City of Bradford Metropolitan District Council

Bradford City Centre Area Action Plan Preferred Approach Report

Health Impact Assessment Draft

July 2015

Amec Foster Wheeler Environment
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Report for

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Document revisions

No.	Details	Date
1	Draft Report	July2015
2	Final Report	TBC

Executive Summary

Purpose of this Report

This report has been produced for the purpose of undertaking a Health Impact Assessment of the Bradford City Centre Area Action Plan Preferred Approach Report. It analyses the likely health impacts of the Preferred Approach document and outlines recommended measures to avoid or mitigate any identified adverse health impacts.

In the main the draft BCC AAP should have positive health impacts. The vision, objectives and policies of the draft BCC AAP will help to deliver a significant amount of new housing, raise wealth levels and living standards, promote and encourage use of sustainable modes of transport, deliver urban regeneration, protect the environment and improve access to the environment and open space. The health benefits of all these measures will be wide ranging.

Two potential adverse health impacts from the draft BCC APP were identified for further assessment:

- Potential for adverse health impacts from an increase in vehicle emissions from the growth and highway improvements outlined for the Corridor; and
- An increase in demand for health care provision and facilities.

Following assessment of these two issues, mitigation measures were identified to help mitigate these adverse impacts. Four areas of mitigation have been outlined. The mitigation measures outlined will help to reduce and / or avoid potential harm to health that has been identified. This will therefore help to ensure that the draft BCC AAP will take into consideration effects on human health and incorporate appropriate mitigation measures as necessary.

Contents

1. Introduction

1.1 The Bradford City Centre Area Action Plan

The City of Bradford Metropolitan District Council is currently in the process of preparing a Local Plan to guide future growth and development in the District (see (www.bradford.gov.uk\planning). This will replace the existing Replacement Unitary Development Plan for Bradford (RUDP), adopted in October 2005.

The Local Plan for the Bradford District will be made up of a collection of planning documents that will guide future growth and development for housing, employment, leisure and retail for the next 10-20 years. Two Area Action Plans (AAPs) are being produced as part of the Local Plan, one of which is for the Shipley Canal Road Corridor (SCRC) and the other for Bradford City Centre (BCC). These two AAPs will build upon the long term spatial vision for the District set out in the Local Plan Core Strategy and address specific issues within each plan area.

The BCC AAP will provide the statutory basis for implementation of the City Centre Masterplan and the associated four Neighbourhood Development Frameworks (NDFs) for The Bowl, The Channel, The Market and The Valley. The BCC AAP sets out planning policies to guide development proposals in the City Centre, along with details of how these proposals will be delivered.

Following consultation on the Issues and Options for the BCC, the Council has now prepared the BCC AAP Preferred Approach Report (hereafter referred to as the 'draft BCC AAP'). The draft BCC AAP sets out planning policies to guide development proposals in the Corridor, along with details of how these proposals will be delivered. It comprises of a vision, 8 strategic objectives, 18 planning policies and 41 site allocations.

1.2 Health Impact Assessment

What is Health Impact Assessment?

Health Impact Assessment (HIA) is a means of developing better, evidence-based policy by careful consideration of the impact of proposals on the health of the population. HIA uses a range of qualitative and quantitative evidence that includes socio-economic information, public health data, and public perceptions of health and wellbeing. It is particularly concerned with the distribution of effects within a population, as different groups are likely to be affected in different ways, and therefore looks at how health and social inequalities might be reduced or widened by a proposed plan or project.

The BCC AAP, once adopted, will provide a planning policy framework for the growth of Bradford city centre, seeking to make it an attractive destination for visitors, residents and workers to 'live, work and socialise'. It echoes the City Plan focus on people, place, prosperity and property and specifically provides the planning objectives and policies to deliver a sustainable approach to the redevelopment of listed buildings, the creation of new developments, the preservation of important cultural assets, the design of the public realm and access to green space. There are therefore, a number of policies where there could be effects on the health of the community. In consequence, this HIA considers the positive and negative health impacts of the BCC AAP.

This report and HIA has been prepared by Amec Foster Wheeler Environment and Infrastructure UK Limited (Amec Foster Wheeler) working in conjunction with CBMDC. It has been undertaken with reference to the 2010 Department of Health guidance on HIA[1].

Health Impact Assessment and Spatial Planning

There is an important link between the planning process (both plan making and the implementation of plans) and health. The way that places are planned, develop and change impacts on the health and wellbeing of

[1] Department of Health (2010) *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*.

the communities that live in them. Consequently, it is important to assess the BCC AAP to identify how health and wellbeing benefits can be maximised and potential negative impacts minimised

The importance of planning to health is highlighted in the National Planning Policy Framework (NPPF) and the National Planning Practice Guidance (NPPG). The range of issues to be considered within the HIA include how:

- How the draft BCC AAP's policies promote health, social and cultural wellbeing and support the reduction of health inequalities;
- The healthcare implications of all the new development proposed for the BCC, both in terms of demand on existing healthcare facilities and for potential new healthcare provision;
- The health impacts of an increase in traffic generation associated with the new development proposed and from the highway improvements outlined;
- Whether access to the whole for the whole community, whether able bodied or otherwise has been promoted;
- Whether or not the draft BCC AAP's policies have created opportunities for meetings between members of the community who might not otherwise come into contact with each other, including through mixed-use developments, strong neighbourhood centres and active street frontages which bring together those who work, live and play in the vicinity; and
- Whether or not the draft BCC AAP's policies will create safe and accessible environments where crime and disorder, and the fear of crime, do not undermine quality of life or community cohesion; and safe and accessible developments, containing clear and legible pedestrian routes, and high quality public space, which encourage the active and continual use of public areas.

The HIA therefore aims to influence this policy direction in order to enhance the health and wellbeing of Bradford city centre communities and to reduce any health inequalities that may arise or be exacerbated as a result of the AAP.

Purpose of this HIA Report

The purpose of this HIA Report is to

- Present relevant community health profile information, including a review of plans and programmes to provide sufficient context for the assessment;
- Identify, describe and assess the likely significant health effects associated with the draft BCC AAP;
- Provide recommendations to ensure that the policies in the draft BCC AAP, where possible, actively promote health gain for the local population, reduce health inequalities and do not actively damage health.

The report will further help the District Council and other responsible agencies respond to identified health inequalities (particularly targeting disadvantaged and marginalised groups), encourage the full participation of those likely to be affected by the plan and promote partnership working with other health focused agencies within the District.

1.3 Relationship of HIA with Other Assessments of the City Centre Area Action Plan

There are a number of other assessments being undertaken in support of the BCC AAP, including:

- Ecological Appraisal;
- Green Infrastructure Study;

- Level 2 Strategic Flood Risk Assessment;
- Transport Study;
- Growth Assessment;
- Local Infrastructure Plan Update; and
- Masterplans and Strategic Development Frameworks for key sites and development areas.

These assessments will all help to provide the supporting evidence base for the BCC AAP to ensure that the policies and sites allocated for development have been based on sound evidence based choices. The BCC AAP will build upon the policies in the overarching Core Strategy, which sets out the development framework for the whole of Bradford.

A Sustainability Appraisal (SA) of the draft BCC AAP has been undertaken and this includes a number of SA assessment objectives relevant to health, including:

- To improve the quality, range and accessibility of community services and facilities;
- To protect, maintain and enhance areas of open space and ensure effective access to open space;
- To reduce the risk of flooding and the resulting detriment to public wellbeing;
- To reduce air pollution and ensure air quality continues to improve;
- To improve health, reduce health and inequalities and promote healthy living; and
- To help create and sustain safe, vibrant and cohesive communities.

A HIA has also been undertaken of the Core Strategy. This was undertaken for the Core Strategy Further Engagement Draft and has been considered here as part of the preparation of the BCC AAP HIA.

1.4 Report Contents

This HIA Report is structured as follows:

- **Executive Summary** - Provides a summary of the HIA Report, including information on both the draft BCC AAP and the resulting assessment;
- **Section 1**: Introduction - Includes a summary of the draft BCC AAP, an overview of HIA, an outline of the report contents and details of how to respond to the consultation;
- **Section 2**: HIA Methodology - Provides an outline of the approach to the assessment, including a summary of the stages, the assumptions used, and any technical difficulties encountered in completing the assessment;
- **Section 3**: BCC AAP – Provides an overview of the AAP;
- **Section 4**: Context and Baseline - Provides details of a review of the relevant health plans and policies and the baseline conditions and summarises the key issues relevant to the assessment of the BCC AAP;
- **Section 5**: Screening of the strategic objectives;
- **Section 6**: Scoping of Impacts - Outlines the range of health impacts likely to arise from the implementation of the draft BCC AAP;
- **Section 7**: Assessment of Major Impacts – Assesses the major health impacts of the policies and proposals of the draft BCC AAP and the extent to which any positive impacts can be improved and any negative impacts avoided; and

- **Section 8**: Conclusions and Key Findings - Summarises the main impacts and presents views on implementation and monitoring.

1.5 Commenting on this HIA Report

This HIA Report is being issued for public consultation between **XXX 2015** and **YYYY 2015 alongside the draft BCC AAP**. Details of how to respond to the consultation are provided overleaf.

2. The Health Impact Assessment Process

2.1 Overview

In completing the HIA, the following stages have been undertaken, consistent with the Government guidance[2]:

- Establish the policy context and gather relevant baseline information;
- Screening;
- Scoping;
- Assessment; and
- Recommendations and proposals for monitoring.

These stages are described in **Section 2.2**.

2.2 Health Impact Assessment Stages

Overview of HIA process

The first part of this report sets out some background to the BCC AAP Preferred Approach. The policy context and relevant baseline information are then set out to provide context for this HIA. The BCC AAP Preferred Approach document is then screened to determine if there are likely to be any health impacts. Detailed assessment of the AAP is then carried out and any recommendations detailed to mitigate any potential adverse health impacts identified.

Policy Context and Gather Baseline Information

Public health plans and policies relevant to the HIA have been reviewed to ensure that policy objectives and aims relevant to the BCC AAP and HIA, and any identified communities or sectors of the community, are included within the assessment. Relevant information relating to demographic and health characteristics has also been gathered for the AAP area. Collectively, the policy review and baseline information provide the contextual information necessary to inform the assessment.

Screening

The AAP aims to provide policies and development proposals that ensure that the City Centre becomes a major destination in the wider region, providing over 3,500 new homes, supported by new businesses, retail, leisure and community facilities and support for the University of Bradford. All of this development will be delivered in the six neighbourhoods in the City Centre. This will have a range of community health benefits from employment and improved housing, and potentially other effects from increased traffic congestion, and so the draft BCC AAP has been screened into the HIA process.

More detailed HIA screening has subsequently been undertaken of the draft BCC AAP to determine whether it is necessary to proceed towards a more comprehensive assessment. To complete the screening, the 8 strategic objectives have been assessed against the following key questions (as used in the HIA of the Core Strategy) to determine the overall relationship between the AAP and health impacts and outcomes:

- Will the Strategic Objective have a direct or indirect impact on health of the various communities? (covering the Government guidance screening questions 1 and 2 and the Public Health Outcomes Framework, see **Section 4** for more details);

[2] Department of Health (2010) *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*.

- Is the Strategic Objective likely to reduce health inequalities? (covering the Marmot Review and the Joint Health and Wellbeing Strategy, see **Section 4** for more details); and
- Will there be a change in demand for, and/or access to, health and social care services? (covering the Government guidance screening questions 5 and the Rainbow Model, see **Section 4** for more details).

The results of the screening process, including a brief explanation of any evidence and advice used to make the judgements contained therein, are presented in **Section 5**.

Scoping

The HIA screening confirmed that the draft BCC AAP should be subject to further assessment stages of the HIA. Scoping identifies the range of health impacts that could arise from the draft BCC AAP policies, drawing on the relevant scientific evidence from past HIAs and other literature. The health impacts of each policy have been scored using a traffic lights matrix against the following key receptors (identified in the Government guidance, and considered relevant from an analysis of the baseline):

- Children & Young (0 yr – 18yrs);
- Older People (65+ years);
- People with physical or mental impairments;
- Minority Ethnic;
- Low Income; and
- Refugees & Travellers.

Commentary is provided for each policy. The results of the scoping exercise are presented in **Section 6**.

Those aspects of the policies identified as having potentially adverse effects on receptors or likely to have major impacts on health outcomes have been taken forward for further consideration in the assessment.

Additionally, the compatibility of the proposed BCC AAP policies in relation to the 18 key priorities of the JHWS and Health Inequality Action Plan have been assessed to analyse how well, or otherwise, the AAP policies complement the aims of the JHWS and Health Inequality Action Plan.

Assessment

For those health impacts identified during scoping that are considered significant, further more detailed assessment has been completed. This draws on the community profile information as appropriate, however remains predominately qualitative, commensurate with the detail in the policies that have been assessed.

Summary

In summary, the screening, scoping and assessment tasks that have been completed are as follows:

- The public health plans and policies relevant to the HIA have been reviewed (**Section 4**);
- A summary of health and wellbeing and a community profile for Bradford City Centre has been compiled (**Section 4**);
- The draft BCC AAP objectives have been screened to determine whether further assessment is required based on the relationships between objectives and key questions identified (**Section 5**);
- The range and scope of health impacts that could arise from the BCC AAP have been considered, drawing on the relevant scientific evidence from past HIAs and other literature (**Section 6**);

- The potential impacts of the draft BCC AAP on health and wellbeing have been assesses and those impacts that could have important health outcomes for the planned new communities and the adjacent existing communities in the area have been determined (**Section 7**);
- The potential differential distribution effects of health impacts among groups within the population have been determined by asking 'who is affected?' for the impacts identified (**Section 7**);
- Recommendations that aim to minimise any potential negative health impacts and maximise potential positive health impacts have been identified, referencing where possible the most affected vulnerable group(s) (**Section 8**); and
- Health and wellbeing indicators have been proposed that can be used to monitor the implementation and operation of the BCC AAP (**Section 8**).

The overall approach to completing the HIA has been informed by Government guidance[3] and by referencing to emerging practice[4]. The stages reflect terminology and interpretations provided by the Government guidance.

2.3 Assessment Details

Study Area

The geographic scope of this HIA was the area covered by the BCC AAP (see **Section 3 and Figure 3.1**).

Study Population

The study population included within this HIA relates to the Bradford City Ward. Further contextual information is provided with reference to the wider Bradford City population and national performance for key indicators. A community profile is provided in **Section 4.3**.

The principal key receptors considered by the assessment are:

- Children & Young (0 yr – 18yrs);
- Older People (65+ years);
- People with physical or mental impairments;
- Minority Ethnic;
- Low Income; and
- Refugees & Travellers.

Consultation and Involvement

There was no community consultation undertaken in the preparation of this HIA. A formal consultation on the HIA will, however, take place as part of the wider consultation on the draft BCC AAP and accompanying SA.

When the HIA was Undertaken and by Whom

This HIA has been undertaken by consultants from Amec Foster Wheeler working in conjunction with officers from the City of Bradford Metropolitan District Council Development Plan Team through the spring and early summer of 2015.

[3] Department of Health (2010), 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

[4] http://www.apho.org.uk/default.aspx?QN=P_HIA

2.4 Technical Difficulties

The HIA process is relatively new, particular in the context of spatial planning but the ideas underlying it are not. Its use in decision making settings is rapidly increasing. Specific methodologies for the implementation of HIA are still being developed and there are no specific or well defined guidelines for practitioners in local plan preparation. Although the methodology is not prescribed, it is informed by international best practice and the focus is determined by the nature of the policy, plan, programme, project or development which is being assessed.

Uncertainties and Assumptions

This HIA has been undertaken based on several uncertainties and assumptions, as detailed below:

Uncertainties

- Whilst there is substantial detail in the draft BCC AAP regarding the amount of development proposed and the expected development for the site allocations, there is still some uncertainty around the exact timing of when development will occur (and the health impacts of this) given that the AAP is forward looking until 2030.

Assumptions

- As part of the assessment of the health impacts of the policies there have been some assumptions made around car use. For example, where highway improvements are proposed it has been assumed that there would be a resultant increase in car and HGV use and an increase in vehicle emissions, with subsequent adverse health impacts (notwithstanding other policies in the plan promoting use of sustainable transport options);
- The levels of housing and economic development proposed in the draft BCC AAP are consistent with current needs, and that present challenges in achieving sustained economic recovery have not affected assessment of need;
- It is assumed that the development proposed in CL1 and the strategic sites will overall result in an increase in car ownership within the Corridor, and result in increased use and HGV use and subsequent knock on adverse effects in relation to air quality and human health;
- It is assumed that current energy mix will continue (and associated carbon emissions will be largely similarly to current), although it is noted that against carbon trajectories provided by the Department of Energy and Climate Change this may lead to an overestimate of carbon emissions; and
- It is assumed that there will be no new technological leaps that will substantially alter current patterns of movement, or activities or significantly reduce health impacts.

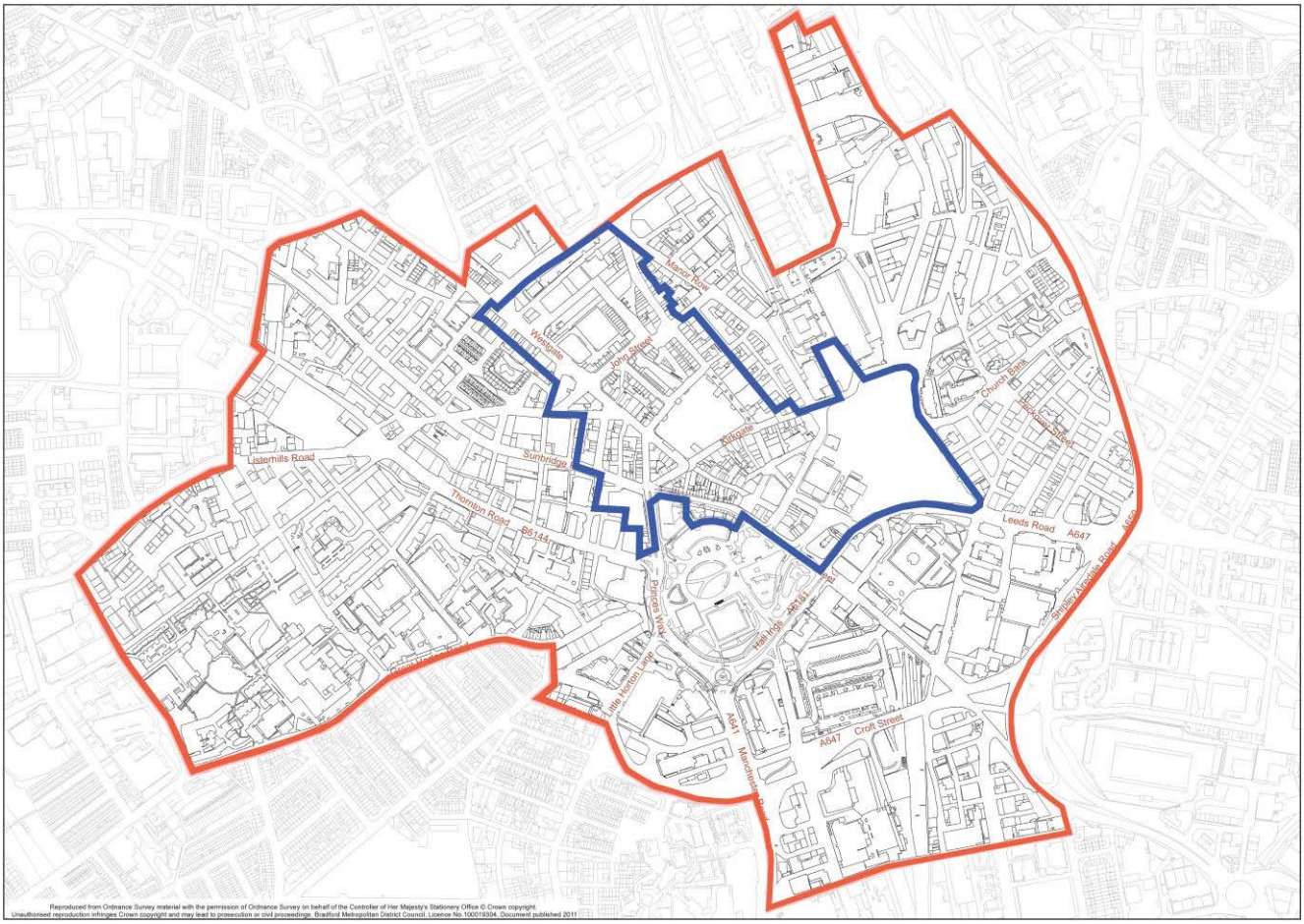
3. The Bradford City Centre Area Action Plan

3.1 Introduction

The BCC AAP will set out planning policies to guide development proposals in the city centre, along with details of how these proposals will be delivered. The draft BCC AAP comprises of a vision, 8 strategic objectives, 18 planning policies and 41 site allocations.

The boundary of the BCC AAP is shown in **Figure 3.1** and the area covered by the draft BCC AAP includes the main shopping, civic and entertainment core of the centre and also more peripheral areas such as Little Germany, Goitside, and the College and University campuses. The blue line boundary is the proposed Primary Shopping Area boundary, in which retail development will be concentrated and will include primary and secondary shopping frontages.

Figure 3.1 Map of the Area Covered by the Bradford City Centre Area Action Plan



3.2 Vision

The vision for the city centre as set out in the draft BCC AAP is reproduced below:

> *"The city centre is now a major destination in the wider region, offering a different experience to other cities. The City is the focal point for leisure, office, retail and apartment development, and has become the place residents and visitors want to live, work and socialise.*
>
> *Redevelopment of the City Centre has seen the sensitive renovation and flexible reuse of historic buildings in Little Germany and Goitside for residential and employment.*
>
> *New build development has incorporated the use of high quality design, which respects the heritage of the city's architecture, and is of the highest viable environmental standards.*
>
> *The City Centre Area Action Plan has helped to safeguard and enhance the city's important cultural assets of the Alhambra, St. Georges Hall, National Media Museum and many more.*
>
> *The City Centre now also benefits from enhanced integrated transport through the delivery of two newly developed railway stations at the Interchange and Forster Square, with enhanced pedestrian and cycle routes between these two major public transport hubs. In combination with other enhance public transport routes between Manchester City Centre and Airport; Bradford City Centre is now more connected and accessible than ever before.*
>
> *The plan has also aided in improving green infrastructure in the city centre by encouraging the formulation of new open spaces, public realm improvements including extensive tree planting and ecological improvements. The plan has built upon the success of the new City Park and the New Market Place by supporting the delivery of green linear spaces.*
>
> *The plan has not created a new city centre, but will enhance the existing great qualities and address the weaknesses to revitalise the core of the District."*

The vision provides a compelling description of an attractive destination, listing the elements that would make it a draw for visitors, residents and workers to 'live, work and socialise'. It reflects the importance of the City Centre in terms of visitors (with more than 1.2 million visitors per year to the top tourist attractions, including the Alhambra and National Media Museum), the growth in the city centre population over the last decade (from 934 in 2001 to 4,177 in 2011) and its future projection and the needs of the approximate 2,000 businesses employing 42,800 people in the city centre. It also echoes the City Plan focus on people, place, prosperity and property and specifically provides the planning framework to deliver a sustainable approach to the redevelopment of listed buildings, the creation of new developments, the preservation of important cultural assets, the design of the public realm and access to green space.

3.3 Strategic Objectives

The draft BCC AAP sets out that the vision for Bradford City Centre will be achieved through the following 8 strategic objectives:

1. **A unique, high quality shopping and leisure experience reflecting the city's cultural mix -** This will build on the success of the City Park by enhancing the night time leisure offer and providing the framework for the delivery of major new retail in the centre. The plan will support the cultural leisure offers of the National Media Museum, Alhambra, St. Georges Hall etc, through facilitating land supply for future expansion and supporting the heritage identity of the City.
2. **An attractive, inclusive and safe environment -** This will see the maintenance and expansion of the public realm improvements throughout the city centre. There will also be a focus on reducing the fear of crime during night time hours in the centre, by enhancing CCTV and policing provision, and encouraging greater evening activity in the city through more city living and the night time leisure offer.
3. **Imaginative reuse of the architectural heritage alongside new development of high quality sustainable design -** Architectural design of new buildings and the reuse of historic buildings will be

a mix of contrast and respect. We will strive for high quality design, balanced with maximum functionality and the best viable environmental standards, including sustainable methods of remediation of historically contaminated sites.

4. **A range of good quality housing and facilities to cater for a successful city centre community – Delivery of 3,500 homes in the city centre, providing** a range of housing sizes and tenancies through the allocation of land and land use policies, to ensure city living is available to all residents of Bradford and beyond. New homes will be built to the highest viable and feasible design and construction standards and supported with convenience retail and services within and surrounding the city centre, ensuring they form part of a development or are easily accessible.

5. **A thriving economy with new office developments, and a growth in innovative and creative industries through technological enhancements through technological enhancements -** The priority will be to maintain existing and attract new businesses into the city centre, through the delivery of new Grade A office space in the Business Forest and other office development throughout the centre. The super connected cities programme will deliver superfast broadband and cloud technology in the centre to attract business and industries looking for the best communications infrastructure in the country. Links with the University will also continue to be strengthened to promote Bradford City Centre as a hub for innovative and creative industries.

6. **An enhanced higher education campus, with the University and College forming an integral part of the city centre -** Links with the higher education campuses will continue to be strengthened through better transport routes, the delivery of key regeneration projects and the development of residential property within the centre. This will create a more welcoming centre for students visit and socialise. The growth of existing and new businesses / industries will also aid in graduate retention within the District.

7. **Easy access to and around the centre for all sections of the community, and a reduction in issues caused by through traffic problems by supporting sustainable transport measures and integrated transport -** Access to the city centre by private motor vehicles is still considered very important, for providing easy access to shops, offices and leisure facilities. There is a need to balance the need for short term / stay access, and the need to ease congestion and pollution within the centre. The plan will put forward the Council's car parking strategy for the centre. The plan is committed to continued improvement of public transport into and around the city centre, led by major improvements to the railway stations. The expansion of the public realm improvement scheme and improvements to signing, will aid in pedestrian access and way finding around the centre. Improvements will also be made to cycling facilities tied into to the ongoing development of National Cycle Route 66.

8. **An enhanced natural environment with improved green infrastructure, water management and biodiversity -** All new open space will incorporate significant levels of planting (where appropriate) to encourage wildlife in the city centre and aid in the overall quality of life of the resident and visitors. Other environmental and green infrastructure solutions may also include the use of rooftop gardens, green roofs, on street tree planting and the reopening of watercourses.

3.4 Policies

The draft BCC AAP contains 18 policies covering a range of issues across the following chapters:

- City Living and Community Provision;
- Shopping and Leisure;
- Business;
- Further and Higher Education;
- Movement;
- Built Form; and

- Public Realm.

Box 3.1 below provides a full list of the policies in the draft BCC AAP.

BCC AAP Preferred Approach Policies
Policy CL1 - Housing
Policy CL2 – Flood Risk
Policy CL3 – Active Frontages and Community Provision
Policy CL4 – Supporting Education Provision
Policy SL1 – City Centre Primary Shopping Area
Policy SL2 – Primary and Secondary Shipping Frontages
Policy SL4 – Improving the Connections between Shopping Areas
Policy SL5 – Cultural Assets
Policy B1 – The Need to Deliver Forecast Jobs Growth within the City Centre
Policy ED1 – Promotion of the Campus Zone / Learning Quarter
Policy M1 – Streets and Space
Policy M2 – Provision of Public Transport Services and Infrastructure (Including Taxis)
Policy M3 – Traffic, Highways and Parking
Policy M4 – Impact of New Development upon the Transport Network
Policy M5 – Biodiversity in the City Centre
Policy M6 – Green Infrastructure and Open Space within the City Centre
Policy BF1 – The Nature of the Built Form
Policy BF2 – Built Form and use of Natural Resources

3.5 Site Allocations

In addition to the above policies, there are also 41 sites in the draft BCC AAP which have been allocated for a variety of uses including:

- Housing;
- Economic development;
- Educational facilities;
- Town centre redevelopment opportunities in Bradford City Centre; and
- New retail development.

4. Health Policy Context and Baseline

4.1 Introduction

The following section outlines some of the key policy and plan drivers for health improvements and the relationship with the built environment. These are discussed briefly and are then be reflected, where appropriate, in the health issues considered relevant to the assessment of the draft BCC AAP (**Section 4.4**).

The section also provides a brief review of the socio-economic baseline, with a particular focus on public health in order to identify key issues relevant to the assessment and to provide context for the assessment.

4.2 Review of Plans and Policies

The Marmot Review

The Marmot Review[5] (Fair Society, Healthy Lives) was commissioned by the Secretary of State for Health in November 2008 and the final report was published in February 2010. The review showed that socio-economic inequalities, including the built environment, have a clear effect on the health outcomes of the population. It confirmed that there is a social gradient in health, and related to that, that there is a social gradient in environmental disadvantage.

The review proposed 6 policy objectives and related interventions aimed at reducing the gap in life expectancy between people of lower and higher socio-economic backgrounds. The 6 key policy objectives are:

- Give every child the best start in life;
- Enable all children, young people and adults to maximise their capabilities and have control over their lives;
- Create fair employment and good work for all;
- Ensure a healthy standard of living for all;
- Create and develop healthy and sustainable places and communities; and
- Strengthen the role and impact of ill health prevention.

Spatial planning was identified as having effects across all the objectives, but it was the effect in particular on the fifth objective, which focuses on places and communities, where the relationship is particularly strong. Issues identified as being related to this objective and having a spatial planning component included:

- Pollution;
- Green/open space;
- Transport;
- Food;
- Housing; and
- Community participation and social isolation.

In September 2014, the Institute of Health Equity launched the Marmot Indicators[6], which provide a new suite of indicators of the social determinants of health, health outcomes and social inequality which broadly

[5] The Marmot Review (2010), Strategic Review of Health Inequalities in England Post 2010, 'Fair Society, Healthy Lives
[6] http://www.instituteofhealthequity.org/projects/marmot-indicators-2014

correspond to the 6 policy objectives proposed in Fair Society, Healthy Lives. These indicators include (but are not limited to):

- Healthy life expectancy at birth - males and females;
- Life expectancy at birth - males and females;
- Inequality in life expectancy at birth - males and females;
- People reporting low life satisfaction;
- GCSE achieved (5 A* - C including English and Maths);
- GCSE achieved (5 A* - C including English and Maths) with free school meal status;
- 19-24 year olds who are not in employment, education or training;
- Unemployment % (ONS model-based method);
- Fuel poverty for high fuel cost households; and
- Percentage of people using outdoor places for exercise/health reasons.

The Public Health Outcomes Framework

Since 2010, the Department of Health has published three 'outcomes frameworks' for the three key aspects of the health service:

- Public Health Outcomes Framework[7];
- NHS Outcomes Framework[8]; and
- Adult Social Care Outcomes Framework[9].

The outcomes frameworks set out the desired outcomes for a particular healthcare system and how these outcomes will be measured.

Each of the outcomes frameworks has a number of main areas, or 'domains', where the Government would like to see improvement. For example, the Public Health Outcomes Framework prioritises reduction of health inequalities through improving the wider determinants of health, such as contributing to reducing re-offending. The NHS Outcomes Framework, meanwhile, has a domain covering helping people to recover from episodes of ill health or illness. The Adult Social Care Outcomes Framework includes a domain that focuses on delaying and reducing the need for care and support.

In terms of undertaking a HIA, the most important of these frameworks is the Public Health Outcomes Framework. The Public Health Outcomes Framework consists of two overarching outcomes that set the vision for what the whole public health system wants to achieve for the public's health. The outcomes are:

- Increased healthy life expectancy (taking account of the health quality as well as the length of life); and
- Reduced differences in life expectancy and healthy life expectancy between communities (through greater improvements in more disadvantaged communities).

The Framework is not just about extending life, it also covers the factors that contribute to healthy life expectancy including, importantly, what happens at the start of life and how well we live across the life

[7] Department of Health (2012). Public Health Outcomes Framework.
http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_132358
[8] Department of Health (2013), NHS Outcomes Framework 2014 to 2015
https://www.gov.uk/government/publications/nhs-outcomes-framework-2014-to-2015
[9] Department of Health (2014). Adult Social Care Outcomes Framework (ASCOF) 2015 to 2016
https://www.gov.uk/government/publications/adult-social-care-outcomes-framework-ascof-2015-to-2016

course. The two outcomes together underpin the overall vision to improve and protect the nation's health while improving the health of the poorest fastest.

These two outcomes will be delivered through improvements across a broad range of public health indicators grouped into four domains:

- Improving the wider determinants of health (with the objective, 'improvements against wider factors that affect health and wellbeing, and health inequalities');
- Health improvement (with the objective, 'people are helped to live healthy lifestyles, make healthy choices and reduce health inequalities);
- Health protection (with the objective, 'the population's health is protected from major incidents and other threats, while reducing health inequalities); and
- Healthcare public health and preventing premature mortality (with the objective, 'reduced numbers of people living with preventable ill health and people dying prematurely, while reducing the gap between communities').

Dahlgren and Whitehead 'Policy Rainbow'

The Dahlgren and Whitehead (1991) 'Policy Rainbow'[10] captures the range of factors that influences the health and well-being of individuals and populations across all age groups (both within and outside the individual's control). This model describes the layers of influence of the wider determinants of health on an individual's potential for health. These combine those factors that are fixed, such as age, sex and genetics, and a set of potentially modifiable factors such as: personal lifestyle, the physical and social environment and wider socio-economic, cultural and environment conditions. These variable factors are presented as concentric rings around the fixed factors (hence the rainbow description). This framework has helped researchers to construct a range of hypotheses about the determinants of health, to explore the relative influence of these determinants on different health outcomes and the interactions between the various determinants.

In the context of this HIA, the model is important because it gives a framework for looking at the impact of the draft BCC AAP on the modifiable determinants within the model and therefore gives an indicator of likely future impacts of individual policies on the health of the District in the future. It is thus a good indicator of the impact on both the population's future health needs and the likely impact on demand for health from health services.

National Planning Policy Framework

The link between planning and health has been long established and the built and natural environments are major determinants of health and wellbeing. The importance of this role is highlighted in the promoting health communities section of the National Planning Policy Framework[11] (NPPF). This is further supported by the three dimensions to sustainable development (see NPPF paragraph 7) and the National Planning Practice Guidance[12] (NPPG).

Further links to planning and health are found throughout the whole of the NPPF. Key areas include the core planning principles (see NPPF paragraph 17) and the policies on transport (see NPPF chapter 4), high quality homes (see NPPF chapter 6), good design (see NPPF chapter 7), climate change (see NPPF chapter 10) and the natural environment (see NPPF chapter 11).

Chapter 8 of the NPPF seeks to promote healthy communities and states that *'the planning system can play an important role in facilitating social interaction and creating healthy, inclusive communities'* and that *'local planning authorities should aim to involve all sections of the community in the development of Local Plans and in planning decisions'*.

[10] http://www.nwci.ie/download/pdf/determinants_health_diagram.pdf
[11] https://www.gov.uk/government/publications/national-planning-policy-framework--2
[12] http://planningguidance.planningportal.gov.uk

This section of the NPPF also highlights the important role that planning policies can play in the delivery of the social, recreational and cultural facilities and services communities need.

Paragraph 171 of the NPPF states in relation to health and well-being that *'Local planning authorities should work with public health leads and health organisations to understand and take account of the health status and needs of the local population (such as for sports, recreation and places of worship), including expected future changes, and any information about relevant barriers to improving health and well-being.'*

Joint Strategic Needs Assessment[13]

A Joint Strategic Needs Assessment (JSNA) draws together information about a population in order to identify the most important health and well-being issues and help local decision-makers to make informed decisions about how to address these issues and at the same time reduce inequalities. Completing a JSNA is a duty placed on all upper tier local authorities by the Local Government and Public Involvement in Health Act (2007).

The JSNA for Bradford provides information on:

- The population of Bradford District;
- The wider determinants of health and well-being;
- Children and young people;
- Adults of working age and over; and
- Issues specific to older people.

It is a 'living' document, with different sections updated at different times across the course of a year. Inevitably, this means that some sections have been updated more recently than others, and there is never a truly "current" version of the JSNA as a whole.

Some of the issues identified by the JSNA include:

- In recent years, the population of Bradford and District has grown; the District is home to more young people, more old people, and is more ethnically diverse than ever before. Additionally, there are high levels of deprivation, and a particularly wide gap between the most and least deprived parts of the District;
- There are around 40,000 children aged four and under in the District, and numbers are rising. 70% of these children live in the 30% most deprived areas nationally;
- The key health and well-being challenges for those of working age are chronic conditions and their consequences. In the main, these diseases are a consequence of unhealthy lifestyles. It is also clear that social, economic and environmental factors have a direct impact on health status and can exacerbate existing ill health;
- The Bradford and District population is increasing at both ends of the age range which means that there will be more people aged over 65. Demand for services is still likely to increase as current forecasts suggest there will be 83% more people aged over 85 by 2030. This increase of nearly 9,000 people is the biggest forecast growth in numbers across all the different age brackets.

[13] http://www.observatory.bradford.nhs.uk/pages/jsna.aspx

The Joint Health and Wellbeing Strategy[14]

The Health and Social Care Act 2012[15] requires Joint Health and Wellbeing Boards to prepare a Joint Health and Wellbeing Strategy (JHWS) to set out the health and wellbeing priorities for a local authority area. The strategy should support the translation of the findings of the Joint Strategic Needs Assessment into the strategic planning and commissioning of integrated local services. The Bradford and Airedale Joint Health and Wellbeing Strategy (JHWS)[16] outlines how the Board aims to contribute to the improvement of the people of Bradford's health, wellbeing and quality of life. The aim of the JHWS is to give local partners a set of jointly agreed priorities to work on together in the new health and social care system.

The Joint Health and Wellbeing Board have adopted the whole life approach taken by Sir Michael Marmot in 'Fair Society, Healthy Lives' to produce the Joint Health and Wellbeing Strategy (JHWS). The Strategy sets out the 18 priorities for action grouped under the six policy objectives described by Marmot (shown in **Table 4.1** below).

Table 4.1 Joint Health and Wellbeing Priorities

Marmot Review Objectives	JHWS Priorities for Action
Give every child the best start in life.	▶ Reduce and alleviate the impact of child poverty; ▶ Reduce infant mortality; ▶ Promote effective parenting and early years development.
Enable all children, young people and adults to maximise their capabilities and have control over their lives.	▶ Ensure young people are well-prepared for adulthood and work, with a focus on helping children with disabilities to maximise their capabilities; ▶ Reduce childhood obesity and increase levels of physical activity and healthy eating in children and young people; ▶ Improve oral health in the under 5's; ▶ Improve the mental health of people in Bradford; ▶ Improve health and wellbeing for people with physical disabilities, learning disabilities, sensory needs and long term conditions; ▶ Improve diagnosis, care and support for people with dementia and improve their, and their carers', quality of life; and ▶ Promote the independence and wellbeing of older people.
Create fair employment and good work for all.	▶ Increase employment opportunities and training; ▶ Promote healthier lifestyles in the workplace.
Ensure a healthy standard of living for all.	▶ Create the economic, social and environmental conditions that improve quality of life for all.
Create and develop healthy and sustainable places and communities.	▶ Deliver a healthier and safer environment; ▶ Decent homes and affordable warmth; and ▶ Enhance social capital and active citizenship.
Strengthen the role and impact of ill-health prevention.	▶ Reduce harm from preventable disease caused by tobacco, obesity, alcohol and substance abuse; and ▶ Reduce mortality from cardiovascular disease, respiratory disease and cancer.

[14] Bradford and Airedale Health and Wellbeing Board (2013), Good Health and Wellbeing Strategy to improve health and wellbeing and reduce health inequalities 2013 – 2017 http://www.observatory.bradford.nhs.uk/Documents/Bradford%20and%20Airedale%20Joint%20Health%20and%20Wellbeing%20Strategy%202013.pdf

[15] http://www.legislation.gov.uk/ukpga/2012/7/contents/enacted

[16] http://www.observatory.bradford.nhs.uk/Documents/Bradford%20and%20Airedale%20Joint%20Health%20and%20Wellbeing%20Strategy%202013.pdf

Bradford Health Inequalities Action Plan 2013-17

The Bradford Health Inequalities Action Plan[17] 2013-17 is intended to be read alongside the JHWS summarised above as it will help to ensure that, as Bradford strives to improve the health and wellbeing for the whole population of District, it also remains mindful of the significant inequalities within the District – the fact that in some parts of the District, people lead far shorter, less healthy lives than those in other areas.

Through wide consultation with partnerships across the District, each of the priorities within the JHWS has an agreed set of commitments (action points) that will be delivered against to reduce inequalities in that particular area of health and wellbeing. Full details of these action points can be found in this Inequalities Action plan which is available at:

http://www.observatory.bradford.nhs.uk/Documents/Bradford%20and%20Airedale%20Health%20Inequalities%20Action%20Plan%202013.pdf

Bradford District Public Health Outcomes Framework Performance Report

The Bradford District Public Health Outcomes Framework (PHOF) Performance Report[18] provides an overview of local performance based on the Public Health Outcomes Framework (PHOF), where Bradford compares unfavourably with the region and/or England as whole. The report sets out the activity of the Public Health department in addressing health inequalities in the District as well as how the transition of Public Health to the Local Authority has impacted on this work.

The PHOF, a key driver of Public Health at both a national and local level, came into effect on 1st April 2013 as part of new health and social care reforms which gave local authorities responsibilities for the health of their population. The PHOF sets out the desired outcomes for Public Health and how these will be measured. The framework covers a period from 2013 to 2016, and together with the Adult Social Care Outcomes Framework, and the NHS Outcomes Framework provides the structure for measuring improvement across the health and social care system.

The purpose of the PHOF is to provide transparency and accountability across the Public Health system, setting out opportunities for local partnerships to improve and protect health and improve services.

2nd Annual Report from Health and Wellbeing Board

The 2nd Annual Report[19] from the Bradford and Airedale Health and Wellbeing Board outlines the development of the Health and Well Being Board (herein after referred to as the Board) in its second year of operation as the governance board that holds responsibility for the leadership of Health and Wellbeing across the District.

The report includes details of the findings of an invited peer challenge of the District's Health and Wellbeing arrangements and the future development plans for the Board including the creation of a new framework for managing performance outcomes.

This report notes that the main challenges for the Board in 2015/6 are the following:

a. To continue to develop the strategic focus on health inequalities across the District; leading focused partnership action to reduce health inequalities, with particular reference to the six priority areas for action as agreed at Council Executive on 13th January 2015;

b. To address the recommendations of the peer challenge, using development time across member organisations that will meet the challenge of leading the transformation and integration agenda for the health and social care economy across the District;

[17] http://www.observatory.bradford.nhs.uk/Documents/Bradford%20and%20Airedale%20Health%20Inequalities%20Action%20Plan%202013.pdf

[19] http://www.cnet.org.uk/bradford-district-assembly/Health-and-Wellbeing-Forum/Representatives-and-Feedback/HWBBoard_Feedback

c. To progress at greater scale and pace the integration of health and social care systems across the Bradford district so that citizens will experience the positive difference and the system will benefit from the efficiencies and wider benefits of a joined up integrated approach to the commissioning and delivery of health and social care services;

d. To build on the positive relationships fostered between Board members with a particular emphasis on supporting the above challenges, emerging joint work and fostering joint commissioning when appropriate; and

e. Developing a clear and detailed performance framework that will allow the Board to review progress against identified priorities, including the Health Inequality Action Plan, the peer review outcomes and other statutory commitments expected.

Bradford Community Strategy for Bradford District 2011-14

The Community Strategy for Bradford[20] sets out the big issues the District faces and priorities to address them. To deliver the strategy's vision, three transformational priorities were agreed:

- Regenerating the city centre;
- Improving education; and
- Developing people's skills.

The 2020 vision is broken down into four broader outcomes for the District, which includes the following in relation to health and well-being: "***Improving the health, wellbeing and quality of life:*** *Bradford's people experience improving good health, wellbeing and quality of life, irrespective of their community, background or neighbourhood."*

This outcome will be delivered through the following strategic aims:

- To improve people's capacity to make informed decisions about healthy lifestyle choices and minimise risky behaviour;
- To close the health inequalities gap, while raising wellbeing levels across the whole district; and
- To support people to sustain their own health and wellbeing during life changes or transitions in circumstances.

4.3 Baseline

The following sub-sections provide a brief socio-economic baseline profile of Bradford District and Bradford City Centre to help provide context for the HIA of the draft BCC AAP.

Bradford District

Population

According to the 2011 Census, the population of the District was 522,500, representing an increase of 11% since 2001 compared with an average increase for England and Wales of 7.1%. This population increase is related to high birth rates in the District and longer life expectancy. Bradford District has become more ethnically diverse since 2001. Using the Office for National Statistics (ONS) category descriptions from the census, the largest ethnic group in the Bradford District is White British which accounts for 64% of the population (a decrease from 76% in 2001). According to the ONS, Bradford District now has the largest proportion of people of Pakistani ethnic origin (20.4%) in England. There are also increasing numbers of

[20] Bradford District Partnership. Community Strategy 2011-14 for Bradford District. May 2012. https://www.bradford.gov.uk/NR/rdonlyres/4E31EC78-923A-47A2-BC81176CA1BD8554/0/CommunityStrategy1114.pdf

people from Bangladeshi, mixed multiple ethnic groups, Other Asian, Black/African/Caribbean/Black British and other ethnic groups. The projected population increases, in particular in older populations, will increase demand for health and social care services. Careful planning and commissioning is required to ensure that services are ready to meet this demand whilst also responding to the changing characteristics of the population.

The 2010-based subnational population projections are the latest population projection figures available. These show that the population of Bradford is projected to increase by 99,100, over the 25 year period, to 604,000 persons in mid-203521.Health, Wellbeing and Life Expectancy.

The distribution of health and wellbeing is determined by a wide variety of individual, community and environmental factors. In most communities, the distribution of health and access to healthcare is not equal, leading to inequalities in health. Health and wellbeing can be influenced by factors such as deprivation, gender and ethnicity. Each of these can lead to inequalities in health and wellbeing.

In Bradford, around 45% of the Bradford District population live in areas within the 20% most deprived in England. These higher levels of deprivation have a significant impact on the health needs of the population, with Bradford having higher levels of chronic disease than neighbouring areas. Areas of particular concern are cardiovascular disease, diabetes and respiratory disease. The local population also does not follow national trend with the majority of the population being younger, with a smaller proportion of older people.

Whilst life expectancy has improved in line with national and regional trends, it is still lower than the England average. Importantly, not everyone has benefited equally from these changes and within Bradford District, the differences in life expectancy between different areas can be stark. For example, people living in Wharfedale to the north of the district typically live about five years longer than people living in Tong in the south and life expectancy is 9.6 years lower for men and 8 years lower for women in the most deprived areas of Bradford than in the least deprived areas. In Bradford, there are more deaths as a result of smoking, more premature deaths from cancer, heart disease and stroke, and higher rates of mortality in children.

Priorities in Bradford include addressing health inequalities, reducing infant mortality, and reducing harm from preventable disease caused by tobacco, obesity, alcohol and substance abuse.

Bradford area faces a range of specific challenges. Amongst these is the fact that it sits within the 10% most deprived local authorities in the country. These higher levels of deprivation have a significant impact on the health needs of the population, with Bradford having higher levels of chronic disease than neighbouring areas. Areas of particular concern are cardiovascular disease, diabetes and respiratory disease. The local population also does not follow national trend with the majority of the population being younger, with a smaller proportion of older people.

Life expectancy in the District is 9.6 years lower for men and 8.0 years lower for women in the most deprived areas of Bradford than in the least deprived areas. The average life expectancy for men is 77 and women is 81[22].

Child Health

In Year 6, 22.3% (1,330) of children in the District are classified as obese, worse than the average for England. The rate of alcohol-specific hospital stays among those under 18 was 32.5 per 100,000, better than the average for England. This represents 45 stays per year. Levels of teenage pregnancy, GCSE attainment, breastfeeding and smoking at time of delivery are worse than the England average.

Statistics from the 2015 Bradford Health profile [23] show:

- There are higher numbers of obese children; and
- There is greater numbers of infant mortality.

[21] http://www.ons.gov.uk/ons/about-ons/business-transparency/freedom-of-information/previous-foi-requests/people--population-and-community/rise-of-the-population-in-bradford/index.html
[22] All statistics from Bradford Health profile 2015
[23] 2015 Bradford Health profile available at http://www.apho.org.uk/resource/view.aspx?RID=50215&SEARCH=B

Adult Health

In 2012, 26.7% of adults were classified as obese. The rate of alcohol related harm hospital stays was 787 per 100,000, worse than the average for England. This represents 3,700 stays per year. The rate of self-harm hospital stays was 261.7, worse than the average for England. This represents 1,420 stays per year. The rate of smoking related deaths was 354, worse than the average for England. This represents 825 deaths per year. Estimated levels of adult smoking were worse than the England average. The rate of TB was worse than average. The rate of sexually transmitted infections was better than average[24].

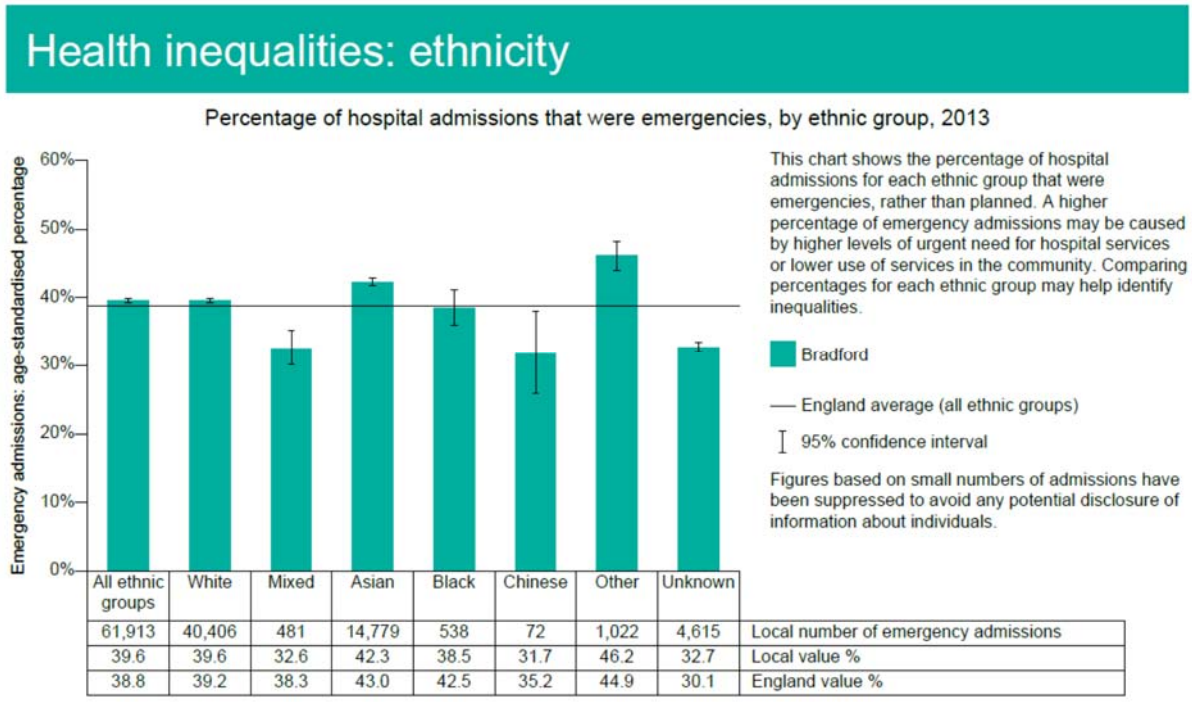
In 2015 the statistics from the Bradford Health[25] profile provides a number of statistics about the health of the population of Bradford:

- Lower number physically active adults compared to England as whole;
- More obese adults compared to England as a whole;
- Higher excess weight compared to England as a whole;
- Higher number of recorded diabetes;
- Higher rates of smoking, and hospital stays for alcohol related harm; and
- Lower life expectancy for males and females.
- Higher rates of smoking, and hospital stays for alcohol related harm; and
- Lower life expectancy for males and females.

Hospital Admissions

As can be seen from **figure 4.1** below, there are varying rates of hospital admissions for the different ethnic groups in Bradford, with rates higher for Asian and other ethnic backgrounds.

Figure 4.1 Health Inequalities Relating to Ethnicity in the Bradford District



All ethnic groups	White	Mixed	Asian	Black	Chinese	Other	Unknown	
61,913	40,406	481	14,779	538	72	1,022	4,615	Local number of emergency admissions
39.6	39.6	32.6	42.3	38.5	31.7	46.2	32.7	Local value %
38.8	39.2	38.3	43.0	42.5	35.2	44.9	30.1	England value %

[24] All statistics from Bradford Health profile 2015
[25] 2015 Bradford Health profile available at http://www.apho.org.uk/resource/view.aspx?RID=50215&SEARCH=B

Indices of Multiple Deprivation

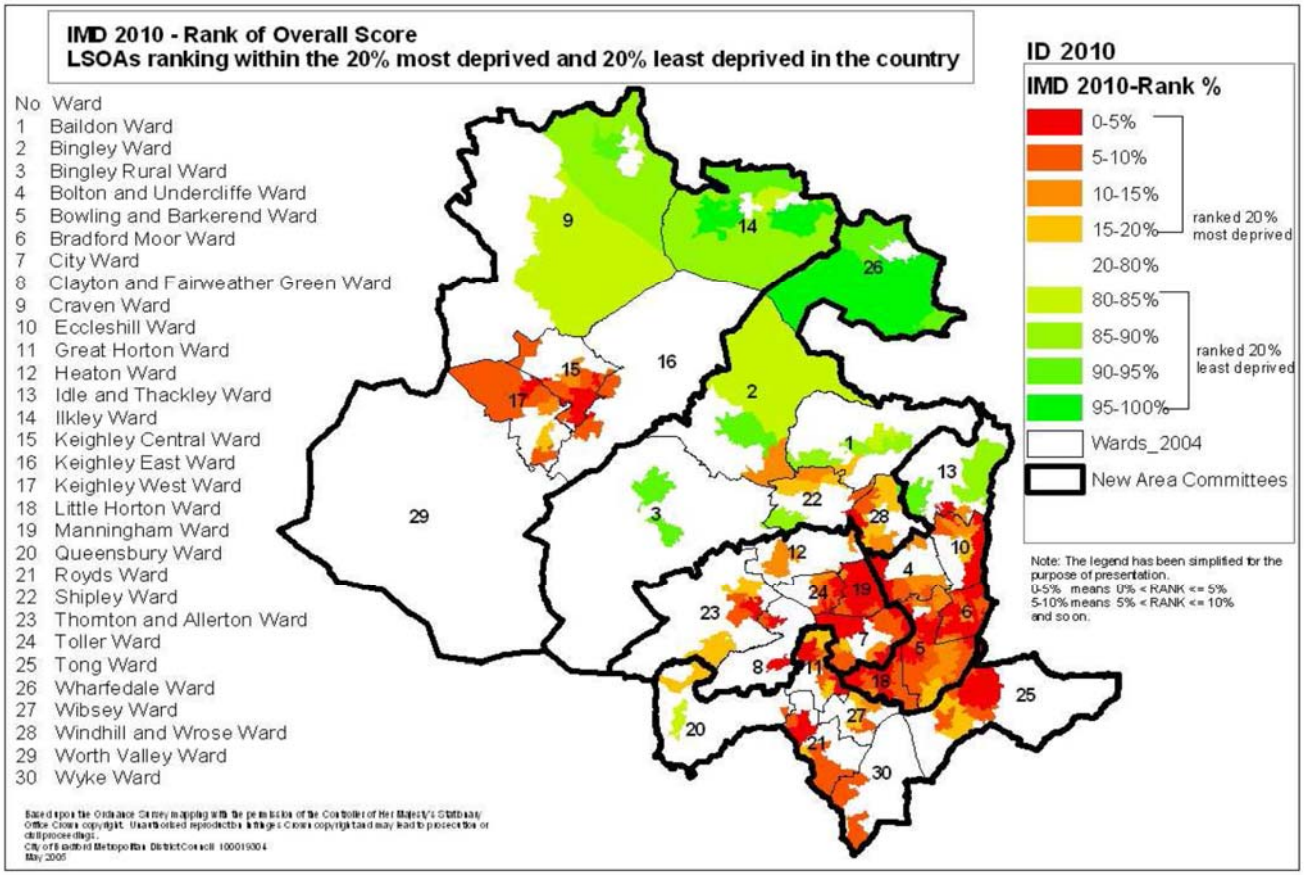
A key characteristic of Bradford District is a significant variation in the levels of deprivation, both between Bradford and other areas and between different neighbourhoods and communities within the District. There is a clear link between deprivation and differing experiences of health and wellbeing which presents Bradford District with the challenge of narrowing this gap.

The Index of Multiple Deprivation 2010 (IMD) provides relative measures of deprivation. It places Bradford 26th most deprived out of 326 local authority districts in England. · Relative to other English districts, Bradford's position has worsened by 6 places, moving up the rankings from 32nd place in 2007. Bradford has the widest gap between its most and least deprived Lower Super Output Areas (LSOAs) of any district in the country, showing a high degree of polarisation within the District.

Figure 4.2 below provides an overview of the findings of the English Indices of deprivation 2010 for Bradford District. The Indices of Deprivation 2010 are relative measures of deprivation. The indices of deprivation are currently being updated for publication, but these will not be available until September 2015 and so 2010 figures have been included here for context.

As can be seen from the **Figure 4.2** below there is a concentration of wards with high levels of deprivation in the City Centre. Parts of the Bowling and Barkerend, Bradford Moor and City Wards fall within the 10% most deprived wards.

Figure 4.2 LSOAs Ranking in the Bradford District



Source: IMD 2010 Ward Profiles

Incomes

Bradford and the District as a whole faces significant economic challenges and suffers from low levels of income and high numbers of people in poverty. Poverty and deprivation can mean people have a standard

of living well below that which most people would consider acceptable in Britain today. Bradford has one of the lowest proportions of residents of working age in employment of any local authority in the Yorkshire and Humber region, and it is lower than the national average. Numbers of working age people who are either unemployed or unable to work are significantly higher amongst the younger population, disabled people and black and minority ethnic groups. This disproportionately affects particular wards, with district-wide statistics masking areas of concern. On average, 27% of Bradford households had an annual household income less than £15,000 in 2011, compared to 22% nationally. However, in Manningham, Little Horton and City wards, this proportion is over 40%[26] - whereas in Ilkley and Wharfedale, for example, very few households have low annual incomes.

Information from the 2013 Strategic Housing Market Assessment[27] shows that incomes in the City Centre are lower than those for the district as a whole – median household incomes in the City Centre are £9,100, compared to £15,325 for the district as a whole.

Housing

People's homes are an important factor in health and well-being. Modern expectations demand proper kitchens and indoor bathrooms, yet 40% of current housing in Bradford dates to before 1919. This ageing housing presents problems, with just over 40% of housing in the private sector being classed as non-decent in the most recent stock condition survey (2007). As assessed by the Housing Health and Safety Ratings System, 25% of private sector housing was found to have the most serious 'category one' failures. This was largely due to the risk of falls on the stairs and excessive cold which is generally associated with steep staircases and poor insulation in older housing. Poor housing quality leads to a higher risk of accidents, as well as a greater likelihood of illness related to cold and issues such as damp, mould and poor hygiene.

As health has improved, so too has life expectancy and a high birth rate means a need for more homes. With pressures on green belt land this is always challenging and especially so in the current economic circumstances.

Information from the 2013 BCC Baseline Report[28] shows that the City Centre residents are primarily located in social housing to the north-west and northeast of the city centre. However, since 2001 increasing numbers of privately rented and owner occupied apartments are being developed in the north of the city centre and in Little Germany to accommodate the growing population. Continued growth in the employment demands and opportunities, change in the type and capacity of residential development and increasing number of student population have made it difficult to draw a firm conclusions on the typical characteristics of the city centre population. The current housing stocks however comprise a large number of small properties with a low level of higher value properties offering little diversity in the stock.

There are a total of 9,181 households across Bradford District living in overcrowded conditions. **Table 4.2** below provides further information about overcrowding. The table shows that the proportion of households who were overcrowded averaged 4.8% across Bradford District and was highest in the City Central sub-area (10.7%[29]).

Table 4.2 Overcrowding in Bradford Sub Areas

Sub Area	No of Overcrowded Households	Total Households	% Over Crowded
City Central	4,644	43,467	10.7
City North East	1,047	29,418	3.6

[26] All figures from Joint Strategic Needs Assessment available at http://www.observatory.bradford.nhs.uk/SiteCollectionDocuments/JSNA%20Executive%20Summary%202012.pdf

[27] http://www.bradford.gov.uk/bmdc/the_environment/planning_service/local_development_framework/housing_market_assessment

[28] http://www.bradford.gov.uk/NR/rdonlyres/3F5C22E6-FDDA-45F9-8DEF-243EB1D5A1B0/0/3BradfordCityCentreAreaActionPlanBaselineEvidenceReport2013.pdf

[29] All statistics from SCRC Baseline Evidence Report, March 2013

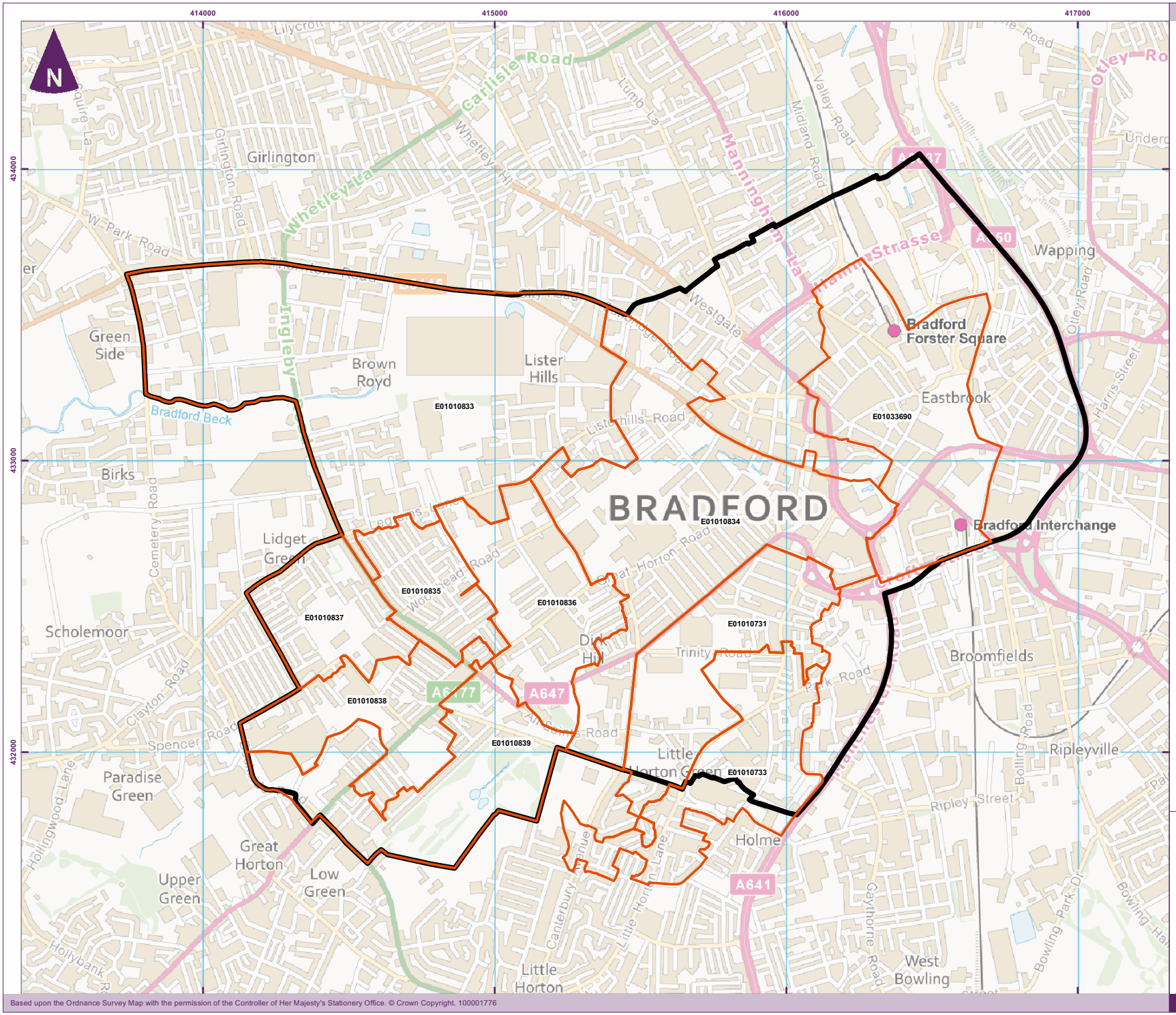
Sub Area	No of Overcrowded Households	Total Households	% Over Crowded
City South	941	24,791	3.8
City West	705	22,145	3.2
Bingley	770	28,072	2.7
Wharfedale	436	18,585	2.3
Keighley & Worth Valley	638	23,239	2.7
Bradford	9,181	189,717	4.8

Source: Bradford SHMA 2010

Bradford City Centre

Demographic and economic information for the LSOAs in BCC[30] has been obtained. This information is summarised below, with the LSOA's shown on **figure 4.3** below.

[30] Lower Super Output Area Statistics Obtained from 2011Census Data via http://neighbourhood.statistics.gov.uk


414000
415000
416000
417000
434000
433000
432000
N
Girlington
Carlisle Road
Whetley Hill
Whetley La
Manningham La
Midland Road
Valley Road
Otley Rd
Wapping
Ingleby
Green Side
Brown Royd
Lister Hills
Bradford Beck
Westgate
Bradford Forster Square
Eastbrook
Harris Street
Lister Hills Road
E01010833
E01033690
Birks
Cemetery Road
BRADFORD
E01010834
Bradford Interchange
Lidget Green
Woodhead Road
Great Horton Road
E01010835
E01010836
E01010837
E01010731
Scholemoor
Clayton Road
Dirk Hill
Trinity Road
Broomfields
Park Road
A6177
A647
E01010838
E01010839
Spencer Road
Ripleyville
Paradise Green
Little Horton Green
E01010733
Bolling Road
Ripley Street
Holme
Great Horton
Upper Green
Low Green
A641
Canterbury Avenue
Little Horton Lane
Gaythorne Road
West Bowling
Bowling Park Dr
Little Horton
Hollingwood Lane
Hollybank Rd
Key
Lower Super Output Area (LSOA)
City ward
0
250
500
Metres
Scale at A3: 1:12,500
Bradford City Centre Area Action Plan Preferred Approach – Health Impact Assessment
amec foster wheeler
Figure 4.3
Map of BCCC LSOA's
July 2015
24018-LEE01.mxd browj
Based upon the Ordnance Survey Map with the permission of the Controller of Her Majesty's Stationery Office. © Crown Copyright. 100001776
file: L:\DATA\Projects\EA-21\24018 Bradford Sustainability Appraisal\D040 Design\Drawings\24018-LEE01.mxd

Population

In the LSOAs in the City ward of Bradford, 62% of the population is male and 38% of the population is female. The population predominantly consists of persons in the age range of 16-29, some 60.4%. Just under a quarter, 24.5%, of the population are within the next age range of 30-44, 8.6% of the population are aged 0-15, 6% are aged 45-64 and 0.5% are aged over 65. This is reflected in the mean age of the population at 27 and the median age of 26.

Between 2001 and 2011, the population has generally been rising in the LSOAs in the BCC, with an increase of 4,380 people (23.6%). The population of Bradford has grown steadily since 2000 and is expected to continue growing for the foreseeable future with ONS forecasts to 2031 showing a further rise in the population to 655,100 by 2031, an increase of 27.8% since 2009. Over a quarter of the projected growth is in the 60-plus age group, in common with national trends which also show a shift to a greater proportion of older people in the population. At the same time, over a quarter of the projected growth predicted will be amongst children and young people. This means that Bradford will continue to have a relatively young population and a growing number of working age people.

Ethnic Breakdown

The ethnic breakdown of the population is quite diverse and has changed in the period from 2001 to 2011. White and British represented 29.7% of the population of the LSOAs in the BCC but that has more than halved to 12.9% in 2011. The percentage of people with Asian / Asian British Indian descent has dropped slightly to 6.1% while the percentage of people with Asian / British Pakistani descent has increased to 48.1%. Other ethnic groups are generally represented in smaller numbers, with White (other) representing the next highest ethnic group.

Table 4.3 below shows how ethnicity has changed between 2001 and 2011 in the City Centre.

Table 4.3 Ethnicity Changes Between 2001 and 2011

Names	White: English/Welsh/Scottish/Northern Irish/British	White: Irish	White: Other White	Mixed/multiple ethnic group: White and Black Caribbean	Mixed/multiple ethnic group: White and Black African	Mixed/multiple ethnic group: White and Asian	Mixed/multiple ethnic group: Other Mixed	Asian/Asian British: Indian	Asian/Asian British: Pakistani	Asian/Asian British: Bangladeshi	Asian/Asian British: Chinese	Asian/Asian British: Other Asian	Black/African/Caribbean/Black British: African	Black/African/Caribbean/Black British: Caribbean	Black/African/Caribbean/Black British: Other Black
City E01010731	-52%	-48%	79%	27%	133%	238%	138%	4%	44%	172%	-77%	63%	552%	-27%	Unknown
City E01010733	-29%	-47%	400%	48%	167%	350%	250%	14%	39%	-31%	-32%	81%	590%	100%	100%
City E01010833	-48%	-38%	209%	83%	100%	-24%	-40%	-33%	18%	-19%	-100%	115%	221%	-38%	100%
City E01010834	-51%	-81%	64%	400%	90%	38%	-11%	35%	51%	104%	116%	341%	343%	86%	Unknown
City E01010835	-76%	-86%	323%	Unknown	50%	29%	50%	-11%	26%	76%	-60%	83%	373%	-64%	-33%
City E01010836	-58%	-75%	312%	Unknown	-33%	88%	-57%	108%	32%	100%	33%	234%	575%	29%	Unknown
City E01010837	-76%	Unknown	373%	Unknown	25%	-33%	67%	-19%	7%	183%	-69%	43%	86%	-67%	-33%
City E01010838	-62%	-80%	421%	100%	-67%	314%	160%	-10%	28%	-70%	-93%	78%	275%	-57%	-60%
City E01010839	-38%	-50%	456%	0%	Unknown	243%	0%	0%	22%	550%	7%	78%	45%	-82%	Unknown
City E01010844	29%	-52%	1982%	343%	Unknown	371%	Unknown	333%	17%	31%	1725%	700%	Unknown	47%	-33%

Source: www.ons.gov..uk

As can be seen from the table above, there has been a significant decrease in the white population in the City Centre, with the City Centre clearly becoming more ethnically diverse. There are big increases in the majority of the other ethnic groups, in particular for the mixed multi-ethnic group and the Bangladeshi, Chinese and Asian groups.

Housing

The quality of housing is a very important factor in people's health and wellbeing. The quality of housing in the City Centre varies.

City Centre residents are primarily located in social housing to the north-west and northeast of the city centre. However, since 2001 increasing numbers of privately rented and owner occupied apartments are being developed in the north of the city centre and in Little Germany to accommodate the growing population. Continued growth in the employment demands and opportunities, change in the type and capacity of residential development and increasing number of student population have made it difficult to draw a firm conclusions on the typical characteristics of the city centre population. The current housing stocks however comprise a large number of small properties with a low level of higher value properties offering little diversity in the stock.

The majority (82%) of the existing housing in the city centre is flats with nominal amounts of terraced and semi detached units. Young, single person or small households are the key market for city centre housing as 70% of the existing housing stock is comprised of single person accommodation. Housing tenure across owner occupation (30%), private renting (34%) and social renting (32%) are broadly similar.

In terms of tenure, the level of home ownership (36%) in the city centre is lower than the district as a whole and the majority of the housing stock is rented in private (34%) and social (32%[31]) sector. This points to a limited available choice for a large percentage of city centre population and gives an indication of the affordability problem in the City Centre.

There are a total of 9,181 households across Bradford District living in overcrowded conditions. **Table 4.4** below provides further information about overcrowding. The table shows that the proportion of households who were overcrowded averaged 4.8% across Bradford District and was highest in the City Central sub-area (10.7%[32]).

Table 4.4 Overcrowding in Bradford Sub Areas

Sub Area	No of Overcrowded Households	Total Households	% Over Crowded
City Central	4,644	43,467	10.7
City North East	1,047	29,418	3.6
City South	941	24,791	3.8
City West	705	22,145	3.2
Bingley	770	28,072	2.7
Wharfedale	436	18,585	2.3
Keighley & Worth Valley	638	23,239	2.7
Bradford	9,181	189,717	4.8

Source: Bradford SHMA 2010

[31] All statistics from BCC Baseline Evidence Report
[32] All statistics from Bradford SHMA 2010

Economic Activity

Within the City ward, 75% of the population are of working age (16 to 64) compared with the UK average of 77.05%. 77% of males within the working age are economically active compared with a UK average of 83.3% and 73% of females within the working age are economically active compared with a UK average of 72.6%. The number of people on long term sick varies within the LSOAs but with a total of 5.2% of the working age population in the City ward compared with a UK average of 4.9%.

Health

The percentage of the population classed as in very good health is below 50% in all but two areas of the BCC, with an average of 45.3%. A total of 36.7% of the population are classed as in good health, 12% in fair health, 4.6% in bad health and 1.4% in very bad health which suggests that a number of residents in the LSOAs are in poor health. For the LSOAs, 6% of the population is recorded as having day to day activities limited a lot, which suggests that a proportion of the residents in these areas suffer from impairments that impact upon daily life.

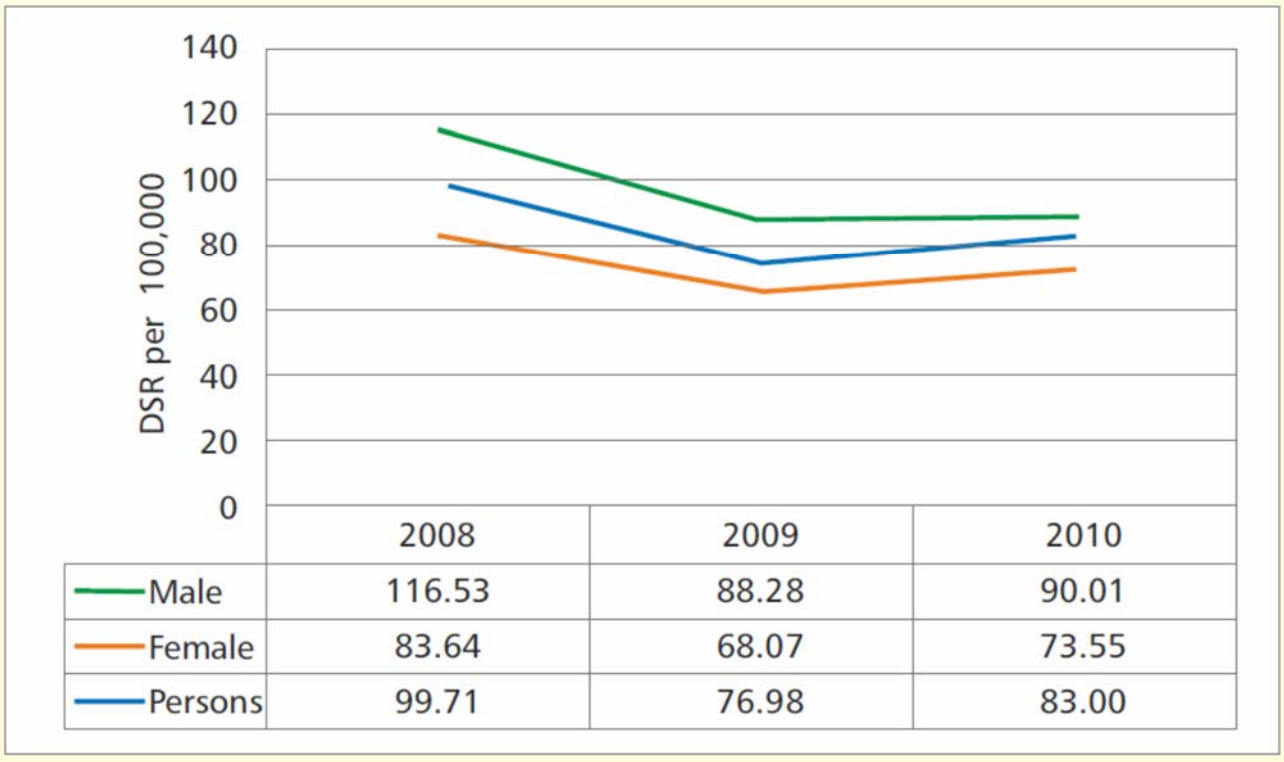
For the Bradford City Clinical Commission Group (CCG) (within which the City Centre falls), the top 15 causes of death were as follows:

- Ischaemic heart diseases;
- Cerebrovascular diseases;
- Chronic lower respiratory diseases;
- Malignant neoplasm of trachea, bronchus and lung;
- Dementia and Alzheimer's disease;
- Influenza and pneumonia;
- Symptoms, signs and ill-defined conditions;
- Heart failure and complications and ill-defined heart disease;
- Diseases of the urinary system;
- Malignant neoplasms of breast;
- Malignant neoplasms of lymphoid, haematopoietic and related tissue;
- Cirrhosis and other diseases of liver;
- Malignant neoplasm of liver and intrahepatic bile ducts;
- Malignant neoplasm of colon, sigmoid, rectum and anus; and
- Congenital malformations, deformations and chromosomal abnormalities.

These causes of deaths have varying average number of deaths per year. Chronic lower respiratory diseases and lung cancer accounted for almost 30 deaths (based on average number of deaths per year) per year. Rates for premature death from respiratory disease, whilst similar to the district as a whole, are higher amongst men than women.

Figure 4.4 below suggests that there may be a long term downward trend in the number of deaths due to respiratory disease; however for both men and women rates rose slightly in 2010 when compared with 2009.

Figure 4.4 Mortality Rates for Respiratory Disease



	2008	2009	2010
Male	116.53	88.28	90.01
Female	83.64	68.07	73.55
Persons	99.71	76.98	83.00

Source: Bradford City CCG Strategic Plan

In the Bradford City CCG, the prevalence of Asthma was comparatively high compared to other diseases (behind obesity, diabetes and hypertension), with over 6% of the population of the City Centre suffering from this condition. Diabetes is prevalent in over 9.2% of the population and obesity in 13.2% of the population.

The Bradford City CCG Strategic Plan also notes that respiratory diseases are one of the causes of high rates of non-elective admissions.

Existing Healthcare Provision

The Bradford City Centre AAP baseline evidence report[33] notes that there are three GP surgeries within Bradford City Centre. Two are located close to the University and the other is in the Market Neighbourhood, which is currently reviewing the service it offers in the area and may choose to close down in the future. In terms of dental surgeries, the offer in the City Centre is poor; however, there are at least three surgeries within 1.5km of City Hall. There are also several chemists within walking distance of the residential areas. These services and facilities have been established based on current levels of demand and it is recognised that as the City Centre population grows, additional provisions are likely to follow. The Bradford Royal Infirmary and the St Luke Hospital are also within 10 minutes driving distance from the city centre.

Bradford City Clinical Commissioning Group (CCG) (within which the City Centre falls) indicates that currently there are 1977 patients per GP within the Bradford Area, where as the surrounding Bradford Districts have 1355 patients per GP and the UK average is 1580 patients per GP. This suggests that or the City Centre there are fewer patients per GP compared to the UK as a whole.

However, the forecast population growth in the Bradford City Centre Clinical Care Group area is expected to be faster than the national average meaning that pressure on healthcare services will not diminish and is likely to increase in line with this population rise.

[33] http://www.bradford.gov.uk/NR/rdonlyres/3F5C22E6-FDDA-45F9-8DEF-243EB1D5A1B0/0/3BradfordCityCentreAreaActionPlanBaselineEvidenceReport2013.pdf

With regards to future healthcare provision in Bradford, Bradford Teaching Hospitals NHS Foundation Trust has developed an Operational Plan[34] for the period 2014-16; and this includes the following key goals:

- Create a sustainable health and care economy that supports people to be healthy, well and independent through 7 day, 24/7 integrated services;
- Create an increased community based capacity to prevent avoidable demand on the system including community access to diagnostics and assessment;
- Understand the population through the use of predictive risk stratification and embed self-care as core to service delivery;
- Become a digital health and care economy, implementing a connected digital care record across primary, secondary, community and social care services to achieve a seamless patient record, with the NHS number as the unique identifier; and
- Expand intermediate care services maximising step-up capacity and capability, delivered through hybrid health and social care services in the community to meet the whole spectrum of an individual's needs.

4.4 Key Issues

Following consideration of the review of plans and policies including the findings of the Joint Strategic Needs Assessment and the issues identified in the Joint Health and Wellbeing Strategy and the analysis of the baseline, the following are identified as the "key issues" pertinent to the health of the population of Bradford District and the City Centre:

- Population growth in Bradford is likely to place a strain on existing healthcare services and potentially increasing demand for new healthcare provision;
- In general, the health of the population of Bradford is worse than the average for England as a whole as demonstrated through a range of statistics, including that the numbers of physically active adults is lower and that for BCC the percentage of the population in good health is below 50%;
- A shorter life expectancy for people living in Bradford (and also within the District itself), compared to the rest of the UK for both males and females;
- Higher mortality rates for children;
- Higher numbers of obese adults, higher rates of smoking and alcohol related hospital stays;
- There is a need to reduce health inequalities by narrowing the gap between the most and least deprived fifths of the District's population in key health outcomes including mortality rates (all ages and all causes), infant mortality rates, standardised cardiovascular disease and stroke rates;
- The prevalence of diabetes is higher in Bradford District than many other areas and is high within the City Centre itself. It is associated with a substantial burden of premature mortality, morbidity, suffering and financial cost, both through its macrovascular and microvascular complications; some or most of which are avoidable or can be delayed; and
- Respiratory illness, particularly Asthma and COPD, account for 8% of deaths and a significant burden of morbidity and avoidable health care cost. Implementation of simple effective care pathways and quality improvement in primary care carries great potential for reducing morbidity, improving quality of life and possibly increasing survival.

[34]https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/337748/BRADFORD_Operational_Plan_1_.pdf

Clearly, many of these issues are beyond the scope of the BCC AAP to affect directly, but their inclusion recognises the indirect relationship that the BCC AAP could have on some of the wider determinants of health.

5. Screening

5.1 Introduction

The BCC AAP has been screened to determine whether it is necessary to undertake a more detailed and comprehensive assessment of health impacts. This has been completed by assessing the 8 strategic objectives of the draft BCC AAP against three key questions that reflect a range of policy drivers to determine the overall relationship between the AAP and health impacts and outcomes. This section presents the findings of the screening exercise.

5.2 Screening

Table 5.1 presents the screening of the draft BCC AAP 8 strategic objectives. Where boxes have 'Y' it means that there is an impact on that particular screening question, and where there is an 'N' there is no impact. If there are health impacts, these are described further in the commentary column.

Table 5.1 Screening of the BCC AAP 8 Strategic Objectives

BCC AAP Strategic Objectives	Will the Strategic Objective have a direct or indirect impact on health of the various communities?	Is the Strategic Objective likely to reduce health inequalities?	Will there be a change in demand for and/or access to health and social care services?	Commentary
A unique, high quality shopping and leisure experience reflecting the city's cultural mix	Y	Y	N	Participating in activities which are affordable and easily accessible within Bradford City Centre will promote health and well-being.
An attractive and safe environment	Y	N	N	The quality and design of the built environment will have an effect on physical and emotional well-being. Creating a safe environment will counter the fear of crime which causes stress.
Imaginative reuse of the architectural heritage alongside new development of high quality sustainable design.	Y	N	N	The quality of the built environment and access to open space will have an effect on physical and emotional well-being. The provision of better and safer environments will allow people to engage in social and physical activities to support their health.
A range of good quality housing and facilities to cater for a successful city centre community.	Y	Y	Y	Access to good quality, well maintained homes that are safe and warm is essential for human health and wellbeing. Being part of a successful city centre community will promote health and well-being through community and social activities. There may be some short term and localised effects on health from construction (related to noise, vibration, disturbance and air quality impacts and associated increases in anxiety and stress). If development is not well planned, with reference to integration into sustainable transport options, there is the potential that an increase in population could lead to an increase in traffic movements (with attendant health effects).

BCC AAP Strategic Objectives	Will the Strategic Objective have a direct or indirect impact on health of the various communities?	Is the Strategic Objective likely to reduce health inequalities?	Will there be a change in demand for and/or access to health and social care services?	Commentary
A thriving economy with new office developments, and a growth in innovative and creative industries through technological enhancements.	Y	Y	Y	Employment plays a major part in reducing poverty and promoting health and well-being. The work environment can positively and negatively affect people's physical and mental well-being. Training and employment opportunities should be available within deprived areas and for excluded groups. There may be some short term and localised effects on health from construction (related to noise, vibration, disturbance and air quality impacts and associated increases in anxiety and stress). If development is not well planned, with reference to integration into sustainable transport options, there is the potential that an increase in population could lead to an increase in traffic movements (with attendant health effects).
An enhanced higher education campus, with the University and College forming an integral part of the city centre.	Y	Y	Y	Obtaining an education is important in relation to opportunities for active participation in all walks of life and promotes well-being. Ensuring that particularly deprived areas or groups have access to good quality training and employment is also important.
Easy access to and around the centre for all sections of the community, and a reduction in problems caused by through traffic problems by supporting sustainable transport measures.	Y	Y	Y	Promoting access to goods and services that promote healthy lifestyles, cheap healthy food, leisure and community activities will have a positive impact on health and well-being. Sustainable modes of transport will also have a positive impact upon health as air pollution, which causes respiratory and general health problems, will be reduced. Both increased accessibility and supporting sustainable transport measures may also promote walking and cycling.
An enhanced natural environment with improved green infrastructure, water management and biodiversity.	Y	Y	N	Enhanced natural environments may improve the cleanliness of the environment which aids in preventing disease and will have an effect on physical and emotional well-being. Improved water management will reduce general health problems and the spread of infectious disease. The provision of green infrastructure can also support healthy lifestyles by encouraging walking and cycling.

Commentary

All of the strategic objectives are expected to have a direct or indirect impact on the health of communities within Bradford City Centre, and whilst the majority of effects are considered to be positive, there is potential for adverse effects associated with construction activity and the likely increase in vehicle movements. It is not unexpected that relationships have been identified between the strategic objectives and the health of the community, given the broad nature of the strategic objectives and the links to health.

The majority of the strategic objectives are expected to reduce health inequalities within Bradford City Centre due to the linkages between the strategic objectives and supporting mechanisms to reduce health inequality (through the provision of high quality housing, increased employment opportunities, and access to public open space). Only two strategic objectives were assessed as being unlikely to reduce health inequalities due to the focus and nature of the objectives, *'an attractive and safe environment'* and *'imaginative reuse of the architectural heritage alongside new development of high quality sustainable design'*. Whilst these objectives are anticipated to directly or indirectly impact upon the health of communities, it is not necessarily assumed that these will also reduce health inequalities within the AAP.

Four of the strategic objectives are expected to result in a change in demand for access to health and social care services. Demand and access to health and social care services will change as new development is delivered in the City Centre and the population grows and could result in reduced accessibility to health care services, or increase demand for health care provision.

5.3 Outcome of Screening

The outcome of the screening exercise has determined that, due to the relationship identified between the strategic objectives and the key policy questions posed the draft BCC AAP should be subject to further assessment. This reflects the aims of the draft BCC AAP to create a sustainable and vibrant city centre offering a focus for economic development and growth.

6. Scoping

6.1 Introduction

This section presents the findings of the scoping stage of the HIA of the BCC AAP. It outlines the range of health impacts that could arise from the draft BCC AAP by assessing the impact of each policy using a traffic lights matrix against the following key receptors:

- Children & Young (0 yr – 18yrs);
- Older People (65+ years);
- People with physical or mental impairments;
- Minority Ethnic;
- Low Income; and
- Refugees & Travellers.

Additionally, the compatibility the proposed BCC AAP policies in relation to the 18 key priorities of the JHWS and Health Inequality Action Plan have been assessed.

6.2 Health Impacts of Draft BCC AAP Policies

Table 6.1 presents the findings of the assessment of the health impacts of each proposed policy on each of the key receptors. This assessment has focussed on those AAP policies that will clearly progress / restrain the healthy communities section of the NPPF and therefore policies where there is no clear health link have not been considered further within the assessment.

Table 6.1 Health Impacts of BCC AAP Proposed Policies

Policy	Children and Young People	Older People	People with physical or mental impairments	Minority Ethnic	Low Income	Refugees and Travellers	Commentary
CL1 – Housing	+	+	+	+	+	+	Living conditions will improve through the delivery of over 3,500 new homes in the city centre by 2030. There are clear links between an increase in living standards, provided by a mix of dwellings and amenity / open space, and an improvement in health, which will benefit all sections of the community. There may be some short term and localised effects on health from construction (related to noise, vibration, disturbance and air quality impacts and associated increases in anxiety and stress). However, good site management practices would help to ensure that such effects are minimised and are only for a temporary period of time. As there is a significant amount of new housing proposed, the demand for healthcare services will increase, which will have negative impacts (notwithstanding that there would be opportunities to provide new and improved healthcare facilities as part of new housing development). There will also be an increase in car and HGV use associated with the delivery of new homes, which would increase vehicle emissions. Notwithstanding other policies in the plan that seek to increase sustainable modes of transport this would have negative impacts in relation to health issues associated with vehicle emissions. Overall, there is scope for both positive and negative health impacts on all receptors from this policy. The policy is well aligned with NNP requirements in relation to delivering a wide choice of high quality homes.
	-	-	-	-	-	-	

Policy	Children and Young People	Older People	People with physical or mental impairments	Minority Ethnic	Low Income	Refugees and Travellers	Commentary
CL2 – Flood Risk	+	+	+	+	+	+	Flooding and flood risk can have a number of adverse impacts and can result in displacement from homes and places of work amongst others, which can adversely impact upon health. This policy will help to reduce the risks of flooding from new development and change of use and help to ensure people and property are not affected by flood risk. This will have minor positive health impacts upon all receptors. The policy is well aligned with NPPF requirements in relation to meeting the challenge of climate change, flooding and coastal change.
CL3 – Active Frontages and Community Provision	0	0	0	0	0	0	Health impacts from this policy will be neutral and therefore this policy has not been considered any further here.
CL4 – Supporting Education Provision	++	0	0	0	0	0	This policy will have a significant positive impact upon health as it promotes the development of new school premises. The policy notes the importance of accessibility of education to a vibrant and successful city centre community. The increased education provision will have a significant positive health impact on children and young people.
SL1 – City Centre Primary Shopping Area	+	+	+	+	+	+	This policy seeks to ensure that Bradford City Centre accommodates large scale retail development (1,500+ sq. m^2) within the Primary Shopping Area or to sites which adjoins. This will help to reduce unemployment in Bradford through new job opportunities in the retail sector. As such, living and working conditions should improve with a fall in unemployment and this will therefore have positive health impacts.

Policy	Children and Young People	Older People	People with physical or mental impairments	Minority Ethnic	Low Income	Refugees and Travellers	Commentary
	?	?	?	?	?	?	There could also be an increase in car and HGV use associated with the movements to and from the Primary Shopping Area, which would increase vehicle emissions. Notwithstanding other policies in the plan that seek to increase sustainable modes of transport this would have uncertain impacts in relation to health issues associated with vehicle emissions. Accordingly, there will be a mixture of positive and uncertain health impacts from this policy. The policy is well aligned with NNP in relation to building a strong and competitive economy and ensuring the vitality of town centres.
SL2 – Primary and Secondary Shopping Frontages	0	0	0	0	0	0	Health impacts from this policy will be neutral and therefore this policy has not been considered any further here.
SL4 – Improving the Connections Between Shopping Areas	0	0	0	0	0	0	Health impacts from this policy will be neutral and therefore this policy has not been considered any further here.
SL5 – Cultural Assets	+	+	+	+	+	+	The sustainable expansion of existing and creation of new cultural attractions in the city centre should have a positive impact upon health. Cultural assets should positively contribute to the quality and design of the built environment which has an effect on physical and emotional well-being. This will have a minor positive health impact for all receptors. The policy is well aligned with NPPF requirements in relation to conserving and enhancing the historic environment.

Policy	Children and Young People	Older People	People with physical or mental impairments	Minority Ethnic	Low Income	Refugees and Travellers	Commentary
B1 – The need to Deliver Forecast Jobs Growth Within the City Centre	+	+	+	+	+	+	The health impacts of delivering additional office and flexible workspace will have positive health impacts. Increased workspace should lead to increased employment and / or working conditions within the city centre and will help to increase living standards. Employment plays a major part in reducing poverty and promoting health and well-being and will therefore have positive health impacts on all the receptors. Demand for healthcare services locally may increase in Bradford City Centre due to increased development and employment in the City Centre. However, there will be opportunities to enhance existing facilities and to provide new health facilities if and when required. Overall the policy will have a mixture of positive and negative health impacts The policy is well aligned with NNP in relation to building a strong and competitive economy.
	-	-	-	-	-	-	
ED1 – Promotion of the Campus Zone / Learning Quarter	++	++	+	+	++	+	This policy will have significant positive health impacts upon children and young people, older people and those on low income due to the expansion of knowledge and skills development in the city centre. Through the development of education related uses within the University and College campus area it will provide increased opportunities for a wider number of people, notably children and young people, older people and those on low income. Education is a key factor with regard to employment opportunities and allows active participation in all walks of life and promotes well-being. The provision of business uses and leisure and recreation facilities will further help to have positive health impacts for all of the receptors. The policy is well aligned with NNP in relation to building a strong and competitive economy and ensuring the vitality of town centres.

Policy	Children and Young People	Older People	People with physical or mental impairments	Minority Ethnic	Low Income	Refugees and Travellers	Commentary
M1 – Streets and Space	+	+	+	+	+	+	The promotion of walking and cycling activity and accessibility in the city centre will have a positive health impact, given the wide ranging and well known health benefits of exercise. The increased use and promotion of sustainable forms of travel will encourage a shift away from private vehicle use. This should reduce vehicle emissions and air pollution accordingly. The policy will also improve the safety of travel routes for sustainable modes of transport and provide accessible transportation methods which have good access to community and health facilities. The policy is well aligned with NPPF requirements in relation to promoting sustainable transport.
M2 – Provision of Public Transport Services and Infrastructure (Including Taxis)	++	++	++	++	++	++	The transport improvements outlined within the policy will help to prioritise public transport over other motorised vehicles through traffic management and bus lanes and gates which will help to reduce reliance upon the car as a primary means of transport and in turn reduce vehicle emissions and associated pollution and improve air quality. There will be uncertain health impacts due to the unknown characteristics of the proposed infrastructure developments noted within the policy. Overall the policy will have a mixture of significantly positive and uncertain health impacts. The policy is well aligned with NPPF requirements in relation to promoting sustainable transport.
	?	?	?	?	?	?	
M3 – Traffic, Highways and Parking	-	-	-	-	-	-	The policy outlines support for a number of highway schemes. This will lead to increase in traffic generation in the City Centre, an increase vehicle emissions and adversely impact upon air quality and in turn human health. The implementation of parking standards in accordance with the Core Strategy may help to reduce car use, which would help to mitigate to an extent the impacts of an increase in traffic generation. However, the overall increase in traffic generation and subsequent impacts on air quality will have minor negative health impacts.

Policy	Children and Young People	Older People	People with physical or mental impairments	Minority Ethnic	Low Income	Refugees and Travellers	Commentary
M4 – Impact of New Development upon the Transport Network	+	+	+	+	+	+	This policy aims to improve movement around the city by pedestrians and cyclists which will have positive impacts upon health. The creation and improvement of linkages within the city centre will help improve accessibility to services and infrastructure, including healthcare facilities and will help to increase exercise with walking and cycling, the health benefits of which are wide ranging and well known. The policy encourages accessible transportation, low emission transportation and improves the safety of travel routes within the city centre which will positively impact upon health and well-being. The policy is well aligned with NPPF requirements in relation to promoting sustainable transport.
M5 – Biodiversity in the City Centre	+	+	+	+	+	+	This policy seeks to minimise adverse impacts upon biodiversity and to provide for an improvement in local biodiversity where possible. The policy outlines that proposals which have an adverse impact upon biodiversity and do not propose sufficient mitigation will be refused planning permission. The policy also promotes and supports developments which incorporate the ecological principals of the AAP. This will help to improve the quality of green spaces and have associated positive health impacts. The policy will have positive health impacts for all sections of the community. The policy is also well aligned with NPPF requirements to conserve and enhance the natural environment.
M6 – Green Infrastructure and Open Space within the City Centre	++	++	++	++	++	++	This policy will have significant positive health impacts for all sections of the community as it will help to increase access to open space and encourage healthier lifestyles associated with the use of open space, which in turn will reduce demand on healthcare. This policy links in well with NPPF requirements in relation to access to high quality open spaces and protection of existing space and to promote healthy communities.

Policy	Children and Young People	Older People	People with physical or mental impairments	Minority Ethnic	Low Income	Refugees and Travellers	Commentary
							This policy requires that all new development will be expected to contribute to, and aid in the delivery of, the Green Infrastructure Key Interventions, including green streets and gateways, green roofs and walls and green / blue links. Greater access to green infrastructure and open spaces can have significant positive health impacts. The policy is also well aligned with NPPF requirements to conserve and enhance the natural environment.
BF1 – The Nature of the Built Form	+	+	+	+	+	+	The policy notes that new developments within the city centre must demonstrate a high standard of design. The quality and design of the building environment has an effect on physical and emotional well-being of the population. The supporting parts of the policy ensure that consistency and quality of built form within the city centre. In consequence, the policy will have a positive impact upon health within the city centre through the creation of positive and pleasant development. The policy is well aligned with NPPF requirements in relation to requiring good design.
BF2 – Built Form and Use of Natural Resources	+	+	+	+	+	+	This policy builds upon the importance of built form noted within BF1 by requiring sustainable development and efficient use of resources. The policy commits to reducing carbon emissions and tackling the effects of climate change within the city centre. The environmental impact of new developments must be assessed and the use of renewables is promoted. The policy has been assessed as having a positive impact upon health within the city centre.

Score Key:

+ + **Significant** positive health impact	**+** **Minor** positive health impact	**0** No overall impact	**-** **Minor** negative health impact	**- -** **Significant** negative health impact	**?** **Score uncertain**

Summary of Health Impacts of Policies

A number of the policies were assessed as having significant positive health impacts including CL4with regard to children and young people, ED1 with regard to children and young people, older people and those on low income, M2, and M6. Policies CL4 and ED1 promote the development of new schools and buildings associated with education within the city centre, which will increase the availability of education and the associated health benefits it has and have a significantly positive impact upon the receptors identified. The transport improvements outlined within Policy M2 prioritise public transport which, through reducing private car use, is expected to help reduce vehicle emissions and associated air pollution which have significant positive health impacts, whilst Policy M6 will help to increase access to open space and encourage healthier lifestyles associated with the use of open space, which in turn will reduce demand on healthcare which is a significant positive impact upon health.

Policy CL2, regarding flood risk, will help to reduce the risks of flooding from new development in the city centre. The sustainable expansion of existing and creation of new cultural attractions in the AAP in Policy SL5 will also have positive health impacts due to improvements in the quality and design of the built environment and the effect this has on physical and emotional well-being.

Policies M1, M4, M5; BF1 and BF2 are assessed as having a positive impact upon health within the city centre. Policies M1 and M4 aim to improve the connectivity and safety of transport routes within the city which is expected to have associated positive health impacts. Policies M5 and M6, meanwhile, seek to minimise impacts and increase biodiversity within the city and increase access to green and open spaces which both have linkages with positive health impacts.

There are four policies assessed has having mixed impacts: Policy CL1, Policy SL1,; Policy B1, and Policy M2Policy CL1 includes the provision of a significant amount of new housing, - 3,500 dwellings, will help to ensure that people have good quality housing supply and is expected to increase standards of living for residents in the city centre and help to reduce adverse health impacts associated with poor quality housing. However, the increased population may increase demand on healthcare services which will have a negative health impact, although development should provide an opportunity to provide new and / or improve facilities and provisions. In consequence, the policy has been assessed having both positive and negative health impacts.

Policy SL1 promotes 1,500 sq. m of large scale retail development which will help reduce unemployment through new job opportunities in the retail sector which should improve living and working conditions. Increased development and employment in the city centre may increase demand and reduced accessibility to healthcare services which would have an uncertain health impact but it does present opportunities to enhance existing facilities and provide new facilities if required.

Policy B1 sets out the amount of new office and flexible workspace which will be delivered in the City Centre. Increased workspace should lead to increased employment opportunities within the city centre. Demand for healthcare services locally may increase in Bradford City Centre due to increased development and employment in the City Centre, which will have negative impacts upon the population.

The highway improvements outlined in policy M3 could increase vehicle emissions and pollution and reduce air quality which would have a negative health impact. Policies CL3, SL2, andSL4 have been assessed as having neutral health impacts and therefore the policies have not been considered any further.

6.3 Outcome of Scoping

The policy assessment above has identified the potential for some uncertain and negative health impacts from a number of the policies. This primarily relates to the following issues:

- Potential for adverse health impacts associated with increased car and HGV use (.e.g. respiratory illness such as asthma), either from the highway network improvements outlined, or in relation to economic growth; and

- An increase in demand for healthcare associated with new housing developments and economic growth and how this will impact upon the existing healthcare provision in the City Centre and the potential requirement for new healthcare facilities.

These issues will be considered further in **Sections 7** and **8** below.

6.4 Impact of Draft BCC AAP Policies on Priorities of the Bradford JHWS and Health Inequality Action Plan

The compatibility matrix in **Table 6.2** considers the draft BCC AAP policies in relation to the 18 key priorities of the JHWS and Health Inequality Action Plan in order to assess the compatibility or otherwise of these policies in relation to the priorities.

Table 6.2 Compatibility Assessment of Draft BCC AAP Policies Against JHWS and Health Inequality Action Plan

JHWS and Health Inequality Action Plan Key Priorities	CL1	CL2	CL3	CL4	SL1	SL2	SL4	SL5	B1	ED1	M1	M2	M3	M4	M5	M6	BF1	BF2
1. Reduce and Alleviate Impact of Child Poverty	+	+	0	+	0	0	0	0	++	+	0	+	0	0	0	0	+	+
2. Reduce Infant Mortality	+	+	0	+	0	0	0	0	+	+	0	+	0	0	0	0	0	0
3. Promote Effective Parenting and Early Years Development	0	0	+	0	0	+	0	0	0	0	0	0	0	0	0	0	0	0
4. Ensure Young People Are Well Prepared for Adulthood, with a Focus on Helping Children with Disabilities to Maximise Their Capabilities	0	0	+	0	0	+	0	0	0	0	0	0	0	0	0	0	0	0
5. Reduce Childhood Obesity and Increase Levels of Physical Activity and Healthy Eating in Children and Young People	+	0	+	0	0	+	0	0	0	0	+	+	+	+	+	+	0	0
6. Improve Oral Health in the Under 5's	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.Improve Mental Health of People in Bradford District	+	0	0	+	0	0	0	0	0	+	0	+	0	0	0	0	0	0

JHWS and Health Inequality Action Plan Key Priorities	CL1	CL2	CL3	CL4	SL1	SL2	SL4	SL5	B1	ED1	M1	M2	M3	M4	M5	M6	BF1	BF2
8. Improve Health and Wellbeing for People with Physical Disabilities, Learning Disabilities	+	0	0	+	0	0	0	0	0	+	0	+	0	0	0	0	0	0
9. Improve Diagnosis, Care and Support for People with Physical Disabilities, Learning Disabilities, Sensory Needs and Long Term Conditions	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10. Promote the Independence and Wellbeing of Older People	+	0	0	0	0	0	0	0	0	+	0	+	0	0	0	0	0	0
11. Increase Employment Opportunities and Training	0	0	0	0	++	0	0	0	++	++	+	+	+	+	0	0	0	0
12. Promote Healthier Lifestyles	+	0	0	+	0	0	0	0	+	+	+	+	+	+	++	++	+	+
13. Create the Economic, Social and Environmental Conditions That Improve Quality of Life For All	?	+	+	0	+	+	0	+	++	+	+	+	+	+	+	+	+	+
14. Deliver a Healthier and Safer Environment	?	++	0	0	0	0	0	0	0	+	+	+	?/+	+	++	++	+	++

JHWS and Health Inequality Action Plan Key Priorities	CL1	CL2	CL3	CL4	SL1	SL2	SL4	SL5	B1	ED1	M1	M2	M3	M4	M5	M6	BF1	BF2
15. Increase the Number of Decent Homes and Ensure Affordable Warmth	++	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	+	++
16. Enhance Social Capital and Active Citizenship	0	0	0	0	0	0	0	+	0	0	0	0	0	0	0	0	0	0
17. Reduce Harm from Preventable Disease Caused by Tobacco, Obesity, Alcohol and Substance Abuse	+	0	0	+	0	0	0	0	0	+	0	+	0	0	0	0	+	+
18. Reduce Mortality form Cardiovascular Disease, Respiratory Disease, Diabetes and Cancer	?/-	0	0	+	0	0	0	0	0	+	0	+	?/+	0	0	0	+	+

KEY	- -	Move away significantly	-	Move away marginally	+	Move towards marginally	++	Move towards significantly	0	Neutral	?	Uncertain

Summary of Impacts of Draft BCC AAP Policies on JHWS and Health Inequality Action Plan Key Priorities

The compatibility matrix above shows that the policies of the draft BCC AAP will have broadly positive impacts in relation to the JHWS and Health Inequality Action Plan key priorities. All but two of the policies were assessed to have a positive or significant positive impact in relation to priority 13 on the basis that the policies will help to create, manage and maintain those conditions in the BCC which will improve the quality of life for all. There will also be a number of positive and significant positive impacts in relation to priority 12 and priority 14 due to the focus of the transport and built form policies in particular. These policies all have compatibility with priority 5 and the policies which support healthier lifestyles should also reduce childhood obesity and encourage healthy eating in children and young people.

The City living and supporting community provision, business and higher and further education policies will have positive impacts with regard to the health of children and are therefore compatible with priorities 1 and 2. The business and higher and further education policies are highly compatible with priority 11 as they have the potential to create a significant amount of new jobs and increase opportunities for training associated with economic growth.

Some of the City living and supporting community provision, higher and further education and movement policies are likely to help promote the independence and wellbeing of older people within the City Centre and are compatible with priority 10. These policies and others from City living and supporting community provision and built form are also compatible with priority 17 and 18, particularly the movement policies, as they will help to increase the use of sustainable modes of transport within the city centre which will in turn reduce vehicle emissions. This will have positive impacts in relation to reducing respiratory disease.

There is a single negative impact identified which relates to the assumed increase in car use associated with increased housing provision and economic growth and the impact this will have upon priority 18 and impacts upon respiratory disease linked to increased vehicle emissions and reduced air quality.

There are a number of policies which have no direct relationship with JHWS and Health Inequality Action Plan key priorities, 6 & 9, and therefore impacts are neutral. There is a limit to the extent that the BCC AAP can impact upon some of the above priorities, for examples in relation to priorities 3, 4, 10 & 16 and therefore impacts are largely neutral.

In conclusion, the above matrix suggests that the majority of the policies are compatible with at least one and in some cases a number of the key priorities, or at worst a small number of the policies will have neutral or uncertain impacts.

7. Assessment

7.1 Introduction

As set out in **Section 6.3** above, two main health issues have been identified from the HIA of the draft BCC AAP policies:

- Potential for adverse health impacts from increased vehicle emissions and reduced air quality associated with increased car and HGV usage, either from the transport improvements outlined, or in relation to economic growth; and
- An increase in demand for healthcare associated with new housing developments and economic growth and how this will impact upon the existing healthcare provision in the city centre and the potential requirement for new healthcare facilities.

These are discussed in more detail in **section 7.2** below.

7.2 Heath Issues

Potential for Adverse Health Impacts Associated With Increased Car and HGV Use

Policy M3 identifies and supports a number of highway scheme improvements with the BCC as well as initiatives regarding parking in the city centre. It is considered likely that these schemes and initiatives will lead to increased private vehicle use within BCC, as will the proposed delivery of 3,500 new dwellings by 2030, new office and educational developments and economic growth proposed within the AAP. These will result in an increase in vehicle emissions which will negatively impact upon air quality and pollution.

There is considerable evidence regarding the adverse health impacts of road traffic emissions[35]. Such emissions can increase existing health problems such as asthma and other respiratory diseases and / or can lead to new health problems for people who were previously in good health. Such issues will be particularly pertinent for Bradford's Air Quality Management Areas where it has been identified that air quality is poor (in particular for the two AQMA's in the City Centre – Shipley-Airedale Road and Thornton Road) and in light of the fact that statistics show that 45% of the population of the BCC is classed as in not being in good health. Compared against national and regional averages, chronic obstructive pulmonary disease prevalence in Bradford is 1.8%, in comparison to England which is 1.5% and prevalence of asthma is 6.1% compared against 5.7% in England[36]. As highlighted in the baseline section respiratory disease is a problem for Bradford and the City Centre itself and this could be further exacerbated by an increase in vehicle emissions.

It is difficult to quantify exactly how many of these diseases are specifically linked to vehicle emissions/poor air quality, but there are is wider evidence which links poor air quality and health problems. For example it is estimated that 29,000[37] premature deaths are caused by poor air quality in the UK, and that for those affected, air pollution reduces life expectancy by an average of over eleven years. Furthermore, and as noted by DEFRA[38], generally if you are young and in a good state of health, moderate air pollution levels are unlikely to have any serious short term effects. However, elevated levels and/or long term exposure to air pollution can lead to more serious symptoms and conditions affecting human health. This mainly affects the respiratory and inflammatory systems, but can also lead to more serious conditions such as heart disease and cancer.

[35] For example see Healthy transport = Healthy lives. British Medical Association. 2012. BMA- http://bma.org.uk/transport
[36] Respiratory conditions – overview of data. Bradford Observatory Public Health. 2010
[37] Figures from http://healthyair.org.uk/the-problem/
[38] http://uk-air.defra.gov.uk/air-pollution/effects

The transport study[39] undertaken for the SCRC and BCC AAP's has looked at the amount of traffic which would be generated from all the new development proposed for the BCC. **Table 7.1** below details total predicted traffic trips for BCC split by AM and PM, and for trips into and out of the City Centre.

Table 7.1 Total Predicted Future Traffic Trips for BCC

Total Trips	In	Out
AM Peak - BCC	592	1062
PM Peak - BCC	1021	1168
All Trips	1613	2230

Source: Transport Study in Support of the Shipley and Canal Road Corridor AAP, May 2015

As can be seen from the table above, there will be a significant amount of new trips generated for BCC from new development with higher numbers of trips out of the City Centre, compared to trips into the City Centre from elsewhere.

The public transport improvements outlined in Policy M2 and highway improvements M3 in the AAP will help to increase use of public transport and alleviate congestion in terms of the wider highway network in the Corridor and Section 106 agreements for individual site allocations will help to mitigate to an extent the impacts of additional traffic generation. However, as the figures above demonstrate there will still be a significant amount of trip and associated traffic generation which will result in an increase in vehicle emissions and an in turn will impact upon air quality.

Information from the BCC Baseline Evidence Report states that the most recent assessment submitted to DEFRA by the District concluded that the pollutant of concern in Bradford is nitrogen dioxide produced mainly by traffic which exacerbates problems in the AQMAs. Two of the four AQMAs are within the City Centre:

- Shipley - Airedale Road; and
- .Thornton Road (Near the junction with Princes Way and Godwin Street).

There are also the following other AQMA's in Bradford:

- Mayo Avenue Manchester Road Junction; and
- Junction of Manningham Lane and Queens Road.

Although the last two areas in the list falls outside the City Centre boundary, the air quality levels in those spots are very much influenced by the volume of traffic moving in and out of and passing through the City Centre area.

In relation to the AQMA at Shipley-Airedale Road, readings taken from 29th June this year show that dioxide levels[40] from nitrogen and sulphur were classed as low[41] in this AQMA. Further air quality monitoring would be needed at peak traffic periods in this location to confirm whether or not the recently observed trend regarding air quality will continue to decline.

In relation to the AQMA at Thornton Road, readings are not currently available for this AQMA and therefore monitoring would need to be undertaken here to monitor and assess the impacts of an increase in traffic generation in the City Centre at this location throughout the lifetime of the AAP to see whether or not the trend for Shipley-Airedale Road AQMA would be reflected here.

Notwithstanding the above evidence from the recent air quality monitoring reading for Shipley - Airedale Road, the baseline evidence for the Bradford City Clinical Commission Group area (within which the BCC falls), has shown that chronic lower respiratory disease is one of the top 15 causes of death and the

[39] Transport Study in Support of the Shipley and Canal Road Corridor AAP, May 2015, Steer Davies Gleave
[40] Figures from http://www.bradford.gov.uk/asp/air_quality/air_quality_shipley.asp
[41] Low means that effects are unlikely to be noticed, even by people who know they are sensitive to air pollutants

incidence of asthma is elevated above national averages which suggests that the population of the BCC is susceptible to suffering from illnesses associated with poor air quality. The predicted increase in traffic in BCC would be a problem for the health of residents in the BCC without intervention. In consequence, implementation of the AAP will therefore need to take account of wider strategies to combat air pollution, including the Air Quality Management Plans and Strategies for Bradford.

An Increase in Demand for Healthcare Provision Associated with New Development

A considerable amount of new development is proposed for the BCC. Policy CL1 proposes a minimum of 3,500 new dwellings within the boundary of BCC AAP by 2030. As the new development is completed and subsequently occupied, the new residents could require access to a range of facilities. This additional demand could affect existing healthcare provision given that all of the residential, mixed use and town centre redevelopment allocations are within 800m of a GP surgery.

Based on the evidence provided in section 4, there is a higher proportion of the City Centre population in the lower age ranges, with those aged over 65 accounting for only 0.5% of the population. Fewer than 50% of the population classed as in good health in all but two areas of the City Centre. It is assumed that the population in the new homes will be of similar composition (in terms of demographics and health) as the existing population. If this were the case; and taking account of wider predicted population growth for the Bradford district this would lead to an increase in pressure on health care facilities. However, this will to an extent be balanced out by all the measures in the draft BCC AAP to improve health and in particular the implementation of Policy M6, which will help to increase access to green spaces in the City Centre. Policies CL4 and ED1 will increase the availability of education which has associated health benefits for children and young people especially. Policy M2 will reduce vehicle emissions and associated air pollution.

As noted above and in the baseline section, the population of Bradford is rising and is expected to increase by 11% by 2030. In terms of ensuring that the increase in population is sufficiently provided for, this would mean in the order of 2.3 additional full times GPs would need to be provided in the BCC (assuming GP-patient ratios similar to England average). This could potentially be provided through section 106 agreements or developer contributions.

With regards to wider health care provision, given that Bradford NHS does have plans for expansion (see **section 4.3** above in relation to existing healthcare provision) this should help to cater for the expected increased growth in the population of Bradford. However, this is a qualitative judgement and so careful monitoring of demand on healthcare services will be required to ensure that supply is meeting demand through the lifetime of the AAP plan period, given that it is in primary care that greatest pressure will come.

8. Conclusions and Recommendations

8.1 Conclusions

Overall, the BCC AAP Preferred Approach Report has been assessed as having positive health impacts. The policies of the draft BCC AAP will help to deliver a significant amount of new housing, raise wealth levels and living standards, promote and maximise use of sustainable modes of transport, deliver urban regeneration, protect the environment and improve access to the environment and open space. The health benefits of all these measures will be wide ranging.

The potentially biggest beneficiaries of the regeneration are likely to be those on low income/unemployed if there is local targeting of the new job opportunities that are generated by the AAP new developments. Multi-use buildings/ mixed use developments have the greatest potential to maximise the positive health and wellbeing impacts with clustering of key uses.

Of the eighteen policies in the BCC AAP, one policy has been assessed as having significant positive health impacts, seven policies have been assessed as having positive health impacts, two policies have been assessed as having a mixture of positive and negative impacts, some others as having positive and uncertain impacts, one policy as having negative health impacts and the remaining policies as having no health impacts and therefore neutral.

Furthermore, it should be noted that the AAP policies are well aligned with NPPF requirements in relation to promoting healthy communities; and in particular the following aspects:

- Opportunities for meetings between members of the community who might not otherwise come into contact with each other, including through mixed-use developments, strong neighbourhood centres and active street frontages which bring together those who work, live and play in the vicinity;
- Safe and accessible environments where crime and disorder, and the fear of crime, do not undermine quality of life or community cohesion; and
- Safe and accessible developments, containing clear and legible pedestrian routes, and high quality public space, which encourage the active and continual use of public areas.

8.2 Recommendations

This section identifies a series of recommendations for consideration as part of the progression of the BCC AAP towards adoption. Recommendations are framed with the aim of enhancing any benefits and minimising, reducing or avoiding any potential harm to health. The key recommendations are as follows:

- Ensure that as part of new development in BCC, either through section 106 agreements or other developer contributions that there is provision to meet the anticipated future need for 2.3 GP's in BCC;
- Ensure that Bradford NHS and other health organisations are consulted as part of the progression of the BCC Preferred Approach to ensure that the health impacts from all the new development proposed is factored in to assessing future healthcare needs;
- Greater reference could be made to the Air Quality Management Plans and Strategies for Bradford in the AAP, with detail of how they will be complied with under the BCC AAP Preferred Approach Policies to mitigate adverse health impacts from poor air quality and reduce incidence of respiratory illness; and
- Ensure that as part of new development in BCC, either through section 106 agreements or other developer contributions that access to new and existing open space is maximised to help increase health benefits associated with exercise.

8.3 Proposals for Monitoring

It will be important that there are adequate monitoring proposals in place to measure progress and performance of the BCC AAP against specific indicators. This will help to review the health impacts of the AAP on an ongoing regular basis. Suggested proposed indicators for monitoring the health impacts of the BCC AAP are set out below. These have been informed by the Please ensure that these are linked to indicators used in the JSNA, the JHWS and the Marmot Review 2014. The proposed indicators are:

- Healthy life expectancy at birth - males and females;
- Life expectancy at birth - males and females;
- Inequality in life expectancy at birth - males and females;
- People reporting low life satisfaction;
- Good level of development at age 5;
- Good level of development at age 5 with free school meal status;
- GCSE achieved (5A* - C including English and Maths);
- GCSE achieved (5A* - C including English and Maths) with free school meal status;
- 19-24 year olds who are not in employment, education or training;
- Unemployment % (ONS model-based method);
- Long-term claimants of Jobseeker's Allowance;
- Work-related illness;
- Households not reaching Minimum Income Standard;
- Fuel poverty for high fuel cost households;
- Percentage of people using outdoor places for exercise/health reasons.