

Health Impact Assessment - Nuneaton and Bedworth Borough Plan

Public Health Warwickshire

Assessment document

V4

30th May 2014

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Document history

Version	No	Authors	Status	Date
Draft HIA report	1	Ryngan Pyper, Ben Cave	Draft	30/04/14
Draft assessment document	2	Ryngan Pyper, Ben Cave	Draft	02/05/14
Draft assessment document	3	Ryngan Pyper, Ben Cave	Draft	19/05/14
Final report	4	Ryngan Pyper, Ben Cave	Final	30/05/14

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Abbreviations and acronyms

HIA	Health Impact Assessment
SA	Sustainability Appraisal
SPD	Supplementary Planning Document
SPG	Supplementary Planning Guidance
DoH	Department of Health
WHO	World Health Organization
HUDU	Healthy Urban Development Unit
NICE	National Institute of Health and Care Excellence
PHE	Public Health England





1 Executive summary

- 1.1.1 This is a Health Impact Assessment (HIA) of the Nuneaton and Bedworth Borough Plan (hereafter the Plan). The Plan sets out the spatial vision, strategic objectives, spatial strategy, core policies, and monitoring and implementation framework for the borough for the next 15 years (to 2028).
- 1.1.2 The purpose of the HIA is to examine the links between the health and wellbeing and the potential impacts (beneficial and adverse) of the Plan's policies for the borough's locality areas. The HIA aims to provide constructive commentary to help further refine the Plan.
- 1.1.3 The HIA defines health as a 'state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity' (1).
- 1.1.4 It is increasingly recognised, in England and further afield, that local councils have important long-term effects on physical and mental health and wellbeing. Planning policies set by Nuneaton and Bedworth cover all aspects of the social, economic and physical environment for example: employment sites, housing, green and public spaces and flooding. These planning policies set a framework that is important for the health and wellbeing of people living and working in Nuneaton and Bedworth. It is also important for addressing, and reducing, differences in health between population groups. These differences are also known as inequalities in health.
- 1.1.5 This HIA focuses on the following three components:
- A strategic assessment of the Plan's policies against the determinants of health to help shape policies, support policies and identify the need for any additional policies or policy hooks upon which a wider health Supplementary Planning Document (SPD) could be developed. (Results are set out in Section 6).
 - Additional discussion of a limited number of specific issues that were identified through the scoping exercise and the HIA workshop: (Results are set out in Section 7).
 - Evidence Supporting Healthy Housing;
 - Buffer Zones between Residential and Employment Areas;
 - Evidence to Support Active Travel;
 - Evidence to Support Obligations to Fund Interventions Targeting Under 4s;
 - Evidence to Support a New Fast food Policy; and
 - Recommendations on Criteria for HIA.
 - A review of Locality Area profiles and infrastructure information, particularly at boundaries with strategic housing and employment sites to identify potential vulnerabilities. (Results are set out in Section 8).



1.1.6 Overall the Plan is considered positive for health and wellbeing.

1.1.7 The key recommendations of the HIA are as follows:

- The HIA is included in the next round of public consultation and that the community's views on the issues raised in this report are used to further refine the Plan.
- The commentary on each draft policy set out in Section 6 is reviewed with the aim of taking further opportunities to enhance the potential health benefits that could be achieved through the Plan.
- New housing is provided in line with the evidence base presented in Section 7.2.
- Protection of the boundaries between residential areas, schools or green/open spaces and areas designated for intensive employment use with appropriate buffer zones, e.g. of light industry appropriate in a residential area (B1 use class) or green infrastructure (2). An example of one option is presented in Section 7.3.
- The Plan prioritises active travel as set out in Section 7.4.
- Planning obligations are used to support child obesity goals as set out in Section 7.5.
- A new policy is included to control the proliferation of hot food takeaways (and possibility other unhealthy food outlets) as discussed in Section 7.6.
- Clear guidelines setting out when developers should undertake HIAs should be included in the Plan. Some options are set out in Section 7.7.
- The commentary on each Locality Area set out in Section 8 is reviewed with the aim of taking further opportunities to enhance the potential health benefits that could be achieved through the Plan.
- [Appendix C](#) (page 90) is reviewed with the aim of considering opportunities for further health policies to include in INF1.



2 Introduction

- 2.1.1 This is a Health Impact Assessment (HIA) of strategic site options for the Nuneaton and Bedworth Borough Plan (hereafter the Plan). The HIA has been commissioned by Public Health Warwickshire. The HIA is limited to the options presented in the Borough Council's Preferred Option Document. The purpose of the HIA is to examine the links between the health and wellbeing and the potential impacts (beneficial and adverse) of the strategic site options and their associated policies.
- 2.1.2 The emerging Plan sets out the spatial vision, strategic objectives, spatial strategy, core policies, and monitoring and implementation framework for the borough for the next 15 years (to 2028). To inform the Plan Nuneaton and Bedworth Council has prepared a Preferred Option Document, which sets out the spatial vision for the Borough. This was the subject of public consultation and a Sustainability Appraisal.
- 2.1.3 The Plan will influence the type, quantity and location of development within the Borough. The Plan considers a wide range of economic, social and environmental matters that together aim to achieve cohesive and sustainable communities.
- 2.1.4 In 2009, the Council consulted on a document that outlined the issues facing the Borough and presented a range of options to address them. There was a further round of public consultation for a period of 8 weeks between 5th July 2013 and 30th August 2013 to inform the final Plan. There will be another round of consultation before the Plan is submitted to an independent Inspector for examination prior to adoption. We understand that the next round of public engagement will include consultation on the HIA findings.
- 2.1.5 The HIA is primarily desk based, drawing on previous public consultation findings and discussion with Public Health Warwickshire and with Nuneaton and Bedworth officers. The HIA's findings are based on the professional judgement of the HIA team with reference to the scientific evidence base, as well as the relevant legal and policy context.
- 2.1.6 It should be noted from the outset that this is a strategic assessment and as such does not assess specific population health impacts arising from future developments that may occur within the land allocation framework set out in the Plan. The HIA makes recommendations as part of its findings on the need for future health assessment work as individual applications are brought forward.
- 2.1.7 Warwickshire County Council has drafted a public health evidence base for planning and development (3). This should be considered alongside this HIA.
- 2.1.8 The report is laid out as follows:
- a summary of key aspects of the Plan;
 - an introduction to the wider determinants of health and the HIA approach;
 - a brief record of the 'screening exercise' that determined the need for HIA;
 - results of the 'scoping exercise' that identified the potentially important health issues that are the focus of this HIA;
 - the analysis section that considers the evidence and reaches a judgement on potential conflicts or opportunities presented by the Plan;
 - the conclusion and recommendations section that draws together the key findings of the HIA and the next steps;



- documents cited in this assessment are shown as numbers in brackets in the text and a numbered list is provided, starting on page 69; and
- appendices.

2.1.9 This assessment is intended to provide constructive comment and to provide opportunity to consider modifications to be made to policies.

Summary of key aspects of the Plan

2.1.10 The Nuneaton and Bedworth Borough Plan sets out the spatial vision, strategic objectives, spatial strategy, core policies, and monitoring and implementation framework for the Borough for the next 15 years. Figure 2-1 is a map of the Plan's strategic sites.

2.1.11 Nuneaton and Bedworth lies in the top third most deprived Boroughs in the Country. Within Nuneaton and Bedworth there is also a divide between the east and west, with the most deprived areas located in the west. Parts of Bar Pool, Abbey, Wem Brook, Camp Hill, Kingswood and Bede fall within the top 10% most deprived areas in England. Bar Pool is the most deprived. The Borough is behind the Warwickshire average in terms of: deprivation; crime rates; GCSE attainment; young people not in employment; education or training; and life expectancy.

2.1.12 There are seven Locality Areas defined within the Plan:

- Locality 1 - Abbey and Wem Brook;
- Locality 2 - Arbury and Stockingford;
- Locality 3 - Bede and Poplar;
- Locality 4 - Bedworth North and West;
- Locality 5 - Camp Hill and Galley Common;
- Locality 6 - Weddington and St Nicolas; and
- Locality 7 - Whitestone and Bulkington.

2.1.13 There are seven strategic sites defined within the Plan. These are split between the three strategic employment sites: ECO1 Bermuda 1; ECO2 Bermuda 2; and ECO3 Prologis Extension, and the four strategic housing sites: SHS1 Gipsy Lane; SHS2 Arbury; SHS3 Hospital Lane; and SHS4 North Nuneaton.

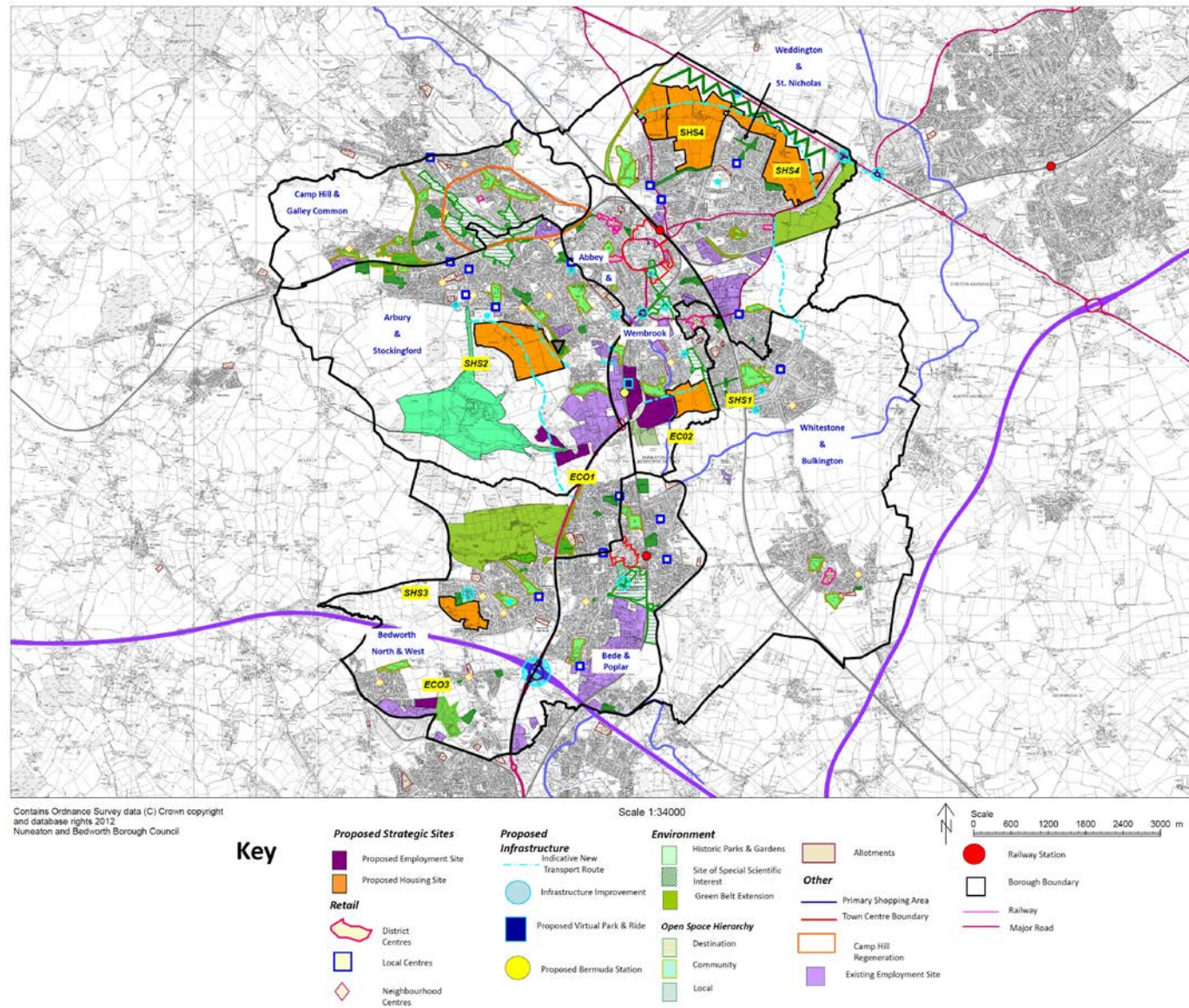
2.1.14 There are eight strategic objectives and 23 policies in the Plan. The Plan's strategic objectives all directly or indirectly influence health and wellbeing; however Objective 8, to create healthy and strong communities is particularly relevant. The Plan states that the Objective will be achieved by:

- Creating and improving networks that increase opportunities to walk and cycle to a range of facilities.
- Enabling access to a range of high quality open spaces.
- Enabling participation in active sport by building on the strengths of Pingles Leisure centre and other local facilities.
- Reducing crime and antisocial behaviour through good design, raising aspirations and providing opportunities for the young.
- Creating well planned and integrated communities that foster cohesion and accessibility for all.

2.1.15 Similarly although many of the Plan's policies directly or indirectly affect health, health is specifically addressed by Policy INF1. This policy will require developers to prepare HIAs on large scale developments. The draft policy notes that assessment criteria will need to be established with health professionals, section 7.7 of this report presents some options in this regard.



Figure 2-1: Strategic Site Preferred Options Map

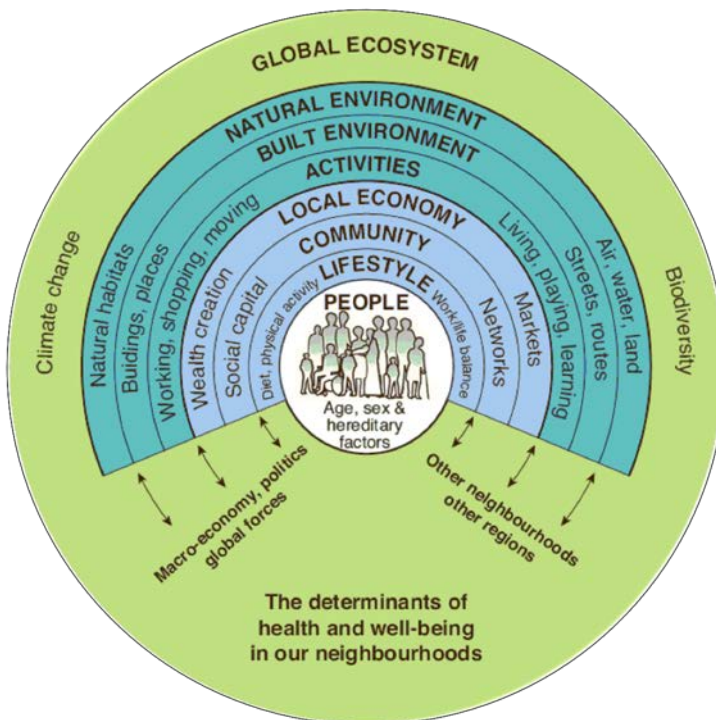




3 Approach to HIA

- 3.1.1 Health impact assessment (HIA) is a systematic process used to identify the potential health effects arising from policies, plans, programmes and projects and to help reduce health inequalities.
- 3.1.2 The International Association for Impact Assessment define HIA as (4):
... a combination of procedures, methods and tools that systematically judges the potential, and sometimes unintended, effects of a policy, plan, programme or project on both the health of a population and the distribution of those effects within the population. HIA identifies appropriate actions to manage those effects.
- 3.1.3 HIA generally uses the WHO definition of health as a 'state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity'(1).

Figure 3-1: Determinants of health and well-being



Source: Based on the Whitehead and Dahlgren (5) diagram as amended by Barton and Grant (6)

The determinants of health

- 3.1.4 There are a number of factors, as illustrated in Figure 3-1, which can affect communities and/or individuals directly or indirectly. These are called determinants of health and include employment, transport, housing etc. These include determinants that can improve



and protect health as well as determinants which might harm health. Examining how a policy influences these determinants and the likely effects on the health of communities and individuals is a key role of HIA. As noted above these effects might be on physical health or on mental health. The effects of a policy will be experienced differently by different population groups: population groups can be identified by factors including (but not limited to) age, gender, ethnicity, socioeconomic status, place of residence or by dint of pre-existing health status. Public health policy seeks to reduce inequalities in health between population groups (7). HIA also seeks to enable the policy-maker to take steps to manage the potential effects.

- 3.1.5 There is a social gradient in health: those living in the most deprived neighbourhoods die earlier and spend more time in ill health than those living in the least deprived neighbourhoods. Such health inequalities are determined by social inequalities, including environmental inequalities; there is a gradient in the distribution of environmental disadvantages: those living in the most deprived neighbourhood are more exposed to environmental conditions, which negatively affect health.
- 3.1.6 The Marmot Review recommends 3 main policy actions to try to ensure that the built environment promotes health and reduces inequalities for all local populations. All actions should be applied across the social gradient (8).
- Prioritise policies and interventions that both reduce health inequalities and mitigate climate change by:
 - Improving active travel;
 - Improving good quality open and green spaces;
 - Improving the quality of food in local areas; and
 - Improving the energy efficiency of housing.
 - Fully integrate the planning, transport, housing, environmental and health systems to address the social determinants of health in each locality.
 - Support locally developed and evidence-based community regeneration programmes that:
 - Remove barriers to community participation and action; and
 - Reduce social isolation.
- 3.1.7 The determinants of health are used as a framework during the scoping exercise and the assessment to systematically consider a broad range of potential influences on health that could arise from the Plan's objectives and policies.
- 3.1.8 The following paragraphs provide a generalised evidence summary to explain how different determinants of health that the Plan can influence affect health. These paragraphs set the scene for issues that the Plan should seek to address. The summaries are from the WHO Healthy Cities publication specifically aimed at local government action (9).

Transport

- 3.1.9 Families with lower income tend to have lower mobility but greater exposure to the adverse environmental conditions related to transport such as air and noise pollution and road traffic. People who are more deprived are also more susceptible to these harmful health effects because of greater vulnerability to illness associated with the other social determinants of health. Access to transport that enables residents to move outside of their own community has been shown to positively correlate with a reduced fear of social isolation and positive mental health.



Air pollution

- 3.1.10 Air pollution most severely affects disadvantaged people, with increased risk of respiratory diseases and other illness. Greater air pollution has been linked to deprived neighbourhoods. Mortality rates from air pollution related causes are highest among those with lower socioeconomic status, indicating greater susceptibility to the effects of air pollution among the most deprived people.

Road safety

- 3.1.11 Death and serious injury from road crashes vary greatly by socioeconomic status. A study in England showed that children in the most deprived 10% of areas are four times more likely to be hit by a car as children in the least deprived 10%. Children aged 0–19 years and people older than 60 years are especially vulnerable to injury through road crashes. Poor road safety can be a barrier to active travel (walking and cycling).

Neighbourhoods and facilities

- 3.1.12 Urban land-use patterns are a key influence on physical activity, especially among lower-income groups who get much of their physical activity through daily living activity and travel rather than recreation. Access to local facilities such as shops, schools, health centres and places of informal recreation are important both for the physical activity and mental wellbeing. Disadvantaged areas disproportionately experience dilapidation, vandalism, graffiti and litter, leading to reduced physical activity.

Housing and urban planning

- 3.1.13 Households with lower income are more likely to occupy low-quality housing, which is more difficult and more expensive to heat. Children, older people and people with long-term illnesses are the most vulnerable to cold weather deaths. Rising fuel prices exacerbate the problem for people in poorly insulated homes, causing fuel poverty and worsening health. Environmental noise problems can lead to sleep disturbance, cardiovascular disease and impaired mental health, and this is more severe in areas of deprivation and in the areas of high-density housing.

Green space

- 3.1.14 Incorporating accessible and safe green space into urban neighbourhood design increases use and positively influences levels of physical activity, mental well-being and resilience and the perceived risk of crime. Inequality in mortality is lower in population groups living in the greenest areas. However low-income residents often lack green space or it is poorly maintained or unsafe. The benefits of increases in physical activity and improved mental health only arise if the green spaces are of high quality, accessible and safe. Green spaces also promote social interaction and cohesion.

Crime and the fear of crime

- 3.1.15 Access and use of spaces in the immediate and wider environment at different times during the day or night, is encouraged by connectivity, such as comprehensive local public transport systems. One of the main social effects related to urban form is residents' perceived fear of violence or crime, which negatively affects mental health. Women, especially mothers with low income and those with mental health problems tend to feel the most vulnerable. Perceptions of safety are also influenced by road traffic accidents and the aesthetic impression of the surrounding community (e.g. graffiti and litter).

The urban environment and climate

- 3.1.16 Climate change may affect both temperature levels and flood risk. Exposure to heat causes illness and death in the urban environment. People with lower socioeconomic status and ethnic minority groups are more likely to experience greater exposure to heat stress and drought. High settlement density, sparse vegetation and having no open space in the



neighbourhood have been significantly correlated with higher temperatures. Health effects from flooding include drowning, injuries, infectious diseases, stress and loss of essential urban infrastructure and services. Children, older people, people with disabilities, ethnic minorities and those with low incomes are vulnerable to the effects of flooding.

Educational outcomes

- 3.1.17 The early skill development combined with numerous other individual, family, school and environmental factors affect educational achievement and social skills, which in turn are key predictors of subsequent outcomes, including physical and mental health, income, employment and quality of life. Educational attainment has a strong social gradient and is significantly correlated with health.

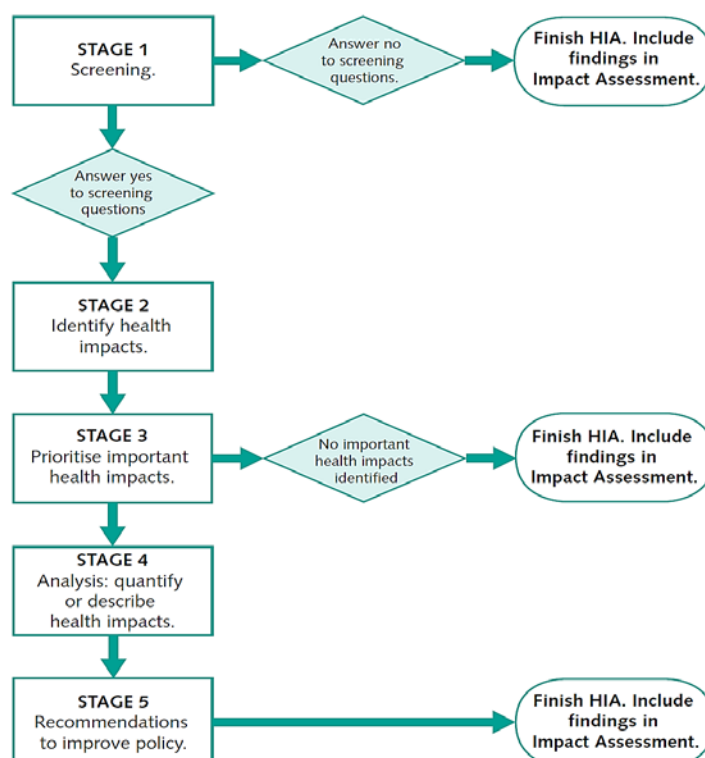
Employment and income

- 3.1.18 Being in good employment protects health. Conversely, unemployment contributes to poor health. Getting people into work is therefore critically important in reducing inequalities in health. Good employment is associated with adequate income levels. The minimum income for healthy living varies according to family or individuals circumstances. The level of income should allow for adequate: diet; physical activity; housing; social interaction; transport; health care; and personal hygiene.

Stages of the HIA

- 3.1.19 The Department of Health (DoH) set out guidelines on HIA of Government Policy (10). These guidelines establish an HIA methodology as illustrated in Figure 3-2 and described below. These guidelines are relevant to this assessment as (a) the proposed policy will enable implementation of Government policy; and (b) the guidelines provide the framework for scoping which are used in this document.

Figure 3-2: HIA stages



Source:
 Department of
 Health (10)



3.1.20 Typically, the key stages of HIA involve:

- Stage 1: Screening – determining whether or not HIA is necessary;
- Stage 2: Identify health impacts – developing a long list of all of the potential impacts on the health of the population;
- Stage 3: Identify impacts with important health outcomes – determining whether impacts are: universal or affect some community groups disproportionately; are permanent or reversible; are short, medium or long term; could be publicly sensitive; or could have cumulative or synergistic effects [please note that we have changed the name of this stage from that given in Figure 3-2];
- Stage 4: Quantify or describe important health impacts – reaching a qualitative and quantitative judgement about the important health impacts and their potential costs and benefits; and
- Stage 5: Recommendations to achieve most health gains – setting out how the policy or project could be amended to maximise health benefits and reduce health inequalities.

3.1.21 The process set out in DoH guidance informed the approach to this HIA. Table 3-1 identifies, the way in which this HIA maps onto the stages in DoH's guidance on HIA.

Table 3-1: Key components of this HIA

Stage in Dept of Health guidance	Components of this HIA
1. Screening	Record of screening
2. Identify health impacts	Results of scoping exercise
3. Identify impacts with important health outcomes*	Results of scoping exercise
4. Analysis	Assessment and review sections
5. Recommendations	Conclusions and recommendations

* Note adapted name of this stage

3.1.22 Some elements of the process are sequential, although there is a large amount of interaction between the various stages. For example, some of the evidence base has been compiled in sufficient detail to inform the scoping study.

3.1.23 This HIA has been undertaken predominantly as a desk based exercise. The HIA has adopted a strategic approach consistent with the remit of assessing a strategic level plan.

3.1.24 The HIA makes reference to good quality published evidence to support its recommendations. Where possible evidence from peer reviewed systematic reviews and randomised control trials have been used as these represent the most robust form of evidence on which to base decisions. Sources used include National Institute for Health and Care Excellence (NICE) public health guidance, PubMed and World Health Organisation (WHO) environment and health publications.

3.1.25 The HIA included a workshop on 7th May 2014 at Nuneaton Town Hall, where the scope and preliminary findings of the HIA were discussed. The workshop discussions refined and clarified issues raised by the HIA scoping exercise. The outputs of the workshop, including comments on the draft report, have informed the assessment state of this HIA. The workshop included a broad representation from key departments of Warwickshire County Council and Nuneaton and Bedworth Borough Council:

- Warwickshire County Council representation included: Public Health; Transport; North Area Team; and Infrastructure.



- Nuneaton and Bedworth Borough Council representation included: Parks and Countryside; Development Management; Housing Research and Strategy; Environmental Health; Communities; Estates; and Planning Policy.

3.1.26 It should be noted that where this report includes suggestions as to policy modifications or new policies these are advisory only and should be subjected to appropriate legal review.



4 Record of screening

- 4.1.1 The IAIA (International Association for Impact Assessment) define the screening stage as deciding what scale, if any, HIA is required. This is principally a desk exercise. In this case the screening decision was determined by Nuneaton and Bedworth Borough Council through a HIA screening exercise (11).
- 4.1.2 The screening exercise concluded that health is a key theme running through the Plan and the screening assessment clearly illustrates the need for a full HIA to be undertaken so that any potential impacts can be highlighted. Furthermore the screening exercise notes that the HIA should be carried out in consultation with Warwickshire Public Health applying a consistent methodology.



5 Scoping

- 5.1.1 The scoping stage involved a systematic analysis of relevant documents to determine the potential health impacts of the Plan.
- 5.1.2 The following documents were reviewed and relevant information summarised into a matrix - set out in Appendix A:
- Nuneaton and Bedworth Borough Council, Borough Plan, Preferred Options (12);
 - Borough Plan Preferred Options Background Paper – Health (13);
 - Nuneaton and Bedworth Borough Council Screening exercise issues with potential to impact health and wellbeing (11);
 - Borough Plan Preferred Options Infrastructure Delivery Plan 2013 (13);
 - Borough Plan Preferred Options Sustainability Appraisal 2013 (13);
 - Borough Plan Preferred Options 2013 consultation responses summary (14);
 - Other HIAs of strategic planning reports (see source 15);
 - Relevant guidance on HIAs at a strategic level (see source 15);
- 5.1.3 Using the matrix as the basis for a gap-analysis potentially important health issues were identified. These issues were discussed in a meeting with members of the Warwickshire County Council public health team and Nuneaton and Bedworth's planning team. Based on the review findings and discussions it was agreed that within the timeframe and resource of the HIA the scope would focus on the following three components:
- A strategic assessment of the Plan's policies against the determinants of health to help shape policies, support policies and identify the need for any additional policies or policy hooks upon which a wider health Supplementary Planning Document (SPD) could be developed¹. (Results are set out in Section 6).
 - Additional discussion of a limited number of specific issues that were identified through the scoping exercise and the HIA workshop: (Results are set out in Section 7).
 - Evidence Supporting Healthy Housing;
 - Buffer Zones between Residential and Employment Areas;
 - Evidence to Support Active Travel;
 - Evidence to Support Obligations to Fund Interventions Targeting Under 4s;
 - Evidence to Support a New Fast food Policy; and
 - Recommendations on Criteria for HIA.
 - A review of Locality Area profiles and infrastructure information, particularly at boundaries with strategic housing and employment sites to identify potential vulnerabilities. (Results are set out in Section 8).

¹ If considered appropriate by Nuneaton and Bedworth borough council.

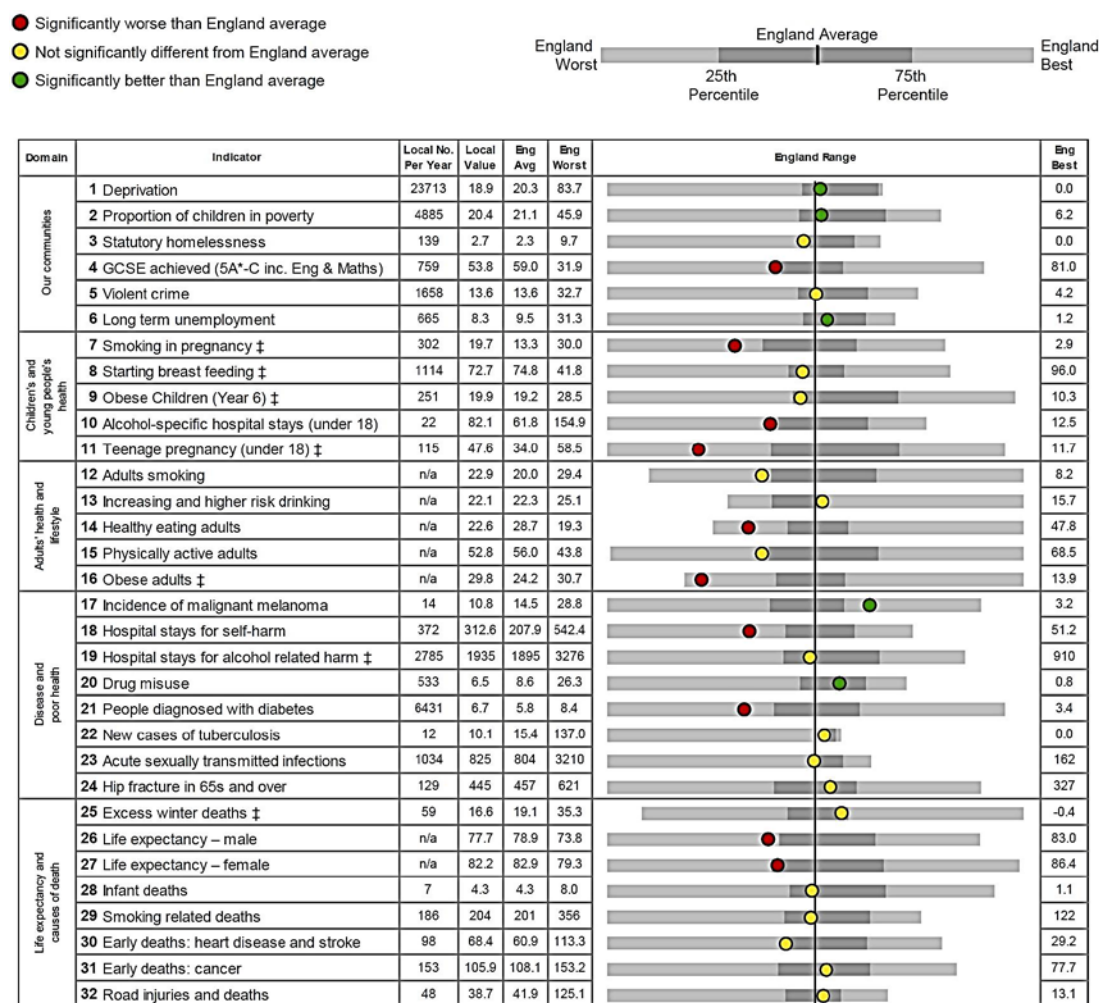


Summary health profile for the borough

- 5.1.4 According to 2011 census profile there are approximately 125,000 people normally resident in the borough of Nuneaton and Bedworth, comprising approximately 53,000 households.
- 5.1.5 Public Health England's 2013 health profile for Nuneaton and Bedworth (16) summarises health in the borough as follows:
- The health of people in Nuneaton and Bedworth is varied compared with the England average. Deprivation is lower than average, however about 4,900 children live in poverty. Life expectancy for both men and women is lower than the England average.
 - Life expectancy is 10.7 years lower for men and 7.4 years lower for women in the most deprived areas of Nuneaton and Bedworth than in the least deprived areas. Over the last 10 years, all-cause mortality rates have fallen. Early death rates from cancer and from heart disease and stroke have fallen.
 - In Year 6, 19.9% of children are classified as obese. Levels of teenage pregnancy, GCSE attainment, alcohol-specific hospital stays among those under 18 and smoking in pregnancy are worse than the England average.
 - Estimated levels of adult 'healthy eating' and obesity are worse than the England average. There were about 2,800 hospital stays for alcohol related harm in 2010/11 and there are 186 smoking related deaths each year. The rate of hospital stays for self-harm is worse than average. The rates of long term unemployment, incidence of malignant melanoma and drug misuse are better than average.
 - Priorities in Nuneaton and Bedworth include mental health, smoking in pregnancy, and tackling obesity.
- 5.1.6 Figure 5-1 sets out health indicators for the borough. The following indicators are significantly worse than the English average:
- GCSE achievement;
 - smoking in pregnancy;
 - alcohol specific hospital stays;
 - teenage pregnancy;
 - healthy eating in adults;
 - obese adults;
 - hospital stays for self-harm;
 - people diagnosed with diabetes; and
 - life expectancy (male and female).
- 5.1.7 The profile suggests that key areas where planning policy could be influential may include:
- improving the quality of schools and education;
 - reducing access to alcohol;
 - increasing access to affordable healthy food;
 - reducing access to unhealthy food;
 - increasing opportunities for physical activity; and
 - creating environments that improve mental health and wellbeing.



Figure 5-1: 2013 health indicators for Nuneaton and Bedworth



From Public Health England (16)

5.1.8 The borough's 2013 Joint Strategic Needs Assessment (JSNA) identifies the following population health statistics that provide a sense of scale on the health issues facing the borough (17).

- In Nuneaton & Bedworth from 2002-2012 the annual number of births increased by 24% and the size of the over 65 population increased by 17%.
- In 2012, there were 1.74 people of working age for every dependent in Nuneaton & Bedworth (those aged under 16 or over 64). By 2021, this figure is expected to fall to 1.48. This change brings significant implications, in particular for the local economy, education, health and social care.
- Nuneaton & Bedworth Borough has the highest percentage of long term unemployed people (27.5%) who have been claiming JSA for more than twelve months in the County.
- The unemployment rate amongst the 18 – 24 age group, although now falling, is more than twice the rate for those aged over 24. In Nuneaton & Bedworth, 8.5% (880 unemployed young people) of those aged 18 to 24 years old are claiming Jobseekers Allowance.



- In Nuneaton & Bedworth the number of young people aged 16-18 who are not in employment, education or training (NEET) is 4.6% (224 young people), the highest rate in the County.
- Nationally, around 1 in 3 adults live with at least one Long Term Condition (LTC). In Nuneaton & Bedworth, this equates to an estimated 33,000 people.
- One in three of the county's pupils are not attaining what is generally regarded as a minimum level of educational attainment. Nuneaton & Bedworth had the lowest rate at 54% of students achieving the minimum level.
- In Warwickshire, one in four adults is estimated to be obese, with a body mass index of more than 30. In Nuneaton & Bedworth Borough, the number of obese adults is approximately 28,400.
- For the past two years, the prevalence of obesity (BMI in excess of 30) in Nuneaton and Bedworth in Reception aged children has remained the highest in Warwickshire (9.7%). Countywide, 7.8% of reception age children are classified as obese.
- According to the latest 2011 Census data, in Nuneaton & Bedworth Borough approximately 7,700 residents (6.2% of the Borough population) self-reported that they were in 'very bad' or 'bad' health.
- In Nuneaton & Bedworth, life expectancy for both males and females are the lowest in the County at 77.7 years and 82.2 years respectively.
- Fuel poverty in Nuneaton & Bedworth Borough was the second lowest in the County with 13.9% of households.
- Nuneaton & Bedworth Borough has the highest percentage in the County of Disability Living Allowance claimants at 3.5% (900 claimants).
- The number for Excess Winter Mortality (EWM) for the period 2007-2010, in Warwickshire, was 276 and in Nuneaton & Bedworth Borough it was 51.



6 Review of the plan's policies

- 6.1.1 This section sets out for each of the Plan's policies commentary on potential opportunities from the health perspective. The policies are considered in relation to their potential effects on health as indicated by Figure 3-1 on page 6. The commentary is primarily based on expert opinion with reference to relevant literature where appropriate. We aim to highlight potential areas of opportunity rather than to provide detailed supporting evidence.
- 6.1.2 Overall the Plan's policies are considered positive for health and wellbeing. Many of the suggested enhancements concern areas of overlap between policies, for example sustainable transport links could be made in many of the policies in addition to INF3. It is appreciated that such overlaps may be more relevant to implementation of the policies and that at this stage planners may wish to keep issues separated.
- 6.1.3 In [Appendix C](#) (page 90) we provide summaries of recommendations made by the National Institute for Health and Care Excellence (NICE). In this section we also refer to other literature sources, notably:
- an evidence summary by the World Health Organization (WHO) Regional Office for Europe on the spatial determinants of health in urban settings (18); and
 - the recent report on health and climate change by the Intergovernmental Panel on Climate Change (IPCC) (19).
- 6.1.4 The summaries are provided as robust position statements to support some of the suggested enhancements to the draft Plan policies.

6.2 Development Strategy Policies

Scale of Growth – DEV1

- 6.2.1 It is understood that the local growth targets for housing and employment are subject to further consideration by the Borough Council.
- 6.2.2 The inclusion of specific infrastructures for gypsies and travellers is supported. Ongoing consultation with this community is recommended to ensure that the sites provide appropriate links with other services, such as health and education. Wider community consultation is also recommended to ensure that as far as possible this marginalised group is integrated with the Borough's other communities. We provide information on Gypsy and Traveller health in [Appendix B](#) on page 88.
- 6.2.3 There is an opportunity to include greater focus on growth to address existing community employment and dwelling needs. The scale of growth policy currently appears to focus on attracting more skilled employment opportunities and more affluent residents. Whilst promoting mixed, integrated and cohesive communities is supported, there is a danger of masking underlying deprivation without addressing its root causes. The policy could be modified to indicate that it will meet the needs of both current and future residents of the Borough.

Settlement Hierarchy and Roles – DEV2

- 6.2.4 The policy could make specific mention of the east west deprivation divide within the Borough and consider focusing more strategic importance and development to currently deprived areas to increase regeneration.



6.2.5 Currently the majority of the Nuneaton and Bedworth's residents commute outside the borough for work, Coventry and the M6 (both to the South) being important influences. The Plan's development is broadly focused in the north east. In the HIA workshop there was discussion about potential implications for congestion and air quality if residents continue to commute to the south. Consideration could be given to a greater development focus in the south west of the borough, which could:

- reduce congestion and air quality issues in the borough;
- promote regeneration of the more deprived western areas;
- reduce isolation for historically excluded groups in these areas e.g. mental health service users, carers and single parents);
- promote active transport, with obesity and cardiovascular benefits, by providing local jobs for people in the most deprived areas; and
- improve connectivity with the work and leisure flows in and out of Coventry.

Urban Focus and Strategic Sites – DEV3

6.2.6 Housing and employment are both important determinants of health. The increase in good quality dwellings and jobs is therefore supported.

6.2.7 The proposed strategic housing sites are largely extensions to existing residential areas. Similarly proposed strategic employment sites are largely extensions of existing commercial areas. Whilst it is noted that there are potential conflicts between some residential and commercial activities (particularly industries that operate outside of normal work hours); there are also benefits to adopting a more integrated mix of uses, particularly where commercial activities support community needs and reduce car travel to work.

Phasing and Delivery Strategy – DEV4

6.2.8 It is recommended that the phasing strategy include specific mention of the need for early establishment and master planning of sustainable transport infrastructure (including walking, cycling and public transport) to link new urban and strategic site developments with the existing community.

6.2.9 There is also an opportunity for current affordable housing needs to be phased to the first part of the Plan period. Such phasing should promote mixed communities and avoid allocating large proportions of affordable housing in areas considered less desirable (e.g. areas with high deprivation, pollution or disturbance).

6.2.10 The allocation of urban sites to the first part of the Plan period is supported as this is consistent with the regeneration of brown field sites ahead of development on green field sites. Green field sites tend to play a greater role in physical activity and mental wellbeing.

Green Belt – DEV5

6.2.11 The protection of improved access to and expansion of the Green Belt is supported due to links with physical activity and mental wellbeing.

6.2.12 With regard to improved access, specific mention could be made that this will aim to promote walking, cycling and other modes of active transport and physical activity. This is especially important in assisting those people with a long term health condition (1 in 3 adults in the borough according to the JSNA) to stay healthy. Mention could also be made of improving access for those with limited mobility.

6.2.13 No mention is made in this policy as to the allocation of some existing Green Belt areas to strategic sites. Given this allocation there is an opportunity to retain pockets of high value green space from the existing Green Belt within the strategic sites to link new and existing sites with green spaces.



6.3 Economy policies

Employment is associated with positive physical and mental health outcomes: the quality of the employment is associated with the health effect (20) for example the terms and conditions of the contract and the working conditions. Appropriate training has also been found important (21). Unemployment is associated with increased mortality rates (22;23).

Existing Employment Estates – ECON1

- 6.3.1 The protection of existing local employment opportunities is supported as good quality employment is an important determinant of health.
- 6.3.2 Given the potential for conflicts between residential and some more intensive business uses there is an opportunity to specify that areas adjoining current or future residential areas (or schools or open spaces used for physical activity) should be buffer zones.
- 6.3.3 Buffer zones could include either green infrastructure² or allocation to B1 uses. B1 may be appropriate being a use which can be carried out in any residential area without detriment to the amenity of that area by reason of noise, vibration, smell, fumes, smoke, soot, ash, dust or grit (24). It is noted that the NPPF defines 'main town centre uses' as included offices (a B1 use) (2). Given that it may therefore be appropriate to direct offices to town centres for vitality and viability purposes, buffer zones away from main town centres could be of B1 use class other than offices. (See section 7.3 for a discussion of how to preserve such buffer zones).
- 6.3.4 For an example of how employment land allocation could specify particular use classes in particular areas see the Carmarthenshire County Council Local Development Plan (25) Appendix 4. Appendix 2 of that plan also proposes a series of development briefs in the form of SPG to set out appropriate uses under Use Classes B1, B2 & B8 for each strategic site. A similar approach could be considered for Nuneaton & Bedworth's Plan.
- 6.3.5 For an example of a specific policy addressing use of B1 land allocation to act as a buffer zone between employment and residential uses see Dover District Council's Land Allocation Policy (26), which at time of writing is in its final stages of adoption. Policy LA 1 sets out the District's premier locations for future employment generation. The policy specifies that for a large employment zone the amenities of residents in this area will be protected by: a landscaped buffer zone at least 25 metres wide; and that development adjacent to the buffer zone is Use Class B1 only and does not exceed 10 metres in height. A similar policy for residential, school or amenity space adjoining employment zones could be considered for Nuneaton & Bedworth's Plan.
- 6.3.6 Given the importance of retaining good quality jobs in the borough the policy could also seek to protect important employers where there is a reasonable expectation that introducing adjoining residential areas would result in nuisance complaints (particularly noise) due to the nature of the commercial operations. Where such incompatibilities can be anticipated a buffer zone (B1 use other than offices, or green infrastructure) could be used.
- 6.3.7 Regarding developments of non B-use class in existing employment areas, the need for considering the impact to neighbouring uses is supported. As this could potentially include developments which more broadly affect health e.g. non B-use class industrial activities,

² Department for Communities and Local Government (2) defines green infrastructure as: a network of multi-functional green space, urban and rural, which is capable of delivering a wide range of environmental and quality of life benefits for local communities.



there is an opportunity to extend the consideration to also include the 'wider community' as well as neighbouring uses.

- 6.3.8 The Plan focuses on encouraging more office based employment opportunities in the borough, with a restriction on further distribution type businesses. There is a potential issue of residents not having the skills to access new jobs especially if they are office based. Consideration could be given to the potential to use planning obligations (e.g. s.106 agreements or community infrastructure levies (CIL)) for securing opportunities for residents to up-skill. This point also applies to ECON2.

Location and Nature of New Employment – ECON2

- 6.3.9 Support for education establishments that assist in skilling up the local population is welcomed as learning and employment are important determinates of health.
- 6.3.10 As with ECON1 there is an opportunity to include relevant B1 use class (other than offices) or green infrastructure buffer zones, as well as including consideration of wider community impacts alongside neighbouring uses.
- 6.3.11 Although the importance of retaining viable centres (ECON4) is noted, there is an opportunity to support limited inclusion of other types of employers as part of strategic employment sites e.g. use classes A1 (shops), D1 (non-residential institutions) and D2 (assembly and leisure). For example encouraging:
- shops that sell affordable healthy food;
 - non-residential education and training centres; and
 - sports and recreations facilities close to places of work as well as homes.
- 6.3.12 It is noted that there are land uses potentially detrimental to the community if over concentrated, e.g. cumulative industrial emissions. There is the opportunity for the policy to note the potential for cumulative impacts and seek to provide a balance of uses that promotes economic diversity, vitality and community health.
- 6.3.13 Sustainable transport links to the strategic employment sites are important in encouraging travel other than by car. There is an opportunity for the policy to prioritise developments that deliver this goal.

Nature of Town Centres Growth – ECON3

- 6.3.14 The mixed use 'quarter' approach to the town centres is broadly supported.
- 6.3.15 The removal of car parking to reduce car journeys, congestion and air pollution is positive if supported with effective public and active transport alternatives. There is an opportunity for prioritised pedestrian zones and cycling routes in the centres.
- 6.3.16 There is an opportunity for the policy to note the inclusion of a reasonable proportion of affordable homes in the Town centre residential developments.
- 6.3.17 There is an opportunity to note that in the Retail Quarters the retail mix should promote vitality and community health. Such a policy could link to avoiding over concentrations of particular outlets that are linked to poor health, e.g. fast-food outlets, betting shops and payday loan shops.
- 6.3.18 There is an opportunity for the 'River Corridor Quarter' and 'Cultural and Civic Area' policies to aim to include good quality open spaces and street furniture that promotes physical activity.

Hierarchy of Centres – ECON4

- 6.3.19 The need for a variety of centres that support local provision of goods and services for communities without the need for car journeys is supported.



- 6.3.20 Hot food takeaways are currently specifically mentioned as appropriate uses in district and local centres. Given their generally adverse impact on a healthy diet and obesity levels it is recommended that they are not given such endorsement.
- 6.3.21 Notwithstanding the preceding point about not endorsing potentially unhealthy food options, consideration should be given to the fact that some successful policies seeking to limit hot food takeaways (see section 7.6) specifically describe within their policies where such uses are and are not appropriate. The mention of areas suitable for A5 uses may therefore be appropriate, if it is in the context of a policy on access to fast food.
- 6.3.22 There is the opportunity to specifically identify uses that are potentially detrimental to people's health and which harm the vitality of centres (in both primary and secondary shop frontages), for example over concentration of hot food takeaways, betting shops or payday loan shops.
- 6.3.23 It is noted that there is no designation of primary and secondary shop frontages in Map 5 of Bedworth Town Centre. Such designation affords the possibility of greater control over types of retail provision. This in turn could provide a greater degree of control in the case of the proliferation of outlets that are linked to potentially adverse health outcomes: for example hot-food outlets, bookmakers, high-street money lenders etc.
- 6.3.24 The HIA workshop raised the issue that in the borough's centres there is a perceived lack of an early evening economy, such as restaurants, to link the day time and evening economy.
- 6.3.25 There is the opportunity to note that affordable healthy food outlets are appropriate uses in all centres.³ Despite being widely used in both research and policy, the term 'affordable healthy food' is not well defined.
- 6.3.26 The Eatwell Plate is a policy tool that defines the Government's recommendations on healthy diets (28). Nuneaton and Bedworth may wish to consider the role that the Plan could play in promoting the balance of foods required to maintain a healthy diet, along the lines of those provided in the Eatwell Plate.
- 6.3.27 The issues of 'food poverty' and 'food security' link to affordable healthy food:
- In 2005 the Department of Health defined food poverty as the inability to afford, or to have access to, food to make up a healthy diet (29).
 - According to the Food and Agriculture Organization of the United Nations (FAO), food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life (30).
- 6.3.28 NICE recommend creating local environments that encourage people to adopt a healthier diet, for example, by ensuring local shops stock good quality, affordable fruit and vegetables (31).
- 6.3.29 The Plan could therefore state:
- Outlets that offer affordable healthy food in line with the balance of food required to maintain a healthy diet as set out by the Government's Eatwell Plate are appropriate uses in all centres. This could include local shops that stock good quality, affordable fruit and vegetables. This policy supports reduced food poverty and increased food security.

³ The third bullet point of Policy CS14 of the Core Strategy and Urban Core Plan for Gateshead and Newcastle upon Tyne (27: p.88) states that the wellbeing and health of communities will be maintained by controlling the location of, and access to, unhealthy eating outlets. We understand that the definition of an unhealthy eating outlet is currently being challenged.



6.4 Infrastructure policies

Lack of availability and accessibility of municipal services such as libraries, health facilities doctors surgeries, schools and social support can have a negative social impact on communities and affect both physical and mental health (18).

Health – INF1

- 6.4.1 Health is an important priority for the borough.
- 6.4.2 The policy requiring HIA on large scale developments is supported. Further details of this requirement and levels of assessment are discussed in Section 7.7 of this report.
- 6.4.3 The use of obligations to fund services aimed at encouraging health lifestyles targeting the under 4s is discussed in Section 7.5.
- 6.4.4 Section 7.6 provides evidence to support a new fast food policy within INF1.
- 6.4.5 In [Appendix C](#) (page 90) we provide summaries of recommendations made by the National Institute for Health and Care Excellence (NICE) which could inform further health policies.
- 6.4.6 With regard to planning obligations it is noted that the HUDU tool (32) could be used as a starting point for negotiating contributions from developments (Community Infrastructure Levies or s106 agreements).
- 6.4.7 It is also noted that the Borough Plan Preferred Options Infrastructure Delivery Plan 2013 (13) has already received health input with regard to the expected infrastructure requirements of the Plan.
- 6.4.8 The HIA workshop noted that air quality is an important issue for the Borough and that there is no mention made of the need for developments to undertake assessment of air quality impacts. There is an opportunity to specify that such assessment would be expected to be included in the screening and scoping of any EIA or HIA.
- 6.4.9 In [Appendix D](#) (page 97) we provide a summary of air quality standards and associated health effects.

Green Infrastructure – INF2

- 6.4.10 This policy (including the 'green network', improved access to nature, open spaces and allotments) will have a positive impact on health and wellbeing and is therefore supported.
- 6.4.11 Quality of these spaces and community perceptions of their safety will be important.
- 6.4.12 There is an opportunity to also designate publically open spaces within the strategic employment and housing sites. Such spaces will provide opportunities for physical activity and enhanced wellbeing close to work and homes.
- 6.4.13 As well as green infrastructure, blue infrastructure (for example use of canal paths) and more non-traditional spaces (for example, car parks outside working hours) also offer opportunities for physical activity if appropriately managed.
- 6.4.14 There is an opportunity to ensure that green spaces offer a variety of physical activity options to suit all age groups, genders and cultures of the community.

Sustainable Transport – INF3

- 6.4.15 The policies aim of enhancing regional and sub-regional links is supported. As are the provisions for requiring promotion of walking and cycling and avoiding air quality deterioration in AQMAs.



- 6.4.16 In [Appendix C](#) (page 94) and section 6.7.6 (page 28) we summarise evidence for health effects associated with transport. There is an opportunity for the Plan, in addition to impacts on air quality, to specify that developments should not significantly worsen conditions in relation to noise, road safety, physical activity or community severance. The policy could also note the important links between physical activity, obesity and active travel.
- 6.4.17 In [Appendix D](#) (page 97) we provide a summary of air quality standards and associated health impacts. Road transport, particularly car use, is an important source of air pollution in the borough. Addressing this issue, both in AQMAs and more generally should be a focus of the Plan.
- 6.4.18 It is noted that sustainable transport is contingent on both 'infrastructure' and 'services'. The inclusion of this topic within the infrastructure section of the Plan should therefore not prejudice the need to fully consider implications for sustainable transport services in addition to any infrastructure requirements. Such services include bus and rail services.
- 6.4.19 There is an opportunity to 'prioritise' rather than just promote active modes of transport, such as walking and cycling as well as their integration with public transport to support longer journeys. Specific mention could be made of bus services in the Plan as an important aspect of public transport.
- 6.4.20 School travel plans that encourage children to walk or cycle all or part of the way to school could also be supported. It is understood that these are currently the responsibility of each school. As the feasibility of such schemes is highly dependent on safe routes, there is an opportunity to provide greater support and joint working with schools to identify and remove any barriers.
- 6.4.21 The strategic employment and housing sites offer the opportunity to provide specific support for people at a 'transition point' in their lives, for instance, when they are changing job, house or school. At these times people may be open to trying a new mode of transport or new types of recreation. This opportunity is dependent on alternative travel options being available at this transitional point i.e. embed the sustainable transport network (including bus routes) prior to housing and employment development.
- 6.4.22 The HIA workshop noted that the inclusion of INF3 in the Plan was important as sustainable and active travel should be a key consideration for the borough.
- 6.4.23 The HIA workshop also noted there is some ambiguity as to the intention for parking. There is an opportunity to clarify that generally parking provision should be controlled not expanded.
- 6.4.24 The HIA workshop supported the inclusion of virtual park and ride schemes (i.e. using a portion of employers parking allocation near bus stops for public use to encourage sustainable travel). Although mentioned in the detail of the Plan there is an opportunity to include virtual park and rides in INF3.
- 6.4.25 The HIA workshop noted that key to the success of sustainable / active travel would be the use of high quality signs (including marked pedestrian and cycle lanes) to clearly designate routes and use the of other media to advertise alternative travel options.
- 6.4.26 The HIA workshop noted that future expansion in the use of electric cars requires a network of suitable charging locations. However as requirements for such sites are soon to be addressed through building regulations, it was felt that the Plan did not need to directly address this issue.



Ensuring the delivery of infrastructure provision – INF 4

- 6.4.27 The policy to require new development to demonstrate that it will not harm the Borough's ability to improve the health and well-being of its communities is supported. Some further detail may be required to explain what this would mean in practice. A requirement that development does not reduce the health and wellbeing of the borough's communities could be included (determined by HIA if appropriate).
- 6.4.28 The strategic housing sites (particularly SHS4) may require master planning to ensure that there is appropriate consideration given to the development of community infrastructures in locations that serve these emerging new communities.
- 6.4.29 It is important that sustainable transport infrastructure is prioritised and delivered at least in tandem, if not before housing and employment developments.
- 6.4.30 Access to and resourcing of local schools and healthcare facilities will be important.

6.5 Housing policies

There is good evidence that improved warmth in the home may produce long-term positive socioeconomic health benefits, such as less time off work/school, and increased social and educational opportunities (33).

There is good evidence that residential dampness and mould are associated with increases in both respiratory infections and bronchitis (34).

There is good evidence that remediation of mould in houses decreases asthma-related symptoms and decreases respiratory infections. Such remediation methods may vary from complete rebuilding to improving heating and ventilation (35).

Lack of affordable housing has been linked to: decreased spending on health and health care; delays in seeking preventive and routine medical care; medication non-adherence; and increased emergency department utilisation(36) (37).

- 6.5.1 Section 7.2 provides an evidence base to support healthy housing brought forward under this policy.

Affordable Housing – HOU1

- 6.5.2 The borough has a high demand for affordable housing. The need for affordable housing is supported.
- 6.5.3 There is an opportunity to specify that large proportions of affordable housing should not be allocated in areas characterised by, for example, high levels of socioeconomic deprivation, high levels of noise or low air quality.
- 6.5.4 Housing is an important determinant of health. It is important that homes provide good thermal control (to avoid temperature extremes) and are suitably dry and ventilated to avoid mould and indoor air pollution.
- 6.5.5 Affordable housing should also share good links to sustainable transport and open/green space.

Range and mix of housing – HOU2

- 6.5.6 The policy aims of supporting older people, people with long term limiting illness and special housing requirements is supported.
- 6.5.7 There is an opportunity to highlight that 'lifetime homes' include ensuring homes are suitable for everyone, including the needs of families. Links could then be made with



school travel plans (enabling children to safely walk or cycle all or part of the way to school) and opportunities for children to safely play.

- 6.5.8 Consideration could be given to the provision of keyworker housing linked economic growth and employment.
- 6.5.9 Use class C2 (Residential institutions) includes: residential care homes, hospitals, nursing homes, boarding schools, residential colleges and training centres. The HIA stakeholder workshop raised the issue that there have been planning applications for residential care homes to be sited in employment zones. Concerns were raised as to the suitability of such sites.

Vulnerable groups such as the sick and the elderly are among those most likely to live in poor housing and also tend to spend large amounts of time in their homes exposed to potentially hazardous environments(33). Douglas et al (38) report 'moderate' strength evidence that the elderly are at particular risk of indoor air quality.

In examining how psychosocial environments affect health, Egan et al (39) found 'moderate' strength evidence that social support (including from social networks in the wider community) or participation in local activities are associated with better health amongst elderly populations.

- 6.5.10 As commercial/industrial areas are generally more likely to include infrastructure associated with significant localised air pollution emissions (outdoor air quality being an important predictor of indoor air quality) and are less likely to support social networks or local activities, the siting of care homes in areas allocated for employment uses has the potential to result in disproportionate adverse health impacts.
- 6.5.11 By way of an example Liverpool has a SPG on residential care homes (40). With respect to location this states:
- Residential care homes should be located in residential areas where they can blend into the neighbourhood and should not involve significant changes to the street scene involving the loss of trees, hedges, walls etc.
- 6.5.12 There is an opportunity for the Plan to make a similar policy statement or SPG to cover residential care homes.

Gypsies and Travellers – HOU3

- 6.5.13 The policy criteria to identify suitable sites that include accessibility to town and district centres, local services and facilities such as schools, health facilities, fresh food and employment by walking, cycling and public transport is supported.
- 6.5.14 The 'intention to make provision' is less committed language than that used for other policies. However it is understood that such wording reflects that provision would be through a separate mechanism to the Plan.
- 6.5.15 The phasing of this policy will be important to ensure that provision is provided well before 2026.

6.6 Climate change policies

Direct Health Risks from Climate Change include: excess mortality and morbidity in the summer months from temperature extremes; mental health and stress effect flood and potential flood situations, potential for water-borne disease outbreaks; changes in patterns of disease; adverse effects on



quality and availability of drinking water; likely increases in incidents of food poisoning; higher ground level ozone concentrations in the lower atmosphere; and increased cases of skin cancer and cataracts due to ultraviolet radiation exposure (18).

The Intergovernmental Panel on Climate Change (IPCC) released its latest report on March 31, 2014. This report was the second instalment of the Fifth Assessment Report, prepared by Working Group 2, on impacts, vulnerability, and adaptation to climate change. Chapter 11 specifically addresses human health (19). The following is a summary of key findings.

- *The health of human populations is sensitive to shifts in weather patterns and other aspects of climate change [very high confidence].*
- *Until mid-century climate change will act mainly by exacerbating health problems that already exist [very high confidence].*

If climate change continues as projected until mid-century, the major increases of ill-health compared to no climate change will occur through:

- *Greater risk of injury, disease, and death due to more intense heat waves and fires [very high confidence].*
- *Increased risk of under-nutrition resulting from diminished food production in poor regions [high confidence].*
- *Consequences for health of lost work capacity and reduced labour productivity in vulnerable populations [high confidence].*
- *Increased risks of food- and water-borne diseases [very high confidence] and vector-borne diseases [medium confidence].*

Impacts on health will be reduced, but not eliminated, in populations that benefit from rapid social and economic development [high confidence].

In addition to their implications for climate change, essentially all the important Climate Altering Pollutants (CAPs) other than CO₂ have near-term health implications [very high confidence]. In 2010, more than 7% of the global burden of disease was due to inhalation of these air pollutants [high confidence].

There are opportunities to achieve co-benefits from actions that reduce emissions of CAPs and at the same time improve health. Among others, these include:

- *Reducing local emissions of health-damaging and climate-altering air pollutants from energy systems, through improved energy efficiency, and a shift to cleaner energy sources [very high confidence].*
- *Providing access to reproductive health services (including modern family planning) to improve child and maternal health through birth spacing and reduce population growth, energy use, and consequent CAP emissions over time [medium confidence].*



- *Shifting consumption away from animal products, especially from ruminant sources, in high-meat consumption societies toward less CAP-intensive healthy diets [medium confidence].*
- *Designing transport systems that promote active transport and reduce use of motorized vehicles, leading to lower emissions of CAPs and better health through improved air quality and greater physical activity [high confidence].*

Sustainable Design and Construction – CLIM1

- 6.6.1 The sustainable design and construction measures are supported. The standards will contribute to appropriate thermal control of new buildings to reduce deaths from temperature extremes (particularly amongst older people during the winter and heat waves).
- 6.6.2 Indoor air quality, including mould spores, is an important determinant of health. Consideration should be given to ensuring that thermal efficiency is balanced with appropriate ventilation.
- 6.6.3 Building design and construction should be appropriate for the anticipated temperature changes due to climate change that may occur during the life of the building.

Renewable and Low Carbon Energy – CLIM2

- 6.6.4 Energy production is a major contributor to climate change, which in turn is an increasingly important determinant of health.
- 6.6.5 It is noted that a large part (if not most) of a buildings lifetime carbon footprint is due to occupation (e.g. people living in the building). As energy for heating is a significant component, the policy on sourcing low carbon heating (e.g. district heating) is supported.
- 6.6.6 It is noted that whilst zero carbon development is important, there is an argument that an initial carbon outlay during development that significantly reduced the occupational carbon footprint could be justified.
- 6.6.7 There is an opportunity of a policy to encourage more general sourcing of electricity from renewable sources (e.g. switching to green/renewable portfolios/tariffs provided by traditional energy providers). Although this does not have the benefits of decentralised energy, it could be encouraged for redevelopment of existing buildings or smaller scale developments. It could also be considered for existing public buildings.
- 6.6.8 Resilience to loss of power and or heating is also important. Food spoiling due to loss of refrigeration is a potentially important health impact. There is an opportunity for the policy to address this issue.

Managing Flood Risk – CLIM3

- 6.6.9 Flood risk has not been identified as a major issue for the borough, although risk may increase with climate change. The policy addresses design to reduce the risk of flooding, but does not include measures that address resilience to flooding should it occur.
- 6.6.10 There is an opportunity to include a requirement for access by emergency services that is resilient to flooding. As the policy suggests that surface water flooding may be an issue, measures that increase resilience to this type of flooding, e.g. height and orientation of entrances may be appropriate.



- 6.6.11 From a health perspective post-flooding impacts are also important for physical and mental health (41-43). Flood resilience measures that reduce flood water ingress into homes could reduce these risks.

6.7 Natural and built environment policies

Biodiversity and Geodiversity – ENV1

- 6.7.1 As natural environments are linked to positive wellbeing and offer the opportunity for physical activity this policy is supported.
- 6.7.2 The balance between increasing access to existing sites and ecological disturbance will be important. Access should encourage physical activity by creating safe routes (that reduce actual and perceived risks of crime) that are suitable for all ages and those with reduced mobility. Access should include links to sustainable transport.
- 6.7.3 Use of engaging signs and 'fun trails' for children could be encouraged.
- 6.7.4 Green Belt developments offer the opportunity to retain areas of high quality habitat within the development boundary for easy access from work or home.
- 6.7.5 There is an opportunity to incorporate reference to the Local Nature Partnership and their strategic vision (44):
- The natural and historic environment will be in a vibrant and healthy condition such that the economy, people and local communities derive significant benefits from the full range of goods and services that it provides and sustains.
 - Key decision-makers and influencers will engage in and champion the need to actively integrate enhancement of the natural environment with economic growth.
 - The loss of biodiversity in Warwickshire, Coventry and Solihull will have been halted and reversed. Key habitats will have been restored, enhanced and connected at a landscape scale.
 - Local people will value and feel connected to their local environment.

Landscape Character – ENV2

- 6.7.6 Landscape character can have a limited effect on health and wellbeing. Direct effects are generally short term and linked to visual disturbance for those with regular views of developments. Indirect effects may include economic impacts from changes in levels of tourism (if this is an important part of the local economy). No policy changes are suggested.

Urban Character and Design Quality – ENV3

Excessive or persistent noise exposure can have a detrimental effect on health. The main impacts on health are on cardiovascular diseases, sleep disturbances, annoyance, which impacts on mental health, hearing impairment, tinnitus which can also affect mental health and disturb sleep and cognitive impairment (18).

Health consequences associated with cognitive impairment resulting from environmental noise include problems with reading, recall, recognition and attention (18).

Noisy outdoor environments (commonly traffic noise) can also affect the social inclusion component of social pathology risk factors. For example, intrusive traffic noise can make streets less conducive for social interactions (18)



The effect on learning for both children and adults can be negatively influenced by noise exposure (18).

- 6.7.7 The policies include positive measures to reduce crime and fear of crime, as well as measures to reduce pollution of air, soil, noise and light. As all these are important determinants of health the policy is supported.
- 6.7.8 There is the opportunity to use urban character and design quality in encouraging physical activity, including high quality spaces that encourage play and exercise as well as walking and cycling as part of sustainable transport.

Valuing and Conserving our Historic Environment – ENV4

- 6.7.9 As with rich natural environments, rich cultural environments offer an opportunity for encouraging walking and cycling both at the sites and through associated active transport.
- 6.7.10 There is an opportunity, where these sites are publically accessible, to include enhancements to their access, including links to sustainable transport.
- 6.7.11 As with natural environments, use of engaging signs and 'fun trails' for children could be encouraged.



7 Review of specific health issues arising from the plan

- 7.1.1 This section of the HIA provides additional discussion of a limited number of specific issues that have been identified through the scoping exercise and the stakeholder workshop.

7.2 Evidence supporting healthy housing

- 7.2.1 This section makes reference to the strength of evidence reported using a simplified version of the Cochrane GRADE approach (45). This scoring reflects how complete the scientific literature is in relation to an issue, not the quality of the reporting review study. There are four ratings: 'high', 'moderate', 'low' and 'very low'. 'High' signifies the strongest evidence and 'very low' the weakest. Scorings for strength of evidence used professional judgement based on an assessment of the overall quality and weight of evidence reported in the selected systematic reviews or evidence summaries. This review has not exhaustively examined the primary sources for each population, intervention or outcome subcategory within each topic. Scorings are therefore indicative rather than definitive.
- 7.2.2 This section provides a review of good quality evidence (systematic reviews) on healthy housing design and policy considerations to support the Plans objectives in relation to new housing allocations.
- 7.2.3 In a recent review Thompson et al (46) suggest that housing improvements that deliver tangible improvements in housing conditions can lead to improved health, even a few months after the intervention. Provision of adequate and affordable space and warmth are key determinants of subsequent health and health impacts, in particular respiratory health. The extent of health improvement reported will depend on the extent of improvement in actual housing conditions experienced by householders. Health improvement is most likely if the housing improvements are targeted at those in most need, that is, those living in poor housing and with existing poor health.
- 7.2.4 Thompson et al (46) go on to state that increased usable space can promote improvements in diet, privacy, household and family relationships, as well as opportunities for leisure and studying. Improvements in health following warmth improvements may also lead to reduced absences from school or work. However the health impacts of housing improvements delivered across a whole area or neighbourhood, rather than targeted according to individual household need, are less clear.
- 7.2.5 In the WHO publication 'Environmental Burden of Disease associated with inadequate housing' Braubach et al (33) provide a review of the health impacts associated with housing. Braubach et al note that the link between poor housing and poor health is well established. Many cross-sectional studies have reported consistent and statistically significant associations between poor housing conditions and poor health.
- 7.2.6 Braubach et al identify that there is 'high' strength evidence that improved warmth in the home may produce long-term positive socioeconomic health benefits, such as less time off work/school, and increased social and educational opportunities. Sauni et al (35) identify mould infestation as a problem in houses, apartment buildings, office buildings and schools. Sauni et al found 'moderate' strength evidence that remediation of mould in houses decreases asthma-related symptoms and decreases respiratory infections. The evidence suggest that mould damaged houses should be remediated to decrease asthma-related symptoms. Such remediation methods may vary from complete rebuilding to



improving heating and ventilation. Fisk et al (34) support this view with 'high' strength evidence that residential dampness and mould are associated with increases in both respiratory infections and bronchitis. The review also notes that dampness and mould in buildings is consistently associated with asthma exacerbation. The study concludes that preventing or remediating dampness and mould in residences may substantially reduce the burden of respiratory infections on healthcare services. Gibson et al (47) and Thomson et al (48) also find strong evidence that warmth and energy efficiency interventions have positive impacts on health, although they note that the evidence on other improvements to housing conditions remains unclear.

- 7.2.7 Beyond the fabric of houses themselves, the community context can also be an important determinant of health. Miller et al (36) and Anderson et al (37) report that the physical, social, and economic environments of local communities affect residents' health and exacerbate health disparities. These reviews note that lack of affordable housing has been linked to:
- decreased spending on health and health care;
 - delays in seeking preventive and routine medical care;
 - medication non-adherence; and
 - increased emergency department utilisation.
- 7.2.8 The reviews also find that higher utility bills (e.g. following redevelopment) can place an additional burden on lower-income families, forcing trade-offs among housing, heating, food, medical care, and other basic needs. Lack of affordable housing can also undermine the benefits of a stable family home, as families are forced to move frequently, live with other families in overcrowded conditions, or experience periods of homelessness. Such disruption may affect schooling, health care, and social networks.
- 7.2.9 Addressing housing problems that affect whole communities can be problematic. Gibson et al (47) find that there is 'low' strength evidence to support the use of area effects interventions designed to improve high poverty areas. The review notes that whilst focusing investment on deprived areas to improve area characteristics or internal housing conditions may assist all of the residents and thus be more cost-effective than identifying and targeting individuals, any positive effects may be hard to detect as they are diluted by benefiting many who were not disadvantaged. Gibson et al recommend that multiple level housing interventions (i.e. those that simultaneously target individuals, households, housing and neighbourhoods) are most likely to be successful.
- 7.2.10 The Plan aims to facilitate an increase in tenure mix, social diversity and affordable housing. However Gibson et al (47) note that there is a significant evidence gap in the scientific literature with regards to housing interventions that alter housing tenure. Consequently the health implications of changing the mix of tenure types (e.g. from state leases to private ownership) on a housing development are unknown. Some potential for positive effects is hinted at in Anderson et al (37), where there was 'moderate' strength evidence that the use of tenant-based rental assistance programs (which subsidize the cost of housing secured by low-income households within the private rental market through the use of vouchers or direct cash subsidies) are effective in improving household safety (reduced exposure to crime and neighbourhood social disorder). However Anderson et al note that there was only 'very low' strength evidence on the effectiveness of mixed-income housing (publicly subsidized multifamily rental housing developments) in improving family health and safety while providing affordable housing.
- 7.2.11 In the WHO review, the conclusion drawn by Braubach et al for general health impacts associated with housing is that although poor housing, poverty, and poor health are inextricably linked, housing improvements alone may be insufficient to lead to measurable



health improvements, especially in the short term (33). Furthermore, although a possibility, there is very limited evidenced that improved housing has long-term health impacts or prevents poor health in future generations.

Mental health

- 7.2.12 In terms of specific impacts on mental health that are associated with housing improvements, Truong et al (49) found 'moderate' strength evidence of an overall association between mental health and neighbourhood characteristics, after adjusting for individual factors. More specifically Braubach et al (33) provide 'moderate' strength evidence that although it is unlikely that housing itself will precipitate serious mental disorder, there are two ways in which housing may contribute to mental health:
- One, it can directly affect chronic stress which is known to affect non-clinical symptoms of anxiety, depression, and hostility and frustration.
 - Two, poor quality housing may be an additional risk factor that often co-varies with poverty and thus is associated with other physical (e.g. pollution or toxins) and social (e.g. family instability or violence) risk factors. The review notes that exposure to multiple risk factors dramatically escalates the probability of psychological distress.
- 7.2.13 There is limited causal evidence that particular types of housing give rise to mental health problems; however Braubach et al identify that living in multiple family housing or on the upper floors of high rise buildings is associated with greater mental health problems. Whilst the review identifies that such effects are likely to be larger for women with young children, the review is clear that there are methodological problems with quantification of mental health impacts at population level.
- 7.2.14 Other community attributes may also act to mediate mental health. McCormack (50) et al found 'moderate' strength evidence that access to nearby parks and natural settings is associated with improved mental health and reduced anxiety. Whilst Kim et al (51) found 'moderate' strength evidence for an association between high levels of neighbourhood social disorder and depression. Although specific remediating interventions were not apparent in the literature, Kim et al found 'low' strength evidence that higher neighbourhood-level socio-economic status may protect against depression. Supporting this association between mental health and socio-economic position, Rehkopf et al (52) found 'moderate' strength evidence that suicide rates increase as socio-economic levels in an area decrease. Furthermore results did not vary significantly by gender and the highest area suicide rates were associated with the residents living below the poverty level (or similar measures of economic deprivation). Rehkopf et al conclude that these findings are consistent with a contextual explanation where area suicide rates are driven by social and economic isolation of neighbourhoods with higher levels of deprivation. The findings suggest that in order to alleviate depression and reduce suicide rates, regeneration should target the most deprived areas with interventions that bolster, not only housing quality, but also socio-economic drivers (such as employment).
- 7.2.15 In the WHO review, Braubach et al conclude that although mental health outcomes are often hard to quantify in practice, mental health should be included as a separate outcome in assessing the health impacts of housing.

Social cohesion

- 7.2.16 The literature on social cohesion is complex. The term itself has different definitions and there is debate surrounding ways to measure its outcomes.
- 7.2.17 However Carter et al (53) find 'moderate' strength evidence that high social capital (as measured by 'low social disorder' or a 'high level of belief in the capabilities of the community to collectively achieve social and political outcomes') protect against increased



obesity. As obesity is a major and still growing public health challenge, residential development that optimise opportunities to reduce social disorder (e.g. through street lighting and layout) and promote community participation (e.g. through successful engagement and consultation events) could make an important contribution to wider strategies aimed at tackling obesity.

- 7.2.18 Although there is mixed evidence to support the view that favourable psychosocial environments are linked to better health, Egan et al (39) found 'moderate' strength evidence that some favourable psychosocial environments are associated with better health outcomes. In particular the review notes that effective social support or large social networks are associated with lower risk of coronary heart disease and cancer (particularly breast cancer). Egan et al also found that poor psychosocial environments (including exposure to community violence, anti-social behaviour, or discrimination) may reduce health outcomes and contribute to health inequalities.
- 7.2.19 In conclusion, health improvements from residential planning can be achieved not only from aspects of build quality, but also by designing community layouts and land use mixes that promote positive social interactions.

Access to services

- 7.2.20 Residential developments should not be considered in isolation, Miller et al (36) provide 'moderate' strength evidence that access to goods and services within one's community can promote and sustain health. Specifically the review reports that:
- The presence of sidewalks and crosswalks, bike paths, playing fields, parks, shopping accessible on foot, and public transportation, along with the perception that it is safe to be outside, contribute substantially to the average amount of regular physical activity that residents of a neighbourhood achieve.
 - Education and employment opportunities influence health by providing the means to achieve an adequate standard of living now and in the future.
 - Neighbourhoods with better access to supermarkets and other retail outlets with minimally processed foods tend to eat a healthier diet than their counterparts in neighbourhoods with less access to these goods.
 - The density of fast food outlets and preponderance of energy-dense foods in convenience stores and other small markets has been linked with higher prevalence of obesity and higher BMI. Similarly, liquor stores are more likely to be located in low-income and more heavily minority communities and their greater density is associated with adverse community-level consequences.
- 7.2.21 Miller et al conclude that parks, green spaces and recreational facilities, high-quality schools, competitively priced supermarkets and other commercial services, and zoning that keeps industrial sites and pollutants at a distance from residential areas contribute to an environment that is conducive to the achievement and maintenance of good health. These local assets reduce adverse environmental exposures, promote opportunities for self-development, and allow individuals and families to engage in health-promoting activities.

Access to good quality space/urban design

- 7.2.22 The quality of housing design and surrounding space is a key issue that will be relevant to all the previous areas of discussion. However in terms of specific spatial or design characteristics of housing that improve health outcomes the literature is unable to provide a robust evidence base. For example Braubach et al (33) note that with respect to noise impacts, although effective measures to reduce noise may reduce disturbance and annoyance, there is little evidence of health impacts associated with such changes in exposure in a housing context.



- 7.2.23 With respect to broader design interventions in the surrounding use of space and integration with other land uses, there is more support from the literature. McCormack (50) et al note that physical activity participation provides mental and physical health benefits and can also reduce the risk of many chronic diseases. The review finds 'moderate' strength evidence that the built environment can both enable and limit physical activity participation. Specifically, neighbourhood characteristics such as the proximity and mix of land uses, pedestrian connectivity, aesthetics and interesting scenery, and traffic and personal safety are important correlates of physical activity. Physical activity opportunities are not however confined to green space, Renalds et al (54) found 'moderate' strength evidence that neighbourhoods that are characterized as more walkable, either leisure-oriented or destination-driven, are associated with increased physical activity, increased social capital, fewer overweight people, lower reports of depression, and less reported alcohol abuse. This evidence suggests that designing the layout of residential developments to incorporate a mix of desirable leisure, retail and employment opportunities may improve residents' health.
- 7.2.24 Despite some evidence that the wider setting of a residential development can affect health outcomes, the overall conclusion from Braubach et al in the WHO review is that there is little evidence of improvements or deteriorations in health (physical or mental) associated with major improvements to housing and the outdoor housing environment as a result of programmes of housing-led renewal. Thompson et al (46) however find that housing investment (e.g. increased usable indoor space that can be affordably heated) can lead to health improvements, where the improvements are targeted. The evidence for untargeted area wide housing improvement programs is inconclusive.



7.3 Buffer zones between residential and employment areas

- 7.3.1 Concerns were raised during the workshop consultation exercise for this HIA that buffer zones intended to separate residential areas from commercial/industrial zones have the potential to be eroded by un-regulated changes of use.
- 7.3.2 Buffer zones could be either B1 use class or green infrastructure⁴. B1 includes offices, research and development of products and processes, and light industry appropriate in a residential area.
- 7.3.3 The Town and Country Planning (Use Classes) Order 1987 (as amended) (24) sets out a number of routes by which B1 uses can change without the need for planning permission, these include:
- B1(a) (offices) can change to C3 (residential use) without planning permission (subject to prior approval covering flooding, highways and transport issues and contamination)⁵;
 - B1 can change to a state-funded school (subject to prior approval covering highways and transport impacts and noise);
 - B1 can change to B8 (storage and distribution), a use that the Plan aims to limit and potentially associated with high HGV movements;
 - B1 are permitted to change use for a single period of up to two years to A1 (shops), A2 (financial and professional services - including betting shops and payday loan shops), and A3 (restaurants and cafes);
 - B2 (general industry) can also change to B1 use without planning permission; A transition over time from B2 (general industry) via B1 (offices) to C3 (residential use) is therefore possible without planning permission.
- 7.3.4 The implication of these permitted development rights are that areas intended to protect both residents from disturbance and local employers from commercial constraints on operating hours or use of noisy machinery are lost. The loss of buffer zones could affect people's health through, for example, increased exposure to noise and poor air quality and by creating tensions between residential accommodation, family and community life and the needs of business. It could also threaten local jobs. As children are particularly vulnerable the potential for schools to locate within the buffer zone is concerning.
- 7.3.5 One option could be for Nuneaton & Bedworth to consider using an Article 4 Direction to prevent changes of use without planning permission in buffer zones. This would require planning applications to be submitted. The subsequent planning applications would be determined in accordance with the development plan.
- 7.3.6 It is noted that Article 4 Directions are likely to attract scrutiny and potentially challenge. Their use should therefore be selective, well evidenced and subjected to legal review.
- 7.3.7 The National Planning Policy Framework (NPPF) advises that the use of Article 4 Directions to remove permitted development rights should be limited to situations where it is necessary to protect local amenity or the wellbeing of the area (2, paragraph 200). Further guidance on the use of Article 4 Directions is set out in *Replacement Appendix D to DoE Circular 9/95: General Development Consolidation Order 1995* (55). This states that an Article 4 direction would be appropriate only in those exceptional circumstances where

⁴ Department for Communities and Local Government (2) defines green infrastructure as: a network of multi-functional green space, urban and rural, which is capable of delivering a wide range of environmental and quality of life benefits for local communities.

⁵ It is noted that if the Plan specifies buffer zones of 'B1 use class other than offices', this type of permitted development is unlikely.



evidence suggests that the exercise of permitted development rights would harm local amenity or the proper planning of the area. This includes consideration of whether permitted development rights undermine local objectives to create or maintain mixed communities. Paragraph 2.2 requires that local planning authorities clearly identify the potential harm that the direction is intended to address.

- 7.3.8 To support the use of Article 4 directions the Plan could make specific reference to the importance of the buffer zones in avoiding harm to local amenity, wellbeing and the proper planning of the area. Health effects may arise from disturbance (e.g. noise and vibration); nuisance (e.g. odour and dust); and reduced air quality (e.g. plant and HGV emissions).
- 7.3.9 To support this approach the Plan could also make specific reference to local objectives to create or maintain mixed communities that would be undermined by exercise of permitted development rights in buffer zones.
- 7.3.10 Section 8 of this report suggests buffer zones in relation to the new strategic housing and employment sites. Consideration could also be given to buffer zones where existing employment zones boards residential or amenity spaces. A buffer zone could include a band of B1 use class or an area of open/green space. See paragraphs 6.3.1 to 6.3.6 for additional discussion of buffer zones.



7.4 Evidence to support Active Travel

- 7.4.1 Public Health England (PHE) and the National Institute for Health and Care Excellence (NICE) provide good evidence to justify prioritisation of walking and cycling in the Plan.

PHE Guidance on Active Travel

- 7.4.2 Public Health England (PHE) has recently released a briefing specifically addressing increasing physical activity and active travel (56). Whilst it is recommended that this source is reviewed in detail, key points are listed below:

- Obesity is a complex problem that requires action from individuals and society across multiple sectors. One important action is to modify the environment so that it does not promote sedentary behaviour. The aim is to help make the healthy choice the easy choice via environmental change and action at population and individual levels.
- Planning authorities can influence the built environment to improve health and reduce the extent to which it promotes obesity.
- Creating an environment where people actively choose to walk and cycle as part of everyday life can have a significant impact on public health and may reduce inequalities in health. It is an essential component of a strategic approach to increasing physical activity and may be more cost-effective than other initiatives that promote exercise, sport and active leisure pursuits.
- Local authorities have important influence over whether planning applications for new developments prioritise the need for people to be physically active as part of their daily life. People are more likely to walk and cycle if there are destinations (such as shops and employment) within walking and cycling distance. This is a key element of the National Planning Policy Framework. Similarly safe, accessible and pleasant outdoor spaces can enhance children's active outdoor play.

- 7.4.3 The PHE guidance recommends:

- Checking local policies for their impact on physical activity, including those relating to: air quality; community safety; disability; education; environment (including sustainability and carbon reduction); health and wellbeing; housing; land use, planning and development control; regeneration and economic development and transport.
- Reviewing proposed schemes to see how they could be enhanced from a pedestrian or cyclist perspective at little cost by, for example, making pavements wider.
- Providing a safer, more appealing environment for walking and cycling wherever possible. This should support all groups, including people from deprived communities and people with current low levels of walking and cycling.

NICE Guidance on Active Travel

- 7.4.4 In addition to The National Institute for Health and Care Excellence (NICE) recommendations set in [Appendix C](#) (page 90), NICE 'Walking and cycling' guidance recommends that Local Authorities (57):

- Ensure local, high-level strategic policies and plans support and encourage both walking and cycling. This includes a commitment to invest sufficient resources to ensure more walking and cycling – and a recognition that this will benefit individuals and the wider community.
- Ensure the walking and cycling aspects of these plans are developed in conjunction with relevant voluntary and community organisations.



- Ensure strategies to promote walking and cycling address factors which influence activity at various levels – from policy down to the individual. This includes ensuring NICE's recommendations on physical activity and the environment are implemented.
- Assess the impact of relevant policies and decisions on people's ability to walk and cycle. Where necessary, amend them to ensure support for walking and cycling.
- Where appropriate, ensure walking and cycling are treated as separate activities which may require different approaches.



7.5 Evidence to support obligations to fund interventions targeting Under 4s

7.5.1 INF1 states that the policy will include:

- Obligations to fund services aimed at encouraging healthy lifestyles targeting the under 4s.

7.5.2 Information supporting the health policy is set out in the Borough Plan Preferred Options Background Paper – Health (13). The background paper states that the primary purpose of including the under 4s policy is due to the potential benefits on obesity.

7.5.3 Specific mention is made of the 'Toy Box-study', however the rapid review undertaken as part of this HIA has identified that the Toy Box study's recommendations in relation to pre-school children are for children aged 4–6 years (58). This is inconsistent with the Plan's policy specifically targeting under 4s. Reference to the HENRY project (59) is also made in the background paper, however, this presents preliminary findings from an intervention in Leeds the results of which are as yet unknown across the city.

7.5.4 Furthermore a 2011 Cochrane systematic review of effective interventions to prevent obesity for 0-5 year olds concluded that (60):

- There is limited evidence relating to the effectiveness of interventions to prevent obesity in children aged 0-5 years (particularly 0-3 years).
- However there are promising findings in 0-5 year olds, particularly for interventions conducted in home or healthcare settings. The results suggest that for children aged 0-5 years, interventions set outside education settings are more effective, which may relate to a number of factors including the level of parent engagement.
- Follow-up after the completion of short-term interventions (most <1 year) revealed a lack of further impact on child adiposity and obesity-related behaviours.
- Reported estimated costs of the nursery element of the intervention were < £200. For the home-based component, each participating family received a resource pack of materials costing £16.
- Only modest behavioural impacts were achieved from the interventions in this age group.
- The strongest evidence of effective obesity prevention interventions is in 6-12 year olds, with interventions predominantly based on behaviour change theories and implemented in education settings.

7.5.5 Although the evidence for prevention of obesity in under 4s is poor, there is better evidence that interventions to tackle existing obesity in under 4s.

7.5.6 The latest systematic review evidence (May 2014) (61) provides evidence that Comprehensive Behavioural Family Lifestyle Interventions addressing child obesity lead to improvements in child weight outcomes. The overall effect size was small and there was no difference in effect sizes for weight outcomes at post treatment relative to long-term follow-up. The review found that greater duration and intensity of treatment, as well as greater child age, were all related to better weight outcomes. The review found only one randomised control trial for the under 4s age range (Bocca et al, source 62).

7.5.7 Bocca et al found that a multidisciplinary intervention programme in the Netherlands for 3-year-old to 5-year-old overweight and obese children (n=78) had beneficial effects (62). The positive effects were still present 12 months after the start of the intervention. Based on the rapid review undertaken for this HIA, this study provides the most robust evidence for an effective intervention targeting obesity in under 4s that could be replicated with funding from obligations under the Plan. Such interventions should target both children



and parents in a multidisciplinary intervention program, including dietary advice, physical activity sessions and, for parents only, psychological counselling.

7.5.8 It is recommended that all services funded in this manner are done so in line with NICE guidelines. Key recommendations from NICE for child obesity services include:

- NICE recommend ensuring family-based, multi-component lifestyle weight management services for children and young people are available as part of a community-wide, multi-agency approach to promoting a healthy weight and preventing and managing obesity (63). Programmes should focus on: diet and healthy eating habits; physical activity; reducing the amount of time spent being sedentary; and strategies for changing the behaviour of the child or young person and all close family members.
- NICE recommend that teachers, teaching assistants, nursery nurses, home-based child carers and those working in pre-school day care settings such as nurseries, crèches and playgroups, implement a food policy which takes a 'whole settings' approach to healthy eating, so that foods and drinks made available during the day reinforce teaching about healthy eating (64). Furthermore every opportunity should be taken to encourage children to handle and taste a wide range of foods that make up a healthy diet by:
 - providing practical classroom-based activities;
 - ensuring a variety of healthier choices are offered at mealtimes, and snacks offered between meals are low in added sugar and salt (for example, vegetables, fruit, milk, bread and sandwiches with savoury fillings); and
 - ensuring carers eat with children whenever possible.

7.5.9 Based on the findings of the rapid review undertaken for this HIA there is some evidence to support interventions for under 4s. However consideration should be given to a broader use of funding obtained through obligations.

7.5.10 The 2011 Cochrane systematic review (60) found strong evidence to support beneficial effects of child obesity prevention programmes on BMI, particularly for programmes targeted to children aged 6-12 years. Although the findings should be interpreted cautiously, the components that contributed most to the beneficial effects observed include:

- school curriculum that includes healthy eating, physical activity and body image;
- increased sessions for physical activity and the development of fundamental movement skills throughout the school week;
- improvements in nutritional quality of the food supply in schools;
- environments and cultural practices that support children eating healthier foods and being active throughout each day;
- support for teachers and other staff to implement health promotion strategies and activities (e.g. professional development, capacity building activities); and
- parent support and home activities that encourage children to be more active, eat more nutritious foods and spend less time in screen based activities.

7.5.11 Together with the NICE recommendations set out above and in [Appendix C](#) (page 90) this evidence presents a robust basis for targeting the funding of child obesity prevention services.

7.5.12 The wording of the current policy could therefore be amended to:

- Obligations to fund services aimed at encouraging healthy lifestyles targeting children, particularly addressing obesity prevention in 6-12 year olds.



7.6 Evidence with regard to a policy on hot food outlets

- 7.6.1 This section provides evidence for a policy in the Plan (within the Health policy) to restrict access to fast food, particularly by school children.
- 7.6.2 The evidence provided here is an introduction to the topic. Further information has been provided separately by Warwickshire County Council's Public Health Team (65), who have recently completed a mapping exercise of hot food takeaways in the borough.
- 7.6.3 The ruling in the case of: R. (on the application of Copeland) v Tower Hamlets LBC [2010] (66) found that healthy eating and proximity to local schools was capable of being a material consideration. The case set a precedent for local planning authorities to consider how planning decisions impact on locally-set health and well-being priorities (67). However in that particular case the lack of local policy on the issue contributed to the takeaway being ultimately permitted.
- 7.6.4 So although R. (on the application of Copeland) v Tower Hamlets LBC [2010] (66) establishes that social objectives (including health) can be material planning conditions, in practice some form of test must be applied to demonstrate the weight carried by such social objectives if they are to determine the planning application. Although not a legal test (being the planning inspector's views, not those of the Courts), the following points should be considered:
- a link between the social objective and the proximity of the particular 'use class' [the science];
 - a link between the social objective and the existing concentration of the particular 'use class' [the local conditions];
 - the existence of local policy explicitly seeking to control proliferation of the particular 'use class' [the local policy]; and
 - evidence that a single further instance of the particular 'use class' would affect the social objective (e.g. health), i.e. that some threshold for harm had been reached or already exceeded.
- 7.6.5 We do not recommend this final threshold test which would seek to demonstrate the effect of one additional outlet on health. We find that this would require a detailed study for each planning application and so is not considered feasible.
- 7.6.6 However the first three components of this test would make a strong case that could be presented in support of planning arguments for preserving vitality and viability.

Guidance that supports a policy to restrict hot food takeaways

- 7.6.7 Public Health England, NICE and the King's Fund provide guidance on the ways in which local authorities can use planning policies to restrict access to energy dense food. In considering potentially unhealthy food outlets this section uses a variety of terms including 'hot food', 'fast food', 'takeaways', and 'energy dense food'. Having their own use class category (24), 'hot food takeaways' (use class A5) may be the most amenable to planning restrictions. In this report we do not limit ourselves to A5 use classes, but recognise that in practical terms they may be a good starting point for policy controls.

PHE Guidance on Fast Food

- 7.6.8 Public Health England (PHE) has recently released a briefing specifically addressing the adoption of fast food policies in local plans (56). Whilst it is recommended that this source is reviewed in detail, key points are listed below:
- 7.6.9 The National Planning Policy Framework (NPPF) makes it clear that local planning authorities (LPAs) have a responsibility to promote healthy communities (2). Local plans



should “take account of and support local strategies to improve health, social and cultural wellbeing for all”. The National Planning Practice Guidance (NPPG) refers to promoting access to healthier food (68).

- 7.6.10 A number of local authorities⁶ have drawn up supplementary planning documents (SPDs) to restrict the development of new fast food premises near schools. However, it is recognised that due to consultation and other procedures, these can take a long time to prepare and agree. SPDs must also relate to a policy in the local plan, so the priority is to make sure the issue is addressed within the local plan in the first place.
- 7.6.11 Barking and Dagenham was nearing completion of its core strategy when it began to develop its A5 SPD, which was adopted in 2010. The council chose to develop its A5 policy as an SPD, but has reported that for local authorities developing local plans it is advisable to incorporate A5 policies within the development plan documents (DPD) rather than SPDs as they carry more policy weight. The downside of this is that DPDs face much more in the way of procedural challenges.
- 7.6.12 Proximity to schools used as a criterion St Helen’s Council has implemented a wide-ranging policy including a number of restrictions, granting planning approval only “within identified centres, or beyond a 400m exclusion zone around any primary or secondary school and sixth form college either within or outside local education authority control”. The council’s SPD is a material consideration in determining planning applications. As well as proximity to schools and health impact, it covers issues such as over-concentration and clustering, highway safety, cooking smells, and litter.
- 7.6.13 Sandwell Council adopted an SPD for hot food takeaways in 2012, including a 400m exclusion zone around secondary schools, and tests for over-concentration, clustering and environmental impact (69). In one appeal there was little support from the school affected or secondary evidence, so the application was approved. Council officers reported they have since made efforts to work more closely with public health colleagues and to engage with schools on the issue. All subsequent appeals to the Planning Inspectorate, including one within 400m of a secondary school, have been dismissed, so the SPD appears to have been effective.
 - Nuneaton and Bedworth may wish to develop a similar SPD. Given the success reported by PHE Sandwell Council’s SPD could be a useful starting point. However as the paragraph above illustrates, effectiveness is also contingent on ongoing collaboration with local communities.
- 7.6.14 In 2010 a High Court judge declared that Tower Hamlets Council in East London “acted unlawfully” when it gave the go-ahead for Fried & Fabulous to open for business close to a school. The judge said councillors had voted in favour of permission after being wrongly directed that they could not take account of the proximity of the local secondary school because it was not “a material planning consideration”. However, planning permission was ultimately granted on appeal for a number of reasons, including the lack of evidence that “the location of a single take-away within walking distance of schools has a direct correlation with childhood obesity, or would undermine school healthier eating policies”. This prompted Tower Hamlets to review its policies with the aim of limiting such appeals in future.
- 7.6.15 PHE note that a number of authorities have had planning decisions challenged through the appeals process. Some appeals have been allowed, but many have been dismissed. Healthy

⁶ Within London, the following councils have been identified to have either proposed or adopted restrictive policies based around A5 usage: Barking and Dagenham; Greenwich; Hackney, Haringey; Havering; Islington, Kensington and Chelsea; Kingston-upon-Thames; Newham and Waltham Forest.



eating and proximity to a school has been a consideration in a number of planning appeals. It is not usually the sole or determining factor in the final decision, though it has been in at least one case (70). However, healthy eating and proximity to a school have been given substantial weight when there is an adopted local plan policy or SPD in place, local evidence on childhood obesity and healthy eating initiatives, and representations from the relevant school.

- The Newham case was decided on the basis that the proposals (change of use of shop from A1 to A5 hot food takeaway) were clearly in conflict with the Council's Core Strategy CS Policy SP2, which recognised the role of planning in promoting healthy lifestyles and reducing health inequalities. As part of the strategy to achieve those objectives, it acknowledged the need to promote healthy eating by taking into consideration the cumulative impact of A5 uses and seeks to establish a 400m exclusion zone for them around secondary schools.

- 7.6.16 Most authorities have used a distance of 400m to define the boundaries of their fast food exclusion zone, as this is thought to equate to a walking time of approximately five minutes (71) (a 400m radius, equating to a five minute walk). However, in Brighton and Hove this was found to be inadequate to cover the areas actually used by pupils: an 800m radius is used as it covers significantly more lunchtime journeys.
- 7.6.17 PHE also note the option for using Section 106 agreements and the Community Infrastructure Levy to contribute to work on tackling the health impacts of fast food outlets.

NICE Guidance on Fast Food

- 7.6.18 The National Institute for Health and Care Excellence (NICE) 'Prevention of cardiovascular disease' (evidence (72) is based on a 2010 systematic review⁷. Systematic reviews are considered one of the most robust forms of evidence (source 75, page 7-6). The need for updated guidance was taken by NICE in March 2014 and concluded that, "new evidence suggests ways in which recommendations might be updated. No new evidence has been identified which suggests any of the existing recommendations should be reversed. The evidence strengthens and supports the current guidance" (76).
- 7.6.19 In reaching its decision the NICE update review decision evidence base considered the additions to the literature since the 2010 systematic review. A World Health Organization report on food policies in the UK concluded (77):
- 7.6.20 Diet powerfully contributes to health inequity. Low-income groups, which also suffer the highest burden of CVD and other chronic diseases, have consistently worse diet patterns.
- 7.6.21 The Government of the United Kingdom has spent over a decade promoting fruit and vegetable consumption, but with frustratingly small improvements. Social marketing campaigns and free fruit schemes for schools have clearly not sufficed. Energy-dense, nutrient-poor "junk food" remains cheap and is aggressively marketed, whereas fruit and vegetables remain relatively expensive. Improvements will clearly require additional structural changes.
- 7.6.22 The key targets are affordability, accessibility and acceptability.
- 7.6.23 Stricter United Kingdom food policies could substantially and rapidly reduce cardiovascular mortality. Over the past decade, the United Kingdom Government and FSA's voluntary agreements and partnership with industry have resulted in modest dietary improvements. However, the current United Kingdom dietary targets are clearly insufficient longer term.

⁷ For supporting evidence base see NICE (73) and specifically Garside, R. et al. (74).



- 7.6.24 Voluntary agreements with the processed food industry generally fail, much like tobacco policies in previous decades. Conversely, countries with healthier food policies (e.g. Denmark, Finland, Iceland, Norway and Sweden) have seen larger drops in major CVD risk factors and correspondingly bigger mortality reductions.
- 7.6.25 Setting tougher United Kingdom dietary targets will require additional regulatory, legislative and fiscal initiatives: evidence-based policy interventions recommended by the NICE, the World Health Organization (WHO), The World Bank and the United Nations.
- 7.6.26 The following two NICE recommendations are relevant (from NICE public health guidance 25: Prevention of cardiovascular disease).

NICE Recommendation 11: Take-aways and other food outlets

- 7.6.27 Food from take-aways and other outlets (the 'informal eating out sector') comprises a significant part of many people's diet. Local planning authorities have powers to control fast food outlets.
- 7.6.28 Empower local authorities to influence planning permission for food retail outlets in relation to preventing and reducing CVD. To achieve this, the following are among the measures that should be considered.
- 7.6.29 Encourage local planning authorities to restrict planning permission for take-aways and other food retail outlets in specific areas (for example, within walking distance of schools). Help them implement existing planning policy guidance in line with public health objectives.

NICE Recommendation 23: Take-aways and other food outlets

- 7.6.30 Action should be taken by: environmental health officers; local government planning departments; public health nutritionists; and trading standards officers.
- 7.6.31 Use bye-laws to regulate the opening hours of take-aways and other food outlets, particularly those near schools that specialise in foods high in fat, salt or sugar.
- 7.6.32 Use existing powers to set limits for the number of take-aways and other food outlets in a given area. Directives should specify the distance from schools and the maximum number that can be located in certain areas.
- 7.6.33 Help owners and managers of take-aways and other food outlets to improve the nutritional quality of the food they provide. This could include monitoring the type of food for sale and advice on content and preparation techniques.

Kings Fund guidance on Fast Food

- 7.6.34 The Kings Fund provide a summary of evidence and possible actions in relation to access to fast foods (78).
- 7.6.35 Meals eaten outside the home account for a quarter and a fifth of the calorie intake of men and women respectively. Takeaways account for a quarter of this market, producing foods that are often high in saturated fat and salt and low in fibre, which contributes to poor health.
- 7.6.36 Many (but not all) research studies have found a direct link between a fast food-rich environment and poorer health and particularly obesity.
- 7.6.37 Takeaway food services cluster in town and city centres and arterial roads, in areas of high socio-economic deprivation, and where unemployment is highest. In one deprived London borough, for example, a survey of schoolchildren found that more than half purchased food or drinks from fast food or takeaway outlets twice or more a week, with about 10 per cent consuming them daily.



- 7.6.38 To support the business case for restricting fast foods The Kings Fund report notes that in 2002, the average local authority area incurred NHS costs of around £18 million to £20 million due to obesity, and a further £26 million to £30 million in lost productivity and earnings due to premature mortality.

Lessons from other Local Authorities Policies

- 7.6.39 The following sections provide some insights into various approaches to adopting planning policies to restrict unhealthy food.

Stockport

- 7.6.40 Stockport's Development Management Policy AS-3 – hot food takeaway policy (79)
- 7.6.41 Outside the service centres, proposals for hot food take aways and fast food restaurants (A5 use) will be required to be located over 300 metres away from schools and parks. Exceptions will be permitted where the A5 use would be more than an easy walking distance away from the school(s) or park(s) due to physical barriers such as a major road, railway line or river where such separation from the A5 use would not be overcome via a pedestrian route.
- 7.6.42 Although it is understood that this policy has not been challenged, it is noted that the policy extends beyond A5 uses (hot food takeaways) to A3 uses (fast food restaurants). The policy does not make this distinction and this may open it to challenge. Indeed in other areas of the Core Strategy A3 uses are actively encouraged.

Greenwich

- 7.6.43 Policy TC(d) Hot Food Take-aways (80): Major, District and Local Centres and Neighbourhood Parades are the preferred location for hot food take-away establishments including drive through restaurants (Use Class A5). Hot food take-aways will be permitted providing:
- i. The proposed use and the level of activity it generates is appropriate in the location proposed and would not unacceptably impact on residential or workplace amenity, nor on the environment or character of the area;
 - ii. Customer visits by car would not unacceptably impact on existing or proposed public transport provision, traffic movements, road or pedestrian safety;
 - iii. The proposal complies with applicable retail frontage policies and does not jeopardise the provision of an essential local service;
 - iv. Proposals outside Major, District and Local Centres predicated on serving a wider than 'walk-in' catchment demonstrate that:- they serve a need not generally met by existing facilities, that there are no sequentially preferable sites available and that they are conveniently and safely accessible by public transport as well as by cycle and on foot; and
 - v. It is not within 400 metres of the boundary of a primary or secondary school.

Kingston-upon-Thames

- 7.6.44 Policy DM21 of the Core Strategy states that the Council will (81):
- a. resist the loss of existing healthcare facilities in accordance with Policy DM24 Protection and Provision of Community Facilities;
 - b. resist concentrations of hot food take-aways close to schools;
 - c. require Health Impact Assessments (HIAs) for all major developments; and
 - d. support proposals that promote health, safety and active living for all age groups, particularly in areas of health inequality.

Waltham Forest

- 7.6.45 Waltham Forest Hot Food Take Away SPD sets out a series of 11 tests, these include (82):



- When considering whether a proposed hot food takeaway would result in an over-concentration of such uses to the detriment of the vitality and viability of a town centre, neighbourhood centre or local retail parade, regard will be had to:
 - The number of existing hot food takes away establishments in the immediate area and their proximity to each other;
 - The type and characteristics of other uses, such as housing, shops and public houses;
 - The importance of the location for local shopping, and the number, function and location of shops that would remain to serve the local community;
 - The potential benefits of the proposal for the wider community; and
 - Any known unresolved amenity, traffic or safety issues arising from existing uses in the area.
- Appropriate concentrations of A5 uses will be assessed based on the following:
 - Within Primary, Secondary and Retail Parade Zones, no more than 5% of the units shall consist of A5 uses. (A primary zone consists of all the primary frontages that exist within the relevant town centre. The same applies for Secondary and Retail Parade Zones).
 - Within Tertiary Zones and outside designated centres, no more than 1 A5 unit will be allowed within 400m of an existing A5 unit. (Areas outside of designated frontages (primary, secondary or neighbourhood retail parades) but still within the designated centre).
- Planning permission will only be granted for an A5 use where the following criteria are satisfied:
 - 1. No more than two A5 units should be located adjacent to each other.
 - 2. Between individual or groups of hot food takeaways, there should be at least two non A5 units.
- With regard to proposals which fall outside designated town centre and local parade locations, hot food takeaway shops will be resisted where the proposal will:
 - 1. Fall within 400m of the boundary of an existing school or youth centred facility (e.g. YMCA, after school clubs).
 - 2. Fall within 400m of a park () boundary

7.6.46 The Waltham Forest *Local Plan Evidence Base Annual Monitoring Report 2012/13* notes that since the adoption of the Hot Food Takeaway Supplementary Planning Document, 33 planning applications for 'hot-food-takeaway' were refused and 8 were allowed under special circumstances including 3 appeals allowed by Planning Inspectors (83).

Worcester City Council

7.6.47 Worcester City Council mapped all the schools in Worcester to explore a scenario of a 400m exclusion zones being placed around each of the schools (84). The results of this were that the proportion of the city covered by the exclusion zones was so large that there would be very few places for a new takeaway to locate. The Council therefore took an alternative approach and in their SPD require:

- When applications for Takeaway Food Outlets within close proximity of schools, colleges and community centres (400m) are received, the relevant organisations should be consulted.

Barking and Dagenham

7.6.48 Barking and Dagenham SPD provides the following guidance on A5 uses (85):



- 7.6.49 Planning permission for new hot food takeaways (Use Class A5) will not be granted in the hot food takeaway exclusion zone. This is where proposals: Fall within 400m of the boundary of a primary or secondary school.
- 7.6.50 Planning permission will only be granted for a hot food takeaway outside of the hot food takeaway exclusion zone provided that:
- It is within Barking Town Centre, or Dagenham Heathway, Chadwell Heath and Green Lane District Centres or one of the Neighbourhood Centres.
 - It will lead to: no more than 5% of the units within the centre or frontage being hot food takeaways; no more than two A5 units being located adjacent to each other; and there being no less than two non-A5 units between a group of hot food takeaways.
- 7.6.51 Where hot food takeaways are deemed appropriate a fixed fee of £1,000 will be charged. This contribution will be sought through a Section 106 agreement. This fee will contribute towards initiatives to tackle childhood obesity in the Borough such as providing facilities in green spaces to encourage physical activity and improvements to the walking and cycling environment.

Lessons from recent planning appeals

- 7.6.52 A rapid review of online published recent planning appeal decisions in relation to hot food takeaways identified the following informative lessons in regard to inspectors' consideration of policies seeking to restrict A5 uses (86). Bullets points below each summary provide commentary on considerations for the new policy.
- 7.6.53 2013, Wrexham: hot food takeaway allowed subject to opening at 16:00 avoiding use by pupils at nearby local primary school (within 400m radius). [DCS Ref: 100-080-439].
- Policy could consider restricted opening times to reflect pupil access or allowing applications which voluntarily restrict their opening times to the same effect.
- 7.6.54 2012, London: takeaway was allowed despite noting that a primary school was located 130m from the site. A core strategy policy aimed to promote health and reduce health inequalities, noting that the borough had a significant diet-related health problem, including a high rate of childhood obesity. The inspector reasoned, however, that children of primary school age would be accompanied by an adult, who would be able to guide food choices, and the appellant indicated that a balanced nutritional menu was available. The inspector noted that she had been presented with no evidence or research to link diet-related health problems, and in particular childhood obesity, with the availability of takeaway food. [DCS Ref: 100-077-825].
- Policy could provide evidence linking childhood obesity to availability of takeaway food.
- 7.6.55 2012, London: permission was denied for a hot food takeaway. The inspector noted that the site was not located within a defined shopping centre and therefore failed to comply with the council's aim of concentrating food and drink uses within them. There were three other takeaway units within a short distance and the appeal proposal would lead to an over-concentration of such uses. It also lay within 400m of a secondary school and there was a risk that the scheme would fail to support the council's aim of promoting healthier lifestyles and reduce health inequalities. [DCS Ref: 100-077-474].
- Policy could include a 400m exclusion zone from secondary schools.
 - Policy could define clearly where A5 uses are and are not to be concentrated.
 - Policy could link to local evidence on concentrations.



- Policy could link to policies promoting healthier lifestyles and reduce health inequalities.
- 7.6.56 2013, London: inspector rejected claims that a takeaway would provide access to 'cheap and unhealthy food' which was accessible to local school children. In rejecting all of these claims the inspector noted that the council's reference to cheap and unhealthy food was vague. Nor was there evidence to suggest that the food sold from the premises would fall within these categories. The appellants had confirmed that sales directly to customers calling at the premises formed a minority of sales and consequently it was unlikely that local school children would seek to visit the premises on a regular basis. The council's reliance on a 400 metre exclusion zone around schools had been judged unsound and disproportionate by another inspector examining its core strategy and this restriction therefore carried little weight. [DCS Ref: 400-002-655].
- Policy could provide a sound and proportionate rationale for an exclusion zone around schools.
 - Should the policy make any statement about the quality or cost of food provided by A5 uses, this could be evidenced with clear reference to relevant healthy food standards.
- 7.6.57 2013, London, in an enforcement case a takeaway within a restaurant lay close to a high school which had adopted a healthy eating policy and a draft development management document sought to limit fast food outlets within a 10 minute walk of existing schools. It asserted that fast foods often contained high levels of sugar, fat and salt which was unhealthy and potentially dangerous if consumed over a long period of time. The problem of unhealthy eating and child obesity were important issues the inspector held but noted that the council had failed to provide cogent evidence to support its draft policy which had been submitted for independent examination but not adopted. Two take-away outlets lay within easy walking distance and restricting the ability of the restaurant to also serve food for consumption off the premises could lead to a more restricted range of food choices for children. There was no suggestion that the appeal premises served unhygienic food and in his opinion the council's objection could not be supported. The notice was quashed. [DCS Ref: 400-002-159].
- Policy could be supported by cogent evidence.
- 7.6.58 2012, Merseyside: a takeaway was refused permission with weight given to harm to retail function which would undermine primary retail function and that the site was in an area excluded from further A5 development to establish healthy eating habits to which some weight given. [DCS Ref: 100-076-454].
- Policy could sit alongside to other policies that aim to preserve the retail function of the area.
- 7.6.59 2012, South Yorkshire: Kentucky Fried Chicken restaurant and drive through was allowed. The inspector noted that the restaurant would be approximately 40m from a primary school and registered concerns that it would undermine healthy eating initiatives. She acknowledged the finding in R (on the application of Copeland) v Tower Hamlets London Borough Council in respect of a fast food outlet. She understood, however, that this related to a takeaway near a secondary school where pupils would be able to leave at lunchtime. She pointed out that primary school children were not usually permitted to leave the premises at midday, and found it unlikely that they would travel to and from school unaccompanied by an adult. On this basis, she did not consider that the presence of the restaurant and drive through would jeopardize the local healthy eating initiatives. [DCS Ref: 100-075-699].



- Policy could consider focusing on schools where pupils are allowed out during the day, this could exclude most primary schools.
- 7.6.60 2011, East Riding of Yorkshire: a hot food takeaway was approved provided the opening hours were restricted. With regard to the council's further concern about the need for people to adopt a healthy lifestyle and tackle childhood obesity, the planning system had a role to play. The government had published two documents in 2008 and 2010 setting out how local authorities could use their planning powers to control the number and location of fast food outlets. The appeal site lay close to a college and was likely to attract some students during the daytime. The college actively promoted healthy lifestyles and accordingly the students had the ability to make an informed choice on whether to use the facility on a regular basis. Consequently, this issue did not count against the scheme. [DCS Ref: 100-073-812].
- Policy could consider not including colleges, as students may be considered to have informed choices, especially if the college promotes healthy lifestyles.
- 7.6.61 2011, Northamptonshire: a hot food takeaway application discussed healthy eating as a junior school was 50m on other side of road junction. However the inspector noted that hours of operation were outside school hours and unlikely to affect healthy eating by school children. [DCS Ref: 100-073-768].
- Policy could seek to restrict A5 uses only when the opening hours could affect pupils healthy eating.
- 7.6.62 2011, Merseyside, a hot food takeaway appeal was dismissed, noting health concerns that it was sited within 400m of primary school. However there was no objection from the school or specific plan policy. [DCS Ref: 100-072-843].
- Policy could seek to involve schools within 400m in the planning decision.
- 7.6.63 2011, Northamptonshire: a hot food takeaway appeal was dismissed. The inspector was provided with figures for obesity and healthy eating policies in nearby schools which may have been undermined by proposal. Reference was also made to 'Copeland' court case; however the inspector considered that the site was beyond 'walkable' distance. Greater weight given to third party odour consultant that 'highly likely if not inevitable' that nuisance would be caused. [DCS Ref: 100-072-572].
- Policy could identify an appropriate 'walkable distance'.
 - Policy could be evidenced with figures for obesity and healthy eating policies in nearby schools.
- 7.6.64 2011, London: a hot food takeaway was permitted notwithstanding concerns that it would fail to support the government's backing for healthy eating. A previous permission had been quashed by the High Court after it was concluded that healthy eating and the proximity of the site to schools was capable of being a material consideration. Upon re-determination with an officer recommendation for approval, the council decided that the scheme would add to the proliferation of takeaways which would erode its ability to combat the effects of poor diet in the local community. It highlighted the proximity of the site to various schools and argued that the premises would encourage school children to use the facility. An inspector agreed that the council's core strategy did seek to reduce an over-concentration of uses which would detract from the ability of residents to adopt healthy lifestyles. The council's survey did not demonstrate however that such an over-concentration was prevalent within 300 metres of the appeal site. While the need to promote healthy eating was important there was no clear-cut evidence that the proposal would increase child obesity or undermine the healthy eating policies in local schools. The appeal was allowed. [DCS Ref: 100-071-821].



- Policy could acknowledge that healthy eating and the proximity of the site to schools is capable of being a material consideration.
- If the policy seeks to reduce an over-concentration of A5 uses, it could be supported with survey evidence of such over-concentration for the relevant area of the application.
- The policy could be supported with evidence of links to childhood obesity and the potential to undermine healthy eating policies in local schools.

7.6.65 2011, East Sussex: a takeaway was permitted despite an inspector accepting the council's argument regarding the potential impact on the healthy eating habits of children attending a local school. The Council highlighted the adverse levels of fat and salt within pizzas and stated that the outlet would be used by school pupils during the day. This would be inconsistent with the 'healthy school' status of the establishment which involved increasing the awareness of improved diets and the serving of well-balanced meals during lunchtimes. In accepting that there were no local plan policies seeking to restrict takeaways near to schools, the inspector nonetheless decided that the proposed development would prove attractive to pupils. As a consequence it could, by making pizzas more readily available, lead to an unbalanced diet and undermine the school's efforts to promote a healthy lifestyle for its pupils. Accordingly, this was a matter which was afforded substantial weight. The appellant's offer to prevent takeaway sales until after 4pm each weekday would ensure that school pupils would not be able to avail themselves of this facility and it would therefore protect their dietary intake while at school. The council's decision to refuse the scheme on the basis that it would adversely affect the diets of local school pupils had been justified with evidence despite the absence of any directly relevant development plan policy. [DCS Ref: 100-071-282].

- Policy could consider permitting A5 uses that restrict their sale of takeaways in the period when schools close for the day to reduce access by pupils.



7.7 Recommendations on criteria for HIA

- 7.7.1 Recent EIA Directive changes (to be transposed into national legislation by spring 2017) require that 'human health' is included in the scoping of all EIAs (87).
- 7.7.2 The changes require that EIA shall identify, describe and assess in an appropriate manner, in the light of each individual case, the direct and indirect significant effects of a project on population and human health.
- 7.7.3 Given that health will shortly be a mandatory consideration in EIA the Plan's criteria for requiring HIA could be aligned with those for EIA.
- 7.7.4 The EIA Directive (85/337/EEC) (88) is transposed into UK legislation by the Town and Country Planning (EIA) Regulations 2011 (89). The need for EIA is determined with reference to Schedules 1 and 2. Schedule 1 developments always require EIA. Schedule 2 developments require EIA if they are likely to have significant effects on the environment by virtue of factors such as its nature, size or location.
- 7.7.5 The criteria for considering whether Schedule 2 developments require EIA are set out in Annex III of the EIA Directive (85/337/EEC) (88).
- 7.7.6 Criteria similar to those set out in Annex III could be adopted to align the need for HIA with thresholds that trigger EIA. For example:
- HIA is mandatory for all developments requiring an EIA (this could be reported separately from, or as part of, the EIA).
 - HIA is also mandatory for developments which are likely to have significant effects on population or human health due to factors including but not limited to: pollution; nuisances; risk of major accidents and / or disasters (including those caused by climate change); or risks to human health (e.g. due to water contamination or air pollution).
- 7.7.7 In addition to aligning a policy on HIA with emerging EIA approaches to the assessment of human health it is also recommended that Nuneaton and Bedworth consider ensuring that the policy requires:
- HIA to be mandatory where the development is in an area of socioeconomic deprivation; and
 - HIA to be encouraged but not mandatory for other developments, indeed there is no minimum threshold for a development to explore opportunities to improve health.
- 7.7.8 We suggest above that socio-economic deprivation is used to trigger requirements for an HIA. The level of deprivation will need to be stipulated. Nuneaton and Bedworth may also wish to consider whether other characteristics of the population who live, work or access services close to a proposed development should also be included in the policy.

Recommended HIA screening tool

- 7.7.9 In determining the need for HIA a screening exercise should be undertaken. Screening should be a straightforward process that does not use a lot of resources. For example the screening template issued by the Department of Health (10) could be recommended. Although this was originally for policies, it could be adapted to all applications (e.g. reference to policy changed to proposal/development). The one page template could be completed by developers and submitted early in the application process to the Council for a screening opinion as to whether or not HIA is required.



Recommended assessment tool

- 7.7.10 The specific requirements of each HIA will depend on the nature of the development, area and local population. The Plan could recommend a standardised means of screening for HIA. For small developments this might feasibly be the main deliverable of the HIA process.

Recommended HIA review tool

- 7.7.11 Ben Cave Associates Ltd, working with experts from across Great Britain and Northern Ireland and Ireland, produced a review package specifically aimed at reviewing the quality of HIAs (90).
- 7.7.12 The HIA review package (90) is based on review packages for Environmental Impact Assessments. It is an integral part of the Supplementary Planning Document for HIA adopted by South Cambridgeshire District Council (91) and the draft Practice Note issued by Bristol City Council "Planning a healthier Bristol" (92). The review package is used by the Wales Health Impact Assessment Support Unit (WHIASU) for HIAs in Wales. After reviewing an assessment WHIASU use the observations made in the quality assurance process as the basis for their response to the proponent, the responsible authority and other regulatory bodies (93). By clearly stating the expected standard of work from the outset, the HIA process should run more smoothly for both the developer the Council.
- 7.7.13 The Plan could adopt these, or similar, quality standards and inform developers that HIAs will be judged against these standards.



8 Review of locality areas and strategic sites

- 8.1.1 The aim of this section is to provide a broad level indication of potential opportunities and conflicts arising from the Plan's strategic sites for each of the locality areas. More detailed assessment will be required to support master planning and specific development applications.
- 8.1.2 This section has reviewed relevant 2011 Locality Profiles produced by Warwickshire Observatory (94). The Locality Profiles provide a contextual overview of each Locality with an introduction to the geographical area and the inclusion of a range of socioeconomic and demographic statistics.
- 8.1.3 The review has also used:
- Google earth (95);
 - the maps in the Plan;
 - Deprivation map explorer (96);
 - Defra AQMA mapping (97);
 - Environmental Agency interactive mapping (98); and
 - Magic interactive mapping website (to identify designated sites) (99).
- 8.1.4 This has been a rapid review and should not be considered exhaustive. The intention has been to raise issues to assist with refining the Plan and to support discussions between Planning and Public Health teams.



8.2 Locality 1 - Abbey and Wem Brook

8.2.1 The Warwickshire Observatory locality profile notes that:

- According to the Index of Multiple Deprivation, Abbey and Wem Brook is the most deprived locality in Warwickshire and some of its constituent parts are among the top 10% most deprived nationally.
- Abbey & Wem Brook has a slightly younger age profile than the County average but it also has the highest rates of poor health and disability in the County.
- The proportion of the locality's working age population who are claiming benefits is over double the County average.
- The percentage of pensioners in receipt of pension credits is double the County average and the percentage of people in fuel poverty is the second highest out of all 30 localities.
- According to 2008 data, one in four children are considered to be living in 'poverty' in the locality and the percentage of pupils eligible for free school meals is more than double the County average.
- The locality has the least well qualified adult population: 41.7% of the population have no qualifications compared to the County average of 27.8%.
- The percentage of pupils achieving five or more GCSEs at grades A*-C (including English and Maths) is 16 points below the County average and the rate of unauthorised absence from school is twice the County average.
- The percentage of Year 11s Not in Education, Employment or Training is double the County average, the highest of all 30 localities.
- Abbey & Wem Brook's crime rate of 173 per 1,000 population is more than two and a half times the County rate. Rates of the individual categories of crime range between two and three times the County averages.
- Anti-social behaviour incidents are more than twice the County average.
- Satisfaction of the residents with the area as a place to live is lower than the County rate and their main issue requiring improvement are activities for teenagers.

8.2.2 Abbey and Wem Brook includes strategic housing site SHS1 and strategic employment site ECO2. Both these areas are in the south of this locality area.

8.2.3 ECO2 appears to enclose an existing gypsy/traveller site on the B4113 (Griff caravan site). There is the potential for adverse health effects to this community for construction and operational disturbance associated with commercial uses (particularly non-B1 uses).

8.2.4 Retaining the wooded area to the north of ECO2 (Hill Top) that acts as a buffer to existing residential areas further north will be important.

8.2.5 In the north west portion of ECO2 (Bermuda) the properties on the B4113 (Coventry road) could experience disturbance. According to deprivation map explorer these properties are in an area of high deprivation and should therefore be considered potentially vulnerable (as indicated by high health, education, income, employment and crime deprivation). A band of B1 use along this boundary of residential properties could be considered. Providing good quality paths and cycle routes to (and cycle lockups at) the new Bermuda station from surrounding residential as well as employment areas could encourage active travel.

8.2.6 To the east of ECO2 the canal acts as a natural boundary with SHS1. The towpath appears to run on the east side of the canal. Retaining the visual and ecological appeal of this



corridor (especially its western bank) would be important to its use for active transport and physical activity. A planted ecological buffer zone along both banks could be considered.

- 8.2.7 Griff quarry (south west of ECO2) has the potential to cause dust and noise nuisance which may not be conducive to a healthy working environment at new employment sites neighbouring the quarry.
- 8.2.8 The indicative new transport route through ECO2 and SHS1 should promote active travel e.g. by linking homes and jobs with green spaces, the canal path and the new Bermuda station. Walking and cycling routes should be at the heart of the Bermuda design.
- 8.2.9 The land that will become ECO2 and SHS1 is currently predominantly agricultural in nature. There are scattered mature trees along current tracks and boundaries some of which could be retained as part of pockets of greens space within these areas to promote physical activity.
- 8.2.10 The green space beyond the north and east boundaries of SHS1 should be retained to promote physical activity. This includes a new destination park designation and existing areas of playing fields which are important for interventions to reduce childhood obesity.
- 8.2.11 It is assumed the existing farm at the centre of ECO2 would not be retained as residential.
- 8.2.12 Regarding Nuneaton Town Centre the Plan's proposals for division of the centre into Quarters appears to broadly align with current uses. According to deprivation map explorer (96) this is an area of high deprivation and should therefore be considered potentially vulnerable. Encouraging active travel, access to affordable health food and good quality employment opportunities are likely to have a positive impact.
- 8.2.13 There are opportunities for allotment designations within SHS1.
- 8.2.14 The area profile suggests there is a need to support local schools, parents and young people in attending education. Planning should consider the need for additional school resources. Quality of educational achievement in this locality is likely to be a key factor in addressing existing deprivation and in encouraging people to take up new residential and employment opportunities.
- 8.2.15 GP surgeries appear to be clustered in the north of the locality. The need for more local health services for SHS1 should be considered.
- 8.2.16 The roads entering Nuneaton centre from the north-west (Midland road and Corporation Street) are an AQMA designated for nitrogen dioxide due to road traffic (97). Measures to actively reduce car dependence and congestion in this area should be considered.
- 8.2.17 In [Appendix D](#) (page 97) we provide a summary of air quality standards and associated health impacts.



8.3 Locality 2 - Arbury and Stockingford

8.3.1 The Warwickshire Observatory locality profile notes that:

- Arbury & Stockingford locality has one of the youngest age profiles in the County.
- The characteristics of this locality are dominated by those of the two large housing estates, with high proportions living in terraced houses, in social rented housing or in households with no car or van.
- The percentage of the working population in managerial and professional occupations, at 15%, is the lowest in the County, while one in three of those in employment are in unskilled manual occupations.
- The percentage in skilled trades is the highest in the County.
- The percentages claiming Job Seeker's Allowance or other working age benefits are both considerably higher than County rate.
- There is a high proportion of older residents claiming pension credits.
- There is a high proportion of children who are eligible for free school meals as well as families claiming Child Tax Credit, 91.8% compared with an equivalent County figure of 74.2%.
- One in five children in the locality are considered to be living in 'poverty'.
- The IMD shows two areas which are among the 10% most deprived SOAs in England.
- Eleven of the fourteen SOAs in this locality are among the 30% most deprived nationally in terms of education, skills and training, with only 33.8% of pupils achieving five or more grades A*-C at GCSE (including English and Maths), compared to Warwickshire's percentage of 56.9%, the lowest of all 30 localities.
- The percentage of adults educated to degree level or higher is less than half the County average, while 38.8% have no qualifications, which is ten points higher than the County average.
- Nine of the fourteen SOAs in this locality are among the 30% most deprived nationally in terms of crime and disorder. The overall rate of crime is above the County rate with the rate of domestic burglaries being the highest in the County.
- Consultation shows that residents in Arbury & Stockingford felt that levels of crime in their area were the top issue that needed improving in their area.

8.3.2 Arbury and Stockingford includes strategic housing site SHS2 and strategic employment site ECO1.

8.3.3 To the east of SHS2 is Ensor's Pool SAC/SSSI/LNR. This is the Borough's most important ecological site (with a designation for protection of native crayfish). There is potential for disturbance from SHS2 and the indicative new transport route that could diminish the reserves role in promoting physical activity. There is an opportunity to expand the reserve area with green space (the eastern edge of SHS2 and perhaps a corridor into SHS2). This could act as a buffer against disturbance and promote further physical activity in both current and new residential areas.

8.3.4 The HIA workshop noted that disturbance of Ensor's pool should be discouraged, particularly with regard to fishing. Although access to the pool itself should be limited, there is an opportunity for an adjoining green space with: children's play equipment; walking and cycle paths; and a new fishing pool (to help divert unauthorised fishing from Ensors Pool).

8.3.5 The communities surrounding SHS2 are generally not deprived. The exceptions are the communities to the north of SHS2. Particular issues are employment and crime



deprivation. These communities particularly 'Nuneaton and Bedworth 007C' should be considered as potentially vulnerable. The infrastructure improvements at The Nuneaton Academy on Arbury Road are likely to be important given the very poor educational achievement in this locality. Addressing the quality of local education is likely to influence young family's decisions to live and work in the area.

- 8.3.6 Green and wooded spaces near Spring Kedden Wood to the west of SHS2 should be retained and opportunities for access to promote physical activity considered (e.g. walking / cycling trails).
- 8.3.7 Regarding ECO1, there appear to be a few residential areas off Griff lane (including Griff Lodge farm) that would become surrounded with commercial uses. As there is the potential for disturbance, a band of B1 use along this boundary of residential properties could be considered.
- 8.3.8 The retention of Coventry Wood and community open space links to Arbury Park are welcomed. Opportunities for access from SHS2 to promote physical activity could be considered. E.g. extending the community open space links along Harefield lane.
- 8.3.9 Deprivation in the area of ECO2 is generally just below average; a notable issue appears to be crime deprivation. It will be important for physical activity benefits to ensure that Arbury Park and its links have low actual and perceived risks of crime.
- 8.3.10 This locality contains Nuneaton's main NHS hospital (the George Eliot). It will be important that resources and access reflect the demands of the new housing and employment allocations of the entire borough.



8.4 Locality 3 - Bede and Poplar

8.4.1 The Warwickshire Observatory locality profile notes that:

- The proportion of people claiming Job Seeker's Allowance is the third highest in the County and among those in employment, the percentage in managerial or professional occupations is lower than the County equivalent and the percentage in unskilled manual occupations is higher than the Country rate.
- The proportion of the working age population claiming benefits is the second highest of all the localities, 20.4% compared to the Warwickshire rate of 11.3%. This is largely due to a higher proportion of people claiming Incapacity Benefit in the locality - the second highest in the County.
- Other indicators of poor health in this locality are the second highest rates of limiting long term illness and self-reported poor health in the County.
- There is a lack of skills in the locality, with the percentage having no qualifications the second highest in the County and the percentage of people qualified to degree level is less than half the County average.
- There is poor educational attainment among the current generation of pupils with the percentage achieving five or more grades A*-C at GCSE in 2010 (including English and Maths) sixteen percentage points below Warwickshire's rate.
- The proportion of 16-18 year olds Not in Education, Employment or Training is higher than the County average.
- The IMD shows aspects of deprivation in most of the SOAs in this locality, with only Bede South West scoring moderately well on all domains.
- The total crime rate and the rate of individual categories of crime are well above the County averages and three Super Output Areas are within the top 10% most deprived areas nationally on the IMD crime and disorder domain.
- Three of the most over-represented MOSAIC groups in this locality are 'residents with sufficient incomes in right-to-buy social houses', 'young people renting flats in high density social housing' and 'owner occupiers in older-style housing in ex-industrial areas.'
- Consultation activity shows that the residents of this locality have a lower rate of satisfaction with their area as a place to live compared to the County, 73.4% compared to a County rate of 82.9%.
- Activities for teenagers is the top priority for improvement in the area.

8.4.2 Bede and Poplar includes no strategic housing or employment sites.

8.4.3 The series of local parks and community open spaces across the locality area are welcomed.

8.4.4 There is an opportunity to designate further community green spaces to the east of the existing main employment zone, particularly along the western Coventry canal bank to link the Bedworth leisure centre destination park with the community at Black Horse Road (to the south).

8.4.5 Enhancement of the pedestrian zone (near All Saints Square) in Bedworth centre could encourage active travel and greater physical activity. Prioritisation could also be given to better pedestrian, cycling and public links from the centre to Bedworth railway station to the east and Bedworth leisure centre to the south.

8.4.6 Control of retail uses in Bedworth centre that are linked to reduced health outcomes (particularly betting shops and fast food outlets) should be considered. It is noted that



these appear to occur in relatively high densities within the centre (base on google earth street view). Designation of primary shop frontages could help in this regard, with policy links to health.

- 8.4.7 There is an opportunity to improve the community green space north of St Francis Catholic Primary School. Particularly for the community to the east (over the railway line) which has high deprivation. There appears to be an existing underpass to link the community to the green space; however it appears that improvements could be made to the paths and possibly perceived safety, particularly around the underpass.
- 8.4.8 The north eastern part of this locality area has high educational, skills and training deprivation. Consideration should be given to providing further support to local schools.
- 8.4.9 There do not appear to be any GP surgeries in the southern half of this locality area. The south east of Bede and Poplar is associated with high health deprivation. The Plan could consider the need for additional GP services.



8.5 Locality 4 - Bedworth North and West

8.5.1 The Warwickshire Observatory locality profile notes that:

- The percentage of the working age population claiming benefits, including Jobseeker's Allowance, is slightly higher than the County average and those in employment are less likely to be in managerial or professional occupations and more likely to be in unskilled manual occupations than the County average.
- There is a lack of skills in the locality, with the percentage having no qualifications eight points higher than the County average and the percentage qualified to degree level or above just half of the County average.
- The educational attainment among the current generation of pupils is similar to the County rate in 2010 with 54.7% of pupils achieving five or more grades A*-C at GCSE (including English and Maths) compared to a Warwickshire rate of 56.9%. The percentage of Year 11s Not in Education, Employment or Training is below the County average.
- The IMD shows some pockets of poorer health in the locality which explain the above-average levels of limiting long term illness (19.3% compared to the County rate of 16.8%), self-reported ill health (9.7% not in good health compared to the County's 8.1%) and disability allowance claimants (6.3% compared to Warwickshire's rate of 4.3%) in the locality.
- The total crime rate within the locality is slightly lower than in the County as a whole. However, the IMD shows that two Super Output Areas, Keresley North & Newlands and Heath Sports, are actually within the top 10% most deprived areas nationally on the crime and disorder domain.
- Consultations show that the residents of this locality are less satisfied with it as a place to live than the Warwickshire residents, generally, with activities for children being the top priority for improvement.

8.5.2 Bedworth North and West includes strategic housing site SHS3 and strategic employment site ECO3.

8.5.3 SHS3 just north of the M6. Although buffered by an existing residential area (along Hospital Lane and Goodyers End Lane), both this existing residential area and SHS3 are potentially vulnerable to noise disturbance impacts from the M6.

8.5.4 The area around SHS3 shows relatively low deprivation, with the exception of education, skills and training deprivation, which is high. There is an area of elevated employment and education and crime deprivation further to the east around Dark lane. Newdigate Primary School and Nursery has already been identified as a site for infrastructure improvement, which is positive.

8.5.5 The south eastern area of SHS3 (roughly square shaped) appears to be an area of green space with existing footpaths that link to the surrounding community. Consideration should be given to retaining and enhancing this area as community green space to encourage physical activity both for current and new residents.

8.5.6 It is noted that power lines run through SHS3. The scientific evidence of effects from such to EMF exposure suggest health effects are unlikely (100), however there are still gaps in the scientific knowledge (101). Although there is insufficient evidence for a policy statement, caution may be advised.

8.5.7 The retention of the green space immediately to the north of SHS3 is considered positive and could be enhanced and linked with corridors into SHS3 to promote physical activity.



- 8.5.8 The new Green Belt area to the north of the locality area is positive and appears to have existing access links for the community which could be further enhanced.
- 8.5.9 In the south of the locality area, the community park west of Wheelwright Land Primary School could be enhanced and access linked through the new Green Belt extension further to the west (which appears to have existing paths and a minor road) to ECO3.
- 8.5.10 The residential area to the west of ECO3 has health and education, skills and training deprivation. Consideration should be given to including a B1 use class buffer zone along the western edge of ECO3 to minimise disturbance to the residential area.



8.6 Locality 5 - Camp Hill and Galley Common

8.6.1 The Warwickshire Observatory locality profile notes that:

- Levels of deprivation within the locality are amongst the highest in the County and are concentrated in the Camp Hill area.
- This area fares particularly poorly in terms of deprivation linked to Education, Skills & Training where it is ranked as the 125th most deprived SOA (out of the 32,482 SOAs in England), placing it within the top 0.5% of all SOAs.
- A major regeneration partnership project entitled 'Pride in Camp Hill' is currently well underway to address the problems of deprivation in Camp Hill. Its aim is to transform Camp Hill, through a series of physical and socio-economic regeneration initiatives, along with service delivery improvements. This includes building new, modern houses and upgrading existing ones, whilst providing additional leisure, commercial, retail and industrial development to improve the local infrastructure.
- In terms of population, Camp Hill and Galley Common locality has the highest proportion of children and the third lowest proportion of older people in the County, which contributes to the area having the highest average household size in Warwickshire.
- The Mosaic dataset shows that when compared to the County profile, Camp Hill and Galley Common is heavily over represented by 'families in low-rise social housing with high levels of benefit need' and 'young people renting flats in high density social housing.'
- In terms of qualification levels, less than 10% of the locality's working age population have the equivalent of a university degree compared with just over 20% across Warwickshire.
- The locality also has more than double the County proportion of 16-18 year olds not in formal education, employment or training with one in ten classed as NEET.
- The proportion of pupils achieving 5 or more GCSE grades A*-C (including English & Maths) in the locality is sixteen percentage points lower than the equivalent figure for Warwickshire.
- Consultation results showed that residents have a fairly low perception of their neighbourhood and that activities for teenagers, level of crime and facilities for young children were viewed as the issues most in need of improvement in the locality.

8.6.2 Camp Hill and Galley Common includes no strategic housing or employment sites. However the area is the site of the existing Pride in Camp Hill regeneration project (102).

8.6.3 The north east of this locality is dominated by a landfill. The need to reduce community disturbance and nuisance impacts could be considered.

8.6.4 The central area within the Camp Hill regeneration zone has high deprivation (income, employment, health, education and crime). The Camp Hill population are therefore potentially vulnerable.

8.6.5 The Plan provides a good allocation of green space in Camp Hill. Creating safe routes and paths that connect these spaces and promote physical activity will be important. A high quality range of play and sports facilities in these green spaces should also be considered as there appears less provision (only the site south of Stubbs Pool) compared to other locality areas.

8.6.6 Camp hill may benefit from central GP services and village hall / community centre.



- 8.6.7 There are currently no planned infrastructure improvements within this locality area. It is understood this is because the Pride in Camp Hill regeneration project is nearing completion and has already addressed infrastructure improvements.
- 8.6.8 The western side of the locality area is generally less deprived and the Plan focuses on green space allocation, including a narrow corridor that runs north to south. Developing safe access within these green spaces and linking them with destinations and public transport will be important to their contribution to physical activity.



8.7 Locality 6 - Weddington and St Nicolas

8.7.1 The Warwickshire Observatory locality profile notes that:

- Weddington & St Nicolas locality is generally an affluent area, with nine of its thirteen SOAs among the 20% least deprived in England.
- The area has the lowest percentage of social rented housing of all 30 localities, at 5.3% compared to Warwickshire's figure of 14.3%.
- The Mosaic dataset shows that the area has an over-representation of the groups 'middle income families living in moderate suburban semis' and 'successful professionals living in suburban or semi-rural homes'.
- Amid this affluence, the minorities in deprived areas of social housing, those living in isolated farms and older people with high care needs must not be overlooked.
- There are lower than average percentages claiming Job Seekers Allowance (JSA) or other working age benefits.
- The skill levels of adults in this locality are slightly above the County average and the educational attainment of the current generation is one of the highest in the County: seven in ten pupils achieved five or more A*-C grades at GCSE.
- The percentage of Year 11s Not in Education, Employment or Training is the one of the lowest in the County as well as the proportion of children considered to be in 'poverty' which is the lowest of all 30 localities, 4% compared to a County rate of 11.9%.
- The overall crime rate in the locality is well below the Warwickshire rate.
- The level of satisfaction with the area as a place to live among residents of Weddington & St Nicolas is higher than the County average, 91.1% compared to Warwickshire's 82.9%.
- Residents in this area perceive activities for teenagers to be the issue most in need of improvement along with levels of traffic congestion and road and pavement repairs.

8.7.2 Weddington and St Nicolas includes strategic housing site SHS4.

8.7.3 North west of SHS4 is a facility (Mira) which has Environment Agency permits to release radioactive pollution to the air (103). A major redevelopment of this site into a Technology Park is underway. Cumulative impacts should be considered.

8.7.4 The areas surrounding SHS4 are generally not deprived. The land that would become SHS4 is currently in agricultural use with scattered farms. Existing islands of mature trees offer the opportunity for retained areas of green space to encourage physical activity. Linking such areas with pedestrian, cycling and public transport options could further increase use.

8.7.5 Master planning in SHS4 may be required to ensure that appropriate new community infrastructure and facilities are included in an appropriate fashion.

8.7.6 To the north of SHS4 a 'structural landscape buffer' is proposed on land between the proposed housing and the A5 (road). This buffer should reduce road noise disturbance. An indicative new transport route is shown running broadly north-west to south-east linking SHS4 with Weddington Road and Long Shoot road.

8.7.7 For the level of additional homes further GP services in the north of this locality area could be considered. It is noted that a new school is proposed as part of the Plan.



- 8.7.8 The allocation of new Green Belt land to the north east of the locality area is positive and should be supported with appropriate access enhancements to promote physically active use.
- 8.7.9 The area to the west of Nuneaton station is an AQMA designated for nitrogen dioxide due to road traffic (97). Measures to actively reduce car dependence and congestion in this area should be considered. As this is the bottleneck that would connect SHS4 with Nuneaton centre careful consideration should be given to improving sustainable transport links. For example, the flood relief channel that runs along the southern part of this locality area has been partially designated as a community park. There is an opportunity to extend the designation (including the disused railway line) with enhanced pedestrian and cycle routes to create a green corridor that could link residential areas from green space at Nuneaton Old Edwardians Rugby Football Club (in the north-west) to Horeston Grange (in the south-east). A well signposted and well lit prioritised pedestrian and cycle route could then be linked along Oaston Road and Wheat Street to Nuneaton Centre.
- 8.7.10 In [Appendix D](#) (page 97) we provide a summary of air quality standards and associated health impacts.



8.8 Locality 7 - Whitestone and Bulkington

8.8.1 The Warwickshire Observatory locality profile notes that:

- Whitestone & Bulkington locality has an older population profile than the County average. Over one in four adults is of retirement age, which is the third highest in the County and the proportion of children aged 0-15 years in the locality is the third lowest of all 30 localities, at 16.3% compared to a County rate of 18.3%.
- The MOSAIC classification shows 'active elderly people living in pleasant retirement locations,' 'residents of small and mid-sized towns with strong local roots' and 'elderly people reliant on state support' to be over-represented in this locality.
- The older age profile reflected in these groups is likely to be a factor in the higher than average proportions of people with a Limiting Long-Term Illness / Not in Good Health / claiming Disability Living Allowance.
- The percentage of adults in the locality with no qualifications is slightly above the County average and the percentage with higher qualifications is slightly below average, which is likely to be linked to the older age profile.
- The percentage of current pupils achieving five or more grades A*-C at GCSE (including English and Maths) is similar to the County average and the proportion of Year 11s Not in Education, Employment or Training is slightly above the equivalent Warwickshire proportion.
- The locality's overall recorded crime rate is well below the County rate.
- Generally, this locality is not deprived according to the Indices of Multiple Deprivation, but Attleborough North West SOA, which straddles this and Abbey & Wem Brook locality, is ranked within the top 30% most deprived areas in England overall, and in the top 20% most deprived areas on the indices of health & disability and crime & disorder.
- Overall, the satisfaction of residents with the area as a place to live is above the County as a whole, at a rate of 85.5% compared to a County average of 82.9%.

8.8.2 Whitestone and Bulkington includes no strategic housing or employment sites. However the area is close to SHS1 in the neighbouring locality area of Abbey and Wembrook. There is also an indicative new transport route that would link north to SHS4.

8.8.3 The parts of this locality area that neighbours SHS1 or would link to SHS4 have low levels of deprivation and is therefore less likely to be vulnerable.

8.8.4 The creation of new green spaces and parks is supported. Creating routes that are safe and encourage active travel should be considered.

8.8.5 No new major development is proposed in Whitestone and Bulkington.



9 Conclusion and recommendations

- 9.1.1 Overall the Plan is considered positive for health and wellbeing. This report aims to provide constructive commentary to help further refine the Plan.
- 9.1.2 Local councils arguably can have their most important long-term effects on health through the decisions they take about spatial planning. Planning decisions on transport, housing, public spaces and service and flooding have major effects on health and well-being (104).
- 9.1.3 In line with the Marmot Review's recommended policy actions to ensure that the built environment promotes health and reduces inequalities (8), this report provides additional evidence and support to the Plan to:
- Improving active travel;
 - Improving good quality open and green spaces;
 - Improving the quality of food in local areas; and
 - Improving the energy efficiency of housing.
- 9.1.4 Furthermore, by considering the wider determinants of health this report identifies additional opportunities for the Plan to make links between planning, transport, housing, environmental and health.
- 9.1.5 It is recommended that this HIA is included in the next round of public consultation and that the community's views on the issues raised in this report are used to further refine the Plan. Consultation questions relating to health could include:
- What parts of the Plan need to be kept on the basis of the impacts on people's health and wellbeing? How can we increase those positive effects?
 - What parts of the Plan need to be changed because of their impacts on health and wellbeing? How can we change the Plan to reduce/avoid those negative effects?
 - What could be added to the Plan to promote health and wellbeing?
- 9.1.6 It is recommended that the commentary on each draft policy set out in Section 6 is reviewed with the aim of taking further opportunities to enhance the potential health benefits that could be achieved through the Plan.
- 9.1.7 It is recommended that new housing is provided in line with the evidence base presented in Section 7.2.
- 9.1.8 It is recommended that the boundaries between residential areas or green/open spaces and areas designated for intensive employment use are protected with appropriate buffer zones, e.g. of light industry appropriate in a residential area (B1 use class) or green infrastructure. An example of one option is presented in Section 7.3.
- 9.1.9 It is recommended that the Plan prioritise active travel as set out in Section 7.4.
- 9.1.10 It is recommended that planning obligations are used to support child obesity goals as set out in Section 7.5.
- 9.1.11 It is recommended that a new policy is included to control the proliferation of hot food takeaways (and possibility other unhealthy food outlets) as discussed in Section 7.6.
- 9.1.12 It is recommended that clear guidelines setting out when developers should undertake HIAs should be included in the Plan. Some options are set out in Section 7.7.



- 9.1.13 It is recommended that the commentary on each Locality Area set out in Section 8 is reviewed with the aim of taking further opportunities to enhance the potential health benefits that could be achieved through the Plan.
- 9.1.14 It is recommended that [Appendix C](#) (page 90) is reviewed with the aim of considering opportunities for further health policies to include in INF1.
- 9.1.15 It is recommended that the Plan's monitoring and evaluation framework include health impacts. Where appropriate this should link to existing indicators (e.g. the Public Health Outcomes Framework). This is an issue for discussion during the consultation phase.



10 List of references

1. World Health Organization. Preamble to the Constitution of the World Health Organization; signed on 22 July 1946 by the representatives of 61 States and entered into force on 7 April 1948. Official Records of the World Health Organization, no. 2, p.100. 1948 New York. Available at <http://bit.ly/1cgnJ3S>
2. Department for Communities and Local Government. National Planning Policy Framework. 2012 Crown Copyright. London, England. Available at <http://bit.ly/17v3Bqn>
3. Public Health Warwickshire. Public health evidence for planning [draft]. 2014.
4. Quigley, R. et al. Health Impact Assessment. International best practice principles. Special publication series No. 5. 2006 International Association for Impact Assessment. Available at <http://bit.ly/X2iOxM>
5. Dahlgren, G. and Whitehead, M. Policies and strategies to promote social equity in health. 1991. Stockholm, Institute for Future Studies.
6. Barton H, Grant M. A health map for the local human habitat. The Journal of the Royal Society for the Promotion of Health 2006;126(6):252-3.
7. Marmot, M. et al. Fair society, healthy lives. Strategic review of health inequalities in England post 2010 (Marmot Review). 2010. Available at <http://bit.ly/1k9VjN>
8. Geddes, I. et al. The Marmot Review: implications for spatial planning. 2011 Marmot Review Team for NICE. London, England. Available at <http://bit.ly/1n9FF6p>
9. World Health Organisation. Regional Office for Europe. Addressing the social determinants of health: the urban dimensions and role of local government. 2012. Available at <http://bit.ly/1sLo19C>
10. Department of Health. Health Impact Assessment of Government Policy. A guide to carrying out a Health Impact Assessment of new policy as part of the Impact Assessment process. 2010 Department of Health, England. Available at <http://bit.ly/1a6gexP>
11. Nuneaton and Bedworth Borough Council. Health Impact Assessment, screening exercise. 2013. Available at <http://bit.ly/SdKLUQ>
12. Nuneaton and Bedworth Borough Council. Borough Plan Preferred Options. 2013. Available at <http://bit.ly/1fA1z2S>
13. Nuneaton and Bedworth Borough Council. Planning policy downloads website. 2014. Available at <http://bit.ly/1nM3jby>
14. Nuneaton and Bedworth Borough Council. Borough Plan Preferred Options consultation responses. 2013. Available at <http://bit.ly/1CYizQ>
15. Association of Public Health Observatories. HIA Gateway. 2014. Available at <http://bit.ly/124SSDz>
16. Public Health England. List of available Health Profiles for Nuneaton and Bedworth CD. 2013. Available at <http://bit.ly/1hgMZIS>
17. Warwickshire County Council. Warwickshire Joint Strategic Needs Assessment 2012-2013. Annual Update 2013: Nuneaton and Bedworth Borough. 17-6-2013. Available at <http://bit.ly/Tm3Pkj>
18. World Health Organization Regional Office for Europe. Urban planning, environment and health: from evidence to action. 2010 Copenhagen, Denmark. Available at <http://bit.ly/1rIZQYU>
19. Intergovernmental Panel on Climate Change. Human health: impacts, adaptation and co-benefits. IPCC WGII AR5. Chapter 11. 31-3-2014 Ed. Smith, Kirk R., Woodward, Alistair, Campbell-Lendrum, Diarmid, Chadee, Dave, Honda, Yasushi, Liu, Qiyong, Olwoch, Jane, Revich, Boris, Sauerborn, Rainer, Aranda, Clara, Berry, Helen, Butler, Colin, Chafe, Zoë, Cushing, Lara, Ebi, Kristie, Kjellstrom, Tord, Kovats, Sari, Lindsay, Graeme, Lipp, Erin, McMichael, Tony, Murray, Virginia, Sankoh, Osman, O'Neill, Marie, Shonkoff, Seth B., Sutherland, Joan, Yamamoto, Shelby, Confalonieri, Ulisses, Haines, Andrew, and Rocklov, Joachim. Fifth Assessment Report. Climate Change 2014: Impacts, Adaptation, and Vulnerability. IPCC, WMO and UNEP. Geneva, Switzerland. p.1-69. Available at <http://1.usa.gov/1BCTa3>



20. Graetz B. Health consequences of employment and unemployment: longitudinal evidence for young men and women. *Social Science & Medicine* 1993;36(6):715-24.
21. NSW Department of Health Australia. Healthy urban development checklist: a guide for health services when commenting on development policies, plans and proposals. 2010. Available at <http://bit.ly/1rSzlg6>
22. Clemens T, Boyle P, Popham F. Unemployment, mortality and the problem of health-related selection: evidence from the Scottish and England & Wales (ONS) longitudinal studies. *Health Stat.Q.* 2009(43):7-13. Available at <http://bit.ly/PTUSft>
23. Waddell G, Burton K. Is work good for your health and well-being? Norwich: The Stationary Office; 2006. Available at <http://bit.ly/19700Af>
24. HM Government of Great Britain. The Town and Country Planning (Use Classes) Order. 1987. Available at <http://bit.ly/1mD847w>
25. Carmarthenshire County Council. Carmarthenshire Local Development Plan. 2011. Available at <http://bit.ly/1pAYpMB>
26. Dover District Council. Land Allocations Pre Submission Local Plan. 2012. Available at <http://bit.ly/SUtaBm>
27. Newcastle City Council and Gateshead Council. Planning for the future: Core Strategy and Urban Core Plan for Gateshead and Newcastle upon Tyne. 2010-2030. Submission document - February. 2014 Newcastle City Council. Available at <http://bit.ly/1n9FF6p>
28. Public Health England. Your guide to the eatwell plate. 2013. Available at <http://bit.ly/1keZi8j>
29. Department of Health. Choosing a better diet: a food and health action plan. 2005. Available at <http://bit.ly/1wkEENR>
30. Food and Agriculture Organization. Rome Declaration on World Food Security. 1996. Available at <http://bit.ly/1oJwJp6>
31. National Institute for Health and Clinical Excellence. Preventing type 2 diabetes: population and community-level interventions. NICE public health guidance 35. 2011 National Institute for Health and Clinical Excellence. London. Available at <http://bit.ly/1pftwNr>
32. NHS Healthy Urban Development Unit. HUDU Planning Contributions Model. 2012. Available at <http://bit.ly/1jgTiAd>
33. Braubach, M., Jacobs, D. E., and Ormandy, D. Environmental burden of disease associated with inadequate housing. A method guide to the quantification of health effects of selected housing risks in the WHO European Region. 2011. Copenhagen, Denmark, World Health Organization Europe. Available at <http://bit.ly/16y3Lgc>
34. Fisk WJ, Eliseeva EA, Mendell MJ. Association of residential dampness and mold with respiratory tract infections and bronchitis: a meta-analysis. *Environ.Health* 2010;9:72. Available at <http://www.ncbi.nlm.nih.gov/pubmed/21078183>
35. Sauni R et al. Remediating buildings damaged by dampness and mould for preventing or reducing respiratory tract symptoms, infections and asthma. *Cochrane.Database.Syst.Rev.* 2011(9):CD007897. Available at <http://www.ncbi.nlm.nih.gov/pubmed/21901714>
36. Miller WD, Pollack CE, Williams DR. Healthy homes and communities: putting the pieces together. *Am.J.Prev.Med.* 2011;40(1 Suppl 1):S48-S57. Available at <http://www.ncbi.nlm.nih.gov/pubmed/21146779>
37. Anderson LM et al. Providing affordable family housing and reducing residential segregation by income. A systematic review. *Am.J.Prev.Med.* 2003;24(3 Suppl):47-67. Available at <http://www.ncbi.nlm.nih.gov/pubmed/12668198>
38. Douglas, M., Thomson, H., and Gaughan, M. Health Impact Assessment of housing improvements: a guide. 2003 Public Health Institute of Scotland. Glasgow. Available at <http://bit.ly/1bf9hcN>
39. Egan M et al. Psychosocial risk factors in home and community settings and their associations with population health and health inequalities: a systematic meta-review. *BMC.Public Health* 2008;8:239. Available at <http://www.ncbi.nlm.nih.gov/pubmed/18631374>
40. Liverpool City Council. Supplementary Planning Guidance Note 3. Residential Care



- Homes. Liverpool Unitary Development Plan. 2013. Available at <http://bit.ly/1oodJw9>
41. Paranjothy S et al. Psychosocial impact of the summer 2007 floods in England. BMC.Public Health 2011;11:145. Available at <http://dx.doi.org/10.1186/1471-2458-11-145>
 42. Carroll B et al. Health and social impacts of a flood disaster: responding to needs and implications for practice. Disasters. 2010. Available at <http://dx.doi.org/10.1111/j.1467-7717.2010.01182.x>
 43. Carroll B et al. Flooded homes, broken bonds, the meaning of home, psychological processes and their impact on psychological health in a disaster. Health & Place 2009;15(2):540-7. Available at <http://dx.doi.org/10.1016/j.healthplace.2008.08.009>
 44. Warwickshire Wildlife Trust. Local Nature Partnership. 2013. Available at <http://bit.ly/TBOw7k> Accessed on 12-5-2014.
 45. Higgins, J. P. T. and Green, S. Cochrane Handbook for Systematic Reviews of Interventions. Version 5.1.0. 2011. The Cochrane Collaboration. Available at <http://bit.ly/1gAaq4V>
 46. Thomson H et al. Housing improvements for health and associated socio-economic outcomes. Cochrane Database Syst.Rev 2013;2:CD008657. Available at <http://dx.doi.org/10.1002/14651858.CD008657.pub2>
 47. Gibson M et al. Housing and health inequalities: a synthesis of systematic reviews of interventions aimed at different pathways linking housing and health. Health & Place 2010. Available at <http://www.ncbi.nlm.nih.gov/pubmed/21159542>
 48. Thomson H et al. The health impacts of housing improvement: a systematic review of intervention studies from 1887 to 2007. Am.J.Public Health 2009;99 Suppl 3:S681-S692. Available at <http://dx.doi.org/10.2105/AJPH.2008.143909>
 49. Truong KD, Ma S. A systematic review of relations between neighborhoods and mental health. J.Ment.Health Policy Econ. 2006;9(3):137-54. Available at <http://www.ncbi.nlm.nih.gov/pubmed/17031019>
 50. McCormack GR et al. Characteristics of urban parks associated with park use and physical activity: a review of qualitative research. Health & Place 2010;16(4):712-26. Available at <http://www.ncbi.nlm.nih.gov/pubmed/20356780>
 51. Kim D. Blues from the neighborhood? Neighborhood characteristics and depression. Epidemiol.Rev. 2008;30:101-17. Available at <http://www.ncbi.nlm.nih.gov/pubmed/18753674>
 52. Rehkopf DH, Buka SL. The association between suicide and the socio-economic characteristics of geographical areas: a systematic review. Psychol.Med. 2006;36(2):145-57. Available at <http://www.ncbi.nlm.nih.gov/pubmed/16420711>
 53. Carter MA, Dubois L. Neighbourhoods and child adiposity: a critical appraisal of the literature. Health & Place 2010;16(3):616-28. Available at <http://www.ncbi.nlm.nih.gov/pubmed/20106712>
 54. Renalds A, Smith TH, Hale PJ. A systematic review of built environment and health. Fam.Community Health 2010;33(1):68-78. Available at <http://www.ncbi.nlm.nih.gov/pubmed/20010006>
 55. Department for Communities and Local Government. Replacement Appendix D to Department of the Environment Circular 09/95: General Development Consolidation Order 1995. 2012 Crown Copyright. London, England. Available at <http://bit.ly/1faRPZH>
 56. Public Health England. Healthy people, healthy places briefing: obesity and the environment: regulating the growth of fast food outlets. 2014. Available at <http://bit.ly/1niM6aN>
 57. National Institute for Health and Clinical Excellence. Walking and cycling: local measures to promote walking and cycling as forms of travel or recreation. NICE public health guidance 41. 2012 London, UK. Available at <http://bit.ly/WoiSD7>
 58. Summerbell CD et al. Evidence-based recommendations for the development of obesity prevention programs targeted at preschool children. Obes.Rev 2012;13 Suppl 1:129-32. Available at <http://dx.doi.org/10.1111/j.1467-789X.2011.00940.x>



59. Willis TA et al. Training community practitioners to work more effectively with parents to prevent childhood obesity: the impact of HENRY upon Children's Centres and their staff. *J Hum.Nutr Diet.* 2012;25(5):460-8. Available at PM:22489933
60. Waters E et al. Interventions for preventing obesity in children. *Cochrane Database Syst.Rev* 2011(12):CD001871. Available at PM:22161367
61. Janicke DM et al. Systematic Review and Meta-Analysis of Comprehensive Behavioral Family Lifestyle Interventions Addressing Pediatric Obesity. *J Pediatr.Psychol.* 2014. Available at PM:24824614
62. Bocca G et al. Results of a multidisciplinary treatment program in 3-year-old to 5-year-old overweight or obese children: a randomized controlled clinical trial. *Arch.Pediatr.Adolesc.Med* 2012;166(12):1109-15. Available at PM:23108941
63. National Institute for Health and Care Excellence. Managing overweight and obesity among children and young people: lifestyle weight management services. NICE public health guidance 47. 2013 National Institute for Health and Clinical Excellence. London. Available at <http://bit.ly/TxiLMB>
64. National Institute for Health and Clinical Excellence. Maternal and child nutrition. NICE public health guidance 11. 2008 National Institute for Health and Clinical Excellence. London. Available at <http://bit.ly/1jwGKES>
65. Public Health Warwickshire. Childhood obesity and its relation to fast food restaurants near schools. 2014.
66. R (on the application of Copeland) v Tower Hamlets London Borough Council. [2010] All ER (D) 72 (Jun). 2010. Available at <http://bit.ly/1RDDmI>
67. Town and Country Planning Association. Spatial Planning for Health: a guide to embedding the Joint Strategic Needs Assessment in spatial planning. 2010 Ed. Ellis, H., Chang, M., and Mannion, F. Hyde Group and TCPA. London, England. Available at <http://bit.ly/1bFvqo8>
68. Planning Practice Guidance. Health and wellbeing. 6-3-2014. Available at <http://bit.ly/1gc89Gp> Accessed on 6-3-2014.
69. Sandwell Metropolitan Borough Council. Hot Food Takeaway Supplementary Planning Document. 2012. Available at <http://bit.ly/1mcMdkh>
70. Planning Inspectorate. Appeal Decision: Appeal Ref: APP/G5750/A/12/2182393. 19-12-2012. Available at <http://bit.ly/1xNmTy>
71. Homes and Communities Agency. Urban design compendium. HCA website. 2013 Available at <http://bit.ly/1gn2S5h>
72. National Institute for Health and Clinical Excellence. Prevention of cardiovascular disease. NICE public health guidance 25. 2010 National Institute for Health and Clinical Excellence. London. Available at <http://bit.ly/1jwuDrC>
73. National Institute for Health and Care Excellence. PH25 prevention of cardiovascular disease: supporting evidence. 2014. Available at <http://bit.ly/1gWO3qD>
74. Garside, R. et al. Barriers to, and facilitators for, the effectiveness of multiple risk factor programmes aimed at reducing cardiovascular disease within a given population: a systematic review of qualitative research. Multiple risk factor programmes aimed at reducing cardiovascular disease review 4. 2010 Commissioned by NICE Centre for Public Health Excellence. Prepared by Peninsula Medical School, Universities of Exeter and Plymouth. Available at <http://bit.ly/1njqR9M>
75. National Institute for Health and Clinical Excellence. Guideline development methods: information for National Collaborating Centres and Guideline Developers. (Updated 2005). 2004 National Institute for Health and Clinical Excellence. London. Available at <http://bit.ly/1jG5093>
76. National Institute for Health and Care Excellence. Consideration of an update of the public health guidance on 'Prevention of cardiovascular disease' (PH25). 2014 National Institute for Health and Care Excellence. London. Available at <http://bit.ly/1jwLPNG>
77. O'Flaherty M et al. Potential cardiovascular mortality reductions with stricter food policies in the United Kingdom of Great Britain and Northern Ireland. *Bull.World Health Organ* 2012;90(7). Available at <http://dx.doi.org/10.2471/BLT.11.092643>
78. Buck, David and Gregory, Sarah. Improving the public's health. A resource for local authorities. 2013 The Kings Fund. London. Available at <http://bit.ly/1k0AH73>



79. Stockport Metropolitan Borough Council. Core Strategy DPD. 2011. Available at <http://bit.ly/Snsq7J>
80. London Borough of Greenwich. Draft Core Strategy with Development Management Policies. 2011. Available at <http://bit.ly/1m9cvE4>
81. Royal Borough of Kingston-upon-Thames. Core strategy: planning for the future. Local Development Framework. Adopted April 2012. 2012. Available at <http://bit.ly/RcZJl>
82. London Borough of Waltham Forest. Waltham Forest Supplementary Planning Document: hot food takeaway shops. Adopted March 2009. 2009 Spatial Planning Unit, LB Waltham Forest. Available at <http://bit.ly/RcXfuz>
83. London Borough of Waltham Forest. Local Plan Evidence Base Annual Monitoring Report 2012/13. 2013. Available at <http://bit.ly/Sn9zcW>
84. Worcester City Council. Takeaway food outlets. Supplementary Planning Document, Local Development Framework. 2011. Available at <http://bit.ly/1hbZsxs>
85. London Borough of Barking and Dagenham. Saturation point: addressing the health impacts of hot food takeaways. Supplementary Planning Document. 2010. Available at <http://bit.ly/1jGjQwf>
86. Review based on the Development Control Services Ltd website, which provides summaries of planning appeals. See <http://bit.ly/1jXE0fw> (site viewed 14.05.14)
87. European Parliament, Council of the European Union. Position of the European Parliament adopted at first reading on 12 March 2014 with a view to the adoption of Directive 2014/.../EU of the European Parliament and of the Council amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment (Text with EEA relevance). Official Journal of the European Communities 2014. Available at <http://bit.ly/1oj4xcl>
88. Council of the European Union. Council Directive of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment. 85/337/EEC. Official Journal No. L 175 , 05/07/1985. 1985 p.0040-0048. Available at <http://bit.ly/1lLhrfi>
89. HM Government of Great Britain. The Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 2011. 2011. Available at <http://bit.ly/RPI5gu>
90. Fredsgaard, M. W., Cave, B., and Bond, A. A review package for Health Impact Assessment reports of development projects. 2009 Ben Cave Associates Ltd. Leeds, UK. Available at <http://bit.ly/k63NtC>
91. South Cambridgeshire District Council. Local Development Framework: Health Impact Assessment. Supplementary Planning Document. 2011. Available at <http://bit.ly/1hCnugg>
92. Bristol City Council. Planning a healthier Bristol: assessing the health impacts of development. Practice Note (draft). 2013. Available at <http://bit.ly/1aChZ0R>
93. Green, Liz, (*personal communication*). WHIASU supports the development and effective use of the HIA approach in Wales. Sent to Cave, Ben. Sent on 2013.
94. Warwickshire Observatory. Warwickshire Locality Profiles. Warwickshire Observatory website. 2014 accessed on 2014 May 1. Available at <http://bit.ly/Txzuzy>
95. Google. Google Earth. Google Earth website. 2014 accessed on 2014 May 1. Available at <http://bit.ly/TxwRgW>
96. Open Data Communities. Deprivation map explorer. Open data communities website. 2014 accessed on 2014 May 1. Available at <http://bit.ly/1oVuLEm>
97. Department for Environment Food and Rural Affairs. AQMAs interactive map. 2014. Available at <http://bit.ly/1k7HhOg> Accessed on 1-5-2014.
98. Environment Agency. Interactive maps: What's in your backyard? Environment Agency website. 2012 accessed on 2014 May 1. Available at <http://bit.ly/1ja02ve>
99. Natural England. Magic: interactive mapping at your fingertips. Magic website. 2014 accessed on 2014 May 1. Available at <http://bit.ly/1jXz6yS>
100. World Health Organization. Electromagnetic fields and public health. Exposure to extremely low frequency fields. Background paper. WHO website. 2007 Available at <http://bit.ly/1n3sNPT>
101. World Health Organization. Extremely low frequency fields. Environmental Health Criteria



- Monograph No.238. 2010. Available at <http://bit.ly/1i7szSy>
102. Nuneaton and Bedworth Borough Council. Regeneration: pride in Camp Hill. N&BBC website. 2014 Available at <http://bit.ly/1jXw7qk>
 103. Environment Agency. What's in your backyard? Interactive maps: Watling Street, Nuneaton, Warwickshire. Environment Agency website. 2012 accessed on 2014 May 1. Available at <http://bit.ly/1jwRGCE>
 104. World Health Organization Regional Office for Europe. Addressing the social determinants of health: the urban dimensions and role of local government. 2012. Available at <http://bit.ly/1sLo19C>
 105. Ross, A. Plugging health into planning: evidence and practice. A guide to help practitioners integrate health and spatial planning. 2011 Local Government Group. London. Available at <http://bit.ly/1kxNJBH>
 106. Department of Health. Draft advice on assessing population and human health within Strategic Environmental Assessment European Directive 2001/42/EC. Consultation document. 2007. Available at <http://bit.ly/OBMC32>
 107. Iggulden, P. and Cave, B. Relocation of Lewisham Travellers' site: an assessment of the health impact of two site options. 2007 Ben Cave Associates Ltd for London Borough of Lewisham.
 108. Barry, J., Herity, B., and Solan, J. The Travellers' health status study, vital statistics of travelling people, 1987. 1987 Health Research Board. Dublin.
 109. Confidential Enquiry into Maternal and Child Health. Saving mothers' lives: reviewing maternal deaths to make motherhood safer: 2003-2005. 2007 Ed. Lewis, G. CEMACH. London.
 110. Lynch E. Travellers' tales. Nursing Standard 2006;20(41).
 111. Bowers J. Travellers' Tales. Health Services Journal 2004;16th December.
 112. Feder G. Traveller Gypsies and Primary Health Care in East London [dissertation]. University of London; 1994.
 113. Webster, L. A report for the Children's Society on the impact of the Criminal Justice and Public Order Act on the lives of Travellers and their children. 1995.
 114. Select Committee. Supplementary memorandum by the Traveller Law Reform Coalition. Office of the Deputy Prime Minister: Housing, Planning, Local Government and the Regions. (TLRC) (GTS 12(b)) Women, Children and Families and Gypsy and Traveller Accommodation. 2004. Available at <http://bit.ly/1fAiv9v>
 115. Parry G et al. Health status of Gypsies and Travellers in England. J Epidemiol Community Health 2007;61:198-204.
 116. Devon Health Forum. Travellers Wellbeing Multi Agency Approaches to Address Issues for Travellers. 2003. Available at <http://bit.ly/1rM7tO7>
 117. HM Government of Great Britain. Health and Social Care Act. 2012. Available at <http://bit.ly/1lefgFz>
 118. National Institute for Health and Clinical Excellence. Physical activity and the environment. NICE public health guidance 8. 2008 London, UK. Available at <http://bit.ly/R3XLeQ>
 119. National Institute for Health and Care Excellence. Promoting physical activity for children and young people. NICE public health guidance 17. 2013 National Institute for Health and Clinical Excellence. London. Available at <http://bit.ly/1k7CpbQ>
 120. National Institute for Health and Clinical Excellence. Obesity: working with local communities. NICE public health guidance 42. 2012 National Institute for Health and Clinical Excellence. London. Available at <http://bit.ly/RWCZho>
 121. National Institute for Health and Clinical Excellence. Alcohol-use disorders: preventing harmful drinking. NICE public health guidance 24. 2010 National Institute for Health and Clinical Excellence. London. Available at <http://bit.ly/1lUTjbx>
 122. National Institute for Health and Clinical Excellence. Promoting wellbeing at work. NICE public health guidance 22. 2009 National Institute for Health and Clinical Excellence. London. Available at <http://bit.ly/1sXMSXG>
 123. National Institute for Health and Clinical Excellence. Managing long-term sickness and incapacity for work. NICE public health guidance 19. 2009 National Institute for Health



- and Clinical Excellence. London. Available at <http://bit.ly/Txh5Tx>
124. National Institute for Health and Clinical Excellence. Social and emotional wellbeing: early years. NICE public health guidance 40. 2012 National Institute for Health and Clinical Excellence. London. Available at <http://bit.ly/1pfwtJ>
 125. World Health Organization Regional Office for Europe. Local housing and health action plans a project manual. Supported by the convention between Directorate-General of Health of Portugal and World Health Organization Regional Office for Europe. 2010 Denmark. Available at <http://bit.ly/1nMfYuX>
 126. World Health Organization Regional Office for Europe. Exposure of children to air pollution (Particulate Matter) in outdoor air. European Environment and Health Information System: Fact Sheet No. 3.3. CODE: RPG3_Air_Ex2. 2009 Copenhagen, Denmark. Available at <http://bit.ly/1hhc8Tj>
 127. Department for Communities and Local Government and Department for Transport. Manual for streets. 2007. Available at <http://bit.ly/VPf6Vc>
 128. Chartered Institution of Highways & Transportation. Manual for streets 2: wider application of the principles. 2010. Available at <http://bit.ly/1k46avb>
 129. National Institute for Health and Clinical Excellence. Preventing unintentional road injuries among the under-15s. NICE public health guidance 31. 2010 National Institute for Health and Clinical Excellence. London. Available at <http://bit.ly/1krN3dh>
 130. National Institute for Health and Clinical Excellence. Preventing unintentional injuries among the under-15s in the home. NICE public health guidance 30. 2010 National Institute for Health and Clinical Excellence. London. Available at <http://bit.ly/1gSk9UH>
 131. World Health Organization Regional Office for Europe. Review of evidence on health aspects of air pollution – REVIHAAP project: final technical report. 2013 Copenhagen, Denmark. Available at <http://bit.ly/SbuOOv>
 132. COMEAP. The mortality effects of long-term exposure to particulate air pollution in the United Kingdom. 2010 Produced by the Health Protection Agency for the Committee on the Medical Effects of Air Pollutants. Available at <http://bit.ly/qYQ6tc>
 133. Public Health England. Public Health Outcomes Framework: air quality indicator. Nuneaton & Bedworth. 2014. Available at <http://bit.ly/1tmJyFK>
 134. Public Health England. Public Health Outcomes Framework: air quality indicator. Warwickshire. 2014. Available at <http://bit.ly/1pj2fwf>
 135. Public Health England. Estimating local mortality burdens associated with particulate air pollution. 2014 Ed. Gowers, A. M., Miller, B. G., and Stedman, J. R. Didcot, Oxfordshire. Available at <http://bit.ly/1peKqja>
 136. European Parliament and European Council. Directive 2008/50/EC of the European Parliament and of the Council of 21 May 2008 on ambient air quality and cleaner air for Europe. 2008. Available at <http://bit.ly/14V0IRv>
 137. HM Government of Great Britain. Environmental protection: the air quality standards regulations. 2010 London. Available at <http://bit.ly/1mq3Ewz>
 138. DG Environment and European Commission. The Clean Air Policy package. 18-12-2013. Available at <http://bit.ly/1k0GBv3>
 139. HM Government of Great Britain. Environment Act. 1995. Available at <http://bit.ly/1nAWlom>
 140. HM Government of Great Britain. The Air Quality Strategy for England, Scotland, Wales and Northern Ireland. (Volume 1) Cm 7169 NIA 61/06-07. 2007. Available at <http://bit.ly/SeZazs>
 141. World Health Organization. Ambient (outdoor) air quality and health. Fact sheet No.313. WHO website. 2014 accessed on 2014 Feb. 19. Available at <http://bit.ly/1jtm10q>
 142. COMEAP. Review of the UK Air Quality Index. A report by the Committee on the Medical Effects of Air Pollutants. 2011 Ed. Ayres, J. G. Department of Health. Available at <http://bit.ly/qFCdNH>
 143. Department for Environment Food and Rural Affairs. Air quality statistics in the UK: 1987 to 2013. Statistical release. 23-4-2014. Available at <http://bit.ly/1hy7MYp>
 144. Department for Environment Food and Rural Affairs. What is the Daily Air Quality Index? DEFRA website. 2013 accessed on 2014 May 28. Available at <http://bit.ly/1oJKPGW>



11 Appendices

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Appendix A: Scoping Summary

A.1. This section summarises the key information used to inform the scope of the HIA.

Key topics to cover for health in spatial planning

A.2. Table 11-1 is adapted from work by the Marmot Review team (8) to prepare a summary of its evidence in relation to planning (105). The table summarises key evidence considered in the scoping of this HIA.

Table 11-1: Links between spatial planning and health inequalities

Environmental factor	Health inequalities impact	Health evidence level
Air pollution	Poorer communities have a higher prevalence of cardio-respiratory and other diseases	Strong evidence that reductions in traffic to reduce air pollution are successful in improving health
Green/open space	35 per cent of people in the lowest social grade visit green spaces infrequently (less than once a month), which is likely to be due to both the low availability and bad quality of green space in deprived areas	Strong evidence that provision of green space effectively improves mental health Less strong/inconclusive evidence that provision of green space improves levels of physical activity
Transport and traffic ⁸	Children are four times more likely to be hit by a car in the 10 per cent most deprived wards than in the least deprived wards	Strong evidence that traffic interventions reduce road accidents Some inconclusive evidence that traffic interventions improve physical activity
Food	Low income and area deprivation are both barriers to purchasing fresh or unfamiliar foods	Anecdotal evidence that local access to healthy foods improves diets
Housing	Children in bad housing are more likely to have mental health problems, such as anxiety and depression, and a range of other ill health effects – cold housing can affect the numbers of winter deaths and respiratory diseases	Some evidence that targeting home improvements at low-income households significantly improves social functioning as well as physical and emotional wellbeing
Community participation and social isolation	In many communities facing multiple deprivation, stress, isolation and depression are all very common, and low levels of social integration and loneliness significantly increase mortality	Some evidence that increasing community empowerment may result in communities acting to change their social, material and political environments

⁸ Note that the review finds that the links between transport and health are “multiple and complex” – as well as the negative health impact set out above, transport (of some form) provides access to work, education, social networks and services, which can also have a positive health impact.



Scoping matrix

- A.3. Table 11-2 sets out the matrix compiled for this HIA to assist with scoping. It has eight numbered groups of columns.
- Column 1: the determinants of health are listed. These are split between high level divisions, such as 'Global Systems' and more refined divisions, such as 'Climate change' and 'Biodiversity'.
 - Column 2: sets out scoping questions. These are generic prompts derived from the Department of Health guidance (106) and topics covered by other strategic plan HIAs.
 - Column 3: provides relevant summary information from the Plan, including: current issues facing the borough; the vision for the future; policy links; and objective links.
 - Column 4: sets out links from the Infrastructure Delivery Plan to identify relevant types of potential development projects.
 - Column 5: summarises some of the 2013 consultation concerns on the draft Plan.
 - Column 6: sets out the issues, both positive and negative, identified by the HIA screening exercise undertaken in 2012 by the borough council.
 - Column 7: sets out issues identified in the 2013 Sustainability Appraisal.
 - Column 8: sets out issues for the HIA to consider from the Plan's background paper on Health.
- A.4. This information has been used as a starting point for the scoping exercise and the assessment. A gap analysis considered both blank cells in the matrix, as well as the issues raised from consideration of Columns 2-8.
- A.5. It should be noted that it is neither necessary to complete all cells in the matrix, nor to consider every possible health issue.



Table 11-2: Scoping matrix

1		2	3				4	5	6		7	8
Determinant of health		Scoping query does the plan affect:	Nuneaton and Bedworth Borough Plan				Infrastructure delivery plan links	Consultation concerns	Positive	Negative	Sustainability Appraisal issues	Background Paper - Health
Global systems	Climate Change	resilience to extreme weather; adaptability to future climatic conditions; efficient energy and resource use; or more sustainable living?	Extreme weather events, such as those experienced in Warwickshire in 1998, 1999, 2005, 2007, 2008 and 2012, are becoming more frequent. High rates for consumption of domestic energy in Warwickshire but the lowest rate for industrial and commercial.	New developments will be energy efficient and maximises the use of renewables to mitigate and adapt to climate change. Large scale developments will use renewable or low carbon energy from decentralised schemes.	Sustainable Design and Construction – CLIM1 Renewable and Low Carbon Energy – CLIM2 Managing Flood Risk – CLIM3	Objective 7	Road Network Rail Network Public Transport Energy: gas / electric / renewable Strategic employment sites ECO1, ECO2 & ECO3. Strategic housing sites SHS1, SHS2, SHS3 & SHS4.	Concern regarding the urban heat island effects in the town centres impacting on health issues and economic viability of these areas. Concerns that sustainable water use are not addressed. Concerns over the use of district heating schemes for housing developments over 1,000 dwellings.	Numerous policies deal with tackling climate change which impacts health and wellbeing. New build – improved quality through design policies – will help create a more sustainable environment.		Ensuring development does not contribute to greenhouse emissions and, thus, climate change should be an integrated part of the essential infrastructure for all the proposed development areas, including both residential and commercial buildings.	
	Biodiversity	exposure to disease causing organisms; or availability of ecologically diverse greenspace?	Bulkington and the south west of the Borough are not well served by green corridors. This reduces biodiversity and opportunities for leisure activities.	Local biodiversity will be improved through new green infrastructure projects.	Green Belt – DEV5 Biodiversity and Geodiversity – ENV1	Objective 7	Parks and gardens Natural and semi-natural greenspaces (including waterways) Green corridors	Concerns that loss of greenfields does not improve quality of life or provide opportunities for healthier and active lifestyles.	The protection and provision of green space helps to protect from unnecessary pollution.	Risk that development on brownfield sites could have a negative impact on some species.	The proposed allocations at Arbury are likely to have a detrimental effect on Ensor's Pool SAC, SSSI and LNR.	
	Natural Habitats	exposure to greenspace and the natural environment; or use of greenfield over brownfield sites?	There are only three LNR in the Borough. Accessibility to woodland is also lower than elsewhere in Warwickshire.	Local landscapes and the natural environment will be improved through new green infrastructure	Green Infrastructure – INF2 Green Belt – DEV5	Objective 7	Parks and gardens Natural and semi-natural greenspaces (including waterways) Green corridors	Concerns about loss of green belt land and loss of gardens to development. Concern that woodlands	There is research stating that access to green spaces and nature is beneficial to physical and mental wellbeing.	Loss of Green Belt and greenfield land which may impact on ability to access natural habitat.	There is an opportunity to improve the Borough's green infrastructure provision and to enhance: public open spaces; ecological and	



1	2	3	3				4	5	6		7	8
	Scoping query	Nuneaton and Bedworth Borough Plan							Screening exercise issues			
			projects.					should be considered alongside open spaces.			geological sites; and access / use of the Green Belt for recreational uses.	
	Air	exposure to indoor/outdoor air pollution; levels of emissions to air; or Air Quality Management Areas?	Air quality in some parts of the Borough is poor. Air Quality Management Areas are designated at the Leicester Road Gyratory and at Central Avenue/Midland Road in Nuneaton. Eight other areas are also being monitored for their Nitrogen Dioxide levels.		Urban Character and Design Quality – ENV3	Objective 6	Road Network Rail Network Public Transport Energy: gas / electric / renewable	Concerns about air pollution and that AQMA levels are already high.		Greater impact on the AQMA’s, the location of growth will greatly determine the level of impact. Potential for new AQMA’s to be created.	The preferred development options will have mixed outcomes for air quality. Increasing the modal share of public transport and fewer car based journeys will be key to reducing air quality impacts. Housing and employment allocations result in a significant adverse effect on air quality, with increased traffic through AQMAs.	
	Water	quality of drinking water or bathing water; flood risk to people or infrastructure; or levels of emissions to water?			Managing Flood Risk – CLIM3	Objective 6	Water supply Sewage/waste water Flood defences Drainage	Concerns that new homes should not be built in areas of flood risk. Concerns that opportunities to use the canals and their towpaths have been missed.	Ensuring new development is located within areas at least risk of flooding will help to prevent the strain of a home or business being flooded.		The use of sustainable urban drainage systems will also help mitigate risk of groundwater and surface water pollution. Flood risk is not a major constraint on development in the Borough.	
	Land	exposure to land contamination; the production and availability of fresh food; or waste management or disposal?	The legacy of coal mining, quarrying and heavy engineering has had a negative impact on the landscape. The Borough has over 100 hectares of derelict land and		Urban Character and Design Quality – ENV3	Objective 6	Waste Facilities Waste collection Recycling	Concern as to removal of farming land.			All the proposed Greenfield development options will lead to the loss of productive land quality soils to development. The Preferred	



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	Scoping query	Nuneaton and Bedworth Borough Plan							Screening exercise issues		
			more than 3000 potentially contaminated sites.								Option does not currently address the issue of waste and recycling, levels of which are expected to increase.
Built environment	Buildings	regeneration; housing provision; public utilities and services; or quality of living or working conditions (including sustainable provision, conservation of warmth, ventilation and flexible use)?	The number of private sector homes failing to meet the decent homes standard is above the national average. Most affected are rented property, older dwellings and those occupied by the elderly or people on low incomes. Despite property prices being the cheapest in Warwickshire, over 50% of people are unable to afford entry level housing to buy or rent. The mix of housing tenure, types and sizes for different parts of the Borough is uneven.	A choice of affordable, sustainably designed, high quality housing.	Affordable Housing – HOU1 Range and Mix of Housing – HOU2 Ensuring the delivery of infrastructure provision – INF 4	Objective 1 Objective 4	Telecommunications Strategic employment sites ECO1, ECO2 & ECO3. Strategic housing sites SHS1, SHS2, SHS3 & SHS4.	Concerns that the planned housing levels are excessive. Concerns that existing infrastructure is already insufficient to meet current needs. Concerns that there is insufficient affordable housing, currently and planned for the demographics of the borough.	Greater level of services provided in the area as a result of growth. Providing access to housing and affordable housing – prevents overcrowding – Plan seeks to ensure housing requirements are met. The ability to access affordable and suitable housing will benefit wellbeing.	Increased pressure on certain infrastructure. Risk that not all infrastructure will be able to be provided because of viability issues. This would mean appropriate service provision is not catered for, as well as the potential for unsustainable development. The Plan does not specify an affordable housing target at present therefore affordable housing needs may not be met.	A full range of household sizes for all income levels and ages, will help reduce the levels of outward commuting, will help attract business and improve the supply of employees. There is a shortage of affordable housing in certain areas of the Borough. The proposed growth will further increase the pressure for affordable housing.
	Places	locally accessible green spaces; or availability of health intervention delivery facilities (e.g. general practitioner surgeries, health centres or hospitals, leisure/sports centres, swimming	Future growth will need to be accommodated outside the existing urban area and therefore potentially impact on sensitive landscapes and biodiversity.	New transport, social, community and green infrastructure. Locally based services and facilities such as schools and healthcare will benefit from the transport network.	Health – INF1 Green Infrastructure – INF2 Landscape Character – ENV2 Urban Character and Design Quality –	Objective 3 Objective 5 Objective 6	Community and primary care Hospitals and acute care Amenity greenspace Civic spaces Parks and gardens Natural and semi-natural greenspaces (including waterways) Green corridors	Concerns that existing health and emergency services are already stretched. Concerns that there is poor access to the main University Hospital at Walsgrave.	Strategic thinking in terms of looking at the Borough's growth up to 2028 should help to create a joined up Plan. In doing so this should facilitate well planned development and service provision that is	Under provision of healthcare services could accentuate health issues within the Borough. To date the need for healthcare support growth is unclear. In some circumstances	Proposals and policies to improve public open spaces have positive impacts on social inclusion, human health and wellbeing.



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		Scoping query facilities)?	Nuneaton and Bedworth Borough Plan						Screening exercise issues			
Activities					ENV3			Concerns about increased traffic.	linked.	sustainable orientation of buildings can create environments that appear alien or lack a community feel.		
	Streets	community severance; traffic congestion; transport safety; or alternative means of transport other than private cars (e.g. public transport)?	Traffic congestion is high, with Nuneaton having one of the highest levels of traffic density in Warwickshire during peak times. Car ownership is the lowest in Warwickshire. Improvements in public transport along the north south corridor are required to improve accessibility to job opportunities.	A public transport, cycling and walking network.	Sustainable Transport – INF3	Objective 8	Road Network Public Transport Walking Cycling	Concerns that congestion levels are already very high. Concerns that further development will affect road safety.	Improvements in transport infrastructure. Prioritising Town Centres helps promote Public Transport.		The modal shift away from the private car towards other sustainable modes of transport and to reduce the number of trips and trip length is a key objective of the Borough Plan.	
	Routes	access to the countryside or major transport networks; access to health care service; or easy and sustainable access to essential services (e.g. workplaces, shops, schools and healthcare facilities)?	Improvements in public transport along the north south corridor are required to improve accessibility to job opportunities. Access to some employment sites such as Bermuda Industrial Estate, Attleborough Fields, Prologis and sites outside the Borough is difficult without a car.	A public transport, cycling and walking network.	Sustainable Transport – INF3	Objective 2 Objective 5	Road Network Rail Network Public Transport Police Fire Ambulance	Concerns that the road network is insufficient for a growth in residents and constrained by lack of bridges over rivers, canals and railways. Concerns that planned relief road is insufficient.	Creating better transport linkages to services – such as health care.	Where retail uses are developed outside the Town Centre this is likely to lead to additional car trips creating pollution. In addition it means those without the use of a car are disadvantaged.		Impact on locality, for example assessing impact on access to existing and/or new facilities such as medical facilities or sports facilities.
	Working	job quality and career development; or the number of	There are a considerable number of people of working age	A healthy, diverse and robust economy.	Existing Employment Estates – ECON1	Objective 2	Strategic employment sites ECO1, ECO2 & ECO3.	Concerns that there are not the level of high paid jobs	Creating an environment for jobs growth – having a job can		Proposals and policies to improve economic inclusion having	



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	Scoping query	Nuneaton and Bedworth Borough Plan					Screening exercise issues				
		jobs available to all sections of society?	claiming benefits. This contributes significantly to poverty and deprivation. Office provision in Nuneaton is limited and basic and is reducing economic opportunities in the Town Centre.		Location and Nature of New Employment – ECON2			in the borough to justify the housing plans.	increase health and wellbeing.		positive impacts on social inclusion, human health and wellbeing. Employment activity can have long term positive effects on human health and wellbeing.
	Shopping	availability to affordable healthy food; or access to unhealthy food outlets?		Locally based services and facilities such as local shops will benefit from the transport network.	Health – INF1	Objective 5			Town Centre regeneration will help to maintain the vitality of the Town Centres, and as such supporting some of the other health benefits outlined.		
	Moving	walking, cycling and other means of transport that promote physical activity; or access for those with reduced mobility.	Few travel by public transport, cycle or walk. Improvements are required to facilitate health through providing: more walking and cycling networks; cycle parking facilities; pedestrian priority areas and crossing facilities; and frequent, reliable , integrated and affordable public transport.	A public transport, cycling and walking network.	Sustainable Transport – INF3	Objective 5	Road Network Public Transport Walking Cycling	Concerns that already almost half of the local population commute outside the borough for work. Concerns from bus companies that public transport has not been sufficiently prioritised. Concern from the canal & river trust that opportunities to use canal-side areas for walking or cycling have been	Promotion of Green Travel can help to create a more sustainable environment and create opportunities for healthy living.		The SA recommends the need for inclusion of a policy that aims to maximise leisure development located in accessible locations and which is supported by existing transport infrastructure.



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Scoping query	Nuneaton and Bedworth Borough Plan				Screening exercise issues		
					overlooked. Desire to have better pedestrian routes and cycle routes, including links to employment sites and schools.		
Living	impacts on people from noise or disruptive activities (e.g. dust or light pollution)?			Urban Character and Design Quality – ENV3 Health – INF1	Objective 6	Strategic housing sites SHS1, SHS2, SHS3 & SHS4.	Environmental development impacts can create negative impacts on healthy living. E.g. high levels of traffic, noise, vibration and fumes.
Playing	access to recreational facilities or open spaces; or access to culture, arts and leisure?	The distribution of open space and recreation grounds is uneven. Most is concentrated in the north around Barpool and neighbouring areas. There is sufficient outdoor sports provision to meet existing need but it is under utilised.	Residents will have access to a wide range of leisure facilities, parks, open spaces and walking and cycling networks giving people the opportunity to be healthier and pursue active lifestyles.	Health – INF1	Objective 8	Provision for children and young people (Play Areas) Sports Pitches Sports Centres and Swimming Pools Outdoor sports facilities (e.g. tennis courts, bowling greens and golf courses) Museums, galleries and theatres	Where historic buildings are not maintained or are derelict it can have a detrimental effect on the feel of an area or the way it is perceived It is considered that all development proposals will result in some changes to landscape character. Moreover, all options involve Green Belt and/or greenfield development have potential adverse impacts on landscape.
Learning	availability of high quality education and learning tools (e.g. libraries or internet)?	GCSE attainment is the second lowest in the County and 16% of those of working age have no qualifications at all. There is a need to tackle low aspirations in parts of the Borough as this can limit educational achievement and	More residents will have a higher level of skills and qualifications.		Objective 2 Objective 5	Nursery and pre-school Primary and secondary schools Higher education Libraries and information centres Concerns that opportunities to build a new college, arts centre and fit for purpose library in the town centre have been missed. Concerns that schools are	No specific policy has been identified to address the potential to deliver lifelong learning and on the-job-training as part of the new employment opportunities.



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	Scoping query	Nuneaton and Bedworth Borough Plan							Screening exercise issues			
			contribute to low wages, deprivation and a dependency on benefits.					already full.				
Local economy	Wealth creation	levels of deprivation, childhood poverty, people with low incomes or inequalities?		More residents will be in work and earning more money.		Objective 2 Objective 3	Strategic employment sites ECO1, ECO2 & ECO3. Strategic housing sites SHS1, SHS2, SHS3 & SHS4.					
	Markets	the local, regional or national market for housing, employment, tourism, goods or services?		New transport, social, community and green infrastructure supporting the economy and growing population.			Strategic employment sites ECO1, ECO2 & ECO3. Strategic housing sites SHS1, SHS2, SHS3 & SHS4.	Concerns that the sub-regional housing market role of the borough has been neglected.				
Community	Social capital	actual and perceived levels of crime; sense of community, identity or social cohesion; transient populations?	There is also a poor perception of public safety and limited transport provision after 6pm. Fear of crime and actual crime is the highest in Warwickshire. The Borough also has the highest levels of anti-social behaviour. People's satisfaction with their local area is the lowest in Warwickshire and only 56% feel they belong to their neighbourhood.	Design approaches will contribute to making the Borough feel a safer place. Community initiatives will reduce crime and anti-social behaviour and help make communities more cohesive, equitable and empowered.	Gypsies and Travellers – HOU3 Ensuring the delivery of infrastructure provision – INF 4	Objective 8	Community and children's centres Public and town halls	Concerns that the plan has not sufficiently involved residents in determining what is needed. Concerns that development is focused in north of Nuneaton and very little in Bedworth. Concern that consideration needs to be given to gypsies and travellers.	Creation of safe, attractive and sustainable environments.		HOU1 seeks to deliver a proportion of affordable housing and will thereby help meet the Borough's affordable housing need and help foster diversity and social cohesion. Gypsies and travellers are socially excluded groups and by endorsing new pitches the Preferred Option seeks to promote social inclusion.	Where a sense of community is created it is considered that this can help create a sense of place and reduce fear of crime. The design of a new development can have significant impacts on the personal safety of users.
	Networks	levels of community engagement and participation in decision making; or use of voluntary						Concerns of a lack of cooperation with neighbouring authorities, particularly in				Planning proposals can help create opportunities for social networks, e.g. though comprehensive



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		Scoping query	Nuneaton and Bedworth Borough Plan						Screening exercise issues			
		community associations?						housing figures.				engagement or the provision of community facilities.
Lifestyle	Diet	healthy eating; or access to allotments?		Levels of obesity and alcohol abuse will be lower and life expectancy will increased.			Allotments			Ability for planning to influence healthy eating is limited.		
	Physical activity	opportunities for exercise as part of daily living?	Access to some leisure facilities is restricted for people without a car. Public transport to Bermuda Park, for instance, is limited and there are no public footpaths along the A444.			Objective 7 Objective 8	Provision for children and young people (Play Areas) Sports Pitches Sports Centres and Swimming Pools Outdoor sports facilities (e.g. tennis courts, bowling greens and golf courses) Amenity greenspace Civic spaces Parks and gardens Natural and semi-natural greenspaces (including waterways) Green corridors		Enabling opportunities for exercise through: development of new facilities; improving access to facilities; and creating informal provision. Conserving heritage assets helps create attractive environments.		There are opportunities for introducing physical activity into peoples' daily lives at no or low cost through the increased access to leisure facilities and open spaces. The development of a mix of uses in sustainable locations will contribute to this objective.	
	Work/life balance	how people manage time and resources to meet the demands of work, family, social and personal responsibilities (e.g. less commuting, more convenient services)?		An improved quality of life.							There is an opportunity for increased mixed use and integration between residential and employment development and the opportunity to create thriving mixed use town centres.	
People	Age	age inequalities or inequities of relevant health effects (particularly children and the elderly)?	There is a need to cater for an increasing young people and older people living on their own. Particularly housing options to enable			Objective 4		Concern that housing provision is needed for older people, with an aging population.				



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	Scoping query	Nuneaton and Bedworth Borough Plan			Screening exercise issues		
		older people to live independently.					
	Sex	gender inequalities or inequities of relevant health effects?	Population and household projections suggest an ongoing need for family accommodation.		Concerns that there is a very high proportion of single mothers, very low per capita income and educational achievement.		HOU 2 seeks to deliver a range of housing types, including family housing, but depends on implementation of the policy.
	Hereditary factors	inequalities or inequities for groups with genetic susceptibilities to relevant health effects?					



Appendix B: Gypsy and Traveller health

- B.1. A review of Gypsy and Traveller health (107) found there are a number of small studies looking at the health status of Gypsies and Travellers. These studies tend to identify high levels of inequality between Gypsy and Traveller communities and the settled community: for example: high infant mortality and perinatal death rates, low birth weight, low immunisation uptake and high child accident rates.
- The 1987 national study of Travellers' health status in Ireland (108) reported a high death rate for all causes and lower life expectancy for Irish Travellers: women 11.9 years and men 9.9 years lower than the non-Traveller population.
 - The report of the Confidential Enquiries into Maternal Deaths in the UK (1997-1999) (109) found that Gypsies and Travellers have possibly the highest maternal death rate among all ethnic groups.
 - Poor access to health care services is cited by a number of commentators as a factor in poor health outcomes. Anecdotal evidence suggests that Travellers face discrimination in access to health care (110), this can arise as a result of NHS staff prejudice (111).
 - Gypsies and Travellers frequently have difficulties in registering with a GP, due to rejection by GP practices (112), Gypsies and Travellers' lack of information, or enforced mobility (113). Registration is frequently on a temporary basis, undermining holistic, preventative and continuous care (114).
 - Accounts from Health Practitioners cite a range of health issues "that are attributed partly to adverse environmental conditions: accidents, gastro-enteritis, upper respiratory infections and otitis media" (115).
- B.2. Table 11-3 shows results from a review conducted by the South West Public Health Observatory on the health status of Travellers. It shows a range of areas where Travellers have worse health than the lowest UK socioeconomic groups. There are some factors where Travellers' health was found to be better than the settled population.



Table 11-3: Review of health status of Gypsies and Travellers

Poor Health Status	Good Health Status
Increased perinatal mortality	Increased rates of breastfeeding
Low birthweight	Good maternal diet
Diarrhoea and giardia	Children generally have good diets – not fruit
Lead poisoning	Less wheeze reported in children (Kearney and Kearney 1999)
Increased Hepatitis A and B	Generally well – health scores similar to static population
Increased infectious disease	Good informal networks for advice and information
* Decreased immunisation rates	Less pain and discomfort reported than the average population
Increased alcohol usage	
* Increased accidents	
Increased domestic violence	
* Increased smoking	
* Increased heart disease	
* Decreased life expectancy – up to 10 years	
Increased genetic conditions	
* Lack of access to cervical screening	
* Lack of eyesight tests	
* Increased dental problems	
* Increased mortality due to all causes	
Worse than general population especially on nerves, and mobility	

* Evidence based

Source: Collation of data from South West Public Health Observatory 2002 (116)



Appendix C: NICE recommendations

- C.1. The National Institute for Health and Care Excellence (NICE) provides national guidance and advice to improve health and social care. NICE is a Non Departmental Public Body (NDPB) on a statutory footing as set out in the Health and Social Care Act (117). This appendix provides summaries of NICE recommendations. These recommendations are based on comprehensive evidence reviews commissioned by NICE. The summaries are provided as robust position statements to support some of the suggested enhancements to the draft Plan policies. The focus is on the INF1 (the health policy), however NICE recommendations are also included where relevant to other policies.

Potential further health policies that could be added to INF1, which are supported by NICE recommendations

- C.2. There is scope for additional health policies to support the Plan. The following suggested policies are based on NICE recommendations (set out below):
- Obligations to fund services aimed at encouraging physically active travel.
 - Promote public open spaces and public paths that are maintained to a high standard and are safe, attractive and welcoming to everyone.
 - Prioritise the need for people (including those whose mobility is impaired) to be physically active as a routine part of their daily life.
 - Ensure the local environment around schools and the nearby catchment area provides opportunities for all children to cycle or walk.
 - Provide children and young people with places and facilities (both indoors and outdoors) where they feel safe taking part in physical activities.
 - Support local provision of affordable fruit and vegetables and other food and drinks that can contribute to a healthy, balanced diet.
 - Limit food outlets, particularly those near schools, which specialise in foods high in fat, salt or sugar.
 - Create local environments that encourage people to be more physically active and to adopt a healthier diet.
 - Reduce health inequalities.
 - Promote physical activity facilities that are suitable for children and young people with different needs and their families, particularly those from lower socioeconomic groups, those from minority ethnic groups with specific cultural requirements and those who have a disability.
 - Identify and enhance public parks and facilities as well as more non-traditional spaces (for example, car parks outside working hours) as places where children and young people can be physically active.
 - Make provision to deliver leisure services that are affordable and acceptable e.g. provision for child care and culturally acceptable use of video and music media.
 - Provide children with access to environments that stimulate their need to explore and which safely challenge them. (Examples include adventure playgrounds, parks, woodland, common land or fun trails.)
 - Encourage healthier modes of transport to and from work.
 - Where areas are 'saturated' with licensed premises (serving alcohol) and the evidence suggests that additional premises may affect the licensing objectives, adopt a 'cumulative impact' policy. If necessary, limit the number of new licensed premises in a given area.



- Promote employment opportunities where jobs are perceived by employees as worthwhile and offers opportunities for development and progression.
- Promote employment opportunities where employers support people with health problems returning to work including: vocational training; health condition management; financial incentives; and support before and after returning to work.

General

- C.3. NICE recommend (72) reviewing and amending 'classes of use' orders for England to address disease prevention via the concentration of outlets in a given area.
- C.4. NICE recommend (72) using HIA to assess the potential impact (positive and negative) that all local and regional policies and plans may have on rates of cardiovascular disease and related chronic diseases. Take account of any potential impact on health inequalities.
- C.5. NICE recommend (72) aligning all 'planning gain' agreements with the promotion of heart health to ensure there is funding to support physically active travel. (For example, Section 106 agreements are sometimes used to bring development in line with sustainable development objectives.)
- C.6. NICE recommend (31) encouraging local planning departments to use existing mechanisms (for example, national planning guides) to:
- prioritise the need for people (including those whose mobility is impaired) to be physically active as a routine part of their daily life (for example, when developing the local infrastructure and when dealing with planning applications for new developments).
 - provide open or green spaces to give people local opportunities for walking and cycling.
 - make sure local facilities and services are easily and safely accessible on foot, by bicycle and by other modes of transport involving physical activity (they should consider providing safe cycling routes and secure parking facilities for bikes).
 - provide for physical activities in safe locations that are accessible locally either on foot or via public transport.
 - encourage people to be physically active inside buildings, for example, by using the internal infrastructure of buildings to encourage people to take the stairs rather than the lift.
- C.7. NICE recommend new workplaces are linked to walking and cycling networks. Where possible, these links should improve the existing walking and cycling infrastructure by creating new, through routes (and not just links to the new facility) (118).
- C.8. NICE recommend ensuring the local environment around schools and the nearby catchment area provide opportunities for all children to cycle or walk (57). This should include addressing motor vehicle speed, parking and dangerous driving practices.
- C.9. NICE recommend providing children and young people with places and facilities (both indoors and outdoors) where they feel safe taking part in physical activities (119). These could be provided by the public, voluntary, community and private sectors (for example, in schools, youth clubs, local business premises and private leisure facilities). Local authorities should coordinate the availability of facilities, where appropriate.

Diet

- C.10. NICE recommend encouraging local planning authorities to restrict planning permission for take-aways and other food retail outlets in specific areas (for example, within walking



distance of schools) (72). As well as helping them implement existing planning policy guidance in line with public health objectives.

- C.11. NICE recommend identifying local resources and existing community groups that could help promote healthy eating, physical activity and weight management, particularly within local communities at high risk of developing type 2 diabetes (31).
- C.12. NICE recommend that to promote the provision of healthier food choices (31):
 - Work with local food retailers, caterers and workplaces to encourage local provision of affordable fruit and vegetables and other food and drinks that can contribute to a healthy, balanced diet.
 - Work with caterers across the industry to help them reduce the amount of calories, saturated fat and salt in recipes and to use healthier cooking methods. They should also ensure healthier options are an integral part of all menus.
 - Work with food retailers to: develop pricing structures that favour healthier food and drink choices; and ensure a range of portion sizes are available and that they are priced accordingly. This is particularly important for energy-dense foods and drinks.
- C.13. NICE recommend considering the full range of factors that may influence weight, such as access to food and drinks that contribute to a healthy and balanced diet, or opportunities to use more physically active modes of travel (120).
- C.14. NICE recommend ensuring all food procured by, and provided for, people working in the public sector and all food provided for people who use public services (72): is low in salt and saturated fats; is nutritionally balanced and varied, in line with recommendations made in the 'eatwell plate'; and does not contain industrially produced trans fatty acids (IPTFAs).
- C.15. NICE recommend using bye-laws to regulate the opening hours of take-aways and other food outlets, particularly those near schools that specialise in foods high in fat, salt or sugar (72).
- C.16. NICE recommend using existing powers to set limits for the number of take-aways and other food outlets in a given area (72). Directives should specify the distance from schools and the maximum number that can be located in certain areas.
- C.17. NICE recommend helping owners and managers of take-aways and other food outlets to improve the nutritional quality of the food they provide (72). This could include monitoring the type of food for sale and advice on content and preparation techniques.

Physical activity

- C.18. NICE recommend that those developing strategic plans should consult widely with local health professionals working closely with communities at high risk of developing type 2 diabetes (31). The plan should aim to increase physical activity levels and improve people's diet and weight management by:
 - creating local environments that encourage people to be more physically active and to adopt a healthier diet (for example, by ensuring local shops stock good quality, affordable fruit and vegetables).
 - targeting specific communities at high risk of developing type 2 diabetes, including people of South Asian, African-Caribbean or black African family origin, and those from lower socioeconomic groups
- C.19. NICE recommend encouraging the use of national and local planning guidance to ensure physical activity is a primary objective of transport policy, and when designing new buildings and the wider built environment (31).



- C.20. NICE recommend ensuring leisure services are affordable and acceptable to those at high risk of developing type 2 diabetes (31). This means providing affordable childcare facilities. It also means public transport links should be affordable and the environment should be culturally acceptable. For example, local authorities should consider the appropriateness of any videos and music played. They should also consider providing single-gender: facilities; exercise classes; swimming sessions; and walking groups – for both men and women.
- C.21. NICE recommend encouraging local employers to develop policies to encourage employees to be more physically active, for example, by using healthier modes of transport to and from work (31).
- C.22. NICE recommend strategic level coordination and communication between public health, transport, planning and leisure services to secure high-level commitment to long-term, integrated action on obesity (120).
- C.23. NICE recommend involving business and social enterprises in the implementation of the local obesity strategy (120). This includes, for example, caterers, leisure providers, weight management groups, the local chamber of commerce, food retailers and workplaces.
- C.24. NICE recommend ensuring family-based, multi-component lifestyle weight management services for children and young people are available as part of a community-wide, multi-agency approach to promoting a healthy weight and preventing and managing obesity. Programmes should focus on: diet and healthy eating habits; physical activity; reducing the amount of time spent being sedentary; and strategies for changing the behaviour of the child or young person and all close family members (63).

Alcohol

- C.25. NICE note that international evidence suggests that making it less easy to buy alcohol, by reducing the number of outlets selling it in a given area and the days and hours when it can be sold is an effective way of reducing alcohol-related harm (121).
- C.26. NICE recommend using local crime and related trauma data to map the extent of alcohol-related problems before developing or reviewing a licensing policy. If an area is 'saturated' with licensed premises and the evidence suggests that additional premises may affect the licensing objectives, adopt a 'cumulative impact' policy. If necessary, limit the number of new licensed premises in a given area (121).

Education

- C.27. NICE recommend that to promote mental wellbeing at work employees should have the necessary skills and support to meet the demands of a job that is worthwhile and offers opportunities for development and progression (122).
- C.28. NICE recommend that for people with health problems who are unemployed and claiming benefits there should be an integrated programme to help claimants enter or return to work (paid or unpaid), including: vocational training; health condition management; financial incentives; and support before and after returning to work (123).
- C.29. NICE recommend focusing on the social and emotional wellbeing of vulnerable children as the foundation for their healthy development and to offset the risks relating to disadvantage (124).
- C.30. NICE recommend school playgrounds are designed to encourage varied physically active play, with primary schools creating areas to promote individual and group physical activities such as hopscotch and other games (118).

Green/open space

- C.31. Health impacts associated with green/open space:



- Natural features and green spaces have considerable influence on physical, mental and perceived health. Simply having a view of a natural area through the window can facilitate healing, reduce stress and support emotional well-being (125).
- C.32. NICE recommend public open spaces and public paths: are maintained to a high standard; are safe, attractive and welcoming to everyone; can be reached on foot, by bicycle and using other modes of transport involving physical activity; and are accessible by public transport (118).
- C.33. NICE recommend ensuring physical activity facilities are suitable for children and young people with different needs and their families, particularly those from lower socioeconomic groups, those from minority ethnic groups with specific cultural requirements and those who have a disability (119).
- C.34. NICE recommend actively promoting public parks and facilities as well as more non-traditional spaces (for example, car parks outside working hours) as places where children and young people can be physically active (119).
- C.35. NICE recommend that planners make provision for children, young people and their families to be physically active in an urban setting (119). They should ensure open spaces and outdoor facilities encourage physical activity (including activities which are appealing to children and young people, for example, in-line skating). They should also ensure physical activity facilities are located close to walking and cycling routes.
- C.36. NICE recommend providing children with access to environments that stimulate their need to explore and which safely challenge them (119). (Examples include adventure playgrounds, parks, woodland, common land or fun trails.) Also provide them with the necessary equipment. The aim is to develop their risk awareness and an understanding of their own abilities as necessary life skills.
- C.37. NICE recommend auditing bye-laws and amend those that prohibit physical activity in public spaces (such as those that prohibit ball games) (72).

Transport [including findings from WHO]

- C.38. Health impacts associated with transport:
- Road transport is the major source of urban air pollution, emitting pollutants that damage human health and reduce life expectancy (18).
 - A number of different air-borne particulates are antagonistic to the sensitive lining of the airways and act as irritants, causing breathing difficulties and discomfort. Additionally, for those people with pre-existing respiratory disease(s) for example asthma and other chronic obstructive airways disease, these increase their risk of experiencing a respiratory exacerbation of their current condition (18).
 - There is a clear association between long-term exposure to particulate air pollution (PM_{2.5} and sulphate and sulphur dioxide) and a reduction in life-expectancy caused by cardiovascular disease (18).
 - People with respiratory or cardiovascular disease, in particular coronary heart disease, are most at risk especially if they are elderly (18).
 - Children have a heightened vulnerability to respirable dust (126).
 - Emissions and population exposure is such that most impacts will occur in urban populations and will often be worst in deprived communities (18).
 - For all types of unintentional injury those in lower socioeconomic groups are at greater risk of mortality and morbidity from non-intentional injury (18).



- If access routes are poorly conceived, difficult to access, poorly maintained or perceived as unsafe these can also act as barriers to encouraging the use of active transport (18).
 - Perceived physical danger posed by motorized traffic has been cited as one of the main barriers to engaging in walking and cycling. This has had a disproportionate effect on activity levels in both children and older adults (18).
 - The density of motorised transport can negatively affect social cohesion within a community. Both through direct community severance due to road construction or through the impact of high levels of heavy motor traffic (18).
 - Increased risk of road traffic collisions from high traffic density can contribute towards the development of long-term mental health problems in drivers, passengers and victims (18).
- C.39. NICE recommend local facilities and services are easily accessible on foot, by bicycle and by other modes of transport involving physical activity (118).
- C.40. NICE recommend pedestrians, cyclists and users of other modes of transport that involve physical activity are given the highest priority when developing or maintaining streets and roads. Including: re-allocate road space to support physically active modes of transport; restrict motor vehicle access; introduce road-user charging schemes; introduce traffic-calming schemes; and create safe routes to schools (118).
- C.41. NICE recommend ensuring local, high-level strategic policies and plans support and encourage both walking and cycling (57). This includes a commitment to invest sufficient resources to ensure more walking and cycling – and recognition that this will benefit individuals and the wider community. Considerations include:
- developing plans in conjunction with relevant voluntary and community organisations.
 - addressing the behavioural and environmental factors that encourage or discourage people from walking and cycling. These include measures to reduce road danger or the perception of danger.
 - taking account of the geography of the surrounding area (for instance, connections with neighbouring local authority areas), as well as local factors such as major road and rail routes, rivers and hills.
 - include communications strategies to publicise the available facilities (such as walking or cycle routes) and to motivate people to use them. Also link to existing national and local initiatives.
 - providing specific support for people at a 'transition point' in their lives, for instance, when they are changing job, house or school. At these times people may be open to trying a new mode of transport or new types of recreation.
 - addressing infrastructure and planning issues that may discourage people from wanting to cycle. For example, ensure local facilities and services are easily accessible by bicycle and make changes to existing roads, where necessary, to reduce traffic speeds.
 - addressing infrastructure issues that may discourage people from walking, for example, motor traffic volume and speed, lack of convenient road crossings, poorly maintained footways or lack of dropped kerbs, where needed.
 - ensuring cycle parking and residential storage issues are addressed.
 - ensuring walking and cycling routes are integrated with public transport to support longer journeys. This includes providing signage, secure cycle parking at public transport sites as well as support to transport adapted cycles and tandems for people with disabilities.



- C.42. NICE recommend ensuring walking and cycling programmes form a core part of local transport investment planning, on a continuing basis (57). In line with the Manual for streets (127) and Manual for streets 2 (128), pedestrians and cyclists should be considered before other user groups in the design process – this helps ensure that they are not provided for as an afterthought.
- C.43. NICE recommend developing and implementing school travel plans that encourage children to walk or cycle all or part of the way to school, including children with limited mobility (57). Integrate these plans with those produced by other local schools and other travel plans available for the local community. Involve pupils in the development and implementation of plans.
- C.44. NICE recommend mapping safe routes to school and to local play and leisure facilities, taking into account the views of pupils, parents and carers (57).
- C.45. NICE recommend introducing engineering measures to reduce speed in streets that are: primarily residential; are commonly used by children and young people; or where pedestrian and cyclist movements are high (129). For example speed reduction features (such as, traffic-calming measure or speed limit changes).

Housing

- C.46. NICE note that low income and overcrowded housing conditions are factors that can lead to a higher risk of an unintentional injury to under-15s in the home (130).



Appendix D – Air Quality Standards

- D.1. The recent REVIHAAP report by the World Health Organization (WHO) on health aspects of air pollution concluded that exposure to air pollutants is largely beyond the control of individuals and requires action by public authorities at the national, regional and international levels (131). A multi-sectoral approach, engaging such relevant sectors as transport, housing, energy production and industry, is needed to develop and effectively implement long-term policies that reduce the risks of air pollution to health.
- D.2. The REVIHAAP report went on to note that the adverse effects on health of particulate matter (PM) are especially well documented. There is no evidence of a safe level of exposure or a threshold below which no adverse health effects occur.
- D.3. The Committee on the Medical Effects of Air Pollutants (COMEAP)'s report on particulate air pollution concluded that in quantitative terms a pollution reduction of $1 \mu\text{g}/\text{m}^3$ of $\text{PM}_{2.5}$ would lead to on average 20 days increased life expectancy from birth per person (the extent to which individuals are affected is likely to be highly variable) (132).
- D.4. In 2011 in Nuneaton & Bedworth 5.5% of annual all-cause adult mortality (deaths) was attributable to anthropogenic (human-made) particulate air pollution (measured as fine particulate matter, $\text{PM}_{2.5}$) (133). The comparable value for Warwickshire was 5.2% and the value for England was 5.4% (134).
- D.5. 2014 estimates by Public Health England for mortality caused by anthropogenic $\text{PM}_{2.5}$ in Warwickshire are presented in Table 11-4.

Table 11-4: Mortality burden estimates for Warwickshire from anthropogenic particulate air pollution

Area	Population age 25+ ($\times 10^3$)	Deaths age 25+	Mean anthropogenic $\text{PM}_{2.5}$ ($\mu\text{g m}^{-3}$)	Attributable fraction (%)	Attributable deaths aged 25+	Associated life-years lost
Warwickshire CC	378.9	4861	9.8	5.5	269	2782
North Warwickshire	44.5	599	10.1	5.7	34	343
Nuneaton and Bedworth	84.6	1116	10.1	5.7	64	676
Rugby	64.8	852	9.7	5.5	47	481
Stratford-on-Avon	87.5	1160	9.1	5.2	60	588
Warwick	97.5	1134	10.0	5.7	64	694

From Public Health England (135)

- D.6. Although particulate matter is a key air pollutant affecting health, there are other air pollutants that are also important, notably in proximity to roads.
- D.7. With regard to transport the REVIHAAP report found that adverse effects on health due to proximity to roads were observed after adjusting for socioeconomic status and after adjusting for noise. However elevated health risks associated with living in close proximity to roads are unlikely to be explained by $\text{PM}_{2.5}$ mass alone since this is only slightly elevated near roads. In contrast, levels of such pollutants as ultrafine particles, carbon monoxide, NO_2 , black carbon, polycyclic aromatic hydrocarbons, and some metals are more elevated near roads. Individually or in combination, these are likely to be responsible for the observed adverse effects on health. Current available evidence does not allow discernment of the pollutants or pollutant combinations that are related to different health outcomes, although association with tailpipe primary PM is identified increasingly.



- D.8. Exhaust emissions are an important source of traffic-related pollution, and several epidemiological and toxicological studies have linked such emissions to adverse effects on health. Road abrasion, tyre wear and brake wear are non-exhaust traffic emissions that become relatively more important with progressive reductions in exhaust emissions. Toxicological research increasingly indicates that such non-exhaust pollutants could be responsible for some of the observed adverse effects on health.
- D.9. These findings, (which will inform updates to both WHO and EU air quality guidelines and thresholds) point to important transport related air quality health impacts that may occur in areas below current thresholds for air quality management areas (AQMA). Local policies to address air pollution from transport should therefore aim to go beyond the current emission targets. Consideration should also be given to addressing both exhaust and non-exhaust emissions.

Air Quality Management Areas

- D.10. The 2008 ambient air quality directive sets legally binding limits for concentrations in outdoor air of major air pollutants that impact public health such as particulate matter (PM₁₀ and PM_{2.5}) and nitrogen dioxide (NO₂) (136). The 2008 directive was made law in England through the Air Quality Standards Regulations 2010 (137). The European Commission has tabled a proposal for The Clean Air Policy Package, which would update the 2008 directive with revised limit and target values (138).
- D.11. Part IV of the Environment Act 1995 requires local authorities in the UK to review air quality in their area and designate air quality management areas if improvements are necessary (139). Where an air quality management area is designated, local authorities are also required to work towards the Strategy's objectives prescribed in regulations for that purpose. An air quality action plan describing the pollution reduction measures must then be put in place. These plans contribute to the achievement of air quality limit values at local level.
- D.12. The Air Quality Standards Regulations 2010 sets out target and limit values for England (137). The UK Air Quality Strategy sets out air quality objectives and policy options to improve air quality in the UK (140). It should be noted that some of the values in Table 11-5 are still to enter into force: e.g. PM_{2.5} annual mean limit values of 25µg.m⁻³ is to be met by 1st January 2015 (137).



Table 11-5: National Air Quality Objectives and European Directive limit and target values for the protection of human health

Pollutant	Applies	Objective	Concentration measured as
Particles (PM ₁₀)	UK	50µg.m ⁻³ not to be exceeded more than 35 times a year	24 hour mean
	UK	40µg.m ⁻³	annual mean
Particles (PM _{2.5}) Exposure Reduction	UK	25µg.m ⁻³	annual mean
	UK urban areas	Target of 15% reduction in concentrations at urban background	annual mean
Nitrogen dioxide	UK	200µg.m ⁻³ not to be exceeded more than 18 times a year	1 hour mean
	UK	40µg.m ⁻³	annual mean
Ozone	UK	100µg.m ⁻³ not to be exceeded more than 10 times a year	8 hour mean
Sulphur dioxide	UK	266µg.m ⁻³ not to be exceeded more than 35 times a year	15 minute mean
	UK	350µg.m ⁻³ not to be exceeded more than 24 times a year	1 hour mean
	UK	125µg.m ⁻³ not to be exceeded more than 3 times a year	24 hour mean
Polycyclic aromatic hydrocarbons	UK	0.25ng.m ⁻³ B[a]P	as annual average
Benzene	UK	16.25µg.m ⁻³	running annual mean
	England and Wales	5µg.m ⁻³	annual average
1,3- butadiene	UK	2.25µg.m ⁻³	running annual mean
Carbon monoxide	UK	10mg.m ⁻³	maximum daily running 8 hour mean
Lead	UK	0.5µg.m ⁻³	annual mean
	UK	0.25µg.m ⁻³	annual mean

WHO Guideline Limit Values

- D.13. The World Health Organization has guideline limit values for air pollutants (141). The values for the four most important groups of pollutants are described below. It should be noted that by 2015 there are expected to be revisions to these values in line with the recent REVIHAAP project findings (131).

Particulate matter

PM_{2.5}

- 10 µg/m³ annual mean
- 25 µg/m³ 24-hour mean

PM₁₀

- 20 µg/m³ annual mean
- 50 µg/m³ 24-hour mean

- D.14. PM affects more people than any other pollutant. The major components of PM are sulphate, nitrates, ammonia, sodium chloride, black carbon, mineral dust and water. It consists of a complex mixture of solid and liquid particles of organic and inorganic substances suspended in the air. The most health-damaging particles are those with a diameter of 10 microns or less, (\leq PM₁₀), which can penetrate and lodge deep inside the lungs. Chronic exposure to particles contributes to the risk of developing cardiovascular and respiratory diseases, as well as of lung cancer.



Small particulate pollution have health impacts even at very low concentrations – indeed no threshold has been identified below which no damage to health is observed.

The effects of PM on health occur at levels of exposure currently being experienced by many people both in urban and rural areas.

Ozone (O₃)

- 100 µg/m³ 8-hour mean
- D.15. Ozone at ground level – not to be confused with the ozone layer in the upper atmosphere – is one of the major constituents of photochemical smog. It is formed by the reaction with sunlight (photochemical reaction) of pollutants such as nitrogen oxides (NO_x) from vehicle and industry emissions and volatile organic compounds (VOCs) emitted by vehicles, solvents and industry.
- D.16. Excessive ozone in the air can have a marked effect on human health. It can cause breathing problems, trigger asthma, reduce lung function and cause lung diseases. In Europe it is currently one of the air pollutants of most concern. Several European studies have reported that the daily mortality rises by 0.3% and that for heart diseases by 0.4%, per 10 µg/m³ increase in ozone exposure.

Nitrogen dioxide (NO₂)

- 40 µg/m³ annual mean
 - 200 µg/m³ 1-hour mean
- D.17. The major sources of anthropogenic emissions of NO₂ are combustion processes (heating, power generation, and engines in vehicles and ships).
- D.18. Epidemiological studies have shown that symptoms of bronchitis in asthmatic children increase in association with long-term exposure to NO₂. Reduced lung function growth is also linked to NO₂ at concentrations currently measured (or observed) in cities of Europe and North America.

Sulphur dioxide (SO₂)

- 20 µg/m³ 24-hour mean
 - 500 µg/m³ 10-minute mean
- D.19. A SO₂ concentration of 500 µg/m³ should not be exceeded over average periods of 10 minutes duration. Studies indicate that a proportion of people with asthma experience changes in pulmonary function and respiratory symptoms after periods of exposure to SO₂ as short as 10 minutes.
- D.20. The main anthropogenic source of SO₂ is the burning of sulphur-containing fossil fuels for domestic heating, power generation and motor vehicles.
- D.21. SO₂ can affect the respiratory system and the functions of the lungs, and causes irritation of the eyes. Inflammation of the respiratory tract causes coughing, mucus secretion, aggravation of asthma and chronic bronchitis and makes people more prone to infections of the respiratory tract. Hospital admissions for cardiac disease and mortality increase on days with higher SO₂ levels. When SO₂ combines with water, it forms sulphuric acid; this is the main component of acid rain which is a cause of deforestation.

Comparison of WHO Guide Values with UK Air Quality Objectives

- D.22. Where direct comparisons are possible between the WHO guide values and the UK Air Quality Objectives it is clear that in many cases even achieving the UK Air Quality Objective levels does not rule out health impacts. As noted above the WHO Guide Values are expected to be lowered in 2015 (131).



Table 11-6: Comparison of UK Air Quality Objectives and WHO Guide Values

Pollutant	UK Air Quality Objective	WHO Guide Value
Particles (PM ₁₀)	50 µg/m ³ 24 hour mean	50 µg/m ³ 24 hour mean
	40 µg/m ³ annual mean	20 µg/m ³ annual mean
Particles (PM _{2.5})	25 µg/m ³ annual mean	10 µg/m ³ annual mean
Nitrogen dioxide	200 µg/m ³ 1 hour mean	200 µg/m ³ 1 hour mean
	40 µg/m ³ annual mean	40 µg/m ³ annual mean
Ozone	100 µg/m ³ 8 hour mean	100 µg/m ³ 8 hour mean
Sulphur dioxide	125 µg/m ³ 24 hour mean	20 µg/m ³ 24 hour mean

- D.23. Notably for Particulate Matter there is no evidence of a safe level of exposure or a threshold below which no adverse health effects occur (131).

Air Quality Index

- D.24. COMEAP's Review of the UK Air Quality Index recommended an air quality index to translate air pollutant concentrations into bands against which public health advice could be given (142). The index was updated by Defra in 2014 (143).
- D.25. Figure 11-1 sets out the bands (Low – Very High on the y-axis) against the pollutants (x-axis). Figure 11-2 sets out general health advice for each band.
- D.26. The index links to published daily air quality forecasting (144) but also provides a useful estimate for considering how local levels of air pollution may affect physical activity and use of outdoor space .

Figure 11-1: COMEAP UK Air Quality Index, as updated by Defra 2013

Band	Index	Ozone	Nitrogen Dioxide	Sulphur Dioxide	PM _{2.5} Particles	PM ₁₀ Particles
		Running 8 hourly mean	hourly mean	15 minute mean	24 hour mean	24 hour mean
		µgm ⁻³	µgm ⁻³	µgm ⁻³	µgm ⁻³	µgm ⁻³
LOW						
	1	0-33	0-67	0-88	0-11	0-16
	2	34-66	68-134	89-177	12-23	17-33
	3	67-100	135-200	178-266	24-35	34-50
MODERATE						
	4	101-120	201-267	267-354	36-41	51-58
	5	121-140	268-334	355-443	42-47	59-66
	6	141-160	335-400	444-532	48-53	67-75
HIGH						
	7	161-187	401-467	533-710	54-58	76-83
	8	188-213	468-534	711-887	59-64	84-91
	9	214-240	535-600	888-1064	65-70	92-100
VERY HIGH						
	10	241 or more	601 or more	1065 or more	71 or more	101 or more



Figure 11-2: COMEAP UK Air Quality Index, accompanying health messages

Air pollution banding	Value	Accompanying health messages for at-risk groups and the general population	
		At-risk individuals*	General population
Low	1–3	Enjoy your usual outdoor activities	Enjoy your usual outdoor activities
Moderate	4–6	Adults and children with lung problems, and adults with heart problems, who experience symptoms , should consider reducing strenuous physical activity, particularly outdoors	Enjoy your usual outdoor activities
High	7–9	Adults and children with lung problems, and adults with heart problems, should reduce strenuous physical exertion, particularly outdoors, and particularly if they experience symptoms. People with asthma may find they need to use their reliever inhaler more often. Older people should also reduce physical exertion	Anyone experiencing discomfort such as sore eyes, cough or sore throat should consider reducing activity, particularly outdoors
Very High	10	Adults and children with lung problems, adults with heart problems, and older people, should avoid strenuous physical activity. People with asthma may find they need to use their reliever inhaler more often	Reduce physical exertion, particularly outdoors, especially if you experience symptoms such as cough or sore throat

* Adults and children with heart or lung problems are at greater risk of symptoms. Such individuals should follow their doctor's usual advice about exercising and managing their condition.