulations 2004; SA through S19(5) of the Planning and Compulsory Purchase Act 2004; and EIA initially through the Town and Country Planning Act 1990 then reinforced by the Town and Country Planning (Environmental Impact Assessment)(England and Wales) Regulations 1999. Each of these assessments and appraisals require varying degrees of consideration of health at some point during their development. However, this 'requirement' is not clearly defined and on occasion it seems that a mere sentence that health has been considered has been deemed satisfactory.

Alongside these legislative assessment tools, another assessment tool and concept is slowly emerging and being introduced into the planners' toolkit. This assessment tool is HIA. There is also the concept of HUP. Both HIA and HUP are promoted and supported by the WHO's Healthy Cities Project. With their beginnings as far back as 1993 these initiatives have been core themes of the Healthy Cities Project and through attaining 'healthy city' status a number of UK cities have been developing collaborative and inter-sectoral relationships between health and planning professionals in order to facilitate a better understanding of how health and planning interact and are dependent upon each other and how health considerations are assessed by the planning system. This involves including planners and health professionals in proposed development issues from the outset and not as an 'add-on' later in the planning process.

HIA in particular has evolved outside the Healthy Cities projects due to its flexibility as an adaptive tool to assess the health impacts, both positive and negative, of any plan, policy, and programme or project not just development policies and proposals. In the context of planning however, the use of HIAs appears to have been very limited. Between the period 2005 and 2008, this research has established through a FOI

request that only 14 HIAs were submitted as supporting documents for a planning application in England. This number was a lot less than anticipated at the start of this research particularly due to the exponents of the use of HIAs in the planning process from diverse backgrounds e.g. the WHIASU (sponsored by the Policy, Research and Development Division of Public Health Wales), IMPACT (the International Health Impact Assessment Consortium based in the Division of Public Health, a WHO Collaborating Centre for Public Policy Research on the Social Determinants of Health at the University of Liverpool) and Ben Cave Associates (a UK consultancy which specialises in undertaking HIAs). However, a low response rate could also be a reflection on the fact that there is no mandatory requirement to maintain a register of all the HIAs received by a planning authority and therefore the information submitted could quite easily be incomplete.

HUP on the other hand seems to be getting a more amiable reception and slowly appears to be having a more central role in the planning process. This may be due to the fact that it is still more of a concept, a thought process, rather than another set of rules to guide health and healthy outcomes through the planning process. Therefore it cannot currently be considered to be a material consideration of the planning application process.

This research has tried to show that the breakdown of the relationship between health and planning in the early 20<sup>th</sup> century has most likely contributed to the steady rise in obesity levels which in turn has become a major health problem and has contributed to the creation of the obesogenic environments. This research has tried to demonstrate that there is little doubt there is an obesity crisis and it is very likely that the built environment is a key factor in the aetiology of obesity and therefore there's no reason why it shouldn't be a key factor in stemming the rise and contribute to creating leptogenic environments.

This research has reflected on and presented the historical partnership of health and planning and reviewed and presented the recent literature asserting the link between the built environment and the aetiology of obesity. This research has suggested tools to ensure that the planning system develops to ensure it only imposes a positive impact on health and wellbeing, namely: HIA, HUP and the Healthy Cities project. Therefore the first aim of this thesis, to develop an understanding of how the built environment impacts on obesity, has been met.

This research through the FOI and online surveys has investigated the use of HIAs in the planning process in England and through the telephone interviews and online surveys has investigated if HIA and HUP, core themes of the WHO's Healthy Cities project, are being integrated into the core functions of town and country planning in the UK. Therefore the second aim of this thesis, to investigate if health is integrated into the core functions of town and country planning in the UK, has been met.

This research has identified a number of concepts and tools which could potentially help tackle the obesity crisis through the UK planning system: HUP, HIA and the Healthy Cities project. This research shows the connection between the built environment and obesity, as reported in the Foresight report (Butland et.al. 2007), and how the disparate actions of the planning system and health have contributed to the creation of obesogenic environments. This research shows that HUP, HIA and the Healthy Cities project are possible solutions to creating leptogenic environments. It should also be noted that settings and health are both crucial factors which should be taken into consideration to ensuring the successful implementation of any intervention to tackle the obesity crisis through a holistic approach:

*'No matter whether we focus on the local geography or the virtual community a holistic approach is necessary. Planners must work in an interdisciplinary fashion and with the community. They must accept the fact that diverse populations understand their own needs and can offer significant contributions to the planning process.'*

Duhl & Sanchez (1999:32).

The juxtaposition of HUP, Healthy Cities and HIA together shows how the postmodern approach, through the diverse and multidisciplinary approaches it espouses, will be fundamental in addressing the obesogenic environments by reconnecting health and planning.

As already discussed, the postmodern perspective of this research was selected because it reflects the multidisciplinary nature of this research, the topic and the researcher. The selection of postmodernism to guide this research is supported by Rydin as it *'involves considerable work of engagement with a variety of groups as a priority'* (Rydin, 2011:22).

This research has noted that proponents of postmodernism decline to offer a definition for the theory. According to Greed (2000) the postmodernist phase set in during the 1980s which allowed diversity, difference and plurality and a return to more traditional values. However, there are many characteristics to postmodernism that align it as the ideal theoretical framework underpinning this research which is centred on planning.

Allmendinger (2002:157) describes how postmodern thinking *'would recognise planning as something that was imposed upon society and included forced consensus and powerful relations acting in a way that reinforced existing imbalances in society'*. Allmendinger (2002:167) also identifies that *'the world is fragmented and ruptured by private and local interpretations and languages'* which aligns with a postmodernist perspective. This reflects the different forces that are able to exert their power on the planning process from private individuals to businesses to local community groups to local and central government legislation and regulations.

Postmodernism is a late 20<sup>th</sup> Century movement. It emphasises the co-existence of multiplicity (it's background is multidisciplinary) and a variety of situation dependent ways of life. In planning, postmodernism is typically marked by the revival of historical elements and techniques. Before postmodernism it was believed there was one single 'right way' of planning new urban developments and a disregard of public opinion; planning was forced upon the majority by the minority with no real knowledge of the 'real' urban problems characteristic of post-second World War urban environments such as slums, overcrowding, deteriorated infrastructure, pollution and disease. This 'one size fits all' approach to planning only made things worse. Since the 60s and 70s, postmodernism has involved theories that embrace and aim to create diversity and it has promoted uncertainty, flexibility and change. As a result of this, planners have become much less inclined to claim to there is one single 'right way' o urban planning and are more open to different styles and ideas of how planning should be undertaken.

The postmodernist approach to planning from a constructionist epistemological perspective highly resonates with the research methods chosen to guide this research and the meanings and understandings that have emerged from the themes identified through this research: particularly through explaining how the built environment affects not only obesity but a more holistic health perspective from such different perspectives as diverse as planning, health and sociology (Fuller and Loogma, 2009). The

constructionist perspective allows learning by mistake and making and through building knowledge structures. It also allows negotiation and acknowledges differences in the way of doing things. Constructionists insist we take a critical stance toward our taken-for-granted ways of understanding the world. This resonates highly with the use of HIA in the planning process.

This research was undertaken through the lens of a planner. This is a very significant approach particularly as the primary background to this research, The Foresight Report, was undertaken primarily by professionals and stakeholders from disciplines other than planning which created a gap in knowledge. This research has contributed in a small way to start to close that gap and sought to include other professionals involved in the planning process; namely the Healthy City coordinators, the planning policy officers and the development planners. This approach is supported by Power and Schulkin:

*‘Addressing obesity in our society will require multilayered, integrated interventions’ (Power and Schulkin, 2009:330).*

By reflecting on the aims, research questions and objectives of this study, it appears this research has been successful in its task.

### 8.3 The broader significance of the findings

The broader significance of the findings is two-fold. Firstly, the outcomes of this research demonstrate that the built environment can impact negatively on obesity (which it is known can lead to other illnesses such as cardiovascular disease and diabetes). Secondly, the findings show that the integration of health into the planning system through HIAs is at best sporadic but mostly unheard of.

The literature review illustrated that there is an historical connection between planning and health which began to deteriorate at the turn of the 19th century resulting in two separate and distinct disciplines. (Barton et al., 2009; Lake and Townshend 2006; Cullingworth and Nadin, 2006; Barton, 2005; Northridge and Sclar, 2003; Rydin, 2003) However, the literature review also revealed that there is a consensus that reuniting the two disciplines and placing health at the heart of the planning process can have a

positive impact on health (Barton and Grant, 2006; Ewing et al., 2003; van Kamp et al., 2003).

In their 2015 systematic review of natural- and quasi- experiments used to evaluate the efficacy of policy and built environment changes on obesity-related outcomes, Mayne et.al. show that the planning process can have a positive effect on health and they conclude that:

*‘... current research suggests some policy and built environmental interventions, especially active transportation infrastructure improvements, bans or restriction on unhealthy foods ... can increase certain types of physical activity and improve diet. ... more research is needed on the effect of built environment changes like park improvements, trails and active transportation infrastructure on total physical activity, beyond the process outcomes commonly measured.’*

(Mayne et al., 2015:12)

This study has also established the current use of HIA in the planning process in England. There is much rhetoric over the use of HIA in planning and this research has identified that the uptake is slow and sporadic at best and even when it is undertaken there is little, if any, monitoring or evaluation. In their *‘systematic review to identify evaluation studies of appraisals or assessments of plans where health issues were considered’* Gray et al. state:

*‘...attention needs to be given to the current regulatory framework to ensure that evaluation and post-development monitoring is undertaken; and ... that there is more work undertaken to ensure that recommendations translate into the development process and that outcomes are as anticipated.’* (Gray et.al., 2011:896).

The use of HIA in the planning process appears to be a contentious issue. This research has highlighted the different approaches to its use; from proponents advocating its use and that it should be made more formal and mandatory, to others who consider it to be another bureaucratic obstacle.

The responses from the interviewees regarding the most effective way of incorporating health into the planning process were:

- Commitment by all of the stakeholders from the Chief Executive down (LAs and NHS).
- Through policies on:
  - transport and movement;
  - urban design;
  - building standards;
  - access to green space;
  - access to local shops and facilities;
  - health and wellbeing.
- Conduct a HIA of the Core Strategy.
- Through a formalised process in the Adults Health and Wellbeing Partnership.
- Input from the Joint Health Unit and broader health sector.
- Through the Joint Strategic Needs Assessment.

With regards to the general role of appraisal in the planning process their responses were mixed:

- To build capacity.
- Another hurdle to jump over.
- Anything that maximises the benefits and minimises the negative effects of implementing planning policies should be used.

So the interviewees were asked specifically about the role of HIA in the planning process and their responses are noted below:

- Difficult to do well.
- A mind-set and a way of life rather than a set of processes.
- A really solid screening tool.
- Another bureaucratic hurdle.
- Could be used as evidence to justify policies.
- Valuable in terms of development control.
- There would be a query surrounding the robustness of it because it is not statutory.
- None. If proposals accord with policies in the development plan they will support health objectives.

It seems that the consensus of opinion sees the HIA as part of the planning policy work rather than as a tool in the determination of development proposals (planning applications). This seems to infer that if the planning policies have had a HIA then decisions on development proposals based on these policies will also have had one.

A recent discussion has been circulating on the HIANET email discussion group<sup>15</sup> in which Dr Cathy Baldwin (University of Oxford and the World Resources Institute in Washington DC, USA) asked *'Should HIA be legally mandatory in national government legislation for domestic application within countries?'*.

Dr Andrew Buroni (Associate, Health and Social Impact Assessment Practice Lead at RPS Group), in his reply, states:

*'The single greatest benefit of regulating HIA is that it places the same weight of law behind it, ensuring it is consistently applied at a point where it can have the greatest influence on a proposed project, that the approach and process is appropriate and will stand planning and legal rigour.'*

(Buroni, 2015)

Liz Green (Principle Health Impact Assessment Development Officer, Wales Health Impact Assessment Support Unit) replies:

*'In Wales, PHW and many partner organisations have recently strongly advocated making HIA statutory for land use planning (and thus strengthening and broadening the human health element of SA/SEA) as part of the new Public Health Bill. However, Welsh Government have shied from this and prefer a non-legislative approach which involves making HIA mandatory as part of statutory processes ie Minerals Technical Advice Note 2: Coal deems that a broad, inclusive HIA should be undertaken as part of, or in tandem to, the EIA for all open cast mining development applications in Wales or mandatory within Best Practice guidance and manuals such as the Welsh Transport Appraisal Guidance (WeITAG) for all new road schemes. This has given us a flavour of what would happen if HIA was statutory.'*

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<sup>15</sup> [HIANET@JISCMAIL.ac.uk](mailto:HIANET@JISCMAIL.ac.uk) is an email discussion list for the methodological and practical advancement of HIA in the development of healthy public policies, plans, programmes and projects.



*On the one hand, it leads to more HIAs being undertaken on potentially important developments that affect population health and raises the profile of HIA, health and wellbeing, the impact on vulnerable groups and inequalities. It is undertaken by a broader range of stakeholders and organisations who may well not have considered the impact of their work on HIA.*

*However, it has also highlighted many of the concerns raised already by others – the quality of the HIA, what the baseline expectations are for it and who quality assures it?; developer bias; it becomes a tick box exercise; the availability of tools and resources to support the commissioned team; and the fact that many HIAs tend to just be just a environmental ‘human health risk’ chapter from an EIA which is rebranded.*

*For HIA to become statutory, there really needs to be supportive mechanisms in place – political will; practical tools and resources; expectations need to be defined and mapped out of what a HIA should contain to be deemed of satisfactory quality; and those commissioning the HIA need to know how to critique the final report and HIA – often it is not what is included within it that defines its quality but what is omitted and have access to local public health advice.’*

(Green, 2015)

Daniel Black (Director of Daniel Black and Associates) agrees:

*‘... there has to be a role for legislation ... But that makes for slow progress. Education and eco/health literacy has to be the primary goal if we’re ever to effect radical change.’*

(Black, 2015)

The broad implications of these findings are:

- Planning practice education and training needs should include the [historical] background and connections to health promotion underpinning the UK planning system;

- The WHO Healthy Cities Project could be more widely promoted and acknowledged, particularly within existing designated cities and not restricted to Local Authority Planning departments;
- The use of HIAs, or some other form of health appraisal or impact assessment, in the planning process should be thoroughly reviewed, assessed and evaluated particularly how it could influence the decision making process of major development proposals; and
- HUP could be brought out of the shadows of the WHO Healthy Cities Project and promoted as a fundamental component of good town planning.

There have been a number of noteworthy developments regarding the integration of health and planning.

In 2009 NICE (the National Institute for Health and Care Excellence) published their document 'Spatial planning for health: local authorities and primary care trusts'. This document has now been discontinued following a review in 2011. The purpose of the review was to establish how health could be integrated more effectively within the spatial planning process. The outcome of the review process was that following the publication of the Department for Health's white paper: Healthy Lives, Healthy People, in 2011 this topic was not relevant for NICE guidance and no further work would be undertaken by NICE on this subject (NICE, 2011).

In 2012, the UK Government, in their major overhaul of the UK planning system (the main aim of which was to simplify the planning process and reduce bureaucracy), through the National Planning Policy Framework (NPPF), have included health as a Core Planning Principle:

*'...take account of and support local strategies to improve health, social and cultural wellbeing for all, and deliver sufficient community and cultural facilities to meet local needs.'*

(UK Communities and Local Government, 2012:6)

The NPPF also states that each local authority should use an appropriate evidence base to:

*'...ensure that the Local Plan is based on adequate, up-to-date and relevant evidence about the economic, social and environmental characteristics and prospects of the area.'*

(UK Communities and Local Government, 2012:38)

The NPPF also states that

*'LPAs should work with other authorities and providers to:*

*Assess the quality and capacity of infrastructure for transport, water supply, wastewater and its treatment, energy (including heat), telecommunications, utilities, waste, health, social care, education, flood risk and coastal change management, and its ability to meet forecast demands;'*

(UK Communities and Local Government, 2012:40)

Health and well-being are also specifically included in the NPPF at 171:

*'Local planning authorities 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.'*

(UK Communities and Local Government, 2012:41)

Also, through the NPPF, there is now a statutory requirement for a nominated public health professional to be consulted as part of the planning process which demonstrates a huge change to incorporate health into the planning process.

The NPPF clearly makes health, particularly the improvement of health, as fundamental to achieving good planning and ultimately sustainable development. The document does not, however, provide further advice or guidance on how this is to be achieved.

In their review on the NPPF, the Communities and Local Government Select Committee concluded that although there were concerns that the NPPF was not

contributing to Sustainable Development, was leading to inappropriate and unwanted housing developments and provided insufficient protection for town centres, the new framework required more time to 'bed-in' before a full comprehensive review can be successfully implemented (UK Communities and Local Government, 2014).

In December 2014, the TCPA published the report 'Planning healthy-weight environments'. This is the latest report in their 'Reuniting Health and Planning Project'. The report provides guidance, information and resources that can be used to influence the planning process to create a healthy-weight environment. The report also puts forward a tool that is available to non-planning professionals who want to influence the planning process; that tool is the undertaking, support and assessment of HIAs (Ross and Chang, 2014)

#### 8.3.1 Relating the findings to other studies

The publication of the Foresight report 'Tackling Obesities: Future Choices – Project Report' (Butland et al., 2007) provided the initial enthusiasm for this research. The report identified an array of factors which were intertwined and which together contributed to the aetiology of obesity. The report identified a number of suggestions for further research which included:

- *Population-based solutions, including studies of the built environment and diet/activity/obesity; and*
- *The value of multidisciplinary research*

(Butland et al.:138-139)

This research has addressed these suggestions through:

- Reviewing the literature which reaffirms the historical connections between planning and health and the literature from current studies which report the effect of the built environment on obesity; and
- Investigating the multidisciplinary WHO Healthy Cities Project and in particular the themes of Health Impact Assessment and Healthy Urban Planning which involved telephone interviews and surveys with the varied and diverse stakeholders in the Healthy Cities Project and local planning authorities.

This demonstrates the contribution of the new knowledge and understanding generated by this research to existing knowledge (Barton and Tsourou, 2013; Corburn 2004; Ewing 2003; Jackson 2003; Handy 2002).

The findings of this research also concur with Rydin in the book looking into the purpose of planning who states that *'...it is unquestionable that our physical environment does make a difference – to how we live, our behaviour and what we get out of life'* (Rydin, 2011:55).

They also accord with Jackson (2003:199) who concluded in a review of the existing research into the impacts of urban design on health and well-being: *'It is essential, therefore, that designers and health practitioners speak to the physical, mental, social, and ecological health implications of urban design at multiple spatial scales'*.

The selection of post-modernism to guide this research is also supported by Rydin who states *'postmodernist planning involves considerable work of engagement with a variety of groups as a priority'* (Rydin, 2011:22). This research has demonstrated that there are multiple stakeholders from diverse backgrounds who need to engage with each other to ensure that health is a once again at the heart of planning.

This research is supported by a number of other studies. Capon in his report on the key considerations of the health impacts of urban development states:

*'A focus on healthy urban planning is important because once a development is built retrofit changes are difficult and costly. Planners should also consider health impacts in everyday decision making because the cumulative impacts of small decisions can be as important as the decision on a large project. Planners and public health workers should join together and advocate for due emphasis on human health impacts in urban decision-making'* (Capon, 2007:156).

With further regard to HIA as Harris et al. in their project report investigating HIA and urbanisation assert:

*'Health impact assessment (HIA) can ensure that health is a core element of sustainable urban planning'* (Harris et.al. 2007:198).

The lack of multidisciplinary and cross-sectoral working has also been identified by the Department of Health in their 'Call to Action on Obesity' who have defined a greater role for local authorities generally in the treatment of obesity:

*'From 2013, local authorities will be responsible for commissioning local programmes to prevent and address overweight and obesity, such as weight management services for overweight or obese people and physical activity. The NHS at the local level – including GP practices and community pharmacies – will have a role in terms of identification, providing brief advice, medical management and onward referral' (DoH, 2011:31).*

Awareness training should also be extended to other stakeholders to achieve a more holistic approach as stated by Srinivasan et al. (2003:1450) in their recommendations for a research agenda on the built environment and public health:

*'Awareness of environmental health consequences requires not only collaborative partnerships but also the adoption of multidisciplinary research approaches to environmental health, such as studies that include public health researchers, health professionals, architects, builders, planners, and transportation officials.... These coalitions may be better equipped to: (1) determine what constitutes safe neighbourhoods, (2) determine what constitutes safe and affordable housing, (3) provide green space for people to enjoy where they live and work, and (4) rethink the modes of transportation and travel from one place to another'.*

#### 8.4 Limitations

This study has a number of limitations which are outlined here. Although this research refers to the UK planning system, this research was centred predominantly on the planning system practised in England. The reason for this is that the Scotland Act 1998, the Government of Wales Act 1998 and the Northern Ireland Act 1998 introduced devolution in 1999 which transferred a range of powers to the national parliaments or assemblies in Scotland, Wales and Northern Ireland from central government in London. One of these powers was planning legislation. Therefore steadily since that time a marked difference in the planning systems of the devolved administrations of the UK has developed. However, this doesn't detract from the issue that health should be at the heart of all the functions of all the planning systems practised in the UK.

The telephone interviews and web-based questionnaires did not generate a large amount of empirical data. There were a number of methods that could be utilised to analyse the data including computer software packages such as SPSS and NVivo. The limitations of the computer software package, SPSS, required the extensive recoding of some of the questionnaire data in order for the appropriate analysis to take place. There was also a lack of expertise available within the university to answer questions pertinent to this research and monetary issues prevented the researcher from seeking external guidance. It was therefore deemed more appropriate to analyse the data using thematic coding and the Excel software to visualise the findings. It is however, unlikely that the time and expense required to become proficient in the use of the computer software packages available would have had any significant impact on the outcome of the data analysis.

The size of the sample chosen for the telephone interview was three interviews with three people involved in each of the two designated Healthy Cities in the UK selected as case studies for this research. It is unlikely that the results would have been significantly different if the interviews had included respondents from more of the designated UK Healthy Cities. However, the WHO Healthy Cities movement includes European cities it is possible that including a range of cities from Europe in this research may have produced different results.

The low response rate to the online web based surveys was disappointing and completely unexpected. Two reminders and an extension to the closing date failed to generate a greater number of responses. Particularly disappointing was the low response rate from the Healthy City coordinators. The researcher did consider offering an incentive to encourage more participants to contribute but felt that this may have led to ethical issues.

Another potential problem is that the scope of this thesis may be too broad. The research could have focussed on the degree to which the development management process incorporates health issues effectively; and in particular, how project appraisal could help by looking for best practice through examination of a few healthy city projects. This would also have facilitated research which would involve the review of the use of project appraisal tools in the planning process.

## 8.5 Recommendations

### 8.5.1 Recommendations for further research

This research has thrown up many questions in need of further investigation. According to the concluding remarks made by Jackson in the review of existing research into the impacts of urban design on health and wellbeing (Jackson, 2003a) the built environment and health is an emerging field of research. This research contributes to that field and proffers three recommendations for further academic research in this subject area:

- An in-depth study of how each of the devolved governments is integrating health into the core functions of their land-use planning processes and evidence is needed on whether environmental and policy changes are successful in achieving and maintaining a healthy weight. This will foster inter-sectoral collaboration, multidisciplinary working and knowledge transfer.
- Evaluation and monitoring frameworks should also be developed in order to investigate how health is assessed throughout the functions of town planning. These frameworks could also be adapted to monitor and evaluate the development to assess whether or not the predicted outcomes were correct therefore providing a thorough and comprehensive evaluation. Using existing HIA practitioners, knowledge and guidance in the process is likely to be a good starting point.
- An in-depth review of the work of the UK Healthy Cities projects should be considered. This review would assess the current practices of the project and how it is promoted within each city particularly the promotion of HIA and HUP.

### 8.5.2 Recommendations for practice and policy

The implication of planning decisions on the health and wellbeing of communities and populations needs to be recognised by the planning profession at every organisational level. This research has identified there is a basic lack of understanding of the relationship between health and planning. This could be due to health not being included in the planners training, or not emphasised enough, throughout the training process. What is not yet clear is the impact of the use of HIA in the planning process and whether or not a HIA has been effective in the decision making process.



Therefore this study makes the following recommendations for planning practice and policy:

- Awareness training and education for all planners, not just the policy planners, to allow them to become more familiar with the historical and current links between health and planning. This awareness training could also be extended to other stakeholders to achieve a more holistic approach particularly in the training of health professionals to provide them with an overview of the subject and demonstrate the interconnectedness of the two disciplines and to support collaboration and interdisciplinary working.
- Investigate if HIA and HUP could contribute to a better health outcome for all people and communities through the planning process.

## 8.6 Summary

This research has identified many stakeholders from diverse backgrounds who need to engage with each other to ensure that health is a once again at the heart of planning.

This research has attempted to provide a greater understanding of the impact of the built environment on obesity. The Foresight report identified planning as a factor in the aetiology of obesity (Duggan et al., 2007) although lifestyles are one of the most important factors (Prentice and Jebb, 1996). A number of studies have claimed that the obesogenic environments are created by the UK planning system (Burgoine, 2011; Lake and Townshend, 2006; Townshend and Lake, 2009). It has also been claimed that the design of the built environment has potential for addressing many of public health issues, including obesity (Jackson 2003b; Lake and Townshend, 2006).

The global obesity epidemic needs to be dealt with but no single discipline can do this on their own, not even health. If all the stakeholders had played their part in the past, then it's unlikely that we would be in this desperate situation now. The obesity crisis needs urgent action but only a joined up approach will foster long lasting results. Planning and health must come together to ensure this happens:

*'...bridges must be built between work in different settings. Quite apart from the fact that one setting can learn a lot from another, it is clear that in relation to specific health-related topics, an issue impacting on health in one setting frequently has its origin or solution in another.'*

(Dooris, 2004:58)

*'At all levels of the urbanisation debate – global, national and local, it is apparent that health must become actively engaged in order to enhance the sustainability of planning activities. HIA is now established as one tool to facilitate that engagement'.*

(Harris et.al., 2007:150)

*'...the role of planning in facilitating the pattern and scale of land use and development undoubtedly contributes – both as a cause and solution – to the level of health inequalities witnessed in many towns and cities today. Like spatial planning, health is cross-cutting and should not be viewed in isolation'*

(Ellis et al., 2010:16)

This research has never intended to imply that personal responsibility should be ignored when it comes to food and lifestyle choices; a sentiment that Franco and Williams agree with:

*'Ultimately, the individual must assume some responsibility for health improvement'*

(Franco and Williams, 2000:14)

However, the planning system, albeit in some small way, may influence the food and activity choices that are made through the design of neighbourhoods and the food choices available thus allowing better, healthier lifestyle choices to be made.

Chaput et al. succinctly sum up this research when they say:

*'The power of the environment should thus not be underestimated when looking for ways to prevent and treat obesity and other weight-related problems.'*

(Chaput et al., 2011:e18).

If there is only message that the reader takes from this research it is that the planning fraternity needs to *'make explicit the links between urban planning and public health in order to gain legitimacy for [our] joint work, conduct the strongest possible science to better guide effective public policy, and work collaboratively with a broad range of partners conducting both environmental and health impact assessments to better ensure that the overarching goals of equality and democracy are realized in the projects, programs, and policies we approve and undertake'* (Northridge and Sclar, 2003:120-1).

There continues to be an urgent need to solve the global obesity crisis. It is a tremendous challenge to change the planning system in order for it to reflect on its original purpose to tackle the health problems of the 19<sup>th</sup> century and to apply the knowledge to developing a planning system for the 21<sup>st</sup> century. Only time will tell if the NPPF is the start of this change.

# Bibliography

## References

- AGIS, T. & DRAPER, R. A. (1993). The Healthy Cities project: New developments and research needs. In: DAVIES, J. K. & KELLY, M. P. (eds.) *Healthy Cities: Research and Practice*. London: Routledge.
- ALLMENDINGER, P.(2002). *Planning Theory*, Basingstoke, Palgrave.
- ALWAN, A. (2008). Opening ceremony. 16th European Congress on Obesity, 14-17 May. Geneva, Switzerland.
- AMSLER, S. (2009). Embracing the politics of ambiguity: towards a normative theory of "sustainability". *Capitalism Nature Socialism*, 20, 111-125.
- ANDREADIS, E. & SMITH, J. (2007). Beyond the Ozone Layer. *British Journalism Review*, 18, 50-56.
- ANTONOVSKY, A. (1996). The salutogenic model as a theory to guide health promotion. *Health Promotion International*, 11, 11-18.
- ASHE, M., FELDSTEIN, L. M., GRAFF, S., KLINE, R., PINKAS, D. & ZELLERS, L. (2007). Local venues for change: Legal strategies for healthy environments. *Journal of Law Medicine & Ethics*, 35, 138-+.
- ASHTON, J., GREY, P. & BARNARD, K. (1986). Healthy cities - WHO's New Public Health Initiative. *Health Promotion*, 1, 319 - 324.
- ASHTON, J. R. (2002). Healthy cities and healthy settings. *Promot Educ*, Suppl 1, 12-4.
- ATTRIDE-STIRLING, J. (2001). Thematic networks: an analytic tool for qualitative research. *Qualitative Research*. 1, 385-405.
- BARIC, L. (1993). The settings approach-implications for policy and strategy. *Journal of the Institute of Health Education*, 31, 17-24.
- BARKER, D. J. P. (2007). Obesity and early life. *Obesity Reviews*, 8, 45-49.
- BARTON, H., MITCHAM, C. & TSOUROU, C. (eds) (2003). *Healthy Urban Planning in practice: experience of European cities*. WHO Regional Office for Europe, Copenhagen.
- BARTON, H. (2005a). A Health Map for Urban Planners: Towards a Conceptual Model for Healthy, Sustainable Settlements. *Built Environment*, 31, 339-355.
- BARTON, H. (2005b). Healthy Urban Planning: Setting the Scene. *Built Environment*, 31, 281-287.
- BARTON, H. & GRANT, M. (2006). A health map for the local human habitat. *Journal of the Royal Society for the Promotion of Health*, 126, 252-253.
- BARTON, H. & GRANT, M. (2008). Testing time for sustainability and health: striving for inclusive rationality in project appraisal. *The Journal of the Royal Society for the Promotion of Health*, 128, 130-139.

- BARTON, H. & GRANT, M. (2013). Urban Planning for Healthy Cities: A Review of the Progress of the European Healthy Cities Programme. *Journal of Urban Health, Issue 1 Supplement*, 90, 129-141.
- BARTON, H., GRANT, M., MITCHAM, C. & TSOUROU, C. (2009). Healthy urban planning in European cities. *Health Promot. Int.*, 24, i91-99.
- BARTON, H. & TSOUROU, C. (2000). *Healthy urban planning: a WHO guide to planning for people*, Routledge.
- BBC NEWS. (2006). *Town planning blamed for obesity*. [Online] Available: <http://news.bbc.co.uk/go/pr/fr/-/1/hi/health/5386024.stm> [Accessed 15th February 2009].
- BBC NEWS. (2007). *Obesity 'not individuals' fault'*. [Online] Available: <http://news.bbc.co.uk/1/hi/health/7047244.stm> [Accessed 15th February 2009].
- BBC NEWS. (2009). *Gene flaw 'causes child obesity'*. [Online] Available: <http://news.bbc.co.uk/1/hi/health/8394991.stm> [Accessed 15th December 2009].
- BBC NEWS. (2010). *CRU climate scientists 'did not withhold data'*. [Online] Available: <http://www.bbc.co.uk/news/10538198> [Accessed 18th October 2010].
- BBC NEWS. (2014). *Who, What, Why: is an 'obesogenic' environment?* [Online] Available at: <http://www.bbc.co.uk/news/blogs-magazine-monitor-27601593> [Accessed 2<sup>nd</sup> August 2014].
- BECKERMAN, W. (1994). 'Sustainable Development': Is it a Useful Concept? *Environmental Values*, 3, 191-209.
- BERTENS, H. (1995). *The idea of the postmodern: a history*, London, Routledge.
- BIRLEY, M. & GENANDRIALINE, L. (1995). The health impact assessment of development projects.
- BLACK, D. 2015. *Should HIA be legally mandatory in national government legislation for domestic application within countries?* [on-line] Message to HIANET user group. Sent 1 April 2015. (cited 3 April 2015). Group communication. HIANET@jiscmail.ac.uk.
- BOOTH, K. M., PINKSTON, M. M. & POSTON, W. S. C. (2005). Obesity and the built environment. *Journal of the American Dietetic Association*, 105, S110-S117.
- BOOTH, P. (2003). *Planning by consent : the origins and nature of British development control*, London; New York, Routledge.
- BOUTILIER, M., CLEVERLY, S. & LABONTE, R. (2000). Community as a Setting for Health Promotion. In: POLAND, B., ROOTMAN, I. & GREEN, L. (eds.) *Settings for Health Promotion: linking theory and practice*. New York: Sage Publications.
- BOWLING, A. (2009). *Research Methods in Health: Investigating health and health services*, Maidenhead, Open University Press.
- BRAY, G. A. (2009). History of Obesity. In: WILLIAMS, G. & FRUHBECK, G. (eds.) *Obesity: Science to Practice*. Chichester: Wiley-Blackwell.
- BRUNDTLAND, G. World Commission on Environment and Development (1987), Our common future. *World Commission for Environment and Development*.
- BRUNDTLAND, G. H. (1987). *World Commission on Environment and Development: Our Common Future*, Oxford, Oxford University Press Oxford.

- BRYMAN, A. (2004). *Social research methods*, Oxford; New York, Oxford University Press.
- BURGOINE, T., ALVANIDES, S. & LAKE, A. A. (2011). Assessing the obesogenic environment of North East England. *Health & Place*, 17, 738-747.
- BURONI, A. 2015. *Should HIA be legally mandatory in national government legislation for domestic application within countries?* [on-line] Message to HIANET user group. Sent 1 April 2015. (cited 3 April 2015). Group communication. HIANET@jjscmail.ac.uk.
- BURR, V. (2003). *Social Constructionism*, New York, Routledge.
- BUTLAND, B., JEBB, S., KOPELMAN, P., MCPHERSON, K., THOMAS, S., MARDELL, J. & PARRY, V. (2007). Tackling obesities: Future choices—Project report *In: SCIENTIST*, G. O. O. T. C. (ed.) 2nd ed.
- CABE (2009). *Future health: sustainable places for health and well-being*. London: Commission for Architecture and the Built Environment.
- CAPON, A. G. (2007). Health impacts of urban development: key considerations. *New South Wales public health bulletin*, 18, 155-6.
- 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. *Environmental Impact Assessment Review*, 32, 187-194.
- CHAPUT, J. P., KLINGENBERG, L., ASTRUP, A. & SJODIN, A. M. (2011). Modern sedentary activities promote overconsumption of food in our current obesogenic environment. *Obesity Reviews*, 12, e12-e20.
- CHEEK, J. (1999). Influencing practice or simply esoteric? Researching health care using postmodern approaches. *Qualitative Health Research*, 9, 383-392.
- COCKERHAM, W. C., RUTTEN, A. & ABEL, T. (1997). Conceptualizing contemporary health lifestyles: Moving beyond Weber. *Sociological Quarterly*, 38, 321-342.
- COFFEY, A., HOLBROOK, B. & ATKINSON, P. (1996). Qualitative Data Analysis: Technologies and Representations. *Sociological Research Online* [Online], 1. Available: <http://www.socresonline.org.uk/1/1/4.html> [Accessed 29/03/12].
- CONCISE OXFORD ENGLISH DICTIONARY (COED). (2006). SOANES, C. & STEVENSON, A. (eds.) *Concise Oxford English Dictionary*. Eleventh, Revised ed. Oxford: Oxford University Press.
- CORBURN, J. (2004). Confronting the Challenges in Reconnecting Urban Planning and Public Health. *American Journal of Public Health*. 94, 4, 541-546.
- COUNSELL, D. & HAUGHTON, G. (2006). Sustainable development in regional planning: The search for new tools and renewed legitimacy. *Geoforum*, 37, 921-931.
- CRESSWELL, J. W. (2009). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches*, Thousand Oaks, California, SAGE Publications.
- CROSSLEY, N. (2004). Fat is a Sociological Issue: Obesity Rates in Late Modern, 'Body-Conscious' Societies. *Social Theory & Health*, 2, 222-253.
- CROTTY, M. (1998). *The Foundations of Social Research*, London, SAGE.
- CULLINGWORTH, J. B. & NADIN, V. (2006). *Town and country planning in the UK*, London; New York, Routledge.

- DAVENPORT, C., MATHERS, J. & PARRY, J. (2006). Use of health impact assessment in incorporating health considerations in decision making. *Journal of Epidemiology and Community Health*, 60, 196-201.
- DAVIES, J. K. & KELLY, M. P. (1993). Healthy Cities: Research and practice. In: DAVIES, J. P. & KELLY, M. P. (eds.) *Healthy Cities: Research and practice*. London: Routledge.
- DEAR, M. J. (2000). *The postmodern urban condition*, Oxford, OX., England; Malden, Mass, Blackwell.
- DEPARTMENT FOR COMMUNITIES AND LOCAL GOVERNMENT (DCLG). (1999). *Circular 02/99: Environmental Impact Assessment*. DCLG, London. Available <http://www.communities.gov.uk/documents/planningandbuilding/pdf/155958.pdf>
- DEPARTMENT FOR COMMUNITIES AND LOCAL GOVERNMENT (DCLG). (2000). *Environmental impact assessment: A guide to procedures*. DCLG, London. Available: <http://www.communities.gov.uk/documents/planningandbuilding/pdf/157989.pdf>
- DEPARTMENT FOR COMMUNITIES AND LOCAL GOVERNMENT (DCLG). (2008). *Planning Policy Statement 12: creating strong safe and prosperous communities through Local Spatial Planning*. DCLG, London.
- DEPARTMENT FOR ENVIRONMENT FOOD AND RURAL AFFAIRS (DEFRA). (2005). *The UK Government Sustainable Development Strategy*. London: The Stationery Office.
- DEPARTMENT FOR ENVIRONMENT FOOD AND RURAL AFFAIRS (DEFRA). (2011). *Mainstreaming sustainable development: The Government's vision and what this means in practice*. London: Department for Environment Food and Rural Affairs.
- DEPARTMENT OF HEALTH. (2001). *The Report of the Chief Medical Officer's Project to Strengthen the Public Health Function*. London, Department of Health.
- DEPARTMENT OF HEALTH. (2007). *Guidance on Joint Strategic Needs Assessment*. Department of Health, London.
- DEPARTMENT OF HEALTH. (2011). *Healthy lives, healthy people: a call to action on obesity in England*. In: Department of Health, London.
- DEPARTMENT OF HEALTH. (2012). *A short guide to health and wellbeing boards*. <http://webarchive.nationalarchives.gov.uk/20130805112926/http://healthandcare.dh.gov.uk/hwb-guide/> [Accessed 01/03/2014]
- DOORIS, M., DOWDING, G., THOMPSON, J. & WYNNE, C. (1998). The settings approach to health promotion. In: TSOUROS, A., DOWDING, G., THOMPSON, J. & DOORIS, M. (eds.) *Health Promoting Universities: Concept, Experience and Framework for Action*. WHO Regional Office for Europe, Copenhagen.
- DOORIS, M. (1999). Healthy Cities and Local Agenda 21: the UK experience - challenges for the new millennium. *Health Promotion International*, 14, 365-375.
- DOORIS, M. (2004). Joining up settings for health: a valuable investment for strategic partnerships? *Critical Public Health*, 14, 49-61.
- DOORIS, M. (2006). Healthy settings: challenges to generating evidence of effectiveness. *Health Promotion International*, 21, 55-65.
- DOORIS, M. (2009). Holistic and sustainable health improvement: the contribution of the settings-based approach to health promotion. *Perspectives in Public Health*, 129, 29-36.

- DOYLE, S., KELLY-SCHWARTZ, A., SCHLOSSBERG, M. & STOCKARD, J. (2006). Active community environments and health - The relationship of walkable and safe communities to individual health. *Journal of the American Planning Association*, 72, 19-31.
- DUGGAN, M., LAWRENCE, M. & BUTLAND, B. (2007). Foresight Tackling Obesities: Future Choices - Obesogenic Environments - Summary of Discussion Workshops. Government Office for Science, London.
- DUHL, L. J. (1986). The healthy city: its function and its future. *Health Promotion International*, 1, 55.
- DUHL, L. J. & SANCHEZ, A. K. (1999). Healthy Cities and the City Planning Process. A background document on links between health and urban planning. Copenhagen: WHO Regional Office for Europe.
- DUNLEAVY, P. (2003). *Authoring a PhD: how to plan, draft, write, and finish a doctoral thesis or dissertation.*, Houndmills, Basingstoke, Hampshire, Palgrave Macmillan.
- DURAND, C. P., ANDALIB, M., DUNTON, G. F., WOLCH, J. & PENTZ, M. A. (2011). A systematic review of built environment factors related to physical activity and obesity risk: implications for smart growth urban planning. *Obesity Reviews*, 12, e173-e182.
- EAGLETON, T. (1996). *The Illusions of Postmodernism*, Oxford, Blackwell.
- EBERWINE, D. (2002). Globesity: The Crisis of Growing Proportions. *Perspectives in Health Magazine*. Washington: The Pan American Health Organisation.
- EDWARDS, P. & TSOUROS, A. D. (2008). A healthy city is an active city: a physical activity planning guide. Copenhagen, Denmark: WHO Regional Office for Europe.
- ELLIS, H., CHANG, M. & MANNION, F. (2010). Spatial Planning for Health: A guide to embedding the Joint Strategic Needs Assessment in spatial planning. London: hyde and tcpa.
- EWING, R., SCHMID, T., KILLINGSWORTH, R., ZLOT, A. & RAUDENBUSH, S. (2003). Relationship between urban sprawl and physical activity, obesity, and morbidity. *American Journal of Health Promotion*, 18, 47-57.
- FOSTER, C., HILLSDON, M. & THOROGOOD, M. (2004). Environmental perceptions and walking in English adults. *Journal of Epidemiology and Community Health*, 58, 924-928.
- FRANCO, D. A. & WILLIAMS, C. E. (2000). "Airs, Waters, Places" and Other Hippocratic Writings: Inferences for Control of Foodborne and Waterborne Disease. *Journal of Environmental Health*, 62, 9-14.
- FREDSGAARD, M. W., CAVE, B. & Bond, A. (2009). *A review package for Health Impact Assessment reports of development projects*. Leeds, UK, Ben Cave Associates Ltd.
- FULLER, T. & LOOGMA, K. (2009). Constructing futures: A social constructionist perspective on foresight methodology. *Futures*, 41, 71-79.
- GILMAN, S. L. (2010). *Obesity: The Biography*, Oxford, Oxford University Press.
- GISKES, K., VAN LENTHE, F., AVENDANO-PABON, M. & BRUG, J. (2010). A systematic review of environmental factors and obesogenic dietary intakes among adults: are we getting closer to understanding obesogenic environments? *Obesity Reviews*, 12, e95-e106.



- GRANT, M. & BARTON, H. (2012). No weighting for healthy sustainable local planning: evaluation of a participatory appraisal tool for rationality and inclusivity. *Journal of Environmental Planning and Management*, 56(9), 1267-1289.
- 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, 889-897.
- GREED, C. (2000). *Introducing planning*, London; New Brunswick, NJ; London; New York, Athlone Press ; Continuum.
- GREEN, J. & TONES, K. (2010). *Health promotion : planning and strategies*, Los Angeles, SAGE.
- GREEN, L. 2015. *Should HIA be legally mandatory in national government legislation for domestic application within countries?* [on-line] Message to HIANET user group. Sent 2 April 2015. (cited 3 April 2015). Group communication. HIANET@jiscmail.ac.uk.
- HAMLIN, C. & SHEARD, S. (1998). Revolutions in public health: 1848, and 1998? *BMJ*, 317, 587-591.
- HANCOCK, T. (1993). The Healthy City from concept to application: Implications for research. In: DAVIES, J. K. & KELLY, M. P. (eds.) *Healthy Cities: Research & Practice*. London: Routledge.
- HANCOCK, T. (2000). Healthy communities must also be sustainable communities. *Public Health Reports*, 115, 151-156.
- HANDY, S. L., BOARNET, M. G., EWING, R. & KILLINGSWORTH, R. E. (2002). How the built environment affects physical activity - Views from urban planning. *American Journal of Preventive Medicine*, 23, 64-73.
- HARDY, M. A. & BRYMAN, A. (2004). *Handbook of data analysis*, London, Sage Publications.
- HARRIS, P. J., HARRIS-ROXAS, B. F. & KEMP, L. (2007). Health impact assessment in urban settings. *NSW Public Health Bulletin*, 18.
- HARRIS-ROXAS, B. & HARRIS, E. (2011). Differing forms, differing purposes: A typology of health impact assessment. *Environmental Impact Assessment Review*, 31, 396-403.
- HASLAM, D. & RIGBY, N. (2010). The art of medicine A long look at obesity. *Lancet*, 376, 85-86.
- HEDGCOCK, D., HILLIER, J. & WOOD, D. (1991). Planning, Postmodernism and Community Power. *Urban Policy and Research*, 9, 220-226.
- HEERWAGEN, J. (2009). Biophilia, Health, and Well-being. In: CAMPBELL, L. & WIESEN, A. (eds.) *Restorative Commons: Creating Health and Well-Being Through Urban Landscapes*. Gen. Tech. Rep. NRS-P-39. Newtown Square, PA: U.S. Department of Agriculture, Forest Service, Northern Research Station.
- HILL, J. O. & PETERS, J. C. (1998). Environmental contributions to the obesity epidemic. *Science*, 280, 1371-1374.
- HM GOVERNMENT. (1999). *A better quality of life - strategy for sustainable development for the United Kingdom*. London: The Stationery Office.
- HOUSE OF COMMONS. (2004). *Health - Third Report*. London, Health Committee Publications. Available <http://www.publications.parliament.uk/pa/cm200304/cmselect/cmhealth/23/2302.htm>

- HOWARD, E. (1898). *Garden Cities of To-Morrow*. Faber and Faber, London (repr 1965).
- HUANG, T. T. K. (2009). Solution-Oriented Research: Converging Efforts of Promoting Environmental Sustainability and Obesity Prevention. *American Journal of Preventive Medicine*, 36, S60-S62.
- ISON, E. (2009). The introduction of health impact assessment in the WHO European Healthy Cities Network. *Health Promot. Int.*, 24, i64-71.
- JACKSON, L. E. (2003a). The relationship of urban design to human health and condition. *Landscape and Urban Planning*, 64, 191-200.
- JACKSON, R. J. (2003b). The impact of the built environment on health: An emerging field. *American Journal of Public Health*, 93, 1382-1384.
- JONES, C., BAKER, M., CARTER, J., JAY, S., SHORT, M. & WOOD, C. (2005). *Strategic Environmental Assessment and Land Use Planning: An international evaluation*, London, Earthscan.
- KELLY, M. P., DAVIES, J. K. & CHARLTON, B. G. (1993). Healthy Cities: A modern problem or a post-modern solution? In: K., D. J. & KELLY, M. P. (eds.) *Healthy Cities: Research & Practice*. London: Routledge.
- KICKBUSCH, I. (1989). Healthy Cities: a working project and a growing movement. *Health Promot. Int.*, 4, 77-82.
- KICKBUSCH, I. (1996). Tribute to Aaron Antonovsky - 'What creates health'. *Health Promotion International*, 11, 5-6.
- KIRK, S. F. L., PENNEY, T. L. & MCHUGH, T. L. F. (2010). Characterizing the obesogenic environment: the state of the evidence with directions for future research. *Obesity Reviews*, 11, 109-117.
- KOPLAN, J. P., BOND, T. C., MERSON, M. H., REDDY, K. S., RODRIGUEZ, M. H., SEWANKAMBO, N. K., WASSERHEIT, J. N. & CONSORTIUM UNIV GLOBAL HLTH, E. (2009). Towards a common definition of global health. *Lancet*, 373, 1993-1995.
- LAKE, A. & TOWNSHEND, T. (2006). Obesogenic environments: exploring the built and food environments. *The Journal of the Royal Society for the Promotion of Health*, 126, 262-267.
- LANCASHIRE, U. O. C. (2007). *Ethical Principles for Teaching, Research, Consultancy, Knowledge Transfer and Related Activities*. University of Central Lancashire.
- LAVIN, T., HIGGINS, C., METCALFE, O. & JORDAN, A. (2006). *Health Effects of the Built Environment: A Review*. Dublin, Belfast: The Institute of Public Health in Ireland.
- LAWRENCE, R. J. (2005). Housing and Health: A Way Forward. *Built Environment*, 31, 315-325.
- LEEKE, M., SEAR, C. & GAY, O. (2003). Research Paper 03/84: An introduction to evolution in the UK. House of Commons Library: Parliament and Constitution Centre.
- LENARD, N. R. & BERTHOUD, H.-R. (2008). Central and Peripheral Regulation of Food Intake and Physical Activity: Pathways and Genes. *Obesity*, 16, S11-S22.
- LEVER-TRACY, C. (2008). Global warming and sociology. *Current Sociology*, 56, 445-466.
- LOCK, K. (2000). Health impact assessment. *BMJ: British Medical Journal*, 320, 1395.

- LOOS, R. J. F. & BOUCHARD, C. (2008). FTO: the first gene contributing to common forms of human obesity. *Obesity Reviews*, 9, 246-250.
- LOPEZ-ZETINA, J., LEE, H. & FRIIS, R. (2006). The link between obesity and the built environment. Evidence from an ecological analysis of obesity and vehicle miles of travel in California. *Health and Place*, 12, 656-664.
- LOVELOCK, J. (2010). *How climate change is affecting the planet*. BBC Radio 4, Today, 30 March.
- MARVIN, S. & MEDD, W. (2006). Metabolisms of obesity: flows of fat through bodies, cities, and sewers. *Environment and Planning A*, 38, 313-324.
- MASON, J. & DALE, A. (2011). *Understanding social research: thinking creatively about method.*, London, SAGE.
- MAYNE, S.L., AUCHINCLOSS, A.H. and MICHAEL, Y.L. (2015). Impact of obesity and built environment changes on obesity related outcomes: a systematic review of naturally occurring experiments. *Obesity Review*. doi:10.1111/obr.12269
- MCMICHAEL, A. & WOODRUFF, R. (2004). Climate change and risk to health. *British Medical Journal*, 329, 1416.
- MCMILLAN, K. & WEYERS, J. (2007). *How to write dissertations & project reports*, Harlow, Pearson Prentice Hall.
- METCALFE, O. & HIGGINS, C. (2009). Healthy public policy - is health impact assessment the cornerstone? *Public Health*, 123, 296-301.
- MICHAEL, Y. & YEN, I. (2009). Invited Commentary: Invited Commentary: Built Environment and Obesity Among Older Adults—Can Neighborhood-level Policy Interventions Make a Difference? *American Journal of Epidemiology*, 169, 409-412.
- MILEWA, T. & DELEEUEW, E. (1996). Reason and protest in the new urban public health movement: An observation on the sociological analysis of political discourse in the 'healthy city'. *British Journal of Sociology*, 47, 657-670.
- MOORE, V. (2005). *A practical approach to planning law*, Oxford, Oxford University Press.
- MORRIS, H. (2007). Weight Gains in Profile. *Planning*, 1742, 16-17.
- NAIDOO, J. & WILLS, J. (2008). *Health studies: an introduction*, Basingstoke, Palgrave Macmillan.
- NICE (2011). *Information on spatial planning for health* [Online] Available from: <https://www.nice.org.uk/proxy/?sourceUrl=http%3a%2f%2fwww.nice.org.uk%2fguidance%2fphg%2fSpatialPlanningInfo.jsp>. [Accessed 05<sup>th</sup> April 2014].
- NORTHRIDGE, M. E. & SCLAR, E. (2003). A joint urban planning and public health framework: Contributions to health impact assessment. *American Journal of Public Health*, 93, 118-121.
- NUTBEAM, D. (1998). Health promotion glossary. *Health Promotion International*, 13, 349-364.
- OFFICE OF THE DEPUTY PRIME MINISTER (ODPM). 2005. *Planning Policy Statement 1: Delivering Sustainable Development*. ODPM, London.
- ORME, J. & DOORIS, M. (2010). Integrating health and sustainability: the higher education sector as a timely catalyst. *Health Education Research*, 25, 425-437.

- PAPAS, M. A., ALBERG, A. J., EWING, R., HELZLSOUER, K. J., GARY, T. L. & KLASSEN, A. C. (2007). The built environment and obesity. *Epidemiologic Reviews*, 29, 129-143.
- PARLIAMENTARY OFFICE OF SCIENCE AND TECHNOLOGY. (2004). *Postnote: Strategic Environmental Assessment (SEA)*. Parliamentary Office for Science and Technology, 223.
- PERDUE, W. C., GOSTIN, L. O. & STONE, L. A. (2003). Public health and the built environment: Historical empirical, and theoretical foundations for an expanded role. *Journal of Law Medicine & Ethics*, 31, 557-+.
- PILKINGTON, P., GRANT, M. & ORME, J. (2008). Promoting integration of the health and built environment agendas through a workforce development initiative. *Public Health*, 122, 545-551.
- POLAND, B. D., GREEN, L. W. & ROOTMAN, I. (2000). *Settings for health promotion: linking theory and practice.*, Thousand Oaks, California, Sage Publications.
- POLLAN, M. (2003). The Way We Live Now: The (Agri)Cultural Contradictions of Obesity. *The New York Times Magazine*. New York: The New York Times Company.
- POORTINGA, W. (2006). Perceptions of the environment, physical activity, and obesity. *Social Science & Medicine*, 63, 2835-2846.
- POPKIN, B. M. (2009). *The world is fat : the fads, trends, policies, and products that are fattening the human race*, New York, Avery.
- POWER, M. L. & SCHULKIN, J. (2009). *The Evolution of Obesity*, Baltimore, Maryland, The Johns Hopkins University Press.
- PRENTICE, A. M. & JEBB, S. A. (1995). OBESITY IN BRITAIN - GLUTTONY OR SLOTH. *British Medical Journal*, 311, 437-439.
- PRETTY, J., PEACOCK, J., HINE, R., SELLENS, M., SOUTH, N. & GRIFFIN, M. (2007). Green exercise in the UK countryside: Effects on health and psychological well-being, and implications for policy and planning. *Journal of Environmental Planning and Management*, 50, 211-231.
- QUIGLEY, R., DEN BROEDER, L., FURU, P., BOND, A., CAVE, B. & BOS, R. (2006). Health Impact Assessment International Best Practice Principles. Special Publication Series No. 5. Fargo, USA: International Association for Impact Assessment.
- RACIOPPI, F., DORA, C. & RUTTER, H. (2005). Urban Settings and Opportunities for Healthy Lifestyles: Rediscovering Walking and Cycling and Understanding Their Health Benefits. *Built Environment*, 31, 302-314.
- RAINE, K., SPENCE, J., CHURCH, J., BOULÉ, N., SLATER, L., MARKO, J., GIBBONS, K. & HEMPHILL, E. (2008). State of the Evidence Review on Urban Health and Healthy Weights.
- RAO, M., PRASAD, S., ADSHEAD, F. & TISSERA, H. (2007). The built environment and health. *Lancet*, 370, 1111-1113.
- ROSEN, G. (1993). *A history of public health*, Baltimore, Johns Hopkins University Press.
- ROSS, A. & CHANG, M. (2014). *Planning healthy-weight environments - a TCPA reuniting health with planning project*. The Town and Planning Association.

- RYDIN, Y. (2003). *Urban and environmental planning in the UK*, Basingstoke, Palgrave Macmillan.
- RYDIN, Y. (2007). Re-Examining the Role of Knowledge Within Planning Theory. *Planning Theory*, 6, 52-68.
- RYDIN, Y. (2011). *The Purpose of Planning: Creating sustainable towns and cities*, Bristol, Policy Press.
- SALDANA, J. (2009). *The coding manual for qualitative researchers.*, London, Sage.
- SMART, B. (1992). *Modern conditions, postmodern controversies*, London, Routledge.
- SRINIVASAN, S., O'FALLON, L. R. & DEARRY, A. (2003). Creating healthy communities, healthy homes, healthy people: Initiating a research agenda on the built environment and public health. *American Journal of Public Health*, 93, 1446-1450.
- STERN, N. H. (2007). *The economics of climate change: the Stern review*. Cambridge, Cambridge University Press.
- SUTCLIFFE, A. (1980). *The Rise of Modern Urban Planning 1800 - 1914*, London, Mansell.
- SWETNAM, D. (2004). *Writing your Dissertation*, Oxford, How To Books Ltd.
- SWINBURN, B., EGGER, G. & RAZA, F. (1999). Dissecting obesogenic environments: The development and application of a framework for identifying and prioritizing environmental interventions for obesity. *Preventive Medicine*, 29, 563-570.
- SWINBURN, B. A. (2008). Obesity prevention: the role of policies, laws and regulations. *Aust New Zealand Health Policy*, 5, 12.
- TAYLOR, L. & BLAIR-STEVENSON, C. (Eds) (2002). *Introducing health impact assessment (HIA): Informing the decision-making process*. Health Development Agency, London.
- TAYLOR, N. (1998). *Urban Planning Theory since 1945*, London, Sage Publications.
- THE LANCET. (2014) *Obesity rates climbing worldwide, most comprehensive global study to date shows*. ScienceDaily. ScienceDaily, 28 May 2014.  
<[www.sciencedaily.com/releases/2014/05/140528204215.htm](http://www.sciencedaily.com/releases/2014/05/140528204215.htm)> [Accessed 01 April 2014].
- THERIVEL, R. (2004). *Strategic Environmental Assessment in Action*, London, Earthscan.
- THE NATIONAL ASSEMBLY FOR WALES. (1999). *Developing Health Impact Assessment in Wales: Better Health, Better Wales*. Wales: The Health Promotion Division, National Assembly for Wales.
- THOMPSON, S. (2007). A planner's perspective on the health impacts of urban settings. *New South Wales public health bulletin*, 18, 157-60.
- TOWNSHEND, T. & LAKE, A. A. (2009). Obesogenic urban form: Theory, policy and practice. *Health & Place*, 15, 909-916.
- TSOUROS, A. & DRAPER, R. A. (1993). The Healthy Cities project: New developments and research needs. In: DAVIES, J. K. & KELLY, M. P. (eds.) *Healthy Cities: Research and Practice*. London: Routledge.
- TSOUROS, A. D. (1989). Equity and the Healthy Cities project. *Health Promot. Int.*, 4, 73-75.

- TSOUROS, A. D. (1995). The WHO Healthy Cities Project: state of the art and future plans. *Health Promot. Int.*, 10, 133-141.
- UNITED KINGDOM, Department for Communities and Local Government, (2012). *National Planning Policy Framework*. Department for Communities and Local Government, UK. [Available at: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/6077/2116950.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf)]
- UNITED KINGDOM, Department for Communities and Local Government Select Committee, (2014). *Operation of the National Planning Policy Framework*. London: The Stationery Office Limited. [Available at: <http://www.publications.parliament.uk/pa/cm201415/cmselect/cmcomloc/190/190.pdf>]
- UNITED NATIONS (UN). (1998). *Kyoto Protocol to the United Nations Framework Convention on Climate Change*. Available <http://unfccc.int/resource/docs/convkp/kpeng.pdf>
- UNITED NATIONS CONFERENCE ON ENVIRONMENT AND DEVELOPMENT (UNCED). (1992). *The Rio Declaration*. Available: <http://www.un.org/geninfo/bp/enviro.html>
- VAN KAMP, I., LEIDELMEIJER, K., MARSMAN, G. & DE HOLLANDER, A. (2003). Urban environmental quality and human well-being: Towards a conceptual framework and demarcation of concepts; a literature study. *Landscape and Urban Planning*, 65, 5-18.
- VEERMAN, J. L., MACKENBACH, J. P. & BARENDREGT, J. J. (2007). Validity of predictions in health impact assessment. *Journal of Epidemiology and Community Health*, 61, 362-366.
- VOHRA, S. (2007). International perspective on health impact assessment in urban settings. *New South Wales public health bulletin*, 18, 152-4.
- WALL-E. (2008). Directed by STANTON, A.: Disney Pixar.
- WARD, G. (2010). *Understand postmodernism*, London, Teach Yourself.
- WARD, S. V. (2004). *Planning and Urban Change*, London, Sage Publications.
- WAREHAM, N. J., VAN SLUIJS, E. M. F. & EKELUND, U. (2005). Physical activity and obesity prevention: a review of the current evidence. *Proceedings of the Nutrition Society*, 64, 229-247.
- WEBLER, T., KASTENHOLZ, H. & RENN, O. (1995). Public participation in impact assessment: a social learning perspective. *Environmental Impact Assessment Review*, 15, 443-463.
- WEBSTER, P. & LIPP, A. (2009). The evolution of the WHO city health profiles: a content review. *Health Promot. Int.*, 24, i56-63.
- WELSH HEALTH IMPACT ASSESSMENT SUPPORT UNIT (WHIASU). (2004). *Improving Health and Reducing Inequalities: A practical guide to health impact assessment*. Cardiff, WHIASU.
- WENZEL, E. (1997). A comment on settings in health promotion. *Internet Journal of Health Promotion*. Available at <http://www.idb.org/settings.htm> [Accessed 13 May 2010].
- WHITEHEAD, M. & DAHLGREN, G. (1991). What Can Be Done About Inequalities In Health. *Lancet*, 338, 1059-1063.
- WORLD HEALTH ORGANISATION (WHO). nd. *City Health Profiles: how to report on health in your city*. Copenhagen, WHO Regional Office for Europe. Available [http://www.euro.who.int/\\_\\_data/assets/pdf\\_file/0009/101061/wa38094ci.pdf](http://www.euro.who.int/__data/assets/pdf_file/0009/101061/wa38094ci.pdf)

- WORLD HEALTH ORGANISATION (WHO). (1946). *Preamble to the Constitution of the World Health Organisation as adopted by the International Health Conference, New York, 19-22 June, 1946; signed on 22 July 1946 by the representatives of 61 States (Official Records of the World Health Organisation, no.2, p.100) and entered into force on 7 April 1978*. Available <http://www.who.int/about/definition/en/print.html>
- WORLD HEALTH ORGANISATION (WHO). (1986). *Ottawa Charter for Health Promotion*. World Health Organisation, Geneva.
- WORLD HEALTH ORGANISATION (WHO). (1991). *Sundsvall Statement on Supportive Environments for Health*. Geneva, WHO.
- WORLD HEALTH ORGANISATION (WHO). (1997). *Jakarta Declaration on Health Promotion into the 21<sup>st</sup> Century*. WHO, Geneva.
- WORLD HEALTH ORGANISATION (WHO). (1998). *City Health Profiles: A review of progress*. WHO Regional Office for Europe, Copenhagen.
- WORLD HEALTH ORGANISATION (WHO). (1999a). *Health impact assessment: main concepts and suggested approach*. WHO Regional Office for Europe, Copenhagen.
- WORLD HEALTH ORGANISATION (WHO). (1999b). *Health 21 The health for all policy framework for the WHO European Region*. WHO Regional Office for Europe, Copenhagen.
- WORLD HEALTH ORGANISATION (WHO). (2001). *A working tool on city health development planning: Concept, process, structure, and content*. WHO Centre for Urban Health.
- WORLD HEALTH ORGANISATION (WHO). (2003). *Phase IV (2003-2007) of the WHO Healthy Cities Network in Europe: Goals and Requirements*. WHO Regional Office for Europe, Copenhagen.
- WORLD HEALTH ORGANISATION (WHO). (2004). *Global Strategy on Diet, Physical Activity and Health*. WHO, Geneva.
- WORLD HEALTH ORGANISATION (WHO). (2005). *Bangkok Charter for Health Promotion in a Globalised World*. WHO, Geneva.
- WORLD HEALTH ORGANISATION (WHO). (2006). *European Charter on counteracting obesity. WHO European Ministerial Conference on Counteracting Obesity*. Istanbul, Turkey.
- WORLD HEALTH ORGANISATION (WHO). (2006b). *Gaining health: The European Strategy for the Prevention and Control of Noncommunicable Diseases*. WHO Regional Office for Europe, Copenhagen.
- WORLD HEALTH ORGANISATION (WHO). (2009a). *Phase V (2009-2013) of the WHO European Healthy Cities Network: goals and requirements*. WHO Regional Office for Europe, Copenhagen.
- WORLD HEALTH ORGANISATION (WHO). (2009b). *Zagreb Declaration for Healthy Cities. Health and health equity in all local policies*. Copenhagen: WHO Regional Office for Europe.
- WORLD HEALTH ORGANISATION (WHO). (2011). *Obesity and overweight*. [Online]. World Health Organisation. Available: <http://www.who.int/mediacentre/factsheets/fs311/en/index.html> [Accessed 09 October 2011].

- WORLD HEALTH ORGANISATION (WHO). (2012). *Health Impact Assessment (HIA)* [Online]. World Health Organisation. Available: <http://www.who.int/hia/en> [Accessed 03 January 2012].
- WHO/UNICEF. (1978). Declaration of Alma-Ata. 6 - 12 September 1978 1978 USSR. WHO, Geneva.
- WISKER, G. (2001). *The postgraduate research handbook : succeed with your MA, MPhil, EdD and PhD*, Basingstoke, Palgrave.
- YIFTACHEL, O. (1989). Towards A New Typology Of Urban-Planning Theories. *Environment and Planning B-Planning & Design*, 16, 23-39.
- YOUNGER, M., MORROW-ALMEIDA, H. R., VINDIGNI, S. M. & DANNENBERG, A. L. (2008). The Built Environment, Climate Change, and Health Opportunities for Co-Benefits. *American Journal of Preventive Medicine*, 35, 517-526.

## Internet Sources

- ATLAS Planning  
<http://www.atlasplanning.com/page/index.cfm> [Accessed on 12 June 2013]
- Ben Cave Associates  
<http://www.bcahealth.co.uk/> [Accessed on [Accessed on 02 July 2014]
- Bristol Online Surveys – Health and Planning  
<http://www.survey.bris.ac.uk/healthandplanning> [Accessed on 28 July 2014]
- Bristol Online Surveys – Healthy Cities  
<http://www.survey.bris.ac.uk/healthycities> [Accessed on 28 July 2014]
- Bristol Online Surveys – Home page  
<http://www.survey.bris.ac.uk/> [Accessed on 28 July 2014]
- Department for Communities and Local Government  
[www.communities.gov.uk](http://www.communities.gov.uk) [Accessed on 16 April 2011]
- Department for Environment Food and Rural Affairs  
<http://www.defra.gov.uk/sustainable/government> [Accessed on 29 September 2010]
- Department of Energy and Climate Change  
<http://www.decc.gov.uk> [Accessed on 01 March 2010]
- Department of Health – obesity facts  
<http://www.dh.gov.uk/health/2012/04/obesityfacts/> [accessed on 01 August 2013]
- Directgov – Health and Wellbeing  
<http://www.direct.gov.uk/en/HealthAndWellbeing/index.htm> [Accessed on 01 June 2010]
- Directgov – Home page  
<http://www.direct.gov.uk/en/index.htm> [Accessed on 01 December 2013]
- European Commission – Environmental Impact Assessment  
<http://ec.europa.eu/environment/eia/home.htm> [Accessed on 28 March 2010]



European Commission – Strategic Environmental Assessment  
<http://ec.europa.eu/environment/eia/sea-legalcontext.htm> [Accessed on 01 March 2010]

Google Scholar  
<http://scholar.google.co.uk/schhp?hl=en> [Accessed on 01 July 2014]

International Association for Impact Assessment  
<http://www.iaia.org/> [Accessed on 30 March 2013]

ISI Web of Knowledge  
<http://wok.mimas.ac.uk/> [Accessed on 18 August 2014]

Localism Act 2011  
<http://services.parliament.uk/bills/2010-11/localism.html> [Accessed on 30 November 2011]

MediLexicon – online dictionary  
<http://www.medilexicon.com/medicaldictionary.php?t=39448> [Accessed on 04 September 2011]

Merriam Webster – online dictionary  
<http://www.merriam-webster.com/dictionary/obesity> [Accessed 03 November 2011]

National Infrastructure Planning  
<http://infrastructure.planningportal.gov.uk/> [Accessed on 20 March 2012]

Sustainable Development Commission  
<http://www.sd-commission.org.uk> [Accessed on 01 March 2010]

United Nations Conference on Sustainable Development Rio +20  
<http://www.uncsd2012.org/about.html> [Accessed on 01 May 2013]

University of Central Lancashire – library catalogue  
<http://www.uclan.ac.uk/students/library/index.php> [Accessed on 20 February 2010]

Wales (Welsh) Health Impact Assessment Support Unit website  
<http://www.wales.nhs.uk/sites3/home.cfm?OrgID=522> [Accessed on 31 May 2014]

World Health Organisation – Health Impact Assessment  
<http://www.who.int/hia/en/> [Accessed on 03 April 2014]

World Health Organisation – Health topics: Obesity  
<http://www.who.int/topics/obesity/en/> [Accessed on 01 October 2013]

World Health Organisation – Healthy Cities  
<http://www.euro.who.int/en/what-we-do/health-topics/environment-and-health/urban-health/activities/healthy-cities> [Accessed on 23 March 2012]

World Health Organisation – Healthy Settings  
[http://www.who.int/healthy\\_settings/en/](http://www.who.int/healthy_settings/en/) [Accessed on 01 August 2012]

World Health Organisation – Urban Health  
<http://www.euro.who.int/en/what-we-do/health-topics/environment-and-health/urban-health>  
[Accessed on 30 November 2011]

## Appendices

## Appendix 1: Freedom of Information Request

Subject: Freedom of Information request

I am a PhD student and my core research area is how the built environment affects obesity.

Please could you provide me with the following information:

1. The total number of Health Impact Assessments (HIA) that have been submitted as a supporting document for a planning application
2. Whether or not the HIA was submitted on a voluntary or compulsory basis as part of the planning process
3. The description and reference number of the planning application each HIA corresponds to
4. An electronic copy of each document or the cost for photocopies of the documents

If you have any queries regarding this request please do not hesitate to contact me preferably by email as I am not always available in the office. I look forward to hearing from you.

Yours faithfully,

Sarah Custy

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[www.uclan.ac.uk](http://www.uclan.ac.uk)

## **Appendix 2: Telephone interview questions: Healthy City Coordinators**

Healthy City Co-ordinator

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### General questions

1. Who are the stakeholders involved in the Healthy City project?
2. Have you developed a:
  - a) City Health Development Plan
  - b) City Health Profile
3. If so how were these carried out and what data sources were used?

### Healthy Urban Planning

Healthy Urban Planning (HUP) is a key theme in Phase IV of the Healthy City projects.

4. Describe the approaches your city is taking in relation to HUP.
5. How have these approaches changed during the process?
6. In relation to HUP are any further approaches or procedures planned?

### Health Impact Assessment

Health Impact Assessments (HIA) are a key theme in Phase IV of the Healthy City projects.

7. Describe the approaches your city is taking in relation to HIA.
8. Have these approaches changed? If so, how?
9. In relation to HIA are any further approaches or procedures planned?

### Outcomes

10. How do you measure the impacts and outcomes of the HIA and HUP initiatives?

### **Appendix 3: Telephone interview questions: Planning Policy Officers**

Planning Policy Officer

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#### General

1. Are you aware that Manchester/Liverpool is a Healthy City?
2. Do you have a role in the Healthy Cities project? If yes, please provide details of your tasks.
3. Do you consider that the planning system through its policies and action can make a positive contribution to health and stemming the rise in obesity in the UK?
4. How would you define a 'healthy' outcome of urban planning work?
5. How are other strategies/plans, such as transport strategies, linked to the land-use plans?

#### Healthy Urban Planning (HUP)

6. What do you understand by the concept of healthy urban planning?
7. How has health been integrated into the planning process?
8. How have the planning policies been affected by HUP?
9. What are the activities that have been undertaken in relation to HUP and the planning process?
10. Could these approaches be strengthened to become more effective? If so, how?

#### Health Impact Assessments (HIA)

A combination of procedures, methods and tools by which a policy, programme or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population.

11. Are HIAs used to evaluate planning policies in your authority?
12. Do you think HIAs are a useful tool to evaluate planning policies?
13. Do you think HIAs should be included as a statutory document to accompany planning applications?

14. What are the activities that have been undertaken in relation to HIA and the planning process?

15. Could these approaches be strengthened to become more effective? If so, how?

#### Outcomes

16. How do you measure the impacts and outcomes of the HIA and HUP initiatives?

## **Appendix 4: Telephone interviews: Development Planners**

Development Planner

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### General

1. Are you aware that Manchester/Liverpool is a Healthy City?
2. Do you have a role in the Healthy Cities project? If yes, please provide details of your tasks.
3. Do you consider that the planning system through its policies and action can make a positive contribution to health and stemming the rise in obesity in the UK?
4. How would you define a 'healthy' outcome of urban planning work?

### Healthy Urban Planning

5. What do you understand by the concept of healthy urban planning?
6. What activities have been undertaken in relation to HUP?
7. Are any further activities or approaches to HUP planned?
8. How has health been integrated into the planning process?

### Health Impact Assessments

Health Impact Assessment (HIA) is a combination of procedures, methods and tools by which a policy, programme or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population.

9. Do you think HIAs should be included as a statutory document to accompany planning applications?
10. What further activities have been undertaken in relation to HIA?

### Outcomes

11. How do you measure the impacts and outcomes of the HIA and HUP initiatives?

## Appendix 5: Online survey questions: Healthy Cities

Welcome to this Survey. This survey aims to answer the question:

'Healthy Cities, Healthy Urban Planning and Health Impact Assessment: Are these the concepts that will reconnect land-use planning and health?'

The survey is completed anonymously, can be saved part way through and takes around 15 minutes to compete.

**Please note that once you have clicked on the CONTINUE button at the bottom of each page you cannot return to review or amend that page**

### Data Protection

All data collected in this survey will be held anonymously and securely. No personal data is asked for or retained.

Cookies, personal data stored by your Web browser, are not used in this survey.

The World Health Organisations' Healthy City Project

**Please note that once you have clicked on the CONTINUE button your answers are submitted and you cannot return to review or amend that page.**

### About Your Healthy City Project

The following questions aim to provide background information

**1.** In which area are you based as a Healthy City Co-ordinator?  
(select all that apply)

<input type="checkbox"/>	Eire
<input type="checkbox"/>	England
<input type="checkbox"/>	Northern Ireland
<input type="checkbox"/>	Scotland
<input type="checkbox"/>	Wales
<input type="checkbox"/>	Other (please specify):
<input type="text"/>	



2. Who are the stakeholders involved in the Healthy City project?

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3. Have you developed a City Health Development Plan?

☐ Yes ☐ No

**a.** If you have selected 'Yes' please provide details of how this was carried out and the data sources that were used.

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**b.** If you have selected 'No' please provide details of how the information was provided to the World Health Organisation as part of the requirement of Phase IV of the Healthy Cities project.

A text input field with a light blue border and a light blue background. It has a small 'X' icon in the top right corner and a small 'Y' icon in the bottom right corner.

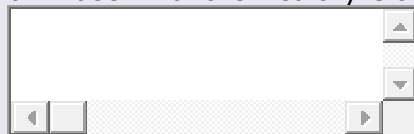
4. Have you developed a City Health Profile?

☐ Yes ☐ No

**a.** If you have selected 'Yes' please provide details of how this was carried out and the data sources that were used.

A text input field with a light blue border and a light blue background. It has a small 'X' icon in the top right corner and a small 'Y' icon in the bottom right corner.

**b.** If you have selected 'No' please provide details of how the information was provided to the World Health Organisation as part of the requirement of Phase IV of the Healthy Cities project.

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Healthy Urban Planning and Health Impact Assessment

Healthy Urban Planning (HUP)

Healthy Urban Planning (HUP) was a key theme in Phase IV of the Healthy City Projects.

**5.** Describe the approaches and/or procedures your city is taking in relation to HUP.

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**6.** Have these approaches and/or procedures changed during the process?

☐ Yes ☐ No

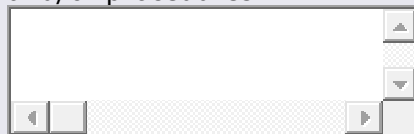
If you have selected 'Yes' please provide details of how the approaches and/or procedures have changed.

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**7.** In relation to HUP are any further approaches and/or procedures planned?

☐ Yes ☐ No

If you have selected 'Yes' please provide details of the further approaches and/or procedures.

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### Health Impact Assessment (HIA)

Health Impact Assessment (HIA) was a key theme in Phase IV of the Healthy Cities project.

**8.** Describe the approaches and/or procedures your city is taking in relation to HIA.

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**9.** Have these approaches and/or procedures changed during the process?

☐ Yes ☐ No

If you have selected 'Yes' please provide details of how the approaches

and/or procedures have changed.

## Impacts and Outcomes

**10.** How do you measure the impacts and outcomes of the approaches and/or procedures of the HIA and HUP initiatives?

and finally.....

**11.** Please use this space to make any further comments *(Optional)*

**12.** If you would like a summary of the main findings of this research please provide your name and contact details below or contact the researcher (Sarah Custy) directly on [SJCusty@uclan.ac.uk](mailto:SJCusty@uclan.ac.uk) *(Optional)*

## Appendix 6: Online survey questions: Health and Planning

Welcome to this Survey. This survey aims to investigate how health is considered in the assessment of development proposals.

The survey is completed anonymously, can be saved part way through and takes around 15 minutes to complete.

**Please note that once you have clicked on the CONTINUE button at the bottom of each page you cannot return to review or amend that page**

### Data Protection

All data collected in this survey will be held anonymously and securely. No personal data is asked for or retained.

Cookies, personal data stored by your Web browser, are not used in this survey.

### About You

**Please note that once you have clicked on the CONTINUE button your answers are submitted and you cannot return to review or amend that page.**

The following questions aim to provide background information

**1.** Please select your location  
(select all that apply)

- ☐ Belfast
- ☐ Brighton & Hove
- ☐ Cardiff
- ☐ Carlisle
- ☐ Derry
- ☐ Glasgow
- ☐ Liverpool
- ☐ Manchester
- ☐ Newcastle-upon-Tyne
- ☐ Preston
- ☐ Sheffield

☐ Stoke  
☐ Sunderland  
☐ Swansea  
☐ Other (*please specify*):

**2.** Please state your job title

**3.** Are you aware of the World Health Organisations Healthy City Project?

☐ Yes ☐ No

**4.** Is your city/town is a designated Healthy City?

☐ Yes ☐ No

## Healthy Urban Planning and Health Impact Assessment

**5.** What do you understand by the concept of Healthy Urban Planning (HUP)?

**6.** What activities have been undertaken in your authority in relation to HUP?

**7.** How has health been integrated into the planning process in your authority?

**8.** Are Health Impact Assessments (HIA) used to assess development proposals (planning applications) in your authority?

☐ Yes ☐ No

**9.** Do you think HIAs should be included as a statutory document to accompany planning applications?

☐ Yes ☐ No

**10.** Do you consider that the planning system through its policies and action can make a positive contribution to health and stemming the rise in obesity?

☐ Yes ☐ No

and finally.....

**11.** Please use this space to make any further comments *(Optional)*

**12.** If you would like a summary of the main findings of this research please provide your name and contact details below or contact the researcher (Sarah Custy) directly on [SJCusty@uclan.ac.uk](mailto:SJCusty@uclan.ac.uk) *(Optional)*

Thank you for completing this survey.

## Appendix 7: FOI Data: Details of the HIAs declared through the FOI Request

	<u>Local Authority</u>	<u>No.</u>	<u>Reference/Description</u>	<u>Compulsory?</u>	<u>Notes</u>
1	Corby Borough Council Northamptonshire East Midlands	1	<b>09/00038/REM:</b> Revisions to site external works (surface treatments and boundary types) variation of facing brick types & amendments to planning elevations under condition 4 outline planning consent ref: 04/0042/OUT. <a href="#">Application permitted.</a> <a href="#">Delegated decision.</a>	Yes	<b>HIA</b> Compulsory as part of the planning application process under local requirements for major applications.
2	East Northamptonshire District Council Northamptonshire East Midlands	1	<b>EN/09/01626/OUT</b> Outline application: Proposed sustainable urban addition to Raunds comprising residential (Use Class C3); residential care facilities (Use Class C2); business (Use Class B1); storage & distribution (Use Class B8); new vehicular & pedestrian access & associated road infrastructure, public open space, landscaping (including flood alleviation measures) and conversion of existing buildings to provide residential (Use Class C3) and/or community facilities (Use Class D1) (All matters reserved except for access). <a href="#">Application refused.</a> <a href="#">Committee decision.</a> <a href="#">Appeal allowed.</a>	No	<b>HIA</b>
3	South Northamptonshire Council Northamptonshire East Midlands	1	<b>S/2006/1655/PO</b> Development of housing and country park. <a href="#">Awaiting decision.</a>	Yes	<b>HIA</b> The HIA was 'requested' by the planning officer.
4	Central Bedfordshire Council Bedfordshire East of England	1	<b>CB-09-06431-OUT</b> 650 dwellings, a local centre, public open space & access & utilities infrastructure. <a href="#">Refused.</a>	No	<b>HIA</b>
5	Cambridge City Council Cambridgeshire East of England	1	<b>S/0054/08/0 (SCambs) &amp; 08/0048/OUT (City)</b> Demolition of existing buildings and structures, redevelopment for approximately 600 dwellings,	Yes	<b>HIA</b> The application was for a site which spans the boundary of Cambridge City

			two new accesses onto Hauxton Road, recreation/leisure uses including change of use from agriculture to public open space, with associated parking, infrastructure and earthworks. <a href="#">Application permitted.</a>		with its neighbour South Cambridgeshire District Council and was required under South Cambridgeshire Development Control Policy DP/1
6	Chelmsford Borough Council Essex East of England	2	<b><u>O9/01454/FUL</u></b> Demolition of existing office building, public toilets and felling of 16no trees. Construction of new development of 60 extra care flats with ancillary office and operational facilities, re-organisation of existing car parking, construction of new public toilets, planting of replacement trees, new hard landscaping, and refurbishment of existing concrete ramp. <a href="#">Application withdrawn.</a> <b><u>O9/00405/FUL</u></b> Development of 76 no. mixed tenure flat units. <a href="#">Application permitted.</a>	Yes          Yes	<b>HIA x 2</b> HIAs are required to be submitted with applications of 50+ residential units or over 1000 sqm on other schemes. The requirement is included in the Council's Local List.
7	Uttlesford District Council Essex East of England	1	<b><u>UTT/0717/06/FUL</u></b> Extension to the passenger terminal; provision of additional aircraft stands and taxiways, aircraft maintenance facilities, offices, cargo handling facilities, aviation fuel storage, passenger and staff car parking and other operational and industrial support accommodation; alterations to airport roads, terminal forecourt and the Stansted rail, coach and bus station; together with associated landscaping and infrastructure as permitted under application UTT/1000/01/OP but without complying with Condition MPPA1 and varying Condition ATM1 to 264,000 ATMs. <a href="#">Application refused.</a> <a href="#">Appeal allowed.</a>	No          No	<b>HIA</b> Not available online
8	Barnet London	1	<b><u>C/17559/08</u></b>	No	<b>HIA</b>



	Borough Council Greater London		Comprehensive mixed use redevelopment of the Brent Cross Cricklewood regeneration area comprising residential (Use Class C2, C3 and student/special needs/sheltered housing), a full range of town centre uses including Use Classes A1 – A5, offices, industrial and other business uses within Use Classes B1 - B8, leisure uses, rail based freight facilities, waste handling facility and treatment technology, petrol filling station, hotel and conference facilities, community, health and education facilities, private hospital, open space and public realm, landscaping and recreation facilities, new rail and bus stations, vehicular and pedestrian bridges, underground and multi-storey parking, works to the River Brent and Clitterhouse Stream and associated infrastructure, demolition and alterations of existing building structures, electricity generation stations, relocated electricity substation, free standing or building mounted wind turbines, alterations to existing railway, Cricklewood railway track and station and Brent Cross London Underground station, creation of new strategic accesses in internal road layout, at grade or underground conveyor from waste handling facility to combined heat and power plant, infrastructure and associated facilities together with any required temporary works or structures and associated utilities/services required by the development. <a href="#">Application permitted.</a>		
9	Hackney London Borough Council Greater London	1	<b><u>2008/1050</u></b> To demolish all existing buildings on the Woodberry	No	HIA

			<p>Down Estate, with the exception of St. Olaves Church, the Beis Chinuch Lebonos Girls School, Reservoir Centre, Primary school and Health Centre. Redevelop the site with 4,684 homes (including 41% affordable), comprising 1-bed, 2-bed, 3-bed, 4-bed flats, and 5-bed flats, 5-bed and 6-bed houses with associated car parking at an overall site provision rate of 50%; approximately 38,500m2 of non-residential buildings and associated car parking, including 5194m2 of retail buildings within classes A1-A5, 3144m2 of class B1 Business use, 30,000m2 of class C1, D1 and D2 use including education, health centre, childrens centre, community centres, youth centre; provision of new civic space, public parks, open space, landscaping of the edges of the New River and the East and West Reservoirs, construction of bridges across the New river; reduce width of Seven Sisters Road from 6 to 4 lanes and related improvements to the public realm; formation of new access points to the new Woodberry Down Neighbourhood, the creation of new and improvement of existing cycle and pedestrian routes to and within the estate (Outline Application matters for determination siting, design and means of access). Revisions include increase in education floor space; repositioning of cycle/pedestrian bridge between west reservoir and Haringey; re configuration of Woodberry Circus; relocation of two bridges over New River; increase in footprints and heights of various buildings; provision of a new Health Centre and increase in residential units from 4664</p>		
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			to 4684. <a href="#">Application permitted.</a> <a href="#">Committee decision.</a>		
10	Lewisham London Borough Council Greater London	2	<p><b><u>DC/09/71246/X</u></b></p> <p>The construction of eight buildings ranging from five to twenty-four storeys, incorporating balconies and terraces, comprising 788 residential units (including up to 186 affordable), a leisure centre, 1,856m<sup>2</sup> of commercial floorspace (Use Classes A1, A2, and B1, including 626m<sup>2</sup> for creative industries), an energy centre, replacement London City Mission facilities, public and private amenity space, together with associated landscaping, bin stores, 866 cycle, 26 motorcycle and 181 car parking spaces on ground and first floor levels, associated highway works, plant and servicing. <a href="#">Application permitted.</a> <a href="#">Committee decision.</a></p> <p><b><u>DC/09/72554/X</u></b></p> <p>A hybrid application seeking: outline planning permission (Phases 2-6) for up to 512 m<sup>2</sup> of retail floorspace, 768 m<sup>2</sup> of community floorspace, an energy centre, and 1,063 residential units in buildings ranging from 3 to 17 storeys in height, together with car and cycle parking, associated highway infrastructure, public realm works and provision of open space; and incorporating detailed planning permission (Phase 1) for the redevelopment of land fronting onto Blackheath Hill for 138 residential units in buildings ranging from 4 to 7 storeys in height, together with car and cycle parking, associated highway infrastructure, public realm works and provision of open space. <a href="#">Application permitted.</a> <a href="#">Committee decision.</a></p>	No x 2	<b>HIA x 2</b> There is no statutory obligation to provide a HIA, although there is an obligation to take health into account when assessing large-scale developments. HIAs are not compulsory for Lewisham Council but the Greater London Authority requests them for major new planning applications.
11	Blackpool Borough Council	1	<p><b><u>06/0661</u></b></p> <p>Comprehensive mixed use</p>	No	<b>HIA</b>

	Lancashire North West England		development comprising conference and exhibition facility, casinos, hotels, leisure, offices, food and drink and retail, nightclubs and amusement arcades with associated car, motorcycle and cycle parking, servicing, access and associated highway works and public realm improvements (10.2 hectares) (outline proposal). <a href="#">Withdrawn.</a>		
12	Aylesbury Vale District Council Buckinghamshire South East England	1	<b><u>10/00891/AOP</u></b> Site for mixed-use development of up to 5,311 dwellings, 7.4 hectares of employment (Classes B1a-c & B2, utilities & renewable energy infrastructure (sui generis), a relocated recycling centre & a new household recycling centre (sui generis); a neighbourhood centre comprising: a reserve site for a railway station (sui generis); a supermarket (Class A1), mix of A1, A2, A3, A4, A5, B1a & B1b uses, up to 274 dwellings, utilities & renewable energy infrastructure (sui generis), a Thames Valley Police one stop facility (sui generis) & Community Facilities (Classes D1 & D2); two local centres & a small mixed use centre comprising: A1, A2, A3, A4, A5, B1a, B1b, D1 & D2 uses, an emergency/ambulance call point (sui generis), utilities & renewable energy infrastructure (sui generis), up to 90 dwellings & a veterinary practice (sui generis); sites for four primary schools & one secondary school; ground remodelling; multi functional green infrastructure including new landscaping with formal & informal sporting areas, allotments, woodland & a wildlife area, foul & surface water drainage networks; associated highway	No	HIA

			infrastructure & public transport infrastructure (including a reserve site for Park & Ride) & associated car parking. <a href="#">Application withdrawn.</a>		
13	Maidstone Borough Council Kent South East England	1	<b><u>MA/07/2092</u></b> Outline planning permission for the construction of hardstanding areas to form rail/road freight interchange with freight handling equipment, new railway sidings in part with acoustic enclosure, earthworks and retaining walls, buildings for Class B8 warehousing and Class B1 uses, access works, internal roads and bridges, loading and manoeuvring areas, car and lorry parking, ancillary truck-stop and gatehouse security facilities, electricity sub station, realignment of public rights of way and watercourses, drainage works and landscaping with access to be considered at this stage and all other matters reserved for future consideration. <a href="#">Awaiting decision.</a>	Yes	<b>HIA</b>

## Appendix 8: FOI Data: Details of the EIAs and Design and Access Statements identified through the FOI Request

	<u>Local Authority</u>	<u>No.</u>	<u>Reference/Description</u>	<u>Compulsory?</u>	<u>Notes</u>
1	Nottingham City Council Nottingham East Midlands	2	<p><b><u>05/01520/PMFUL3</u></b> Extension of Energy from Waste Facility to provide an additional 100,000 tonnes per annum waste management capacity. <a href="#">Application refused.</a> <a href="#">Appeal withdrawn.</a></p> <p><b><u>07/01520/PMFUL3</u></b> New external treatment to the existing Energy from Waste Facility together with its extension to create 100,000 tonnes per annum additional capacity for non-hazardous waste treatment. <a href="#">Application refused.</a> <a href="#">Appeal allowed.</a></p>	<p>Yes</p> <p>Yes</p>	<p><b>EIA x 2</b> In both cases, the HIA was submitted as part of a statutory Environmental Assessment and so were 'compulsory' in the context of that assessment.</p>
2	Luton Borough Council Bedfordshire East of England	4	<p><b><u>09/00197/OUTEIA</u></b> Submission of Environmental Statement under Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 (as amended) related to application 99/01083/FUL - Application under Section 73 of the Town and Country Planning Act 1990 to vary conditions of Outline Planning Permission dated 4th April 1996 (Ref: L/19596/B /0) for development of Business/Industrial/Warehousing and ancillary uses. <a href="#">Application submitted. Committee decision.</a></p> <p><b><u>08/01326</u></b> Gateway link alignment, western end to include construction of new section of link road, redesign and realignment of the junction of Old Bedford Road and Church Street, construction of new site access off Crescent Road, closure of parts of Midland Road &amp; associated engineering works. <a href="#">Application permitted. Committee decision.</a></p> <p><b><u>08/01328</u></b> Development of a new transport interchange to include a bus interchange, construction of new carriageways and local access road, taxi and disabled parking</p>	<p>No</p> <p>No</p> <p>No</p>	<p><b>EIA x 4</b> There is no specific requirement in Luton for HIAs to be submitted as part of the planning application process.</p>

			<p>facilities junction improvements, realignments and associated engineering work for Luton Gateway.</p> <p><a href="#">Application permitted. Committee decision.</a></p> <p><b>08/01331</b></p> <p>Gateway link alignment, eastern end to include dualling of carriageway on Crawley Green Road between Crescent Road and St Mary's roundabout to include construction of new road bridge and realignment and priority of the Crawley Green Road Crescent Road junction and associated engineering works.</p> <p><a href="#">Application permitted. Committee decision.</a></p>	No	
3	Southend on Sea Borough Council Essex East of England	1	<p><b>09/01960/FULM</b></p> <p>Extend runway, divert Eastwoodbury Lane with new cycleway and footpath, re-position play area and re-provide recreation space and associated parking to South East, Alter access, parking area and boundary to St Laurence and All Saints church and various ancillary works in connection with runway extension, including the demolition of 6 dwellings.</p> <p><a href="#">Application permitted. Committee decision.</a></p>	No	<b>EIA</b> Submitted as part of the EIA
4	North Hertfordshire District Council Hertfordshire East of England	2	<p><b>09/02303/1</b></p> <p>Mixed use development comprising residential of up to 1000 dwellings, local centre to include retail and community facility and 1 primary school (Use Classes A1-A5, C3 and D1). Provision of open space and landscaping, infrastructure transport facilities and associated ancillary facilities and infrastructure. (Outline application: All matters reserved). This application is received with an Environmental Statement.</p> <p><a href="#">Awaiting decision.</a></p> <p><b>07/02428/1</b></p> <p>Mixed use development: residential, retail and children's play centre, public open space and associated infrastructure consisting of the following: 358 space (two level) car park, 113 no. residential apartments (52</p>	<p>No</p> <p>No</p>	<b>EIA x 2</b> No specific HIAs have been received however, these two applications considered the health impacts as part of the Environmental Statement.

			one bedroom and 61 two bedroom); 23 no. individual ground floor retail units and 1 no. food store and service yard (access off Station Road); children's play centre building, vehicular access off Station Road and Norton Way South; pedestrian access off Leys Avenue and Station Road, following demolition of existing buildings (as amended by plans received 06 May 2008). <a href="#">Application permitted.</a>		
5	Halton Borough Council Cheshire North West England	1	<b><u>07/00068/ELCNotification</u></b> Notification under Section 36 of the Electricity Act 1989 and Section 90(2) of the Town & Country Planning Act 1990 to the Secretary of State for Trade and Industry for consent to construct and operate an energy from waste combined heat and power generating station with an approximate capacity of 360MW thermal and up to 100MW of electrical power at Ineos Chlor Vinyls South Parade Runcorn Cheshire. <a href="#">Application permitted.</a>	No	<b>EIA</b>
6	Cumbria County Council Cumbria North West England	1	<b><u>4/10/9001</u></b> Development of a waste management facility for the disposal of low and very low level radioactive waste including site restoration and ancillary development. <a href="#">Application refused.</a>	Yes	<b>EIA</b> The HIA was included as part of an ES submitted with the planning application. The requirement for the HIA had been identified in the scoping opinion issued by the County Council under regulation 10 of the EIA Regs 1999.
7	Brighton & Hove City Council East Sussex South East England	1	<b><u>BH2007/03454</u></b> Demolition of Asda superstore to create 3 -10 storey building with enlarged store (3112 sqm increase) and 2,025 sqm of other Class A1-A5 (retail/restaurant/drinking) uses on ground floor with 779 residential units above and community hall and new	No	<b>EIA</b>



			<p>pedestrian/cyclist bridge link from cliff to roof of building and associated engineering works. Demolition of petrol filling station to create 28 storey building with 182 sqm of Class A uses at ground floor and 148 residential units above. Demolition of McDonalds restaurant to create 5 - 16 storey building with enlarged drive-thru restaurant (285 sqm increase) and 131sqm of other Class A uses and 222 residential units above. Demolition of estates office to create 3-4 storey building of 35 residential units. Demolition of western end of multi-storey car park to create 6-11 storey building adjacent to western breakwater of 117 residential units with stair access from breakwater to Park Square. Demolition of part of the eastern end of multi-storey car park to create single storey petrol filling station, pedestrian footbridge and new lift and stair access. Total: 1301 residential units. Associated car parking spaces (805 residential, 666 commercial), cycle parking (1907 residential, 314 in public realm), servicing, plant, refuse, CHP unit, public and private amenity space, hard &amp; soft landscaping and outdoor recreation areas. Change of use of two A1 retail units (524 sqm) within Octagon to medical use (Class D1). Alterations to vehicular, pedestrian and cyclist access and circulation, including new roundabout and transport interchange behind Waterfront.</p> <p><a href="#">Application refused.</a> <a href="#">Appeal refused.</a></p>		
8	East Sussex County Council East Sussex South East England	1	<p><b><u>WD/621/CM(EIA)</u></b> Biomass Combined Heat and Power Plant (including minor alterations to the existing access to the A22). <a href="#">Withdrawn.</a></p>	Yes	<p><b>EIA</b> It was submitted as part of an Environmental Statement supporting a planning application. Policy WLP19 of the East Sussex Brighton &amp; Hove Waste</p>

					Local Plan sets the requirements for undertaking a HIA.
9	Dartford Borough Council Kent South East England	1	<b><u>DA/05/0221/OUT</u></b> Outline application for the redevelopment comprising or to provide development of up to 1000 dwellings and in addition up to 1,200 sq metres of built floor space (in total) for: business premises (B1(a) (b) and (c); community and social facilities (D1 and D2) and supporting retails (A1, A2, A3, A4 and A5). Such development to include: vehicle parking; laying out open space (including open space, parkland, play spaces, pond water and features); landscaping; works to create ecological and nature reserves and refuge areas; provision and/or upgrade of services and related service media and apparatus; drainage works; pedestrian, cyclist and vehicular ways; and miscellaneous ancillary and associated engineering and other operations accompanied by Environmental Statement. <a href="#">Awaiting decision.</a>	No	<b>EIA</b> Submitted as part of the Environmental Statement.
10	Kent County Council Kent South East England	1	<b><u>SW/10/TEMP/0016</u></b> The proposed development of a sustainable energy plant to serve Kemsley Paper Mill. The application comprises pre treated waste fuel reception, moving grate technology, power generation and export facility, air cooled condenser, two stacks (90 metres high), transformer, bottom ash facility, steam pipe connection, office accommodation, vehicle parking, landscaping, drainage and access details. <a href="#">Application permitted. Committee decision.</a>	No	<b>EIA</b> Submitted as part of an Environmental Statement
11	Devon County Council Devon South West England	1	<b><u>07/0927/25</u></b> Development of a 50,000 - 60,000 tonnes per annum energy from waste facility to treat residual municipal waste and similar supplementary non-hazardous commercial and industrial waste.	No	<b>EIA</b> Formed part of the Environmental Statement

			<a href="#">Application permitted. Committee decision.</a>		
12	East Devon District Council Devon South West England	1	<b><u>03/P1900</u></b> A new community comprising up to 2,900 residential dwellings; a town centre and a local centre including retail and employment; assembly and leisure uses; non-residential institutions (including two primary schools and one secondary school); sports and recreation facilities; a country park; a railway station; landscaping; engineering works; associated infrastructure; and car parking for all uses. <a href="#">Application permitted.</a>	No	<b>EIA</b>
13	South Hams District Council Devon South West England	1	<b><u>62/0277/10/CM</u></b> Energy from waste facility of residual municipal solid waste, commercial and industrial waste with bottom ash recycling, non-hazardous landfill and associated visitor centre, ancillary offices, welfare, parking facilities, dual weighbridge/wheel wash, new access road linking into the A38 at Lee Mill and new river crossing over River Yealm and associated aftercare and landscaping improvements. <a href="#">Awaiting decision.</a>	No	<b>EIA</b> Formed part of the Environmental Statement
14	North Somerset District Council Somerset South West England	1	<b><u>09/P/1020/OT2</u></b> Outline planning application with details of some elements included and other details reserved for subsequent approval, for major development increasing passenger flight numbers at Bristol International Airport including: Erection of 2no. Extensions etc. <a href="#">Application permitted.</a>	Yes	<b>EIA</b> Appendix B of the Environmental Statement (3.2.4).
15	City of Bradford Metropolitan District Council West Yorkshire Yorkshire and Humber	1	<b><u>09/05140/FUL</u></b> Development of an energy recovery facility involving the treatment of non-hazardous residual waste material through gasification. <a href="#">Application permitted.</a>	No	<b>EIA</b>
16	City of Wakefield Metropolitan District Council West Yorkshire	1	<b><u>10/00459/FUL</u></b> External alterations, including covered walkway/shelter, external escape stairs, fencing and associated works. <a href="#">Application permitted.</a>	No	<b>Design &amp; Access Statement</b>

	Yorkshire and Humber				
17	Uttlesford District Council Essex East of England	1	<b><u>G2 Airport Project:</u></b> <b><u>UTT/0400/08/FUL,</u></b> <b><u>UTT/0401/08/OP,</u></b> <b><u>UTT/0402/08/FUL &amp;</u></b> <b><u>UTT/0403/08/FUL</u></b> The provision of a runway, associated facilities and operational development, in connection with the construction and operation of the expanded airport (including airport buildings, together with ancillary infrastructure and associated operational development) details as schedule. All applications refused. All subsequent appeals withdrawn.	No	EIA

## Appendix 9: FOI Data: Details of the HIAs identified through the FOI Request

	<b>Local Authority</b>	<b>No.</b>	<b>Reference/Description</b>	<b>Compulsory?</b>	<b>Notes</b>
1	Corby Borough Council Northamptonshire East Midlands	1	<b><u>09/00038/REM:</u></b> Revisions to site external works (surface treatments and boundary types) variation of facing brick types & amendments to planning elevations under condition 4 outline planning consent ref: 04/0042/OUT. <a href="#">Application permitted.</a> <a href="#">Delegated decision.</a>	Yes	<b>HIA</b> Compulsory as part of the planning application process under local requirements for major applications.
2	East Northamptonshire District Council Northamptonshire East Midlands	1	<b><u>EN/09/01626/OUT</u></b> Outline application: Proposed sustainable urban addition to Raunds comprising residential (Use Class C3); residential care facilities (Use Class C2); business (Use Class B1); storage & distribution (Use Class B8); new vehicular & pedestrian access & associated road infrastructure, public open space, landscaping (including flood alleviation measures) and conversion of existing buildings to provide residential (Use Class C3) and/or community facilities (Use Class D1) (All matters reserved except for access). <a href="#">Application refused.</a> <a href="#">Committee decision.</a> <a href="#">Appeal allowed.</a>	No	<b>HIA</b>
3	South Northamptonshire Council Northamptonshire East Midlands	1	<b><u>S/2006/1655/PO</u></b> Development of housing and country park. <a href="#">Awaiting decision.</a>	Yes	<b>HIA</b> The HIA was 'requested' by the planning officer.
4	Central Bedfordshire Council Bedfordshire East of England	1	<b><u>CB-09-06431-OUT</u></b> 650 dwellings, a local centre, public open space & access & utilities infrastructure. <a href="#">Refused.</a>	No	<b>HIA</b>
5	Cambridge City Council Cambridgeshire East of England	1	<b><u>S/0054/08/0 (SCambs) &amp; 08/0048/OUT (City)</u></b> Demolition of existing buildings and structures, redevelopment for approximately 600 dwellings, two new accesses onto Hauxton Road,	Yes	<b>HIA</b> The application was for a site which spans the boundary of Cambridge City with its neighbour



			<p>Cross Cricklewood regeneration area comprising residential (Use Class C2, C3 and student/special needs/sheltered housing), a full range of town centre uses including Use Classes A1 – A5, offices, industrial and other business uses within Use Classes B1 - B8, leisure uses, rail based freight facilities, waste handling facility and treatment technology, petrol filling station, hotel and conference facilities, community, health and education facilities, private hospital, open space and public realm, landscaping and recreation facilities, new rail and bus stations, vehicular and pedestrian bridges, underground and multi-storey parking, works to the River Brent and Clitterhouse Stream and associated infrastructure, demolition and alterations of existing building structures, electricity generation stations, relocated electricity substation, free standing or building mounted wind turbines, alterations to existing railway, Cricklewood railway track and station and Brent Cross London Underground station, creation of new strategic accesses in internal road layout, at grade or underground conveyor from waste handling facility to combined heat and power plant, infrastructure and associated facilities together with any required temporary works or structures and associated utilities/services required by the development.</p> <p><a href="#">Application permitted.</a></p>		
9	Hackney London Borough Council Greater London	1	<p><b><u>2008/1050</u></b> To demolish all existing buildings on the Woodberry Down Estate, with the exception of St. Olaves</p>	No	HIA

		<p>Church, the Beis Chinuch Lebonos Girls School, Reservoir Centre, Primary school and Health Centre. Redevelop the site with 4,684 homes (including 41% affordable), comprising 1-bed, 2-bed, 3-bed, 4-bed flats, and 5-bed flats, 5-bed and 6-bed houses with associated car parking at an overall site provision rate of 50%; approximately 38,500m<sup>2</sup> of non-residential buildings and associated car parking, including 5194m<sup>2</sup> of retail buildings within classes A1-A5, 3144m<sup>2</sup> of class B1 Business use, 30,000m<sup>2</sup> of class C1, D1 and D2 use including education, health centre, childrens centre, community centres, youth centre; provision of new civic space, public parks, open space, landscaping of the edges of the New River and the East and West Reservoirs, construction of bridges across the New river; reduce width of Seven Sisters Road from 6 to 4 lanes and related improvements to the public realm; formation of new access points to the new Woodberry Down Neighbourhood, the creation of new and improvement of existing cycle and pedestrian routes to and within the estate (Outline Application matters for determination siting, design and means of access). Revisions include increase in education floor space; repositioning of cycle/pedestrian bridge between west reservoir and Haringey; re configuration of Woodberry Circus; relocation of two bridges over New River; increase in footprints and heights of various buildings; provision of a new Health Centre and increase in residential units from 4664 to 4684.</p> <p><a href="#">Application permitted.</a></p>		
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			<a href="#">Committee decision.</a>		
10	Lewisham London Borough Council Greater London	2	<p><b><u>DC/09/71246/X</u></b></p> <p>The construction of eight buildings ranging from five to twenty-four storeys, incorporating balconies and terraces, comprising 788 residential units (including up to 186 affordable), a leisure centre, 1,856m<sup>2</sup> of commercial floorspace (Use Classes A1, A2, and B1, including 626m<sup>2</sup> for creative industries), an energy centre, replacement London City Mission facilities, public and private amenity space, together with associated landscaping, bin stores, 866 cycle, 26 motorcycle and 181 car parking spaces on ground and first floor levels, associated highway works, plant and servicing.</p> <p><a href="#">Application permitted.</a> <a href="#">Committee decision.</a></p> <p><b><u>DC/09/72554/X</u></b></p> <p>A hybrid application seeking: outline planning permission (Phases 2-6) for up to 512 m<sup>2</sup> of retail floorspace, 768 m<sup>2</sup> of community floorspace, an energy centre, and 1,063 residential units in buildings ranging from 3 to 17 storeys in height, together with car and cycle parking, associated highway infrastructure, public realm works and provision of open space; and incorporating detailed planning permission (Phase 1) for the redevelopment of land fronting onto Blackheath Hill for 138 residential units in buildings ranging from 4 to 7 storeys in height, together with car and cycle parking, associated highway infrastructure, public realm works and provision of open space.</p> <p><a href="#">Application permitted.</a> <a href="#">Committee decision.</a></p>	<p>No</p> <p>No</p>	<p><b>HIA x 2</b></p> <p>There is no statutory obligation to provide a HIA, although there is an obligation to take health into account when assessing large-scale developments. HIAs are not compulsory for Lewisham Council but the Greater London Authority requests them for major new planning applications.</p>
11	Blackpool Borough Council Lancashire North West	1	<p><b><u>06/0661</u></b></p> <p>Comprehensive mixed use development comprising conference and exhibition</p>	No	<b>HIA</b>

	England		facility, casinos, hotels, leisure, offices, food and drink and retail, nightclubs and amusement arcades with associated car, motorcycle and cycle parking, servicing, access and associated highway works and public realm improvements (10.2 hectares) (outline proposal). <a href="#">Withdrawn.</a>		
12	Aylesbury Vale District Council Buckinghamshire South East England	1	<b><u>10/00891/AOP</u></b> Site for mixed-use development of up to 5,311 dwellings, 7.4 hectares of employment (Classes B1a-c & B2, utilities & renewable energy infrastructure (sui generis), a relocated recycling centre & a new household recycling centre (sui generis); a neighbourhood centre comprising: a reserve site for a railway station (sui generis); a supermarket (Class A1), mix of A1, A2, A3, A4, A5, B1a & B1b uses, up to 274 dwellings, utilities & renewable energy infrastructure (sui generis), a Thames Valley Police one stop facility (sui generis) & Community Facilities (Classes D1 & D2); two local centres & a small mixed use centre comprising: A1, A2, A3, A4, A5, B1a, B1b, D1 & D2 uses, an emergency/ambulance call point (sui generis), utilities & renewable energy infrastructure (sui generis), up to 90 dwellings & a veterinary practice (sui generis); sites for four primary schools & one secondary school; ground remodelling; multi functional green infrastructure including new landscaping with formal & informal sporting areas, allotments, woodland & a wildlife area, foul & surface water drainage networks; associated highway infrastructure & public transport infrastructure	No	HIA

			(including a reserve site for Park & Ride) & associated car parking. <a href="#">Application withdrawn.</a>		
13	Maidstone Borough Council Kent South East England	1	<b><u>MA/07/2092</u></b> Outline planning permission for the construction of hardstanding areas to form rail/road freight interchange with freight handling equipment, new railway sidings in part with acoustic enclosure, earthworks and retaining walls, buildings for Class B8 warehousing and Class B1 uses, access works, internal roads and bridges, loading and manoeuvring areas, car and lorry parking, ancillary truck-stop and gatehouse security facilities, electricity sub station, realignment of public rights of way and watercourses, drainage works and landscaping with access to be considered at this stage and all other matters reserved for future consideration. <a href="#">Awaiting decision.</a>	Yes	<b>HIA</b>

## Appendix 10: FOI Data: Details of Policy and/or Guidance for HIA

<u>Local Authority</u>	<u>Response/Comment</u>	<u>Guidance/Policy</u>
Maldon District Council Essex East of England	HIAs do form part of the local validation requirements for applications.	National and Local planning Application Validation Lists updated October 2010.
Greenwich London Borough Council Greater London	The draft London Plan does include a new requirement that all Major applications will require a HIA and this is further endorsed in the Councils draft Core Strategy.	Draft Core Strategy Policy CH2: Healthy Communities.  Emerging Healthy Urban Planning Framework.
Manchester City Council Greater Manchester North West England	Guide to Development in Manchester, Supplementary Planning Document and Planning Guidance No. 9 Design for Health (adopted April 2007).	No documents found.
Corby Borough Council Northamptonshire East Midlands	Compulsory as part of the planning application process under local requirements for major applications.	Healthy Sustainable Communities: a spatial planning checklist.
South Northamptonshire Council Northamptonshire East Midlands	The HIA was 'requested' by the planning officer.	No documents found.
Cambridge City Council Cambridgeshire East of England	The application was for a site which spans the boundary of Cambridge City with its neighbour South Cambridgeshire District Council and was required under South Cambridgeshire Development Control Policy DP/1	No documents found.
South Cambridgeshire District Council Cambridgeshire East of England	See Cambridge City Council.  (No response to FOI request).	Policy DP/1 – Local Development Framework; Development Control Policies; Development Plan Document (Adopted July 2007).  Health Impact Assessment Supplementary Planning Document (Adopted 2011).  District Design Guide Supplementary Planning Document (Adopted March 2010).
Chelmsford Borough Council Essex East of England	HIAs are required to be submitted with applications of 50+ residential units or over 1000 sqm on other schemes. The requirement is included in the Council's Local List.	Policy DC8: Core Strategy and Development Control Policies (Adopted 20 February 2008).
Maidstone Borough Council Kent South East England		No documents found.

## Appendix 11: FOI Data: Review of the HIAs declared

### Context

	East Northamptonshire District Council	South Northamptonshire Council	Central Bedfordshire Council	Cambridge City Council	Chelmsford Borough Council (1)	Chelmsford Borough Council (2)	Barnet London Borough Council	Lewisham London Borough Council (1)	Lewisham London Borough Council (2)	Blackpool Borough Council	Aylesbury Vale District Council	Maidstone Borough Council
<b>1.1 SITE DESCRIPTION AND POLICY FRAMEWORK</b>												
1.1.1 The report should describe the physical characteristics of the project site and the surrounding area.	D	B	B	C	D	D	B	B	A	D	A	B
1.1.2 The report should describe the way in which the project site and the surrounding area are currently used.	D	C	B	D	D	D	B	B	B	D	A	B
1.1.3 The report should describe the policy context and state whether the project accords with significant policies that protect and promote wellbeing and public health and reduce health inequalities.	B	D	B	B	D	D	B	C	A	D	A	C
<b>1.2 DESCRIPTION OF THE PROJECT</b>												
1.2.1 The aims and objectives of the project should be stated and the final operational characteristics of the project should be described.	D	B	B	C	C	D	C	B	B	D	B	C
1.2.2 The estimated duration of the construction phase, operational phase and, where appropriate, decommissioning phase should be given.	D	D	C	B	D	D	C	B	B	D	B	C
1.2.3 The relationship of the project with other proposals should be stated.	D	D	B	D	D	D	D	B	C	D	C	D
<b>1.3 PUBLIC HEALTH PROFILE</b>												
1.3.1 The public health profile should establish an information base from which requirements for health protection, health improvement and health services can be assessed.	C	D	B	B	D	D	D	B	B	B	B	C
1.3.2 The profile should identify vulnerable population groups. The profile should describe, where possible, inequalities in health between population groups and should include the wider determinants of health.	C	D	B	B	D	D	D	B	C	C	C	D
1.3.3 The information in the profile should be specific about the timescale, the geographic location and the population group being described and links should be made with the proposed project.	D	D	C	C	D	D	D	C	C	D	D	D
<b>The grades are defined as follows:</b>												
Relevant tasks well performed, no important tasks left incomplete, only minor omissions and inadequacies	A											
Can be considered satisfactory despite omissions and/or inadequacies	B											
Parts are well attempted but must, as a whole, be considered just unsatisfactory because of omissions or inadequacies	C											
Not satisfactory, significant omissions or inadequacies, some important task(s) poorly done or not attempted	D											
Not applicable	N/A											

## Management

	East Northamptonshire District Council	South Northamptonshire Council	Central Bedfordshire Council	Cambridge City Council	Chelmsford Borough Council (1)	Chelmsford Borough Council (2)	Barnet London Borough Council	Lewisham London Borough Council (1)	Lewisham London Borough Council (2)	Blackpool Borough Council	Aylesbury Vale District Council	Maidstone Borough Council
<b>2.1 IDENTIFICATION AND PREDICTION OF HEALTH IMPACTS</b>												
2.1.1 The report should describe the screening and scoping stages of the HIA and the methods used in these stages.	B	B	B	C	D	D	D	C	C	D	A	C
2.1.2 A description of how the quantitative evidence was gathered and analysed (where appropriate) should be given and its relevance to the HIA justified.	C	C	C	C	D	D	D	C	C	D	B	D
2.1.3 A description of how the qualitative evidence was gathered and analysed (where appropriate) should be given and its relevance to the HIA justified.	C	B	C	C	D	D	D	C	C	D	B	D
<b>2.2 GOVERNANCE</b>												
2.2.1 The governance process for the HIA should be described.	B	D	D	D	D	D	D	D	A	D	C	D
2.2.2 The terms of reference for the HIA should be available to the reader and the geographical, temporal and population scope of the HI should be made explicit.	D	C	B	C	D	D	D	C	C	D	C	C
2.2.3 Any constraints in preparing the HIA should be explained.	D	D	D	D	D	D	D	D	D	D	D	D
<b>2.3 ENGAGEMENT</b>												
2.3.1 The report should identify relevant stakeholder groups, including organisations responsible for protecting and promoting health and wellbeing that should be involved in the HIA.	D	D	C	C	D	D	D	B	B	D	C	D
2.3.2 The report should identify vulnerable population groups which should be involved in the HIA.	D	D	D	B	D	D	D	B	B	D	C	D
2.3.3 The report should describe the engagement strategy for the HIA.	D	D	D	C	D	D	D	C	A	D	B	D
<b>The grades are defined as follows:</b>												
Relevant tasks well performed, no important tasks left incomplete, only minor omissions and/or inadequacies	A											
Can be considered satisfactory despite omissions and/or inadequacies	B											
Parts are well attempted but must, as a whole, be considered just unsatisfactory because of omissions or inadequacies	C											
Not satisfactory, significant omissions or inadequacies, some important task(s) poorly done or not attempted	D											
Not applicable	N/A											

## Assessment

	East Northamptonshire District Council	South Northamptonshire Council	Central Bedfordshire Council	Cambridge City Council	Chelmsford Borough Council (1)	Chelmsford Borough Council (2)	Barnet London Borough Council	Lewisham London Borough Council (1)	Lewisham London Borough Council (2)	Blackpool Borough Council	Aylesbury Vale District Council	Maidstone Borough Council
<b>3.1 DESCRIPTION OF HEALTH EFFECTS</b>												
3.1.1 The potential health effects of the project, both beneficial and adverse, should be identified and presented in a systematic way.	D	B	B	B	D	D	C	B	C	B	B	B
3.1.2 The identification of potential health impacts should consider the wider determinants of health such as socio-economic, physical, and mental health factors.	D	B	B	B	D	D	C	B	C	C	C	C
3.1.3 The causal pathway leading to health effects should be outlined along with an explanation of the underpinning evidence.	D	D	D	C	D	D	D	C	D	D	C	D
<b>3.2 RISK ASSESSMENT</b>												
3.2.1 The nature of the potential health effects should be detailed.	C	C	C	B	D	D	C	C	C	D	C	C
3.2.2 The findings of the assessment should be accompanied by a statement of the level of certainty or uncertainty attached to the predictions of health effects.	D	D	C	D	D	D	D	D	D	D	D	D
3.2.3 The report should identify and justify the use of any standards and thresholds used to assess the significance of health impacts.	D	D	D	D	D	D	D	C	D	D	C	D
<b>3.3 ANALYSIS OF DISTRIBUTION EFFECTS</b>												
3.3.1 The affected populations should be explicitly identified.	D	D	C	D	D	D	D	C	C	D	C	D
3.3.2 Inequalities in the distribution of predicted health impacts should be investigated and the effects of the inequalities should be stated.	D	D	D	D	D	D	D	C	C	D	D	D
3.3.3 Effects on health should be examined based on the population profile.	D	D	D	D	D	D	D	C	D	D	C	D
<b>The grades are defined as follows:</b>												
Relevant tasks well performed, no important tasks left incomplete, only minor omissions and inadequacies	A											
Can be considered satisfactory despite omissions and/or inadequacies	B											
Parts are well attempted but must, as a whole, be considered just unsatisfactory because of omissions or inadequacies	C											
Not satisfactory, significant omissions or inadequacies, some important task(s) poorly done or not attempted	D											
Not applicable	N/A											

## Reporting

	East Northamptonshire District Council	South Northamptonshire Council	Central Bedfordshire Council	Cambridge City Council	Chelmsford Borough Council (1)	Chelmsford Borough Council (2)	Barnet London Borough Council	Lewisham London Borough Council (1)	Lewisham London Borough Council (2)	Blackpool Borough Council	Aylesbury Vale District Council	Maidstone Borough Council
<b>4.1 DISCUSSION OF RESULTS</b>												
4.1.1 The report should describe how the engagement undertaken has influenced the HIA, in terms of results, conclusions or approach taken.	D	D	D	C	D	D	D	C	C	D	C	D
4.1.2 The report should state the effect on the health and wellbeing of the population of the option and any alternatives which have been considered.	D	D	D	D	D	D	C	D	D	D	C	D
4.1.3 The report should justify any conclusions reached, particularly where some evidence has been afforded greater weight than others.	D	D	C	D	D	D	C	C	C	C	B	D
<b>4.2 RECOMMENDATIONS</b>												
4.2.1 There should be a list of recommendations to facilitate the management of health effects and the enhancement of beneficial health effects.	D	D	D	D	D	D	D	B	C	B	D	C
4.2.2 The level of commitment of the project proponent to the recommendations and mitigation methods should be stated.	D	D	D	D	D	D	D	D	D	D	D	D
4.2.3 There should be a plan for monitoring future health effects by relevant indicators and a suggested process for evaluation.	D	D	D	D	D	D	D	D	D	D	D	D
<b>4.3 COMMUNICATION AND LAYOUT</b>												
4.3.1 Information should be logically arranged in sections or chapters and the whereabouts of important data should be signalled in a table of contents or index.	C	B	B	C	D	D	C	B	B	C	B	B
4.3.2 There should be a lay summary (executive summary) of the main findings and conclusions of the study. Technical terms, lists of data and detailed explanations of scientific reasoning should be avoided in this summary.	C	B	B	D	D	D	B	D	D	D	B	B
4.3.3 All evidence and data sources should be clearly referenced.	C	B	C	C	D	D	D	B	B	C	C	B
<b>The grades are defined as follows:</b>												
Relevant tasks well performed, no important tasks left incomplete, only minor omissions and inadequacies	A											D
Can be considered satisfactory despite omissions and/or inadequacies	B											
Parts are well attempted but must, as a whole, be considered just unsatisfactory because of omissions or inadequacies	C											
Not satisfactory, significant omissions or inadequacies, some important task(s) poorly done or not attempted	D											
Not applicable	N/A											



## Overall Score

	East Northamptonshire District Council	South Northamptonshire Council	Central Bedfordshire Council	Cambridge City Council	Chelmsford Borough Council (1)	Chelmsford Borough Council (2)	Barnet London Borough Council	Lewisham London Borough Council (1)	Lewisham London Borough Council (2)	Blackpool Borough Council	Aylesbury Vale District Council	Maidstone Borough Council
OVERALL SCORE	D	D	C	D	D	D	D	C	C	D	C	D
<b>The grades are defined as follows:</b>												
Relevant tasks well performed, no important tasks left incomplete, only minor omissions and inadequacies	<b>A</b>											
Can be considered satisfactory despite omissions and/or inadequacies	<b>B</b>											
Parts are well attempted but must, as a whole, be considered just unsatisfactory because of omissions or inadequacies	<b>C</b>											
Not satisfactory, significant omissions or inadequacies, some important task(s) poorly done or not attempted	<b>D</b>											
Not applicable	<b>N/A</b>											