Land North West of Bicester

Health Impact Assessment

April 2021

BARTON WILLMORE

PLANNING / DESIGN / DELIVERY

Land North West of Bicester

Health Impact Assessment

Prepared on behalf of

Firethorn Developments Limited

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APPENDICES

EXECUTIVE SUMMARY

The importance of healthy communities is a theme running through national, regional and local planning policy. This Health Impact Assessment (HIA) has been prepared on behalf of Firethorn Developments Limited to determine the potential health impacts of a mixed-use development at Land North West of Bicester.

The Site is located approximately 2.5km to the north west of Bicester Town Centre, south east of the village of Bucknell and north west of Caversfield; it is within the administrative area of Cherwell District Council (CDC). The Site forms part of a strategic allocation for 6,000 dwellings at North West Bicester, towards which the Development will contribute 530 dwellings, and the associated open space provision, access, internal estate roads, vehicle and cycle parking, drainage.

The HIA has reviewed the potential health effects of the Development and provides recommendations to seek to maximise health gains and remove or mitigate potential adverse impacts on health. The assessment has used guidance which sets out key themes under which health impacts should be assessed. Throughout the HIA, the Development is considered to have negligible to minor positive/ minor adverse effects in relation to the key health themes; no effects are significant.

1   INTRODUCTION

1.1   This Health Impact Assessment (HIA) has been prepared on behalf of Firethorn Bicester Limited (the "Applicant") in support of an outline planning application to Cherwell District Council (CDC) for up to 530 dwellings (Use Class C3) and the associated open space provision, access, internal estate roads, vehicle and cycle parking, drainage and all associated works and operations including but not limited to demolition, earthworks, and engineering operations ("the Development") on land north west of Bicester ("the Site").

1.2   This HIA seeks to identify and assess the potential health effects of the Development and ensure that CDC can fully consider the health implications of the Development as part of the planning and decision-making process.

1.3   The structure of the HIA is set out in **Table 1** below.

Table 1: Contents of this HIA

Chapter	Content
Executive Summary	Summary of the HIA
Section 1	Description of the Site and Development, the requirement for HIA and a summary of relevant planning policy.
Section 2	Outline of the assessment methodology
Section 3	Describes the baseline conditions of health
Section 4	HIA
Section 5	HIA conclusions

Site Context and Description

1.4   The Site (see **Appendix 1** for the Location Plan) is located approximately 2.5km to the north west of Bicester Town Centre, south east of the village of Bucknell and north west of Caversfield. It is within the administrative area of CDC. The Site comprises two parcels of uncultivated agricultural land, totalling approximately 23.97 hectares (ha).

1.5   The Site forms part of a strategic allocation for 6,000 dwellings at North West Bicester. The allocation comprises Banbury Road (B4100) and the ongoing construction works associated with first phase of the North West Bicester Eco-Town allocation (Exemplar Scheme); completed housing associated with the same development; and fields, hedgerows and trees to the north, north west, and west. Further to the south lie fields running up to Lords Lane (A4095) which is approximately 530m to the south and forms the northern edge of Bicester.

1.6   Beyond Banbury Road to the east is the Church of St Laurence Grade II* Listed Building, Caversfield House, which is surrounded by vegetation, and a Public Right of Way (PRoW) beyond

that. Home Farmhouse Grade II Listed Building is located approximately 85m to the south east at the closest point to the Site. The site is bound to the west by agricultural land and farm buildings, with Bicester Road and the London to Birmingham railway line further to the west and the village of Bucknell approximately 1.2km to the north west. The historic parkland of Bignell Park is located to the south west of Middleton Stoney Road, which is approximately 2.6km to the south west of the Site.

1.7   The land separating the two parcels of land within the Site footprint comprises the first phase of the North West Bicester allocation, which is part complete and part under construction. The new development includes housing development and a primary school (Gagle Brook). An estate road, Charlotte Avenue, travels north of the new housing development, in between the two parcels of land comprising the Site becoming Braeburn Avenue before joining Banbury Road.

1.8   The Site comprises uncultivated agricultural land and is majority grassland; it is bound by hedgerow with some large trees, woodland and planting present. In the western portion of the Site, there are two pockets of woodland, the northernmost of which contains a dried pond. The Site is bound by historic hedgerow to the north east, which also acts as a drainage feature running through the south of the Site. The Site comprises of areas of Flood Zone 2 and 3. The Site is classified as of good to moderate value (primarily Grade 3b) under the Agricultural Land Classification system and has a largely flat topography which rises gradually moving towards the north west boundary.

The Development

1.9   The Development comprises an outline planning application for up to 530 residential units and the associated open space provision, landscaping, drainage and access (site access, internal estate roads, vehicle and cycle parking). The Development will also provide all associated works and operations including but not limited to demolition, earthworks, and engineering operations.

1.10   The Development will provide a range of residential accommodation within the Development comprising a mix of size (1-bed, 2-bed, 3-bed and 4-bed) and tenures, an indicative mix is as shown in **Table 2**.

Table 2: Proposed residential units

Size	Number of units		
	Private	Affordable	Total
1-bed	0	31	**31**
2-bed	128	71	**199**

3-bed	149	49	**198**
4-bed	90	12	**102**
Total	**367**	**163**	**530**

1.11   The Development will not provide commercial, business or service floorspace.

1.12   The maximum height of structures and buildings will be up to 16m from the proposed ground levels, up to three storeys.

Access and Parking

1.13   Road access to the Development will be catered for, providing access to private vehicles (such as cars and vans) and public buses. The primary vehicular access to the Site will be from the B4100, utilising the existing stub roads. Safe and attractive environments for walking and cycling will be provided to encourage local journeys to be made sustainably. The Development will provide sustainable transport facilities within walking distance of residents and pedestrian and cycling routes that connect to local facilities and will promote sustainable living. A modal shift towards active travel and more sustainable modes would reduce the emissions of greenhouse gases that might otherwise be the case, helping to mitigate climate change.

1.14   Per the Design and Access Statement (DAS), The provision and layout of car parking across the Site will be made in accordance with the standards and policy set out by CDC and Oxfordshire County Council at the reserved matters stage. The Site would look to achieve a provision of between one and two allocated spaces per dwelling, plus additional unallocated parking space. The provision and layout of car parking is to be resolved as part of future reserved matters applications.

1.15   Cycle parking provision will be provided in accordance with the relevant cycle parking standards and the design and layout is to be agreed with the planning and highway authorities at the detailed planning stage.

Green Infrastructure

1.16   Ecological corridors will be incorporated to ensure the retention of key habitats and wildlife networks during construction and operation. This will include the retention of watercourses, woodland, hedgerow and treelines across the Site, and the creation of a new corridor across the

arable land to the north-western boundary. The Site will be bound by a buffer of multifunctional green space which will include retained vegetation, a 10m hedgerow buffer and a 15m woodland buffer that will also act as a bat corridor. These corridors will also incorporate features to support the provision of open space for recreation, such as footpaths and play areas.

1.17   The Development will also utilise SuDS drainage to incorporate the provision of open space and habitat into the drainage design. The SuDS will be designed to provide both permanently wet areas and seasonally wet areas to provide a range of conditions for wildlife. Four attenuation basins are proposed. Chapter 9 Landscape and Views and Chapter 10 Biodiversity of the ES provide more details.

Requirement for HIA and Guidance Considerations

1.18   The importance of healthy communities is a theme running through national, regional and local planning policy, and HIAs are increasingly recognised as having an important contribution towards establishing the potential impacts and benefits of schemes and policies. HIA is concerned with improving health and reducing health inequalities. HIA can be of different complexities and durations from desk-based up to comprehensive (full), for which there are different accepted methodologies.

1.19   CDC includes health as an important theme throughout local planning policy, particularly in relation to addressing inequalities in health and maximising wellbeing. Policy BSC 8: Securing Health and Well-Being of the Adopted Cherwell Local Plan 2011-2031[i] states that:

"Planning decisions can have an effect on travel to work, schools, noise and air quality, access to services, climate change and social networks which can all contribute to health and well-being. The local environment has a fundamental impact on the health and well-being of local people. By providing facilities such as local open space this allows for activities such as walking and cycling, promoting healthy lifestyles. The Council will work with the local community to provide safe and accessible environments and to identify the need for and provide local facilities…"

1.20   Undertaking the HIA will ensure the proposed Development complies with the Oxfordshire Health and Wellbeing Board's vision of ensuring: "*people can live their lives as healthily, successfully, independently and safely as possible, with good timely access to health and social care services[ii].*"

National Legislation and Regulation

Health and Social Care Act[iii]

1.21   Health and Social Care Act (2012) introduced a duty upon local authorities to *"take such steps as it considers appropriate for improving the health of the people in its area"*. This can include requiring Health Impact Assessment (HIA) for policies, plans and projects.

National Planning Policy Framework (NPPF)[iv]

1.22   The revised NPPF published in February 2019 identifies the key principles in relation to health that local planning authorities should consider. In particular, Chapter 8 of the NPPF 'Promoting healthy and safe communities' states that decisions should aim to achieve the following key features to a healthy and safe community:

      a) *"Promote social interaction, including opportunities for meetings between people who might not otherwise come into contact with each other – for example through mixed-use development, strong neighbourhood centre, street layouts that allow for easy pedestrian and cycle connections within and between neighbourhoods, and active street frontages;*

      b) *Are safe and accessible, so that crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion – for example through the use of clear and legible pedestrian routes, and high quality public space, which encourage the active and continual use of public areas; and*

      c) *Enable and support healthy lifestyles, especially where this would address identified local health and well-being needs – for example through the provision of safe and accessible green infrastructure, sports facilities, local shops, access to healthier food, allotments and layouts that encourage walking and cycling."*

Local Planning Policy and Guidance

The Cherwell Local Plan 2011-2031[v]

12.1   The Cherwell Local Plan sets out the long-term spatial vision for the CDC area over the period 2011 to 2031. Policies that are relevant to human health, and will inform the assessment, are:

- **Policy BSC 1: District Wide Housing Distribution**, requires 22,840 additional dwellings to be provided in the CDC area between 2011 and 2031, which is equivalent to 1,142 net additional dwellings per annum;

- **Policy BSC 3: Affordable Housing,** requires 30% of new housing on sites of 11 or more dwellings in Bicester to be provided as affordable homes;

- **Policy BSC 4: Housing Mix**, requires all new residential development to provide a mix of homes to meet current and expected future requirements.

- **Policy BSC 10: Open Space, Outdoor Sport and Recreation Provision**, encourages partnership working to ensure that sufficient quantity and quality of, and convenient access to open space, sport and recreation provision is secured;

- **Policy BSC 11: Local Standards of Provision – Outdoor Recreation**, requires development proposals to contribute to the provision of open space, sport and recreation, together with secure arrangements for its management and maintenance. The amount, type and form of open space will be determined having regard to the nature and size of development proposed and the community needs generated by it. Provision should be made in accordance with the Council's minimum standards (detailed in **Table 3**); and

- **Policy Bicester 1: North West Bicester Eco-Town,** a new mixed used development including:

  - Up to 6,000 homes;
  - 10,000 ha of employment land;
  - Education – it is expected that four 2 Forms of Entry (FE) primary schools and one secondary school will be required;
  - Health – to provide for a 7 GP surgery;
  - Green infrastructure – 40% of the gross site area will comprise green space meeting the requirements of Policy BSC 11; and
  - Community facilities.

Table 3: CDC Open Space Standards (Policy BSC 11)

Type of provision	Quantitative Standard	Accessibility Standard
Play space (combining provision for younger and older children including MUGAs)	0.78 ha per 1,000 people	400m 1,200m (NEAPs)
Outdoor sports provision (combining tennis courts, bowling greens, golf courses and playing pitches - to be accompanied by changing facilities where appropriate)	1.13 ha per 1,000 people	800m (football, rugby, cricket) 1,200m (tennis) 12,000m (bowling greens and golf courses)
Allotments	0.37 ha per 1,000 people	800m

General green space (parks and gardens / semi-natural green space / amenity green space)	2.74 ha per 1,000 rural/urban edge dwellers	400m (amenity space) 1,200m (other green space)

North West Bicester Supplementary Planning Document (SPD) 2016[vi]

1.23   In 2009 North West Bicester was identifed as having potential as an eco-town location in the Planning Policy Statement (PPS): Eco-towns a supplement to PPS1[vii]. On 5th March 2015, the Minister for Housing and Planning announced that the Eco-towns PPS was cancelled for all areas except North West Bicester. As it is expected that the PPS Supplement will in time be cancelled in its entirety, the Ecotown standards have been brought into the North West Bicester SPD. The North West Bicester SPD was adopted in February 2016 and expands upon Policy Bicester 1 of the adopted Cherwell Local Plan 2011-2031 Part 1.

1.24   Development Principle 7 of the North West Bicester SPD relates to 'Healthy lifestyles' and states that "*Development proposals should be designed and planned to support healthy and sustainable environments and enable residents to make healthy choices easily*". The North West Bicester SPD highlights the importance of ensuring sustainable transport options such as cycling and walking are accessible to reduce air pollution and encourage exercise and social interaction through active travel. The SPD outlines that development proposals should include green spaces that provide the opportunity for healthy lifestyles including attractive areas for sport and recreation as well as local food production. Access to nature and green spaces can help to improve physical and mental health and wellbeing.

Technical Standards and Guidance

NHS England Healthy New Towns[viii]

1.25   NHS England launched the Healthy New Towns programme in 2015 to explore how the development of new places could provide an opportunity to create healthier and connected communities with integrated and high-quality services.

1.26   This resulted in the adoption of the following 10 principles for healthy places:

    1. Plan Ahead Collectively;
    2. Assess Local Health and Care Needs and Assets;
    3. Connect, Involve and Empower People and Communities;
    4. Create Compact Neighbourhoods;
    5. Maximise Active Travel;

6. Inspire and Enable Healthy Eating;

7. Foster Health in Homes and Buildings;

8. Enable Healthy Play and Leisure;

9. Develop Health Services That Help People Stay Well; and

10. Create Integrated Health.

1.27   These ten principles were developed and culminated in the publishing of four reports in 2019. The first, *"Putting Health into Place Principles 1-3: Plan, Assess and Involve[ix]"* is most appropriate to HIA. It advocates a thorough understanding of baseline health conditions and circumstances of an area so that design can incorporate and embed opportunities to improve health outcomes. It provides guidance for establishing the processes that lead to impact and how these can be measured.

IEMA Impact Assessment Outlook Journal: Health Impact Assessment in Planning, October 2020[x]

1.28   This is a selection of thought pieces featuring case studies by practitioners working in health, planning and impact assessment. It includes ideas for best practice and shows the direction of travel for embedding health and wellbeing in placemaking and integrating health impact with other impact assessments including Environmental Impact Assessment. The discussions in this collection of papers have influenced the assessment within this report.

Public Health England, Health Impact Assessment in spatial planning, October 2020[xi]

1.29   This guidance from Public Health England was created in collaboration with national, regional and local experts in planning, public and environmental health, and HIA. The guidance demonstrates HIAs as an essential tool to 'health-proof' spatial plans and to identify opportunities to deliver safer and healthier places and improve public health and wellbeing, and ultimately reduce inequalities.

National Design Guide[xii]

1.30   The National Design Guide was first published in October 2019. It emphasises the importance of considering both physical and mental health to achieve well-designed developments. For instance, the National Design Guide makes mention to "healthy, comfortable and safe internal and external environment" in order to promote quality of life for a development's occupants and users as well as to the beneficial impacts of compact and walkable neighbourhoods on health and wellbeing.

2   ASSESSMENT METHODOLOGY

2.1   The objectives of this HIA are as follows:

- To identify the potential positive and negative health impacts associated with the construction and operation of the Development;
- To identify opportunities for improving health and promoting health equity; and
- To identify opportunities to mitigate negative impacts on health and reduce health inequalities.

2.1   This HIA will follow the assessment methodology as set out by the Oxfordshire Health Impact Assessment Toolkit (**Appendix 2**)[xiii]. The HIA methodology consists of five stages, as follows:

1. Description of the Development to include the physical characteristics of the Site and surrounding area, including the current use, the aims of the project, and the final operational characteristics (as covered in Section 1 of this report);
2. Identification of population groups likely to be affected by the Development;
3. Identification of the geographical study area and associated health needs and priorities;
4. Assessment of health and recommendations; and
5. Recommendations to CDC for monitoring.

2.2   The following sections will outline the methodology for each of these items.

Identification of the geographical study area

3.1   For this assessment, the study area has been set to the District of Cherwell (Oxfordshire), within which Bicester and the Site lie. The study area has been compared with health information for the parish (Bicester), county (Oxfordshire), region (South East) and nation (England), where publicly available.

Identification of potential receptors within the study area

2.3   Receptors are considered for their sensitivity to change and their ability to absorb and be resilient to changes in their environment. Receptors chosen for the HIA are those that would be expected to be affected by environmental changes such as to air quality, noise, socio-economics and traffic.

2.4   Those considered to be most sensitive receptors to change are those who reside close to the

Development, and those most vulnerable to change and with the least resilience to it. These receptors include local housing developments, children, pregnant women, elderly people, and people with disabilities within the local population. People living within deprived areas can also be less resilient to change, as are social groups at higher risk of discrimination such as those from minority ethnics groups and people with long-term health conditions.

2.5   Those considered to be moderately sensitive to change include residents in the local community and those of working age who are likely to spend much of their time within the area. These receptors also include local Public Rights of Way and road users that may be negatively or positively impacted by the injection of additional residents and associated traffic (such as cars, users of public transport, cyclists and pedestrians) due to the introduction of the Development.

2.6   Those considered to be least sensitive receptors to change are comprised of those who are transient to the area, such as tourists and locally employed people, who are only in the area within working hours. People residing further from the Development are also less sensitive compared to those living closer, as are those that are more readily connected to the local transport network, such as owning cars or living in well-connected areas.

Identification of the existing local population demography and their health needs

2.2   As outlined above, the Oxfordshire Health Impact Assessment toolkit advises that the existing population demography and their associated health needs and priorities be established prior to undertaking the assessment phase of the HIA.

2.3   A desk-based study has been undertaken to determine the demography and health statistics of the local population within the study area; this baseline informs the high-level assessment of the baseline conditions within CDC in Section 3 of this report.

2.4   Sources used are cited throughout the text, however the influencing source is as follows. Public Health England (PHE) produces an annual report on the health profile for each local authority, which provides borough-wide information on health levels. Utilising the information from PHE latest report for CDC (2019)[xiv] (**Appendix 3**), Section 3 provides a summary of the latest health profile at borough-level. These data are compared against regional and national data where relevant.

2.5   The baseline conditions of health are also identified for the local area using the English Index of Multiple Deprivation (IMD) at small areas (or neighbourhoods) which are also known as lower super output areas (LSOAs) which on average contain around 1,500 people. There are 32,844 of these neighbourhoods across England as a whole. The Site is not located within an LSOA but is in close proximity to Cherwell 011B to the south east of the Site[xv]. Further east of Cherwell 011B lies Cherwell 011C, whilst further

south lies Bicester town centre, comprised of a mosaic of LSOAs of different factors of deprivation. The LSOAs identified (Cherwell 011B and 011C) are selected as representative of the IMD for the Site as they comprise the majority of existing residential receptors in the immediate surrounds of the Site. Chapter 3 provides a summary of the English Indices of Deprivation scores[xvi] for the two LSOAs.

2.6   An audit of existing healthcare infrastructure (GP practices and dental practices) and the capacity that is available within the existing healthcare facilities within the surrounding area of the Site is provided within **Chapter 12 Population and Human Health** Chapter of the Environmental Statement and reflected in Section 3.

Assessment of the likely effects of the Development

2.7   The latest version of the Oxfordshire HIA Toolkit was updated in January 2021. The toolkit outlines the typical health priorities likely to be affected by any proposed development as:

- Housing;
- Physical activity;
- Healthy food environments;
- Air quality;
- Noise;
- Traffic and transportation;
- Crime and anti-social behaviour;
- Economy and employment;
- Education and skills;
- Local natural environment and access to green spaces; and
- Access to services.

2.8   For each theme, an assessment will be completed to establish the baseline of the existing situation, an evidence base around health impacts associated with a health priority, and identification of likely effects (adverse and beneficial). Recommendations for mitigation and monitoring will also be made. The assessment is found in **Section 4** of this report.

3 BASELINE CONDITIONS

3.1   As per steps 2 and 3 of the HIA methodology, this section summarises the baseline information collated regarding the local population and indicators of human health.

Demographic profile

Population profile

3.2   According to the ONS (Office for National Statistics) mid-year update in 2020, there were an estimated 150,503 people living in Cherwell in 2019[xvii] and an estimated 30,621 people living in Bicester over this same period[xviii].

3.3   Cherwell has exhibited a 16% population growth from 2001 to 2019, following the same positive linear growth pattern as Oxfordshire and England. Whilst Bicester has also shown a growth (6%) over the same period, the rates of growth have fluctuated and have decreased since 2015.

3.4   As outlined in ES **Chapter 12 Population and Human Health** of the ES, it is anticipated that construction of the Development will commence in 2022 and be completed by 2027. The ONS, 2018-based Sub National Population Projections (SNPP) indicate that by the year 2022, there will be 154,100 living in the CDC area and that by the year 2027, this will have increased to 158,700 people. An increase of 4,600 people represents a 3.0% growth in population (2022-2027). In comparison, England's population is projected to increase by 2.7% over the same period.

3.5   Cherwell and Bicester exhibit similar gender profiles, whereby Cherwell's population exhibits a ratio of 50.4% female to 49.6% male and Bicester shows a ratio of 50.5% female to 49.5% male. Both areas show a fairly even gender ratio in all age groups 0 to 79, beyond which age, those 80+ are skewed towards a more female population.

3.6   Cherwell and Bicester also exhibit similar age profiles. The age groups with the greatest representation are between 25 and 59, after which age the proportion drops linearly to 85+. The age groups least represented are those between 20 and 24, and 70+. This pattern is similar to the national average[xix].

3.7   As outlined in ES **Chapter 12 Population and Human Health** of the ES, by 2027, 61% of the CDC area's total population will be aged 16-64 years (working age) which remains the same as in 2022. In contrast, the population aged 65+ years in the CDC area is projected to increase from 19% in 2022 to 21% by 2027. An ageing population is a trend seen nationally.

3.8   The 2011 Census[xx] showed that Cherwell was predominantly White British (86.3%), exceeding the average for England & Wales (79.8%). Those from all groups other than White British comprise 13.7% of the population of Cherwell and are comprised predominantly of White (Non-British) groups (7.8%), with comparatively little representation of Mixed, Black or Arab communities. Asian communities are more

representative, particularly those of Indian and Pakistani descent. The representation of Mixed, Asian, Black and Arab communities is lower than the national average for all ethnic groups. These patterns are reflected in Bicester whereby 87.3% of the population is White British, 6.7% of the population is White Non-British, and other ethnic groups are of comparatively low representation.

Deprivation

3.9   This section provides a review of the baseline conditions of the Site and the surrounding area in respect to the Index of Multiple Deprivation Scores.

3.10   As outlined in the methodology, the LSOAs identified (Cherwell 011B and 011C) are selected as representative of the IMD for the Site. These two LSOAs are ranked 15,914th and 25,836th out of 32,844 LSOAs in England respectively, in the 2019 IMD (where 1 is the most deprived LSOA).

3.11   **Table 3** below details how each LSOA is ranked, both overall and by each deprivation domain, against all the boroughs within England[xxi].

Table 3: English Index of Multiple Deprivation (IMD) ranking for the Site location

Domain of Deprivation (Rank out of 32,844 where 1 is the most deprived)	Cherwell 011B	Cherwell 011C
Overall IMD Rank	15,914	25,836
IMD Percentage	40% least deprived	20% least deprived
Income Rank	29,568	29,259
Income Percentage	10% least deprived	10% least deprived
Employment Rank	29,677	31,854
Employment Percentage	10% least deprived	10% least deprived
Education, Skills and Training Rank	22,061	22,022
Education Percentage	30% least deprived	30% least deprived
Health Deprivation and Disability Rank	23,257	21,980
Health Percentage	20% least deprived	30% least deprived
Crime Rank	4771	32,064
Crime Percentage	20% most deprived	10% least deprived
Barriers to Housing and Services Rank	1,494	2,345
Barriers to Housing and Services Percentage	10% most deprived	10% most deprived
Living Environment Rank	3000	27,157
Living Environment % Percentage	10% most deprived	10% least deprived

3.12   As demonstrated, Cherwell 011B and Cherwell 011C LSOA's overall IMD ranks score within the least deprived 40% and 20% neighbourhoods in the country, respectively. Both LSOAs have multiple domains of deprivation which are in the upper tier (i.e. the least deprived 10 to 30% of neighbourhoods in the country), including income, employment, education, health and living environment. Both LSOAs are considered to be within the 10% most deprived for access to housing and services indicating that there are existing physical and financial barriers

to access housing and local services in the area around the Site. Cherwell 011B LSOA ranks within the 20% most deprived for crime, which significantly differs from Cherwell 011C which ranks within the 10% least deprived, suggesting that crime in the area closest the Site is higher than in Cherwell 011C which also experiences a significantly better living environment.

Local Health Profile

3.13   The health of people in Cherwell is generally better than the national average[xxii].

Child Health

3.14   In children aged 10 to 11, 17.7% of children in Cherwell are classified as obese, which is better compared to the average for England and similar to the average for Bicester. The rate for alcohol-specific hospital admissions among those under 18 years old is 41 (per 100,000 people) which represents 13 admissions per year, a similar rate to England. Levels of teenage pregnancy, percentage of children in low-income families and infant mortality are also better compared to the average for England.

Adult Health

3.15   Life expectancy for males in Cherwell is significantly better (81 years) than the national average at 79.6 years, whereas female life expectancy (83.5 years) is similar to the national average (83.3 years). Life expectancies in Bicester are similar at 81 years for males and 83 years for females[xxiii].

3.16   The rate for alcohol-related harm hospital admissions is 506 (per 100,000 people), which is better compared to the average for England. This represents 731 admissions per year. The rate for self-harm hospital admissions is 167 (per 100,000 people), which is better compared to the average for England. This represents 240 admissions per year. Estimated levels of excess weight in adults (aged 18 years old and over) and physically active adults (aged 19 years old and over) are similar to the averages for Bicester and England. The rates of new sexually transmitted infections are significantly better than the national average, and new cases of tuberculosis are similar compared to the average for England. The rate of killed and seriously injured on roads is similar to the England average. The rates of violent crime (hospital admissions for violence), under 75 years old mortality rate from cardiovascular diseases and under 75 years old mortality rate from all causes are all better than the England average.

Healthcare Provision

3.17   **ES Chapter 12 Population and Human** identified the healthcare provisions within Bicester. The study area used for this chapter comprises the three electoral wards of Bicester East, Bicester North and Caversfield, and Bicester West as representative of Bicester.

3.18   There are three GP surgeries operating within the study area: Victoria House Surgery (linked with GP practice Alchester Medical Group located outside of the study area to the south of Bicester), Montgomery House Surgery and Bicester Health Centre.

3.19   All GP provision within the study area is currently operating over-capacity when compared to the HUDU standard of 1 GP for every 1,800 patients, indicating no capacity within the existing GP provision. However, reference to NHS Choices (as of 11 March 2021) identifies that all three GP practices are currently accepting new patient registrations.

3.20   A total of nine dental practices are operating within the study area. Only four of the nine dental practices are accepting new NHS patients, indicating limited capacity within the existing dental provision.

4   HIA ASSESSMENT MATRIX

5.1   **Table 4** below sets out the potential health and wellbeing impacts associated with the Development during the construction and operational phases. As set out in the Assessment Methodology section in Chapter 3, the table has been adapted from the Oxfordshire HIA Toolkit.

Table 4: HIA Matrix

Theme	HOUSING
Considerations	The Site forms part of a strategic allocation for 6,000 dwellings at North West Bicester. Cherwell's Local Plan[xxiv] proposes to develop an Eco-Town on the land to the North West of Bicester, designed with sustainability and community in mind. The Development will deliver 530 residential properties (Use Class C3) of mixed size (one, two, three and four bed) and tenure; of the properties, 165 will be affordable and the remainder will be private. The housing will be of uniform density, and the majority of dwellings will be up to 12m in height from ground level to ridgeline. A small pocket of dwellings up to 16m is proposed at the centre of the Development, at an area of lower elevation. The residences will be designed in line with Eco-Town principles, to embed sustainability and future-proof against climate change. As identified in **Chapter 14 Climate Change** of the ES, the future residents of the Development, and the infrastructure itself, is at a minor adverse risk from long-term changes to an increased frequency and severity of heatwaves and low rainfall and drought. The Development will enhance the use of the natural space within the Site, to provide the residents with green infrastructure in which to enjoy recreational space; this space will also be designed to enhance biodiversity and provide SuDS and water efficiency measures.
Baseline	As discussed in **Section 3**, in 2020, there were an estimated 150,503 people living in Cherwell in 2019, and an estimated 30,621 people living in Bicester over this same period. The District has exhibited a 16% population growth from 2001 to 2019, and Bicester has observed a 6% growth. The population in Cherwell has a similar age profile to the national average, and is expected to age moving into the future. With a growing population of diverse ages, health conditions and needs, Cherwell recognises the need to anticipate and plan for housing to suit different budgets, purposes and health requirements[xxv], such as young buyers looking to get onto the property ladder, family-focused housing and supported housing for the ageing population and those with disabilities.

	The representative LSOAs of the Site (Cherwell 011B and Cherwell 011C) show that the Site ranks within the least deprived 40% and 20% (respectively) neighbourhoods in the country. Both LSOAs have multiple domains of deprivation which are in the upper tier (i.e. the least deprived 10 to 30% of neighbourhoods in the country), including income, employment, education, health and living environment. Both LSOAs are considered to be within the 10% most deprived for access to housing and services indicating that the existing conditions of the local area comprises of physical and financial barriers to access housing and local services. Cherwell's Housing Strategy finds that the district has a total of 66,693 dwellings, of which 66% are owner occupied, 22% private rented and 12% social housing. Although the majority of homes in the district are warm and safe, a significant minority (11%) of owner occupied and private rented homes have serious hazards including risk of falls and being cold. It is estimated that 8% of all households (over 3,000 owner-occupied households and 1,777 private rented households) experience fuel poverty, although this is lower than the national average of 11% of households. Historically, homelessness in Cherwell has been considered low. In 2019 to 20, 24 people were approximated to be homeless, a small proportion of whom had been homeless long-term[xxvi]. This number decreased to 13 known rough sleepers in early 2021, however the onset of the COVID-19 pandemic saw this number grow to at least 78 individuals, all of whom were helped into accommodation. Exact figures are unknown due to 'hidden' homelessness.
Evidence	CDC's Housing Strategy has three strategic priorities, these are to: • Increase the supply and diversity of affordable housing to ensure the right types of housing are available in the right places; • Improve the quality and sustainability of our homes and build thriving, healthy Communities; and • Enhance opportunities for people to access suitable homes and have housing choices. The Development supports CDC in achieving the goals highlighted above. It provides a mix of housing sizes (one, two, three and four beds) to suit residents of different needs; such as smaller homes for single people and couples, and larger homes for families. Of the 530 dwellings provided, 163 will be safeguarded as affordable housing therefore supporting CDC in its ambition to reduce the financial barriers to obtaining safe and secure housing for those from more deprived backgrounds. The Development will ensure accessibility is maintained at several properties specifically designed with mobility in mind. These units are proposed to remain as ground floor maisonettes, and include adapted amenities, such as low access showers, to cater for those less mobile.

	As an Eco-Town development, the housing erected will include the energy efficiency measures as outlined in **Chapter 3 Site and Development Description** of the Environmental Statement to improve the sustainability of the Development and reduce its carbon footprint. These measures will also support CDC in reducing fuel poverty, by providing housing able to be maintained at an adequate level of warmth.
Suggested Mitigation & Monitoring	To ensure housing is adaptable to all, and considers the differing requirements within the population, the Development will ensure accessibility is maintained at several properties specifically designed with mobility in mind. These units are proposed to remain as ground floor maisonettes, and include adapted amenities, such as low access showers, to cater for those less mobile. In order to manage the risk from future climate events, the Development will be designed to be resilient and adaptable to future changes to the climate norm, such as from changes to rainfall and temperature. The Development will incorporate water and energy efficiency measures, and renewable/ low carbon technology, to be confirmed at detailed design, to mitigate the risk of being affected by, or contributing to, climate change.
Assessment	The Development will have a **beneficial** effect on the provision of housing for the local community that will support CDC in its ambition to reduce financial barriers to accessing safe, secure housing and increase the availability of diverse housing to suit the differing needs within the growing and ageing population.
Theme	**PHYSICAL ACTIVITY**
Considerations	As highlighted in the **DAS**, the Development is designed to encourage healthy lifestyles through convenient access to open space, outdoor exercise opportunities, edible landscapes/community gardens, play and trim trails. These will be safely located for the community to use. Physical activity will be encouraged onsite through the provision of open, green spaces. These spaces have been designed to serve the different requirements of residents across the Development, such as a recreational space for younger residents in which to play, and a space for social interaction and exercise for the ageing residents, for whom the maintenance of physical and cognitive ability is important. The transport network of the Development will be designed to encourage uptake of physical modes of transport (such as walking and cycling), whereby pedestrian spaces will be made attractive to people to encourage enjoyment of the area, and roads will be made safer for cyclists with a 20mph speed limit.

	In terms of active encouragement of the uptake of physical activity, such as through the provision of gym and exercise facilities, the Development provides no such facilities, nor does it facilitate access to such facilities within the proximity of the Site.
Baseline	Physical health within the local area is good. As identified in **Baseline Conditions**, in children aged 10 to 11, 17.7% of children in Cherwell are classified as obese, which is better compared to the average for England and similar to the average for Bicester. Estimated levels of excess weight in adults (aged 18 years old and over) and physically active adults (aged 19 years old and over) are similar to the averages for Bicester and England. The Site is located within the suburban fringes of Bicester Town Centre, with good access to the surrounding rural open, green spaces for recreation and physical activity. The Site is also located adjacent to the Exemplar Scheme, providing future residents with access to recreational spaces within the development.
Evidence	As stated in the Government's 25-Year Environment Plan '*Spending time in the natural environment – as a resident or a visitor – improves our mental health and feelings of wellbeing. It can reduce stress, fatigue, anxiety and depression. It can help boost immune systems, encourage physical activity and may reduce the risk of chronic diseases such as asthma. It can combat loneliness and bind communities together*'[xxvii]. Society is facing growing pressures from the effects of diseases arising from sedentary lifestyles, such as heart and circulatory diseases, diabetes type 2 and mental health disorders. Evidence is growing as to the positive effect of nature and open space on these afflictions[xxviii]. Land use within a development has a direct impact on public health, and effective land use can contribute to limiting environmental risk factors for health and facilitating active lifestyles[xxix]. The provision of recreational spaces, and improved connectivity between green spaces and the public realm can encourage active travel and physical activity, with associated benefits for mental and physical health. Easy accessibility to these assets is particularly important in reducing health inequalities for those with mobility problems, including older people, people with a disability and people without access to a car or unable to afford public transport[xxx]. The uptake of physical activity can also be supporting by a shift away from private car use and towards public transport, which will also contribute to decreasing air and noise pollution. Combining active travel and public transport options can also help people achieve recommended daily physical activity levels.
Suggested Mitigation &	Encouragement to future residents for the uptake of active travel and physical activity, such as through the implementation of the proposed Residential Travel Plan, the maintenance of public realm/ open spaces (to be set

Monitoring	out in a Landscape and Ecology Management Plan) and education regarding the accessible local recreational spaces through the provision of a Resident's pack.
Assessment	The Development will have a **minor positive** effect on the uptake of physical activity.
Theme	**HEALTHY FOOD ENVIRONMENTS**
Considerations	As a residential scheme, the Development will not facilitate access to, or the supply of, food retail or food takeaways. However, the Development will encourage healthy food habits through the provision of small allotment spaces and edible landscape (for example, pockets of orchard space) within the wider green infrastructure network. Approximately 0.5ha of allotment areas are proposed across the Site, in areas that are easily accessible to residents. Whilst it is envisioned that primary access will be taken on foot, these areas will be also easily accessed by vehicle for the transport of gardening equipment and produce. Access also may be required for maintenance and deliveries. The spaces proposed are similar to those found in the Exemplar Scheme orchards and berry bushes.
Baseline	Due to its suburban/ rural surroundings, the Site is not currently well provided for in terms of food provisions in its immediate surrounds. The land surrounding the Site is agricultural in nature, seemingly for the supply of hay. Further afield, within the residential fringe to Bicester Town Centre, there are several takeaway outlets such as Passion for Food, Nadia's Indian Takeaway and Barberry Fish Bar; the density of fast food outlets is low. Physical health within the local area is good. As identified in **Baseline Conditions**, in children aged 10 to 11, 17.7% of children in Cherwell are classified as obese, which is better compared to the average for England and similar to the average for Bicester, suggesting good eating habits. Estimated levels of excess weight in adults (aged 18 years old and over) and physically active adults (aged 19 years old and over) are similar to the averages for Bicester and England. In a similar trend, the mortality rate in under 75 years old from cardiovascular diseases and under 75 years old mortality rate from all causes are better than the England average.
Evidence	As identified by PHE, obesity and poor eating habits are a growing concern, both nationally and worldwide. These are concerning risk factors for serious diseases such as cancer, cardiovascular disease and diabetes type 2. Healthy eating habits not only affect those vulnerable to disease (such as the elderly) but can also affect children and young people should healthy habits not be established early on. Where possible, healthy eating habits and the provision of healthy food choices should be incorporated into development[xxxi].

	In line with the NPPF's (paragraph 96 and 171) guidance promoting the provision of open spaces and green infrastructure in development, Cherwell's Local Plan dictates that developments within the strategic allocation for this Site must provide green space and allotments. In accordance, CDC's Open Space Standards (Policy BSC 11) require that a proposed development provides 0.37 hectares of allotment space per 1,000 people.
Suggested Mitigation & Monitoring	Further to the provision of allotment spaces and edible landscaping, these assets should be maintained and monitored into the future, in order to ensure that these features remain attractive to residents and are utilised as planned. The encouragement of community gardening projects will also help to fuel the production of healthy food from the Development, and foster a sense of place and enjoyment within the residents.
Assessment	The Development will have a **negligible** effect on the provision of healthy food environment.
Theme	**AIR QUALITY**
Considerations	Human health is affected by poor air quality. Air pollution is associated with several adverse health impacts and is recognised as a contributing factor in the onset of heart disease and cancer. Additionally, air pollution particularly affects the most vulnerable in society such as children and older people, and those with heart and lung conditions[xxxii]. Air quality may be affected by the generation and release of dust and particulate matter ($PM_{2.5}$ and PM_{10}), and by the emission of pollutants, such as Nitrogen Dioxide (NO_2).
	Chapter 7 Air Quality of the ES finds that the main emissions during construction are likely to be dust and particulate matter arising from excavation and movement of earthworks, and construction materials, which pose potential health risks due to inhalation such as asthma or irritation of the eyes. Construction activities may also give rise to short term elevated dust/PM_{10} concentrations in neighbouring areas, which may arise from vehicle movements, soiling of the public highway, demolition or windblown stockpiles – however, this is expected to be a negligible risk post mitigation. Emissions of NO_2 are expected to be negligible, even without mitigation.
	During operation, effects to air quality could be expected to arise from the additional vehicles using the local road network as a result of an increase in local residents. Dust is not expected to be generated by residential use. **Chapter 7 Air Quality** identifies that the predicted concentrations levels for NO_2, PM_{10} and $PM_{2.5}$ are expected to be negligible and remain below EU Air Quality Objectives for human health. The design of the Development will contribute to reducing emissions from vehicular transport by promoting active travel through the provision of 20mph speed limits, cycle lanes and attractive walking spaces.
	Odour effects on the nearby sensitive receptors during the construction and operational phase of the Development are considered to be not significant.

	Following the implementation of standard mitigation measures there will be no effects from the Development that could combine with effects from other developments to lead to cumulative effects during the construction or operational phases.
Baseline	A review of CDC's monitoring data, within the local area, shows that the majority of the monitoring sites display an acceptable level for emissions, and did not exceed EU Air Quality Objectives for NO2 (40μg/m3 annual mean) in 2019; the site at 'King End South' was the only monitor observed to exceed the objective. **Chapter 7 Air Quality** of the ES finds that these concentrations are expected to remain constant over the coming years, with little improvement. As identified in **Chapter 6 Transport and Access** of the ES, there is a significant number of allocated sites identified within the Local Plan, and specifically in and around Bicester, it is expected that traffic levels will generally increase during the build out of the allocated sites until the end of the Local Plan period, identified as being 2031. Air quality could be expected to worsen in response, however the implementation of mitigation measures for each development is expected to retain air quality degradation to an insignificant effect. The Site is located approximately 1.5 km north west of the Bicester No. 4 Air Quality Management Area (AQMA), which is designated due to unacceptable levels of the pollutant NO2. In 2017/18, the estimated percentage of prevalence of asthma and chronic obstructive pulmonary disease (COPD) in Cherwell were 5.7% and 1.4% respectively. Both levels were lower than the prevalence in England, 5.9 and 1.9% respectively, suggesting that respiratory diseases in Cherwell are lower than the national average[xxxiii].
Evidence	Public Health England (PHE) finds that poor air quality has a significant effect to public health, and is the greatest environmental risk to health in the UK. They find that '*long-term exposure to air pollution (over years or lifetimes) reduces life expectancy, mainly due to cardiovascular and respiratory diseases and lung cancer. Short-term exposure (over hours or days) to elevated levels of air pollution can also cause a range of health impacts, including effects on lung function, exacerbation of asthma, increases in respiratory and cardiovascular hospital admissions and mortality*'[xxxiv]. Various national and local policies and aspirations require that new developments consider the construction and operational phases for their effects to air quality, and subsequently to human health. PHE identified the following guiding principles for action on air quality[xxxv]: • Introducing targeted interventions to address specific local sources or issues identified through local authority annual reviews and assessments;

	• Prioritising interventions that prevent or reduce emissions over those that address pollution once it has occurred; • Reducing the use of pollution sources in populated areas, such as reduction in vehicle emissions in urban areas; and • Systematically evaluating all interventions to inform future actions. The revised National Planning Policy Framework (NPPF)[xxxvi] published in February 2019 recognises air quality within Section 15: Conserving and enhancing the natural environment. The NPPF highlights that proposed developments should help improve the local environment, in terms of air quality wherever possible. Inline with these recommendations, CDC's North West Bicester Supplementary Planning Document[xxxvii] (SPD) identifies that "*Development proposals should be designed and planned to support healthy and sustainable environments and enable residents to make healthy choices easily*", which includes "*Replacing car journeys with walking and cycling trips can have many benefits in terms of health from reducing air pollution, encouraging exercise through active travel and increased interaction with friends and neighbours.*" The European Union (EU) directive on ambient air quality and cleaner air for Europe (2008/50/EC)[xxxviii] sets legally binding limits for pollutant concentrations. This directive was made law in England through the Air Quality Standards Regulations 2010[xxxix]. These limits are referred to as EU Air Quality Objectives in this assessment, and require that annual mean concentrations remain below $40\mu g/m^3$ for NO_2 and PM_{10}, and below $25\mu g/m^3$ for $PM_{2.5}$.
Suggested Mitigation & Monitoring	During construction, emissions from construction activity, plant and vehicles will be mitigated through the implementation of the CEMP. No additional mitigation measures have been proposed for the operational phase of the Development
Assessment	The Development will have a **negligible** effect on air quality and resultant human health during construction, following the implementation of mitigation measures to reduce dust generation, particulate emissions, and pollutant emissions. The emissions of NO_2 will be **negligible**. During operation, the Development is expected to have a **negligible** effect to air quality and human health.
Theme	**NOISE**
Considerations	Human health is affected by noise pollution. Prolonged exposure to excessive noise can cause various short- and long-term health problems, such as cardiovascular and physiological effects, mental health effects, hearing impairment, reduced performance and provocation of annoyance responses and changes in social behaviour[xl]. Some groups, such as children, older people, shift workers and people with caring responsibilities, who spend more time at home are more vulnerable to noise. In addition, people on lower incomes, who cannot afford to live in quiet residential areas or have inadequately insulated homes, are likely to suffer disproportionately. **Chapter 8 Noise and Vibration** of the ES finds that the construction of the Development is expected to give rise to a minor adverse impact on the existing noise environment at, and within proximity of, the Site. Predicted noise levels form

	construction activity and operation of plant are modelled to remain below 75dB (the recommended fixed limit criteria) at all sensitive receptors. In operation, **Chapter 8 Noise and Vibration**, identified that the predicted road traffic would likely give rise to a minor adverse effect prior to mitigation, therefore the changes to road traffic are unlikely to cause a significant change to existing noise levels. As identified in **Chapter 6 Transport and Access** of the ES, there is a significant number of allocated sites identified within the Local Plan, and specifically in and around Bicester, it is expected that traffic levels will generally increase during the build out of the allocated sites until the end of the Local Plan period, identified as being 2031. Noise and vibration could be expected to worsen in response, however the implementation of mitigation measures for each development would ensure that effects are not likely to be significant.
Baseline	**Chapter 8 Noise and Vibration** of the ES finds that the existing noise environment at the Site is dominated by road traffic noise from the B4100, in addition to distant road traffic noise from the M40 and rail noise from the line to the south west of the Site. The assessment identifies several receptors of high sensitivity to the construction and operation of the Development, within proximity of the Site comprised of the adjacent Bicester EcoTown Exemplar Site and eight properties within 265m of the Site, that exist along the proposed Site boundaries. Several properties along the proposed road network were also identified as sensitive to changes in road traffic as a result of the Development. The assessment finds that future baseline noise levels at the identified existing receptors will be broadly similar to the existing baseline given their proximity/relationship to the local road network and permanent location of the closest roads to residential dwellings.
Evidence	The Ministry of Housing, Communities and Local Government advises that noise needs to be considered when development may create additional noise, or would be sensitive to the prevailing acoustic environment. At significant levels of noise and vibration exposure, human health may be significantly affected; at this level, the impacts on health and quality of life are such that regardless of the benefits of the activity causing the noise, this situation should be avoided[xli]. The World Health Organisation (WHO)[xlii] finds recommends the following guidelines to reducing noise: • Reduce exposure to noise, while conserving quiet areas; • Promote interventions to reduce exposure to noise and improve health;

	- Coordinate approaches to control noise sources and other environmental health risks; and - Inform and involve communities potentially affected by a change in noise exposure. During the operation of the Development, the primary noise effect is likely to be from additional road traffic caused by the Development. The WHO strongly recommends the following: - Reduce noise levels produced by road traffic below 53 decibels (dB) L_{den} as road traffic noise above this level is associated with adverse health impacts; - Reduce noise levels produced by road traffic during night time below 45 dB $L_{night,}$ as night time road traffic noise beyond this level is associated with adverse effects on sleep; and - Policy-makers implement suitable measures to limit average and night time noise levels, and encourage the reduction of noise both at the source and on the route between the source and receptor by changes in infrastructure. Operational road noise and vibration is expected to be insignificant in terms of the assessment, however it is likely to exceed 53dB at the majority of receptors assessed. Policy Bicester 1: North West Bicester Eco-Town of the Cherwell Local Plan 2011-2031 Part 1[xliii] requires that consideration be given to any noise impacts of the railway line**. Chapter 8 Noise and Vibration** of the ES finds that rail noise can be heard from the Site, but is not significant, therefore would be unlikely to affect the residents of the Development. Similarly, DEFRA's 2010 Noise Policy Statement for England (NPSE)[xliv] aims to promote "*through the effective management and control of environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development:* - *avoid significant adverse impacts on health and quality of life;* - *mitigate and minimise adverse impacts on health and quality of life; and* - *where possible, contribute to the improvement of health and quality of life*."
Suggested Mitigation & Monitoring	During construction, noise and vibration from construction activity, plant and vehicles will be mitigated through the implementation of the CEMP. No additional mitigation measures have been proposed for the operational phase of the Development, in regards to road traffic, however the following measures have been proposed to ensure a reduction in noise intrusion: - Standard double glazing to living rooms; - Standard double glazing to bedrooms; and

	• Further consideration of the orientation and internal layouts of the proposed dwellings (including consideration of amenity spaces) and the choice of boundary features (i.e. fences), to provide further protection to future residents from noise associated with road traffic noise along the B4100.
Assessment	Following mitigation, the construction and operational phases of the Development are expected to have a **minor adverse** effect on noise and the subsequent human health effects. Vibration is expected to be negligible.
Theme	**TRAFFIC & TRANSPORTATION**
Considerations	Since the 1950s, road use has risen dramatically in the UK and has proved vital in moving people and freight and, although the growth rate has slowed in recent years, the volume and speed of traffic on the road network is expected to continue to increase[xlv]. Health risks associated with traffic include the risk of Killed or Seriously Injured (KSI) incidents, degradation to air quality through emissions of NO_2 and particulate matter, and noise pollution[xlvi]. Cycle and pedestrian travel has also grown, whilst the uptake of bus services has decreased[xlvii]. Pedestrians, cyclists and roadside residents and businesses are considered most vulnerable to the health effects of traffic. Oxfordshire demonstrates a similar pattern in transport mode uptake and proposes to encourage a reduction in sole-occupancy car journeys whilst increasing the number of journeys made by public transport (bus and rail) and active modes (pedestrian and cycle). The county also proposes to support initiatives to increase the proportion of freight carried by rail to reduce the impact of haulage road vehicles[xlviii].
Baseline	The Site is currently well provided for in transport modes and access. It is bound to the east by the B4100, which leads directly into Bicester town centre to the south, and the M4 and A43 to the north; access to the surrounding local settlements is provided for via minor roads such as Fringford Road and Bainton Road. Access via foot and cycle is possible through the existing Exemplar Site, which provides access to local facilities and amenities. The local road network is also permeated with shared footway/ cycle spaces, such as the B4100 and A4095, which provide direct access to Bicester town centre and Bicester North Railway Station, from which Chiltern Railways services operate, and Bicester Village Station, which travels to Oxford within 30 minutes. The Site is in proximity to several bus stops, along which the E1 bus service runs. Over the UK and Oxfordshire, a growth in road users has been forecast; this pattern is also reflected in the area local to the Site. As identified in **Chapter 6 Transport and Access** of the ES, there is a significant number of allocated sites identified within the Local Plan, and specifically in and around Bicester, it is expected that traffic levels will generally increase during the build out of the allocated sites until the end of the Local Plan period, identified as being 2031. A comparison of the current baseline for traffic flows of all vehicles (inclusive of HGVs) (2016) and the future baseline (2031) demonstrates significant growth in flows along most links within the study area in the 15-year period.

	Personal Injury Accident (PIA) data has been obtained from Oxfordshire County Council for the most-recent three-year period in the vicinity of the Site. A total of 31 accidents were recorded in the study area, of which 25 resulted in slight injury, 5 in serious injury, and one was recorded as being fatal.
Evidence	As identified in **Chapter 6 Transport and Access** of the ES, the construction of the Development is not expected to significantly impact the existing transport network or local population health. The construction traffic expected is of an insignificant magnitude (approximately 350 two-way movements per day) and will be routed via roads that are able to absorb the increase in traffic, per the Construction Traffic Management Plan (CTMP).

Once operational the Development will facilitate private, public and active transport access to the surrounding road network. Transport through the Development will prioritise bus and cycle movement and restrict through traffic and to promote the uptake of more active and sustainable transport modes. Road traffic will access the Development via several priority road junctions and bus gates, which cyclists will also be permitted to use; traffic calming measures will be implemented to maintain travel at a 20mph speed limit, to reduce the risk of KSI incidents and to ensure encouragement of on-carriageway cycling through improved safety. The review of the accidents occurring over the most-recent three-year period revealed that none of the junctions located within the accident study area had more than five accidents in the period. Furthermore, there were no clusters identified along the links within the study area that had more than five accidents. Therefore, the operation of the Development is expected to have a negligible impact to KSI incidents and road safety.

The Development recognises the importance of facilitating accessibility to different modes of transport to suit the differing needs of the local population. For example, the elderly and infirm, and those with disabilities, will require a scheme design sympathetic to their physical limitations. As such, access by foot and by cycle will be provided for through the existing Exemplar Scheme via the Estate Road and will provide adequate passing space on the pavements and informal, uncontrolled pedestrian crossing points with dropped kerbs and tactile paving located at regular intervals. This established network of footways through the Exemplar Scheme will provide direct access from the Application Site to the Gagle Brook Primary School, nearby facilities and amenities, and local bus stops. These features are also of particular importance to those without access to a car, and those unable to afford public transport, as they will provide direct access to local amenities without the need for a vehicle. An increase in the uptake of active and public transport modes will also support the Development in its sustainability aspirations, by encouraging a shift away from private vehicle use. |
| Suggested Mitigation & | During the construction phase, a CEMP will be prepared and agreed in advance of the commencement of construction, which will set out measures to manage the traffic associated with the construction of the Application Site within a Construction Traffic Management Plan (CTMP). The CEMP and the CMTP will be |

Monitoring	developed by the contractor, once appointed, and will be based on best practice. The measures included will focus on the reduction of staff and haulage traffic generated, clear pedestrian routes and maintenance of all vehicle routes, to reduce the risk of incidents and increase road and pedestrian safety. During the operational phase, a Residential Travel Plan will be implemented via a Section 106 Agreement. This plan will set out measures to reduce the reliance on the private car and promote walking and cycling, and the use of public transport.
Assessment	The Development is expected to have a **negligible** impact to the promotion of active travel (i.e. the uptake of walking and cycling), incidences of KSI and road traffic.
Theme	**CRIME AND ANTI-SOCIAL BEHAVIOUR**
Considerations	The baseline desktop assessment finds that the local area is within the 10 to 20% most deprived ranked areas for crime in the UK. The design of the Development includes consideration of personal safety. This relates not only to ensuring that the layout of the proposed development does not create an environment conducive to crime, but also to how residents and visitors to the site can move freely without the risk of threat or injury. The design of the Development will be sympathetic to the local baseline to ensure resident safety and reduce trespassing. This will be accomplished through the implementation of passive security measures, such as the provision of natural surveillance through housing design, and the implementation of a Lighting Strategy for the construction and operational phases to reduce the risk and fear of crime in hours of darkness. Landscaping and the public realm will also be well maintained to provide a sense of comfort and safety to residents and transient visitors. Well-maintained public space can encourage a sense of identity and ownership over the Development, which can be an effective dissuasion to crime. These spaces will also be designed to be inclusive and to suit a range of needs, therefore avoiding the risk of exclusion to any communities or personal characteristics. The Development proposes no active measures to combat local crime, nor provides security such as the provision of security guards, gated access or multi-use buildings. The Development is at the outline stage, and therefore the detailed security requirements will be determined through future reserved matters applications.
Baseline	Cherwell 011B LSOA ranks within the 20% most deprived for crime, which significantly differs from Cherwell 011C which ranks within the 10% least deprived, suggesting that crime in the area closest the Site (Cherwell 011B) is slightly worse than the immediate area. Although the Site ranks within some of the most deprived areas for crime

	in the UK, the rates of violent crime (hospital admissions for violence) are better than the English average. In children (i.e. below legal drinking age), the rate for alcohol-specific hospital admissions was similar to the national average. In Cherwell, the recorded crime rate for drugs is greater than the average for all surrounding Oxfordshire districts[xlix].
Evidence	In England and Wales, over the last two decades, the ONS has identified long-term reductions in the estimates of violent crime against adults and children (prior to the COVID-19 Pandemic), and reductions in violence-related admissions to hospitals emergency departments and walk-in centres[l]. Town planning can contribute towards the reduction of crime and anti-social behaviour. The Modern Crime Prevention Strategy (2016) finds that there are six key drivers of crime, of which opportunity for crime is applicable to the Development, i.e. by providing measures that remove the opportunity for crime, the risk of crime will be reduced[li]. This includes enhancing opportunities for passive surveillance, such as by providing multi-use facilities and improved lighting at darker times, and by facilitating a sense of place and ownership within a community or development. In line with this, the NPPF advises that planning policies and decisions should aim to '*achieve healthy, inclusive and safe places… so that crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion*'. The framework stipulates that crime and anti-social behaviour can be discouraged through the implementation of clear pedestrian routes and high-quality public space which encourage natural surveillance through continued and active use of public areas.
Suggested Mitigation & Monitoring	No further mitigation is required.
Assessment	The Development will have a **negligible** effect on crime and anti-social behaviour.
Theme	**ECONOMY AND EMPLOYMENT**
Considerations	**Chapter 12 Population and Human Health** of the ES identifies that the Development will produce employment for an average of 133 Full Time Equivalent (FTE) workers per month, on-Site, over the 60-month construction period, and a further 129 indirect jobs created off-site during this time; this is considered to be a temporary, minor beneficial effect on employment during the construction phase.

	The operation of the Development will provide no employment opportunities (i.e. no commercial, business or service floorspace), nor will it address considerations regarding the provision of working environment, business development opportunities, or employment or training to the local community. The provision of business opportunities is not inherent to the aims of the Development, and it will not contribute significantly to the provision of employment.
Baseline	As identified in **Chapter 12 Population and Human Health**, in the year ending September 2020, there were 77,900 residents in the CDC area who were classified as economically active (this includes all those people in employment or available to work, for example the unemployed). This is equivalent to 82% of all 16 to 64 year olds in the CDC area, which is higher than the average for England (79%). 76,600 CDC residents were in employment which is equivalent to 81% of all 16 to 64 year olds, which again is higher than the average for England (76%). The unemployment rate (among the population aged 16+ years) in the CDC area was 2.4% in the year to September 2020 which is significantly lower than the average for England (4.3%). With an unemployment rate of 2.4%, there were 1,900 people unemployed in the CDC area in the year to September 2020. Within the Study Area there are a comparatively high proportion of employees working in wholesale (16%) in comparison to the CDC area (6%) and England (4%). The retail sector is also an important industry within the Study Area accounting for 12% of all employment, broadly comparable to the average for the CDC area (13%).
Evidence	Research conducted by the Cabinet Office has found that the association between employment/ economic status and wellbeing is well established; their research clearly shows that those in unemployment are more likely to suffer from an impact to their wellbeing such as happiness, anxiety and lower life satisfaction[lii]. This pattern is also true of those in underemployment (where an individual takes a part-time job because they cannot find full-time work). Of those unemployed, further disaggregation of data showed that those off work for health reasons had the lowest life satisfaction. PHE's local action on health inequalities[liii] finds that enhancing accessibility of employment opportunities can be effective in engaging those with disabilities and the ageing population in work, by ensuring that personalised, tailored support is provided. PHE also find that there is a social gradient in unemployment, with those in more disadvantaged socioeconomic positions more likely to be unemployed than those in more advantaged positions. Unemployed people have a greater risk of poor health than those in employment, contributing to health inequalities.
Suggested	No further mitigation is required.

Mitigation & Monitoring	
Assessment	The Development will have a **minor positive** effect on the economy and employment during construction whilst it will have a **negligible** effect during operation.
Theme	**EDUCATION AND SKILLS**
Considerations	Excluding employment opportunities during construction, as above, the Development does not facilitate access to local employment or training opportunities, nor does it provide workspace or facilities to enable local work procurement. Whilst the Development will not provide educational facilities, it is possible that the introduction of additional residential units into the local area will generate demand for school places. Chapter 12 Population and Human Health of the ES finds that an anticipated 129 Primary School and 74 Secondary School places could be required by the Development. Due to the surplus of 523 Primary School places and 358 Secondary School places across the local schools it is considered that the Development will have a negligible effect on education at the local level for which mitigation is not required.
Baseline	There are a total of nine primary schools within 3.2km of the Site which are located within the three Primary School Planning Areas of Bicester North Town Primary, Bicester South West Primary and Bicester South East Primary. In total there are 14 primary schools located within these three Primary School Planning Areas. In total, the nine primary schools within 3.2km of the Site are operating under-capacity by 523 places. Across the three Primary School Planning Areas combined there are a total of 621 primary school places available, of which 363 are within Bicester North Town Primary Planning Area, 139 within Bicester South West Primary Planning Area and 119 within Bicester South East Primary Planning Area. There are four secondary schools within 4.8km of the Site which are located within the Bicester Secondary Planning Area. There is one further all-though school (Heyford Park School) which provides both primary and secondary education located just beyond 4.8km from the Site but which is located within the Bicester Secondary Planning Area. In total, there are currently 358 available secondary school places within the Bicester Secondary Planning Area.

Evidence	Education is found to be the strongest predictor of life outcomes, wellbeing and social identity compared to age, gender, income, employment status and marital status[liv]. Higher levels of education are associated with a wide range of positive life outcomes, such as better health and wellbeing, higher social trust and less hostile attitudes towards people of other social and ethnic groups. The NPPF advises that policies and planning should consider if a sufficient choice of school places is available to meet the needs of new and existing communities, and that a proactive approach should be taken in meeting this requirement
Suggested Mitigation & Monitoring	No further mitigation is required.
Assessment	The Development will have a **negligible** effect on education and skills.
Theme	**LOCAL NATUAL ENVIRONMENT AND ACCESS TO GREEN SPACES**
Considerations	Access to open and green space encourages residents to spend recreational time outdoors and enjoying physical activity. The encouragement of movement helps to reduces levels of heart disease, strokes and other ill health problems that are associated with both sedentary occupations and stressful lives. These spaces can also help to facilitate social interaction, a sense of place and community interaction among residents, which benefits mental and physical health[lv]. Access to open and natural space also supports human health through the provision of biodiversity and ecosystem services, such as visual and decorative enjoyment, pest regulation and the purification of air and water[lvi]. The Development will implement ecological corridors onsite to ensure the retention of key habitats and wildlife networks during construction and operation. This will include the retention of watercourses, woodland, hedgerow and treelines across the Site, and the creation of a new corridor across the arable land to the north-western boundary. The Site will be bound by a buffer of multifunctional green space which will include retained vegetation, a 10m hedgerow buffer and a 15m woodland buffer that will also act as a bat corridor. These corridors will also incorporate features to support the provision of open space for recreation, such as footpaths and play areas. The Applicant recognises that there is a correlation between the quality of open space and the uptake for use for recreation and enjoyment. Open and natural spaces that are of poor quality or accessibility are likely to discourage physical activity and social interaction. As with the housing development parameters (i.e. differing tenures and

	sizes) the design of the open and green spaces will reflect the varying needs of the community to prevent barriers to access, such as play areas for young residents and accessible walkways for those less physically able. Management of water resources in the natural environment is also important to human health in developments. For example, building in flood plain areas and/ or a lack of local sustainable urban drainage methods increases flood risk which poses obvious physical health and safety hazards, such as from drowning and contamination of water supplies, and can also affect property prices and insurance costs. The fear of flooding can also cause significant levels of anxiety and mental health issues, particularly in more vulnerable groups. The Development will utilise SuDS drainage to incorporate the provision of open space and habitat into the drainage design. The SuDS will be designed to provide both permanently wet areas and seasonally wet areas to provide a range of conditions for wildlife and enhance biodiversity. Four attenuation basins are proposed.
Baseline	The Site is located in an area of predominantly agricultural grassland wherein the fields are demarcated by hedges, treelines and planting. The west of the Site contains two distinct areas of woodland, and the most northern area of woodland contains a dry pond. There is a historic hedgerow which runs along the north eastern border of the Site and is a drainage feature running through the south of the Site, which also comprises areas of Flood Zones 2 and 3. As discussed in **Section 3**, residents of the district have a similar activity level to the national average and experience lower levels of childhood obesity, fewer hospital admission due to self-harm and substance abuse, and mortality rates under 75 from all causes (inclusive of cardiovascular afflictions).
Evidence	In line with the NPPF (paragraph 96 and 171) guidance[lvii] promoting the provision of open spaces and green infrastructure in development, Cherwell's Local Plan dictates that developments within the strategic allocation for 6,000 dwellings North West of Bicester will ensure that '*40% of the total gross site area will comprise green space of which at least half will be publicly accessible and consist of a network of well-managed, high quality green/open spaces which are linked to the open countryside. This should include sports pitches, parks and recreation areas, play spaces, allotments, the required burial ground (possibly a woodland cemetery) and SuDS*'[lviii]. The Development supports CDC in its delivery of the Eco-Town allocation, by providing open, green space for use by the residents of the 22ha Development. The green space will be multifunctional, providing open and natural space for resident recreation, support for wildlife and the provision of SuDS drainage features.

| Suggested Mitigation & Monitoring	**Chapter 9 Landscape and Views** of the ES states that planting will be undertaken as part of the Development construction in order to retain and enhance woodland and hedgerow and facilitate the creation of green corridors and open space. Management and maintenance of the planting and open space will be required once the Development is operational to ensure the long-term viability and uptake of open space.
Assessment	The Development will have a **minor beneficial** effect on the provision of local natural environment and access to green space by providing green infrastructure development for the residents of the Development. The green spaces will be multifunctional in use, providing recreational facilities for residents to encourage uptake of physical exercise and enjoyment of the outdoors, and natural spaces to enhance biodiversity. The implementation of SUDS drainage features will also manage water resources onsite to reduce the risks of excess water onsite to residents, such as reduction in the risks of flooding and floodwater incursion to properties.
Theme	**ACCESS TO SERVICES**
Considerations	As identified in **Chapter 12 Population and Human Health** of the ES, there are several healthcare facilities in the local area. Whilst the Development does not facilitate direct access to these facilities, such as through the provision of community taxis, the network of accessible thoroughfares permeating the Development will provide easy access to surrounding amenities for those travelling via active, public and private means. The design of the Development is sympathetic to the use of transport routes by those of differing mobilities, such as people with disabilities and older people, providing dipped kerbs and textured roadside surfaces. Building design will also cater to various receptors. Assuming a worst-case scenario, it is anticipated that the Development could generate the need for up to 1,348 new residents that would require registration with a local GP surgery and dentist. The local GP surgeries are identified as currently operating over-capacity when assessed against the HUDU standard of 1 GP for every 1,800 patients; however, reference to NHS Choices (as of 11 March 2021) identified that all three GP practices are accepting new patient registrations. Nonetheless, it is considered that there is not capacity within the existing GP provision to accommodate an additional 1,348 patients and on this basis the Development would have a minor adverse effect on GP provision at the local level. Baseline conditions identify that four of the nine dental surgeries located within the Study Area are accepting new NHS patients. On this basis, it is assumed that there is capacity within the existing dentist provision therefore it is considered that the Development will have a negligible effect on dentist provision at the local level and therefore mitigation is not required. The Development provides no healthcare or social care facilities therefore the review of its provision to these services is not relevant to this assessment.

Baseline	ES **Chapter 12 Population and Human** identified the healthcare provisions within Bicester. The study area used for this chapter comprises the three electoral wards of Bicester East, Bicester North and Caversfield, and Bicester West as representative of Bicester. There are three GP surgeries operating within the study area: Victoria House Surgery (linked with GP practice Alchester Medical Group located outside of the study area to the south of Bicester), Montgomery House Surgery and Bicester Health Centre. The local GP surgeries are identified as currently operating over-capacity. A total of nine dental practices are operating within the study area. Only four of the nine dental practices are accepting new NHS patients, indicating limited capacity within the existing dental provision.
Evidence	The access to healthcare services is a clear indicator of health and wellbeing outcomes. NHS find that people experience poorer outcomes from poorer access to services, which could have an adverse impact on life expectancy[lix]. Recent improvements to the national healthcare provision has aimed to improve the quality of support and care for publicly accessible healthcare services, by increasing the number of services available (for which the local community is consulted for the services they feel are required) and by placing more emphasis on preventative measures of illness, such as activity, which can also reduce dependence in older age or those with disabilities.
Suggested Mitigation & Monitoring	No further mitigation is required.
Assessment	The Development will have a **negligible** effect on access to services.

5   CONCLUSION

5.1   An assessment of the potential health effects of the Development has been undertaken using best practice guidance. Relevant local and national policy has been identified which has helped focus the assessment of effects (set out in **Section 3**), undertaken using an appropriate desktop Health Impact Assessment Tool.

5.2   The performance of the Development has been assessed against the following key health themes:

- Housing;
- Physical activity;
- Healthy food environments;
- Air quality;
- Noise;
- Traffic and transportation;
- Crime and anti-social behaviour;
- Economy and employment;
- Education and skills;
- Local natural environment and access to green spaces; and
- Access to services.

5.3   As shown in the assessment in **Section 4**, the Development is considered to have a negligible to minor positive/ minor adverse health effect in relation to the key health themes; no effects are significant.

5.4   As the Development is at the outline planning stage, some of the details for the Development are not yet known as further detail will come forward through future reserved matters application, however, the Development has been and will continue to be designed to provide a high quality, attractive and healthy environment for future users.

5.5   The Development has been designed to create a new community which meets local housing need, enhances green infrastructure and provides public realm space for the benefit of the residents. The Development will consist of high-quality dwellings designed to be sympathetic to the varying healthcare and accessibility needs of the future residents. The proposals also include affordable housing provision to address the local needs and ensure the Development is accessible and inclusive for all. Access considerations within the design of the Development promote active and sustainable travel, including attractive and safe cycling and pedestrian facilities that connect to the wider area. The inclusion of formal and public open space with recreation and community gardening space will provide a range of beneficial health effects.

SITE LOCATION PLAN

B4100

B4100

Fringford Road
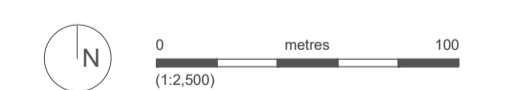
Application boundary 23.97 hectares

Other land under the applicants ownership 0.02 hectares

Project
Land at North West Bicester

Drawing Title
Location Plan

| Date 14/04/2021 | Scale 1:2,500 at A1 | Drawn by ML | Check by LA |
| Project No. 1192 | Drawing No. 001 | | Revision I |

Mosaic

OXFORD HEALTH IMPACT ASSESSMENT TOOLKIT

OXFORDSHIRE HEALTH IMPACT ASSESSMENT TOOLKIT

ENDORSED BY THE OXFORDSHIRE GROWTH BOARD
JANUARY 2021

CHANGE FOR THE BETTER 2050:
DELIVERING OUR STRATEGIC VISION FOR
SUSTAINABLE DEVELOPMENT IN OXFORDSHIRE
OXFORDSHIRE HEALTH IMPACT ASSESSMENT TOOLKIT

Enhanced well-being sits at the heart of our ambition for Oxfordshire. The county's strategic vision states that:

*"We want Oxfordshire to thrive so that the lives of current and future generations are improved. To achieve this will require bold, innovative, collaborative and inclusive thinking with **decisions and actions** that deliver real and lasting change in ways that build resilience and enhance well-being."*

Oxfordshire's Health Impact Assessment Toolkit is a mechanism for delivering this ambitious change. Sustainable growth across the County has the potential to positively impact on existing health inequalities and the scope to create healthy, more resilient and sustainable communities. However, it will only achieve these outcomes if all those involved in the development process, including developers, land agents, planners and policy makers, are given the tools to help them to apply healthy place shaping principles in practice. This toolkit is a mechanism for ensuring that commonly endorsed place making principles actually influence real development decisions and deliver improvements to health and well-being, whether as part of regeneration and development schemes in existing communities, or in new settlements.

A Health Impact Assessment (HIA) is a tool used to identify the health impacts of a plan or project and to develop recommendations to maximise the positive impacts and minimise the negative impacts, while maintaining a focus on addressing health inequalities. By bringing such health considerations to the fore, HIAs add value to the planning process.

Undertaking a Health Impact Assessment of Local Plans and of major developments is endorsed in national guidance with HIAs seen as "an essential tool to 'health-proof' spatial plans and project designs for future generations...HIAs put people and their health at the heart of the planning process. An HIA supports the planning system to address local health and wellbeing needs and tackle inequalities though influencing the wider determinants of health." It enables delivery of the National Planning Policy Framework (NPPF) and the Planning Practice Guidance (PPG) on promoting healthy and safe communities.

In Oxfordshire a sub-group of the Growth Board with representation from all the local planning authorities and public health has been working with consultants to produce an Oxfordshire HIA Toolkit for use with:

- Assessment of the Oxfordshire Plan 2050
- Assessment of Local Plans
- Assessment of major developments in Oxfordshire

It reflects national guidance and draws on best practice to provide a suite of tools for use by developers early in the design stage as much as by planning officers when assessing applications or producing spatial plans. It will be supported by training so that this approach becomes embedded into our approach in Oxfordshire. **This toolkit has been endorsed by the Oxfordshire**
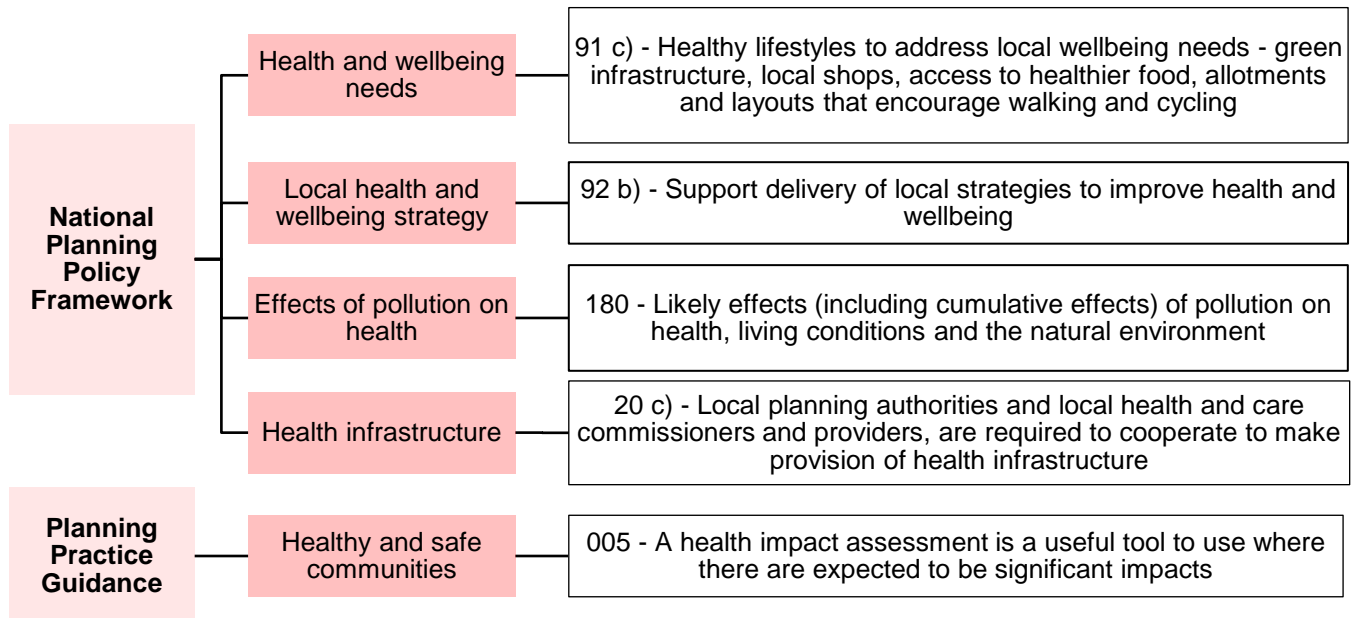
Growth Board for use by all six Oxfordshire Local Authorities; we look forward to monitoring its use across the County.

INTRODUCTION

This toolkit has been prepared by WSP on behalf of the Oxfordshire Growth Board, to assist Oxfordshire's local planners and planning applicants in undertaking the screening and, where required the completion of a rapid Health Impact Assessment (HIA). The toolkit takes the form of a rapid HIA proforma and methodology, which is expected to be implemented when Oxfordshire's district council planning departments are determining any '*major development*' within their district.

Where do HIAs fit within the Broader Planning Context?

Local plan making and planning decisions are obliged to consider health and well-being, as part of a national policy requirement. Health and well-being impacts of a scheme or project can often be assessed during Environmental Impact Assessments (EIA) or Strategic Environmental Assessments (SEA), however this is often a derivative element of the process, and outcomes can be weak. Planners are able to pro-actively address the health and well-being impacts of a scheme as part of a HIA, as consultation with stakeholders is part of the HIA process.

National Planning Policy Framework	Health and wellbeing needs	91 c) - Healthy lifestyles to address local wellbeing needs - green infrastructure, local shops, access to healthier food, allotments and layouts that encourage walking and cycling
	Local health and wellbeing strategy	92 b) - Support delivery of local strategies to improve health and wellbeing
	Effects of pollution on health	180 - Likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment
	Health infrastructure	20 c) - Local planning authorities and local health and care commissioners and providers, are required to cooperate to make provision of health infrastructure
Planning Practice Guidance	Healthy and safe communities	005 - A health impact assessment is a useful tool to use where there are expected to be significant impacts

HIAs can be a means by which barriers to securing healthy environments can be overcome. A survey of Royal Town Planning Institute (RTPI) members in 2009, asked what, at the time, were the main barriers they thought prevented the securing of healthy environments (Table 1). A recent updated survey of members in 2018 indicated that these barriers were still in place.

All of the 10 main barriers identified by RTPI members below, can either be fully or partially addressed through a thorough and consistent HIA process.

Table 1 Main Barriers to Securing Healthy Environments Identified by Participants (RTPI, 2009)

Barrier	% identified	Overcome through HIA process
Lack of financial resources	76%	Yes
Competing policy priorities	66%	Yes
Silo mentality in departments / teams/ professions	54%	Yes
Lack of engagement from / with developers	53%	Yes
Lack of a specific policy or statutory duty	48%	Yes
Influencing local politicians/ political will	45%	Yes
Team Capacity and technical skills	43%	Yes
Lack of leverage with colleagues or external bodies	42%	Yes
Lack of relevant evidence base to support decisions	36%	Yes
Lack of appropriate tools and guidance	25%	Yes

The Planning Practice Guidance (PPG) identified in 2014 that HIAs were a useful tool to identify where health impacts of a scheme upon local people could be expected to be significant. It is the intention that the Oxfordshire Plan will include strategic healthy place shaping policies and will explore the potential for setting county-wide HIA requirements for new plans and developments in Oxfordshire.

Who is this Toolkit for?

This toolkit will support planners and help them to identify the health impacts of a scheme, and, where necessary, provide them with a routemap to ensure an appropriate rapid HIA is undertaken. It will also provide both developers and their planning agents with rapid HIA screening and scoping tools for their developments. It could also be utilised by local communities to assist them screening the potential health impacts resulting from changes to their neighbourhood. It also provides other professionals with a consistent approach for assessing and commenting on health-related impacts of development proposals.

Where will the Toolkit be applied?

It is assumed that this methodology will be adopted at the discretion of District Councils in Oxfordshire to align with the healthy place shaping objectives and strategic policies of the Oxfordshire Plan.

HIAs can take a number of forms, and the type of HIA undertaken will depend on the type and scale of a proposed development. The most appropriate type of HIA to conduct can be decided through a short scoping meeting with the local planning authority to discuss timeframes and resources, as well as levels of stakeholder involvement.

It will be up to District Councils to decide how best to embed HIA into their activities. A requirement for undertaking a HIA could be incorporated into the following;

- Emerging Area Action Plans and development framework documents for the Strategic Development Areas (and non-strategic development areas);
- Council Plans;
- Recovery Plans;
- Reviews of Local Plans;
- Specific Supplementary Planning Document (SPD) on, say, Healthy Place Shaping;
- Adding to e.g. Design Guide SPD and Local Design Codes; and/or
- Planning Application Validation List.

The main objective of an HIA is to inform and influence decision making, with the main output being an evidence-based set of recommendations that should lead to the minimisation of risks or unintended consequences, and maximisation of potential benefits.

In preparing this methodology template, a review of a selection of existing methodologies has been undertaken, with a summary of each included in the following section.

For any queries regarding the use of this toolkit please contact Rosie Rowe, AD Healthy Place Shaping at Oxfordshire County Council Rosie.Rowe@Oxfordshire.gov.uk

EXISTING METHODOLOGIES

NHS London Healthy Urban Development Unit (HUDU)

The London Plan, and many London borough Local Plans, refer to the use of HIA. In response, HUDU have developed two widely accepted tools that can be used to ensure health and wellbeing are properly considered in planning policies and proposals.

The **HUDU Rapid Health Impact Assessment (HIA) Tool[1]** uses existing evidence to quickly assess the impacts of a development plan or proposal and recommends measures to address negative impacts and maximise benefits. This tool is set out as a matrix and focusses on the built environment in London, specifically issues directly or indirectly influenced by planning decisions.

For larger development proposals, the **Healthy Urban Planning Checklist[2]** provides a tool to screen for possible health impacts to include in a rapid or full HIA. The checklist is split into four themes (Healthy housing, active travel, healthy environment and vibrant neighbourhoods), under which there are key questions on planning issues which are linked to London-specific policy requirements and standards.

Wales Health Impact Assessment Support Unit (WHIASU)

The Public Health (Wales) Act 2017 requires HIA to be carried out by public bodies in specific, as yet defined, circumstances. Clarification of these circumstances, and further direction, will be included in Statutory Regulations which are anticipated in 2020/21.

The WHIASU has produced a number of resources to support practitioners in completing HIAs, most notable is their publication **Health Impact Assessment: A practical guide[3]** which introduces the HIA process and is complimented by a **Screening Record Sheet[4]**, **Scoping Checklist[5]**, and **Population Groups Checklist[6]**. The guidance provided is generic, and suitable to be adapted and developed to suit a policy, programme, plan, project, or change to service delivery, as necessary.

An additional tool produced by the WHIASU is their **Quality Assurance Review Framework for Health Impact Assessments[7],** a critical appraisal tool for HIA. This document aims to provide guidance to a range of audiences on undertaking a quality assurance review of HIAs.

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[1] NHS, London Healthy Urban Development Unit, HUDU Planning for Health, Rapid Health Impact Tool, 2019 [online] available at: https://www.healthyurbandevelopment.nhs.uk/wp-content/uploads/2019/10/HUDU-Rapid-HIA-Tool-October-2019.pdf

[2] NHS, London Healthy Urban Development Unit, HUDU Planning for Health, Healthy Urban Planning Checklist, 2017, [online] available at: https://www.healthyurbandevelopment.nhs.uk/wp-content/uploads/2017/05/Healthy-Urban-Planning-Checklist-3rd-edition-April-2017.pdf

[3] Wales Health Impact Assessment Support Unit, Health Impact Assessment. A practical guide [online] available at: https://whiasu.publichealthnetwork.cymru/files/1415/0710/5107/HIA_Tool_Kit_V2_WEB.pdf

[4] Wales Health Impact Assessment Support Unit, Health Impact Assessment Screening Record Sheet [online] available at: https://whiasu.publichealthnetwork.cymru/files/1115/0876/0999/Health_Impact_Assessment_Screening_Record_Sheet_incl_MWB_template.pdf

[5] Wales Health Impact Assessment Support Unit, Scoping Check list [online] available at: https://whiasu.publichealthnetwork.cymru/files/6414/9993/9603/Scoping_info.pdf

[6] Wales Health Impact Assessment Support Unit, Population Groups Checklist, [online] available at: https://whiasu.publichealthnetwork.cymru/files/5815/8408/9421/WHIASU_Population_Groups_Checklist.pdf

[7] https://whiasu.publichealthnetwork.cymru/files/8815/3545/2412/Complete_QA_Framework.pdf

Wakefield Council

In Wakefield, HIAs are required to be submitted as part of the planning application for development schemes likely to have a significant impact on health and wellbeing. In order to simplify the process of carrying out HIA of a development scheme or proposal, Wakefield Council have developed a HIA for Planning Toolkit, with tools for undertaking both **Rapid**[8] and **Comprehensive**[9] HIA. Wakefield Council's Health Improvement Team have identified key **priority themes**[10] for each Wakefield Council Ward, where evidence suggests a HIA should focus.

South Cambridgeshire District Council

To support Policy SC/2: Health Impact Assessment in the South Cambridgeshire Local Plan 2018, a specific **Supplementary Planning Document**[11] (SPD) builds on existing guidance and provides advices on the preparation of HIA submitted alongside a planning application. Of particular use is Appendix 3 of this document, which sets out a review checklist for HIA of development project, setting out clearly the expectations of what a HIA should include.

Ben Cave Associates

Ben Cave Associates have produced a review package[12] which is intended to enable a reviewer of an HIA report to reach an opinion as to the quality of the completed HIA report in a systematic way and to outline the areas of weakness that may need further work and included in further submissions of the planning application. The review package has been specifically developed for reports which are submitted as evidence associated with an application for development consent, however, with some modifications, the review package can also be applied to a wider range of HIAs.

The review package assesses the HIA in four main areas; Context; Management; Assessment; and Reporting. The review process accumulates into a final grade, ranging from A (Good) to D (Not satisfactory).

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[8] Wakefield Council, Rapid Health and Wellbeing Impact Assessment
for Planning (HIA) Tool [online] available at: https://www.wakefield.gov.uk/Documents/health-care-advice/public-health/health-impact-assessment/2016/rapid-hia-tool.docx
[9] Wakefield Council, Comprehensive Health Impact Assessment for Planning (HIA) Tool [online] available at: https://www.wakefield.gov.uk/Documents/health-care-advice/public-health/health-impact-assessment/2016/comprehensive-hia.docx
[10] Wakefield Council, Health Impact Assessment (HIA) for Planning Priority Themes by Ward https://www.wakefield.gov.uk/Documents/health-care-advice/public-health/health-impact-assessment/2016/priority-themes-by-ward.docx
[11] South Cambridgeshire District Council, Local Development Framework, Health Impact Assessment, Supplementary Planning Document [online] available at: https://www.scambs.gov.uk/media/8950/health-impact-assessment-spd.pdf
[12] Ben Cave Associates, A Review Package for Health Impact Assessment reports of development projects, 2009 [online] available at: https://ueaeprints.uea.ac.uk/id/eprint/24948/1/Fredsgaard_et_al__2009.pdf

PROPOSED METHODOLOGY

This methodology has been developed to assist with the process of carrying out a rapid Health Impact Assessment (HIA) for planning applications for Major Developments in Oxfordshire.

HIA is a practical approach used to judge the effects a proposed development may have on the health and wellbeing of different groups of people. The findings of HIAs are used to make recommendations to decision makers as to how any negative health impacts of a development can be reduced, and any positive health impacts maximised.

This HIA methodology has been designed to streamline the process of carrying out HIAs of major developments in Oxfordshire. It is intended that this methodology will be used by developers and consultants when preparing major development proposals to help shape and inform design choices.

When using this methodology, the length and detail of the assessment should relate to the scale and complexity of the proposed development. The scope of the assessment, and extent of stakeholder engagement, should be discussed and agreed with the relevant Planning Officer to ensure a proportionate approach to the HIA is taken.

This HIA methodology consists of five stages:

1) Description of the proposed development;

2) Identification of population groups affected by the development;

3) Identification of geographical area and associated health needs and priorities;

4) Assessment of health and recommendations; and

5) Monitoring.

1. Description of the proposed development

The HIA report should begin with a description of the physical characteristics of the site of the proposed development site and surrounding area, including the current use. The aims and objectives of the project should be stated, and the final operational characteristics of the project should be described. The report should also include the policy context, particularly if there are any relevant polices that protect and promote health and wellbeing.

2. Identification of population groups affected by the development

The HIA should consider which groups of the existing population would be affected by the proposed development. Most proposals will not affect all individuals or groups across a community in the same way and listed below are a range of groups to consider. By understanding the composition of a local population, the assessor will be able to identify groups most vulnerable to impacts resulting from a proposed development.

Sex/Gender related groups	Age related groups	Groups at higher risk of discrimination, or other social disadvantage	Income related groups	Geographical groups and/or settings
■ Female ■ Male ■ Transgender ■ Other	■ Children and young people ■ Early years (including pregnancy and first year of life) ■ General adult population ■ Older people	■ Black and minority ethnic groups ■ Carers ■ Ex-offenders ■ Gypsies and Travellers ■ Homeless ■ Language/culture ■ Lesbian, gay and bisexual people ■ Looked after children ■ People seeking asylum ■ People with long term health conditions ■ People with mental health conditions ■ People with physical, sensory or learning disabilities/difficulties ■ Refugee groups ■ Religious groups ■ Lone parent families ■ Veterans	■ Economically inactive ■ People on low income ■ People who are unable to work due to ill health ■ Unemployed/workless	■ People in key settings: workplaces/schools/ hospitals/care homes/ prisons ■ People living in areas which exhibit poor economic and/or health indicators ■ People living in rural, isolated or over-populated areas ■ People unable to access services and facilities ■ Students

3. Identification of geographical area and associated health needs and priorities

District Councils will need to liaise with colleagues in Public Health to undertake an exercise to identify their own specific, evidence-based health priorities for areas within their District. Sources to use when identifying local health needs and priorities include:

- A local Health and Wellbeing Strategy;
- The local Joint and Strategic Needs Assessment (JSNA);
- Publicly available data sets available from https://insight.oxfordshire.gov.uk/cms/ and https://fingertips.phe.org.uk/profile/health-profiles;
- Data sets available on https://local.communityinsight.org; and
- Other health and social care partners including primary care, CCGs and NHS trusts.

 An example of how these priorities could be presented in a format that is easy to use by anyone undertaking an HIA in the District is shown as an example matrix in **Appendix 1**.

Identifying localised health priorities will enable a HIA to focus on the key issues for a particular location of a development, ensuring any HIA submitted to a Planning Authority is targeted and appropriately scoped so that it provides the most benefit.

The HIA should consider the geographical areas affected by a proposed development, specifically which parish, neighbourhoods and/or communities the proposed development will mostly affect and link these to the health priorities identified by the Local Planning Authority (as outlined above).

The identified health priorities for a particular location will form the basis of the scope of the assessment, though should not be a definitive list. The tables in **Appendix 2** include considerations for each typical health priority theme, which will also assist in determining if a proposed development is likely to have an effect on other aspects of health and wellbeing.

4. Assessment

Typical health priorities likely to be affected by a proposed development are:

- Housing,
- Physical activity,
- Healthy food environments,
- Air quality,
- Noise,
- Traffic and Transportation,
- Crime and anti-social behaviour,
- Economy and Employment,
- Education and Skills,
- Local natural environment and access to green spaces, and
- Access to Services.

A series of assessment tables should be completed for each of the health priorities identified as relevant to a proposed development. Assessment tables guide the user through a process of establishing a baseline of the existing situation, building an evidence base around health impacts associated with a health priority (identified in Stage 3), and identification of likely effects (positive and negative), as well as the population groups (identified in Stage 2) likely to experience these effects.

Assessment Table

STEP	ACTIVITY TO UNDERTAKE
Baseline	Include a description of the baseline as applicable to the priority theme.
Evidence	Build an evidence base as applicable to the priority theme.
Stakeholder Engagement	Include evidence or feedback relevant to the priority theme, derived from stakeholder engagement activities.
Health effects	Describe potential health effects due to the proposed development to arise. Identify beneficial and adverse effects. Identify population groups likely to experience these effects.
Summary	Summarise the identified impacts and recommendations for minimising adverse effects, or maximising opportunities for benefits.

Appendix 1 provides an example for how District Councils might demonstrate health priorities for different areas within their jurisdiction. When undertaking a HIA, the priorities identified by Local Planning Aithorities should be used to set the scope of the assessment.

Appendix 2 sets out information relevant to each of the likely health priorities listed above. A list of considerations to take into account when deciding if a priority theme is relevant to a proposed develop are provided, along with suggested resources to use when developing a baseline and identifying relevant evidence for each priority theme.

Stakeholder engagement can be a useful source of evidence in a HIA and should be undertaken at a scale that is proportionate to a proposed development. Consultation could range from discussions with relevant planning officers and technical specialists, to a wider community consultation exercise.

Baseline information and evidence may be included in other documents included as part of a planning submission. The HIA should be informed by, and align with such documents which are likely to include;

- Design & Access Statements,
- Assessments of noise, air quality and/or transport,
- Socio-economics statement, and/ or
- Specialists assessments included in an EIA.

Appendix 3 sets out a checklist for Local Planning Authority Officers to assess submitted HIAs for completeness and quality.

5. Monitoring

A HIA report submitted to the Planning Authority should include a set of recommendations that are linked to the impacts identified by the assessment and which are S.M.A.R.T. The implementation of these health recommendations should be monitored by the Local Planning Authority and the extent to which the HIA has influenced the decision making process evaluated, supported by stakeholder feedback and Public Health data. It will be up to District Councils to determine when, and how frequently, monitoring should occur, but one opportunity could be when reviews are undertaken of Local Plans.

Appendix 1: Example of Evidence based specific health priorities for Areas

AREA NAME	HOUSING	PHYSICAL ACTIVITY	ACCESS TO HEALTHY FOOD AND NUTRITION	AIR QUALITY	NOISE	TRAFFIC AND TRANSPORT	CRIME AND ASB	ECONOMY & EMPLOYMENT	EDUCATION & SKILLS	ENVIRONMENT	INEQUALITY	ACCESS TO SERVICES
Oxford City												
Barton and Sandhills		✓ There are worse than average levels of obesity in Year 6		✓ Worse than average hospital admissions for COPD		✓ 31% of households have no car in Barton and Sandhills compared with 26% across England	X The overall crime rate is lower than the average across England	X 42% people aged 16-74 are in full-time employment in Barton and Sandhills compared with 39% across England	✓ 23% of people have no qualifications in Barton and Sandhills compared with 22% across England	X The % of people 'satisfied with their neighbourhood' (83.0%) is higher than the average across England (79.3%)	✓ 23% of children are living in poverty in Barton and Sandhills compared with 17% across England Worse than average income deprivation affecting children, worse than average Income deprivation	
Blackbird Leys												
Littlemore												
Northfield Brook												

Appendix 2: Assessment Tables of Typical Health Priorities

THEME	TRAFFIC AND TRANSPORTATION
Considerations	- Introduction of sustainable transport options and incentives - Speed reduction measures - Reducing the need to travel, particularly by car - Provision or enhancement of the public transport network - Provision or enhancement of sustainable travel facilities - Needs of people who are car dependant
Baseline	Include a description of the baseline as applicable to the theme, likely to include; - Existing public transport/sustainable travel facilities - Levels of car ownership - Road safety (accidents, number killed or seriously injured) - Traffic congestion and traffic flows Sources likely to include ONS, Census, Department of Transport data[13], Local Authority, Public Health England (PHE) local authority profiles, and other relevant bodies such as Sustrans.
Evidence	Build an evidence base as applicable to the theme, suggested sources include; - Transport, Health & Wellbeing: An evidence review for the Department for Transport[14] - PHE, Spatial planning for health: An evidence resource for planning and designing healthier places[15]

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[13] Department of Transport traffic count data available at: https://roadtraffic.dft.gov.uk/downloads
[14] NatCen Social Research, Transport, health and wellbeing: An evidence review for the Department for Transport, 2019 [online] available at:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/847884/Transport__health_and_wellbeing.pdf
[15] Public health England, Spatial Planning for Health, An evidence resource for planning and designing healthier places, 2017, [online] available at:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/729727/spatial_planning_for_health.pdf

THEME	ECONOMY AND EMPLOYMENT
Considerations	• Access to relevant and skills specific employment and training opportunities • Provision of a diversity of job opportunities • Provision of accessible employment opportunities appropriate to the skill sets present in local community • Provision of childcare facilities and other employee support services • Supporting business start-up, development and survival • Provision of a safe and pleasant biophilic working environment • Creating an attractive business location that encourages investment (e.g. appropriate infrastructure; clean and pleasant environment and promotes a positive green working infrastructure).
Baseline	Include a description of the baseline as applicable to the theme, likely to include; • Current levels of employment in the area • Breakdown of types of employment (permanent, casual, zero hours) and occupations Sources likely to include ONS, Oxfordshire JSNA, Census, Local Authority, NOMIS and other relevant bodies such as the local Chamber of Commerce.
Evidence	Build an evidence base as applicable to the theme, suggested sources include; • PHE, Local action on health inequalities: Increasing employment opportunities and improving workplace health[16] • Department for Work and Pensions, Is work good for your health and well-being?[17] • The Health Foundation, What makes us healthy? An introduction to the social determinants of health[18]

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[16] Public Health England, Local action on health inequalities: Increasing employment opportunities and improving workplace health, 2014, [online] available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/356064/Review5_Employment_health_inequalities.pdf

[17] Burton, K and Waddell, G (commissioned by the Department for Work and Pensions) Is work good for your health and wellbeing?, 2006, [online] available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/214326/hwwb-is-work-good-for-you.pdf

[18] The Health Foundation, What makes us healthy? An introduction to the social determinants of health, 2018 [online] available at: https://www.health.org.uk/sites/default/files/What-makes-us-healthy-quick-guide.pdf

THEME	AIR QUALITY
Considerations	- Air pollution caused by traffic (during both construction and operation) - Provision of green infrastructure to protect sensitive receptors - Construction impacts such as dust and odours - Provision of parking spaces - Opportunities to increase active travel - Proximity of residential units to industrial uses, or uses generating dust or other particulate matter - Domestic fuel sources - Agricultural development
Baseline	Include a description of the baseline as applicable to the theme, likely to include; - Proximity and location of AQMAs - Current levels of traffic and congestion - COPD and Asthma indicators Sources likely to include Defras Air Quality information website[19] and local authority monitoring reports.

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[19] Defra Air Quality Management Areas available at: https://uk-air.defra.gov.uk/aqma/

THEME	AIR QUALITY
Evidence	Build an evidence base as applicable to the theme, suggested sources include; • PHE, Review of interventions to improve outdoor air quality and public health[20] • PHE, Health Matters: Air Pollution[21] • Committee on the Medical Effects of Air Pollutants (COMEAP)[22] • Understanding the health impacts of air pollution in London, King's College London[23] • The Lancet Commission on pollution and health[24] • National Planning Policy Framework (NPPF)[25] (Chapters 4, 9, 13 and 15)

THEME	NOISE
Considerations	• Noise pollution caused by traffic (during both construction and operation) • Inclusion of design measures that minimise the impact of noise • Proximity and location of Noise Action Important Areas (NIAs) and noise agglomerations • Proximity of development to major sources of noise • Landscape design of development, tree cover and green infrastructure • Proximity of residential units to industrial uses or uses generating late night noise can cause nuisance

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[20] Public Health England, Review of Interventions to Improve Outdoor Air Quality and Public Health, 2019 [online] available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/795185/Review_of_interventions_to_improve_air_quality.pdf

[21] Public Health England, Health Matters: Air Pollution, [online] available at: https://www.gov.uk/government/publications/health-matters-air-pollution/health-matters-air-pollution#resources

[22] Committee on the Medical Effects of Air Pollutants (COMEAP) available at: https://www.gov.uk/government/publications/comeap-mortality-effects-of-long-term-exposure-to-particulate-air-pollution-in-the-uk

[23] Understanding the health impacts of air pollution in London, King's College London report available at: https://www.kcl.ac.uk/lsm/research/divisions/aes/research/ERG/research-projects/UnderstandingtheHealthImpactsofAirPollutioninLondon

[24] The Lancet Commission on pollution and health available at: http://dx.doi.org/10.1016/S0140-6736(17)32345-0

[25] Ministry of Housing, Communities and Local Government, National Planning Policy Framework, 2019 [online] available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/810197/NPPF_Feb_2019_revised.pdf

THEME	NOISE
Baseline	Include a description of the baseline as applicable to the theme, likely to include; • Proximity and location of noise agglomerations and potential sources of noise; • Current levels of traffic and congestion; Sources likely to include Noise Action Plans[26], Defra Air Quality Background maps[27], Department of Transport traffic count data[28], England Noise and Air Quality Viewer[29]
Evidence	Build an evidence base as applicable to the theme, suggested sources include; • Institute of Acoustics, Professional Practice Guidance on Planning and Noise[30] • Defra, Noise Policy Statement for England (NPSE)[31] • European Environment Agency, Good practice guide on noise exposure and potential health effects[32] • NPPF (Chapter 15) • European Commission, Environmental Noise Directive[33]

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[26] Defra, Noise action plans: large urban areas, roads and railways, 2014 [online] available at: https://www.gov.uk/government/publications/noise-action-plans-large-urban-areas-roads-and-railways

[27] Air Quality background maps available at: https://uk-air.defra.gov.uk/data/laqm-background-home

[28] Department of Transport traffic count data available at: https://roadtraffic.dft.gov.uk/downloads

[29] Extrium, England Noise and Air Quality Viewer [online] available at: http://extrium.co.uk/noiseviewer.html

[30] Institute of Acoustics (Working Group) ProPG: Planning & Noise: Professional Practice Guidance on Planning & Noise, 2017, [online] available at: https://www.ioa.org.uk/sites/default/files/14720%20ProPG%20Main%20Document.pdf

[31] Defra, Noise Policy Statement for England (NPSE), 2010 [online] available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69533/pb13750-noise-policy.pdf

[32] European Environment Agency, Good practice guide on noise exposure and potential health effects, 2010 [online] available at: https://www.eea.europa.eu/publications/good-practice-guide-on-noise

[33] Environmental Noise Directive, Directive 2002/49/EC

THEME	HEALTHY FOOD ENVIRONMENTS
Considerations	- Proximity of proposed development to fast food outlets/hot food takeaways - Inclusions of fast food outlets/hot food takeaways within the proposed development and the proximity to local schools - Opportunities to grow and purchase local healthy food locally - Redevelopment or provision of local allotments, community growing projects, communal gardens or agricultural land - Promotion of diversity of shopping facilities - Opportunities for "greening" the environment, through green infrastructure than contributes to food provision
Baseline	Include a description of the baseline as applicable to the theme, likely to include; - Density of fast food outlets - Percentage of population (adults and children) who are classed as overweight or obese - Existing land use (if applicable e.g. allotments, community growing spaces, agricultural land) - Existing green infrastructure Sources likely to include: Joint Strategic Needs Assessment, Local Planning Databases, PHE local authority profiles, Good Food Oxford[34]
Evidence	Build an evidence base as applicable to the theme, suggested sources include; - PHE, Strategies for Encouraging Healthier 'Out of Home' Food Provision[35] - PHE, Healthy High Streets Good place-making in an urban setting[36] - NPPF[25] (Chapters 7, 8 and 12) - https://www.rsph.org.uk/our-work/campaigns/health-on-the-high-street/2015.html - https://www.foodforlife.org.uk/~/media/files/evaluation%20reports/impactreportfinalpdf7716.pdf

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[34] Good Food Oxford; Feeding the Gaps Report available at: https://goodfoodoxford.org/uncategorized/feeding-the-gaps/
[35] Public Health England, Strategies for Encouraging Healthier 'Out of Home' Food Provision, 2017 [online] available at:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/832910/Encouraging_healthier_out_of_home_food_provision_toolkit_for_local_councils.pdf
[36] Public Health England, Healthy High Streets Good place-making in an urban setting, 2018 [online] available at:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/699295/26.01.18_Healthy_High_Streets_Full_Report_Final_version_3.pdf

THEME	PHYSICAL ACTIVITY
Considerations	- Opportunities for physical activity - Opportunities for active travel - Facilitated access to open and natural space - Infrastructure (built and transport) that incentivises and supports physical activity - Opportunities for leisure activities including informal activities such as gardening or food growing
Baseline	Include a description of the baseline as applicable to the theme, likely to include; - Levels of physical activity - Access to open space (including play space and sports facilities) - Local authority area information from the Sport England Active Lives database (https://activelives.sportengland.org/) - Information about existing indoor and outdoor local sports facilities (Sport England's Active Places database https://www.activeplacespower.com/), can also include community halls and spaces in addition to sports halls and purpose built spaces - Access to allotments - Ability to walk and cycle to work or other community facilities - Access barriers (e.g. financial cost to participate or transport) Sources likely to include local authorities, PHE local authority profiles, Oxfordshire JSNA, Natural Environment Valuation Online tool (NEVO)[37], Outdoor Recreation Valuation Tool[38], Oxfordshire Insight, Local Authority local plan evidence base (Playing Pitch assessment/strategy, indoor sports facilities strategy/assessment and Open Spaces Study)

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[37] University of Exeter, Natural Environment Valuation Online Tool (NEVO), [online] available at: https://www.exeter.ac.uk/leep/research/nevo/
[38] University of Exeter, Outdoor Recreation Valuation Tool, [online] available at: https://www.leep.exeter.ac.uk/orval/

THEME	PHYSICAL ACTIVITY
Evidence	Build an evidence base as applicable to the theme, suggested sources include; • The Government's 25 Year Environment Plan (Chapter 3)[39] • Sporting Future: A New Strategy for an Active Nation[40] • Health and the natural environment: A review of evidence, policy, practice and opportunities for the future[41] • Spatial planning for health: An evidence resource for planning and designing healthier places[15]

THEME	CRIME AND ANTI-SOCIAL BEHAVIOUR
Considerations	• Designing out crime, including both the built and landscaped environments • Level of security and street surveillance • Community engagement • Major accidents/disasters • Safety after dark • Creation of safe and inclusive environments, spaces and places

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[39] HM Government, A Green Future: Our 25 Year Plan to Improve the Environment, 2018 [online] available at:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/693158/25-year-environment-plan.pdf
[40] HM Government, Sporting Future: A New Strategy for an Active Nation, 2015 [online] available at:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/486622/Sporting_Future_ACCESSIBLE.pdf
[41] Lovell, M, Maxwell, S, (In partnership with the Defra, the University of Exeter and the European Centre for Environment and Human Health) Health and the natural environment: A review of evidence, policy, practice and opportunities for the future, 2015 [online] available at:
http://randd.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&Completed=0&ProjectID=19511

THEME	CRIME AND ANTI-SOCIAL BEHAVIOUR
Baseline	Include a description of the baseline as applicable to the theme, likely to include; • Indices of multiple deprivation – Crime domain • Number of recorded crimes • Perceptions of crime and feelings of safety Sources likely to include Oxfordshire Insight, Oxfordshire JSNA, Ministry of Housing, Communities & Local Government Indices of Multiple Deprivation, ONS, Police.UK, local police reports
Evidence	Build an evidence base as applicable to the theme, suggested sources include; • Safer Oxfordshire Partnership Strategic Intelligence Assessment[42] • Secured by Design development guides[43] • NPPF[21] (Chapter 8 and 12) • Home Office, Modern Crime Prevention Strategy[44] • ONS The Nature of Violent Crime in England and Wales[45] • London School of Economics, Social disadvantage, crime, and punishment[46]

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[42] Safer Oxfordshire Partnership Strategic Intelligence Assessment, 2020, [online] available at:
https://insight.oxfordshire.gov.uk/cms/system/files/documents/OxonSIA2020Apr20FINAL.pdf
[43] https://www.securedbydesign.com/guidance/design-guides *The user should note that the National Planning Policy Framework promotes the pursuit of sustainable development in a "positive way" with a "presumption in favour of sustainable development", which may sometimes be at odds with the Secure by Design Guides, for examples regarding communal areas and play space.*
[44] Home Office, Modern Crime Prevention Strategy, 2016 [online] available at:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/509831/6.1770_Modern_Crime_Prevention_Strategy_final_WEB_version.pdf
[45] ONS, The Nature of Violent Crime in England and Wales: Year ending March 2018, 2019
[46] Newburn, T, Social disadvantage, crime, and punishment, [online] available at: http://eprints.lse.ac.uk/68133/1/Newburn_Social%20Disadvantage%20and%20Crime.pdf

THEME	EDUCATION AND SKILLS
Considerations	• Access to schools/higher education • Local school capacity • Opportunities for people to learn in an alternative educational setting • School performance
Baseline	Include a description of the baseline as applicable to the theme, likely to include; • Level of qualifications; • Achievement of Attainment 8; • Schools capacity • Schools performance • IMD – Education and skills domain • Special Education Needs provision Sources likely to include Oxfordshire Insight, NOMIS, Oxfordshire JSNA, Ministry of Housing, Communities & Local Government Indices of Multiple Deprivation, ONS, Department for Education 'Find and compare schools in England' tool

THEME	EDUCATION AND SKILLS
Evidence	Build an evidence base as applicable to the theme, suggested sources include; • Fair Society, Healthy Lives, The Marmot Review[47] • ONS, An overview of lifestyles and wider characteristics linked to Healthy Life Expectancy[48] • OECD (2019), Health at a Glance 2019: OECD Indicators[49] • The Wellbeing Effect of Education[50] • NPPF (Chapters 6 and 7)[25] • https://www.foodforlife.org.uk/~/media/files/policyreports/state-of-the-nation-soil-association-report.pdf

THEME	NATURAL ENVIRONMENT
Considerations	• Natural, ecologically functioning spaces, including water, grassland, woodland/trees • Accessibility to natural green and blue spaces and places • Consideration of community barriers to access • Use/greening of existing built infrastructure • Design of existing environments including footpath and cycle ways to maintained green spaces and places • Support maintenance open spaces, play spaces and sports facilities • Temporary or permanent diversion and/or closure of walking, cycling or horse riding routes • Agricultural development and associated localised environmental impacts (e.g. pollution/run off)

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[47] Fair Society, Healthy Lives, The Marmot Review, A Strategic review of health inequalities in England post-2010, 2010, [online] available at: http://www.instituteofhealthequity.org/resources-reports/fair-society-healthy-lives-the-marmot-review/fair-society-healthy-lives-full-report-pdf.pdf

[48] ONS, An overview of lifestyles and wider characteristics linked to Healthy Life Expectancy in England: June 2017 [online] available at: https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthinequalities/articles/healthrelatedlifestylesandwidercharacteristicsofpeoplelivinginareaswiththehighestorlowesthealthylife/june2017

[49] OECD (2019), Health at a Glance 2019: OECD Indicators, OECD Publishing, Paris, https://doi.org/10.1787/4dd50c09-en.

[50] Economic and Social Research Council, The Wellbeing Effect of Education, [online] available at: https://esrc.ukri.org/files/news-events-and-publications/evidence-briefings/the-wellbeing-effect-of-education/

THEME	NATURAL ENVIRONMENT
Baseline	Include a description of the baseline as applicable to the theme, likely to include; • Functioning ecological nature network • Open space provision (including play space and sports facilities), accessible natural green space standards • Public rights of way, as well as other informal walking, cycling and horse riding routes • Population density • Distance to local accessible green space • Overcrowding • IMD – Living Environment Domain Sources likely to include local authorities, PHE local authority profiles, Natural Environment Valuation Online tool (NEVO)[51], Outdoor Recreation Valuation Tool[52], Oxfordshire Insight, Ministry of Housing, Communities & Local Government Indices of Multiple Deprivation
Evidence	Build an evidence base as applicable to the theme, suggested sources include; • PHE, Spatial Planning for Health: An evidence resource for planning and designing healthier places[15] • PHE, Local action on health inequalities: Improving access to green spaces[53] • NPPF (Chapters 8, 13 and 15) • The Government's 25 Year Environment Plan (Chapter 3)[39] • Natural England, Links between natural environments and mental health[54]

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[51] University of Exeter, Natural Environment Valuation Online Tool (NEVO), [online] available at: https://www.exeter.ac.uk/leep/research/nevo/
[52] University of Exeter, Outdoor Recreation Valuation Tool, [online] available at: https://www.leep.exeter.ac.uk/orval/
[53] Public Health England, Local action on health inequalities: Improving access to green spaces, 2014, [online] available at:
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/355792/Briefing8_Green_spaces_health_inequalities.pdf
[54] Natural England Access to Evidence Information Note EIN018: Links between natural environments and mental health: Evidence briefing, 2016

THEME	HOUSING
Considerations	- Delivery of affordable housing - Provision of accessible and adaptable dwellings - Housing density - Energy efficiency
Baseline	Include a description of the baseline as applicable to the theme, likely to include; - IMD – Barriers to housing domain - Overcrowding - Housing tenure - House prices - Homelessness - Future housing delivery - Fuel Poverty Sources likely to include local authorities, PHE local authority profiles, Oxfordshire JSNA, ONS, Local Plans, Oxfordshire Insight, Ministry of Housing, Communities & Local Government Indices of Multiple Deprivation, Department for Business, Energy and Industrial Strategy
Evidence	Build an evidence base as applicable to the theme, suggested sources include; - PHE, Spatial Planning for Health: An evidence resource for planning and designing healthier places[15] - Department for Business, Energy and Industrial Strategy, Fuel Poverty Statistics[55] - NPPF (Chapters 5, 8 and 12) - The Health Foundation, What makes us healthy? An introduction to the social determinants of health[18]

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[55] Department for Business, Energy & Industrial Strategy, Fuel Poverty Statistics [online] available at: https://www.gov.uk/government/collections/fuel-poverty-statistics

THEME	ACCESS TO SERVICES
Considerations	• Provision of accessible healthcare services • Access to existing local facilities and services (e.g. GP surgeries, pharmacists, shops, recreation etc.) • Health and social care needs and demand for services • Capacity of existing local services and facilities • Access and use of buildings by disabled people, older people and those suffering from dementia.
Baseline	Include a description of the baseline as applicable to the theme, likely to include; • The number and proximity of Local services • Capacity and quality of local services and facilities Sources likely to include local authorities' local plans and infrastructure delivery plans, Oxfordshire JSNA, ONS, Oxfordshire Insight, NHS Service search
Evidence	Build an evidence base as applicable to the theme, suggested sources include; • PHE, Spatial Planning for Health: An evidence resource for planning and designing healthier places[15] • NHS England, Improving access for all: Reducing inequalities in access to general practice services[56] • Sport England, Planning for sport guidance[57] • The King's Fund, Reimagining community services Making the most of our assets[58]

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[56] NHS England, Improving access for all: Reducing inequalities in access to general practice services, 2018 [online] available at: https://www.england.nhs.uk/wp-content/uploads/2017/07/inequalities-resource-sep-2018.pdf

[57] Sport England, Planning for Sport, 2019, [online] available at: https://sportengland-production-files.s3.eu-west-2.amazonaws.com/s3fs-public/2020-01/planning-for-sport-guidance.pdf?V91Twg6jajoe7TpardJDn9h6s9AiSqw0

[58] The King's Fund, Reimagining community services Making the most of our assets, 2018, [online] available at: https://www.kingsfund.org.uk/sites/default/files/2018-01/Reimagining_community_services_report.pdf

Appendix 3: Rapid HIA Review Checklist

	CRITERIA	GRADING ADEQUATE (A) FURTHER INFORMATION NEEDED (F) INADEQUATE (I)	COMMENTS • WHAT'S MISSING? • ARE THERE ANY WEAKNESSES/WHAT NEEDS STRENGTHENING? • WHAT'S HELPFUL OR COMPLETED WELL?
	Section 1: Description of the proposed development		
1.1	There is a clear description of the project being assessed including: • Aims and objectives of the proposed development; • Physical characteristics of the site of the proposed development and surrounds; • Characteristics of the proposed development once operational; and • Timescales and durations of the construction and operational phases of the proposed development.		
1.2	Policy context for the project has been set out, noting any relevant health and wellbeing policies.		
	Section 2: Identification of population groups affected by the development		
2.1	A process to identify groups of the population likely to be affected by the proposed development has been undertaken.		
2.2	Evidence to support the inclusion of identified groups has been provided, this might be presented as a Population Profile and could include quantitative and qualitative information.		
	Section 3: Identification of geographical area and associated health priorities		
3.1	A process to identify the geographical scope of the assessment has been undertaken.		
3.2	Health priorities for the affected geographic scope are identified for inclusion in the assessment. Any additional priority themes are also identified for inclusion should they be considered relevant.		
	Section 4: Assessment of health		
4.1	**Baseline**		
4.1.1	There should be a narrative which interprets the data collected in the context of the HIA.		
4.1.2	The HIA uses robust data sources which could include other key environmental or technical specialists involved in the proposed development		
4.2	**Evidence**		

	CRITERIA	GRADING ADEQUATE (A) FURTHER INFORMATION NEEDED (F) INADEQUATE (I)	COMMENTS • WHAT'S MISSING? • ARE THERE ANY WEAKNESSES/WHAT NEEDS STRENGTHENING? • WHAT'S HELPFUL OR COMPLETED WELL?
4.2.1	The sources of evidence used are relevant to the project and scale of the HIA.		
4.2.2	Evidence and data sources used are clearly referenced.		
4.2.3	The quality and depth of evidence is sufficient to inform the assessment of likely impacts.		
4.2.4	There is some critical assessment of the literature used.		
4.2.5	Any limitations of the evidence collected are highlighted and a rationale provided.		
4.3	**Stakeholder Engagement**		
4.3.1	Evidence of discussion with the appropriate Local Authority Officer to agree a proportionate approach to stakeholder engagement is provided, and this approach has been followed.		
4.3.2	The report identifies all stakeholder groups relevant to the health assessment for the proposed development.		
4.3.3	The range of stakeholders and the variety of groups that were engaged has been recorded.		
4.3.4	The methods of engagement were appropriate, and their effectiveness evaluated.		
4.3.5	There is evidence that information gathered from stakeholders has been used to inform and influence the assessment.		
4.4	**Health effects**		
4.4.1	Any positive impacts, or opportunities to maximise health and wellbeing outcomes, are identified and how they were identified is presented clearly.		
4.4.2	Any negative impacts, gaps or unintended consequences are identified and how they were identified is presented clearly.		
4.4.3	It is made clear how each impact identified is supported by the evidence gathered. The strength and sources of evidence for each impact is clearly communicated.		
4.4.4	It is clear who will be impacted, with affected populations explicitly identified, and any potential inequalities in the distribution of impacts are identified.		

	CRITERIA	GRADING ADEQUATE (A) FURTHER INFORMATION NEEDED (F) INADEQUATE (I)	COMMENTS • WHAT'S MISSING? • ARE THERE ANY WEAKNESSES/WHAT NEEDS STRENGTHENING? • WHAT'S HELPFUL OR COMPLETED WELL?
4.5	**Summary**		
4.5.1	A conclusion is provided summarising the key outcomes and messages from the assessment, any recommendations to manage health effects, and supporting evidence.		
4.5.2	Any recommendations for further action identify who is responsible for taking forward the action.		
	Conclusions of the reviewer: *(Commentary on the overall quality of the HIA identifying key strengths and weaknesses)*		

PUBLIC HEALTH ENGLAND REPORT FOR CHERWELL

Public Health England

Cherwell

Area type: District
Region: South East

Local Authority Health Profile 2019

This profile gives a picture of people's health in Cherwell. It is designed to act as a 'conversation starter', to help local government and health services understand their community's needs, so that they can work together to improve people's health and reduce health inequalities.

Visit https://fingertips.phe.org.uk/profile/health-profiles for more area profiles, more information and interactive maps and tools.

Health in summary

The health of people in Cherwell is generally better than the England average. About 10.1% (2,820) children live in low income families. Life expectancy for men is higher than the England average.

Health inequalities

Life expectancy is 7.4 years lower for men and 6.7 years lower for women in the most deprived areas of Cherwell than in the least deprived areas.

Child health

In Year 6, 17.8% (300) of children are classified as obese, better than the average for England. The rate for alcohol-specific hospital admissions among those under 18 is 41*. This represents 13 admissions per year. Levels of teenage pregnancy, breastfeeding and smoking in pregnancy are better than the England average.

Adult health

The rate for alcohol-related harm hospital admissions is 506*, better than the average for England. This represents 731 admissions per year. The rate for self-harm hospital admissions is 167*, better than the average for England. This represents 240 admissions per year. The rate of new sexually transmitted infections is better than the England average. The rates of statutory homelessness, violent crime (hospital admissions for violence), under 75 mortality rate from cardiovascular diseases and employment (aged 16-64) are better than the England average.

* rate per 100,000 population
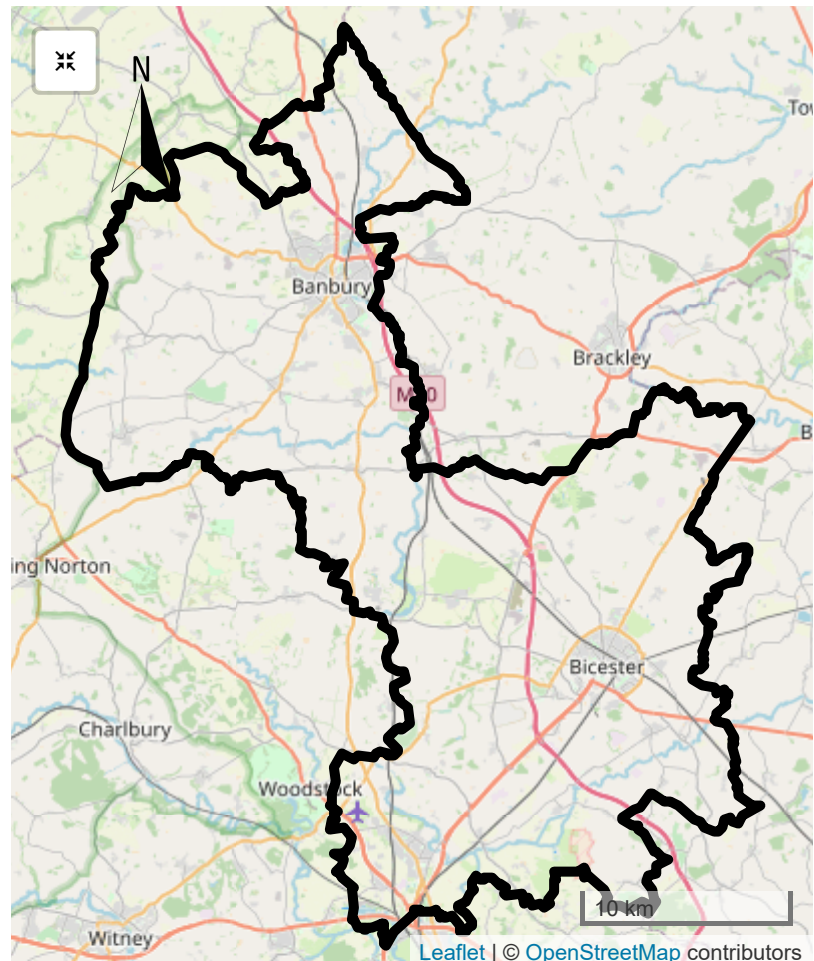
Leaflet | © OpenStreetMap contributors

Health summary for Cherwell

Key

Significance compared to goal / England average:

Significantly worse (red)	**Significantly lower** (blue)	↑ (red) Increasing / Getting worse	↑ (green) Increasing / Getting better
Not significantly different (amber)	**Significantly higher** (light blue)	↓ (red) Decreasing / Getting worse	↓ (green) Decreasing / Getting better
Significantly better (green)	**Significance not tested** (grey)	↑ (light blue) Increasing	↓ (blue) Decreasing
		↑ (amber) Increasing (not significant)	↓ (amber) Decreasing (not significant)
		− Could not be calculated	→ (amber) No significant change

Life expectancy and causes of death

Indicator	Age	Period	Count	Value (Local)	Value (Region)	Value (England)	Change from previous
1 Life expectancy at birth (male)	All ages	2016 - 18	n/a	81.0	80.7	79.6	↑
2 Life expectancy at birth (female)	All ages	2016 - 18	n/a	83.5	84.1	83.2	↓
3 Under 75 mortality rate from all causes	<75 yrs	2016 - 18	1140	297.3	292.3	330.5	↑
4 Mortality rate from all cardiovascular diseases	<75 yrs	2016 - 18	206	54.0	59.0	71.7	↓
5 Mortality rate from cancer	<75 yrs	2016 - 18	496	129.7	123.6	132.3	↓
6 Suicide rate	10+ yrs	2016 - 18	35	9.21	9.21	9.64	↓

Injuries and ill health

Indicator	Age	Period	Count	Value (Local)	Value (Region)	Value (England)	Change from previous
7 Killed and seriously injured (KSI) rate on England's roads	All ages	2016 - 18	213	48.1	49.6	42.6 $	−
8 Emergency hospital admission rate for intentional self-harm	All ages	2018/19	240	167.2	199.7 ~	193.4	↑
9 Emergency hospital admission rate for hip fractures	65+ yrs	2018/19	165	597.5	516.6 ~	558.4	↑
10 Percentage of cancer diagnosed at early stage	All ages	2017	346	56.8	52.7	52.2	↑
11 Estimated diabetes diagnosis rate	17+ yrs	2018	n/a	71.6	75.2	78.0	↓
12 Estimated dementia diagnosis rate	65+ yrs	2019	1240	66.8 *	65.6 *	68.7 *	↑

Behavioural risk factors

Indicator	Age	Period	Count	Value (Local)	Value (Region)	Value (England)	Change from previous
13 Hospital admission rate for alcohol-specific conditions	<18 yrs	2016/17 - 18/19	40	40.7	31.7 ~	31.6	↑
14 Hospital admission rate for alcohol-related conditions	All ages	2018/19	731	506.5	526.3 ~	663.7	↑
15 Smoking prevalence in adults	18+ yrs	2018	13223	11.4	12.9	14.4	↓
16 Percentage of physically active adults	19+ yrs	2017/18	n/a	67.4	69.8	66.3	↑
17 Percentage of adults classified as overweight or obese	18+ yrs	2017/18	n/a	63.2	60.3	62.0	↑

Child health

Indicator	Age	Period	Count	Value (Local)	Value (Region)	Value (England)	Change from previous
18 Teenage conception rate	<18 yrs	2017	24	9.54	13.9	17.8	↓
19 Percentage of smoking during pregnancy	All ages	2018/19	115	7.48	9.70 $	10.6	↓
20 Percentage of breastfeeding initiation	All ages	2016/17	1461	81.0	79.1	74.5	↑
21 Infant mortality rate	<1 yr	2016 - 18	12	2.23	3.65	3.93	↓
22 Year 6: Prevalence of obesity (including severe obesity)	10-11 yrs	2018/19	300	17.8	16.8	20.2	↓

Inequalities

Indicator	Age	Period	Count	Value (Local)	Value (Region)	Value (England)	Change from previous
23 Deprivation score (IMD 2015)	All ages	2015	n/a	12.6	-	21.8	−
24 Smoking prevalence in adults in routine and manual occupations	18-64 yrs	2018	n/a	22.6	25.0	25.4	↓

Wider determinants of health

Indicator	Age	Period	Count	Value (Local)	Value (Region)	Value (England)	Change from previous
25 Percentage of children in low income families	<16 yrs	2016	2820	10.1	12.9	17.0	→
26 Average GCSE attainment (average attainment 8 score)	15-16 yrs	2018/19	67676	47.0	47.9	46.9	↑
27 Percentage of people in employment	16-64 yrs	2018/19	76600	84.4	78.4	75.6	↑
28 Statutory homelessness rate - eligible homeless people not in priority need	Not applicable	2017/18	20	0.33	0.66	0.79	↓
29 Violent crime - hospital admission rate for violence (including sexual violence)	All ages	2016/17 - 18/19	65	14.6	31.2 ~	44.9	↑

Health protection

Indicator	Age	Period	Count	Value (Local)	Value (Region)	Value (England)	Change from previous
30 Excess winter deaths index	All ages	Aug 2017 - Jul 2018	126	33.5	30.2	30.1	↑
31 New STI diagnoses rate (exc chlamydia aged <25)	15-64 yrs	2018	646	690.3	708.1	850.6	↑
32 TB incidence rate	All ages	2016 - 18	30	6.77	6.19	9.19	↓

For full details on each indicator, see the definitions tab of the Local Authority Health Profiles online tool.
For a full list of profiles produced by Public Health England, see the fingertips website: https://fingertips.phe.org.uk/

Indicator value types

1,2 Life expectancy - years 3,4,5 Directly age-standardised rate per 100,000 population aged under 75 6 Directly age-standardised rate per 100,000 population aged 10 and over 7 Crude rate per 100,000 population 8 Directly age-standardised rate per 100,000 population 9 Directly age-standardised rate per 100,000 population aged 65 and over 10 Proportion - % of cancers diagnosed at stage 1 or 2 11 Proportion - % recorded diagnosis of diabetes as a proportion of the estimated number with diabetes 12 Proportion - % recorded diagnosis of dementia as a proportion of the estimated number with dementia 13 Crude rate per 100,000 population aged under 18 14 Directly age-standardised rate per 100,000 population 15,16,17 Proportion 18 Crude rate per 1,000 females aged 15 to 17 19,20 Proportion 21 Crude rate per 1,000 live births 22 Proportion 23 Index of Multiple Deprivation (IMD) 2015 score 24 Proportion 25,26 Slope index of inequality 27 Proportion 28 Mean average across 8 qualifications 29 Proportion 30 Crude rate per 1,000 households 31 Directly age-standardised rate per 100,000 population 32 Ratio of excess winter deaths to average of non-winter deaths 33 Crude rate per 100,000 population aged 15 to 64 (excluding Chlamydia) 34 Crude rate per 100,000 population

*	Value compared to a goal (see below)
~	Due to an issue with HES coding in East Sussex Healthcare NHS Trust in 2018/19, for which approximately 85,000 records erroneously had all diagnosis codes removed, this value should be treated with caution. In 2018/19, between 1 to 10% of patients that attended hospital from this area had records that were missing diagnosis codes
$	Aggregated from all known lower geography values

Thresholds for indicators that are compared against a goal

Indicator Name	Green	Amber	Red
12 Estimated dementia diagnosis rate (aged 65 and over)	>= 66.7% (significantly)	similar to 66.7%	< 66.7% (significantly)

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