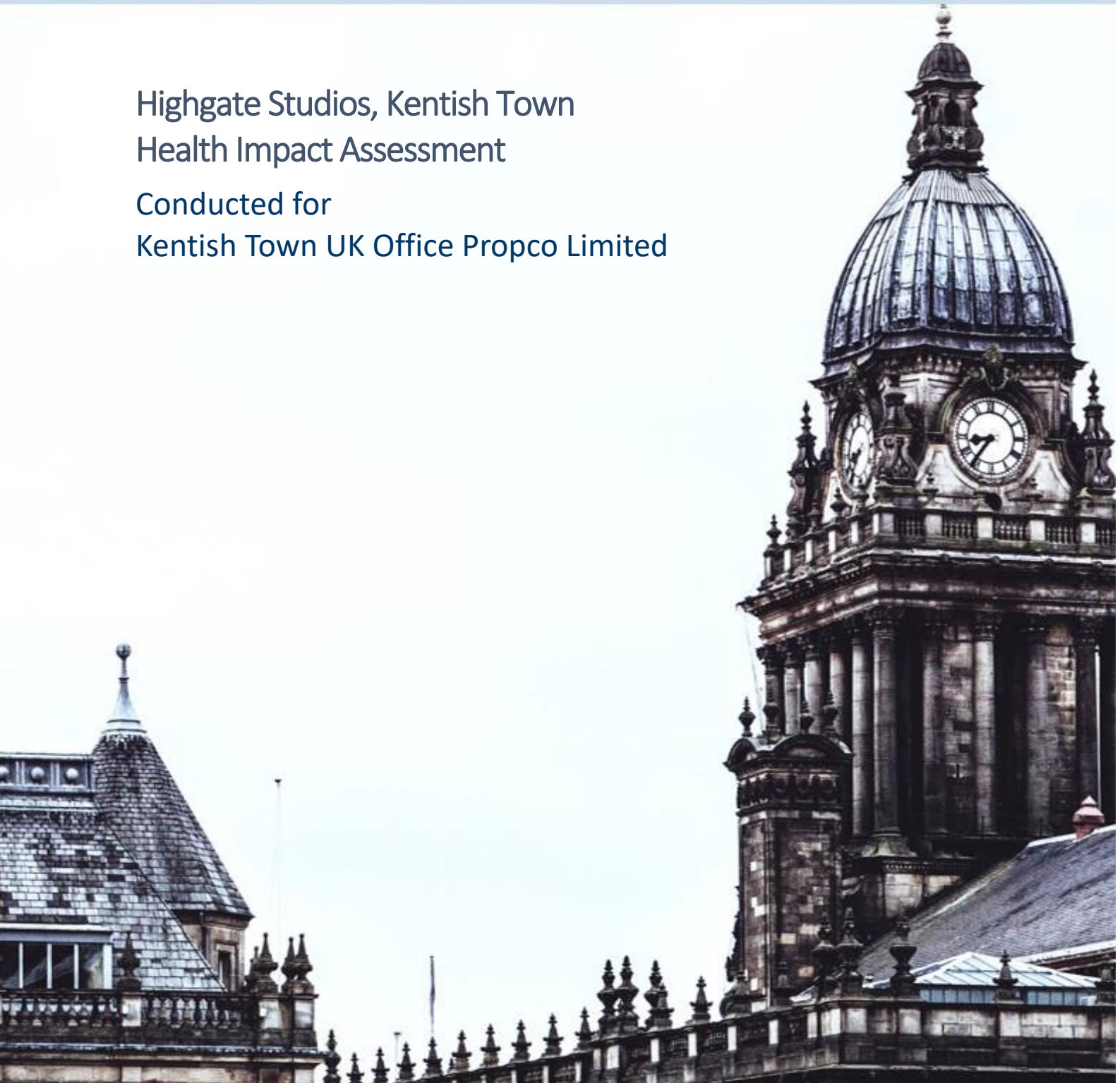
ben cave associates

Highgate Studios, Kentish Town
Health Impact Assessment

Conducted for
Kentish Town UK Office Propco Limited



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1 Summary

1.1.1 This Health Impact Assessment (HIA) has been prepared for development at Highgate Studios, Kentish Town at Highgate Studios, 53 – 79 Highgate Road, Kentish Town, London NW5 1TL. The HIA has been commissioned by Kentish Town UK Office Propco Limited.

1.1.2 This is a standalone report by Ben Cave Associates Ltd, who specialise in assessing the public health effects of planning applications. The scope of the assessment has been discussed with the Applicant and a draft report has been shared with the Applicant to check factual accuracy. The HIA team and the Applicant met with the London Borough of Camden Public Health team to discuss the draft assessment.

1.1.3 In line with London Borough of Camden guidance *Planning for health and wellbeing* (1, para 1.45), the HIA follows the London Healthy Urban Development Unit (HUDU) HIA tool (2). This has been supplemented by a scoping exercise using the Institute of Environmental Management and Assessment (IEMA) guidance on scoping (3).

1.1.4 The development will increase the numbers of people using the site while reducing car trips to and from the site; it will improve the site in terms of accessibility by creating a new route (Highgate Passage) from North to South, by bringing some design coherence to the spaces between the buildings and by allowing for connection to future development at Murphys Yard; it will increase and improve green and open space; and it will create spaces for meeting and resting, in addition to a food and beverage outlet. Health and wellbeing is cited as one of the design objectives (Design and Access Statement) and assessments have been conducted of different aspects of the development, including a Healthy Streets Transport Assessment.

1.1.5 For this proposed development the professional judgement is that the main sources for potential health effects are air quality, noise and traffic during construction and potential for annoyance and adverse health effects for tenants of the buildings and to a lesser extent, due to separation by Highgate Road, of local residents. Air quality, noise and construction effects have been considered by the Applicant and appropriate mitigation is in place. A Phasing Strategy seeks to reduce effects on the existing tenants on site.

1.1.6 The health effects will be beneficial in terms of the operational running of the site with improvements across the categories identified by HUDU, namely: access to open space and nature; air quality, noise and neighbourhood amenity; accessibility and active travel; social cohesion and lifetime neighbourhoods; and minimising the use of resources. The development seeks to change the character of the site and to increase connectivity with the local environment and neighbourhood. This can bring new challenges namely how to manage a site that seeks to welcome and include all age groups and how to achieve that aim while also being a site for office space.

1.1.7 With the adoption of the recommendations and standard good practice design, mitigation and working practices adverse population health effects are unlikely. The opportunity for local health benefits is greatest in terms of changes to the design and character of the site, moving to a car-free development with green and open spaces that are publicly accessible. There remains the potential for construction related negative health effects should there be extended periods of high day-time weekday noise. Intense periods of high noise activity would be limited to relatively short durations (e.g. a matter of weeks at various points in the demolition and construction programme). Such short duration effects would be unlikely to be associated with significant population health outcomes.

2 Introduction

2.1.1 The application site is in the London Borough of Camden. The application site is occupied by light industrial buildings and business units, associated parking and hardstanding.

2.1.2 The purpose of HIA is to identify the effects of the proposed development on health and wellbeing and to ensure that these are taken into account in preparing the design.

2.1.3 The focus of the report is on community health and wellbeing and not on occupational health and safety. The terms 'health', 'population health' and 'health and wellbeing' are used interchangeably.

2.1.4 The HIA works through a series of steps:

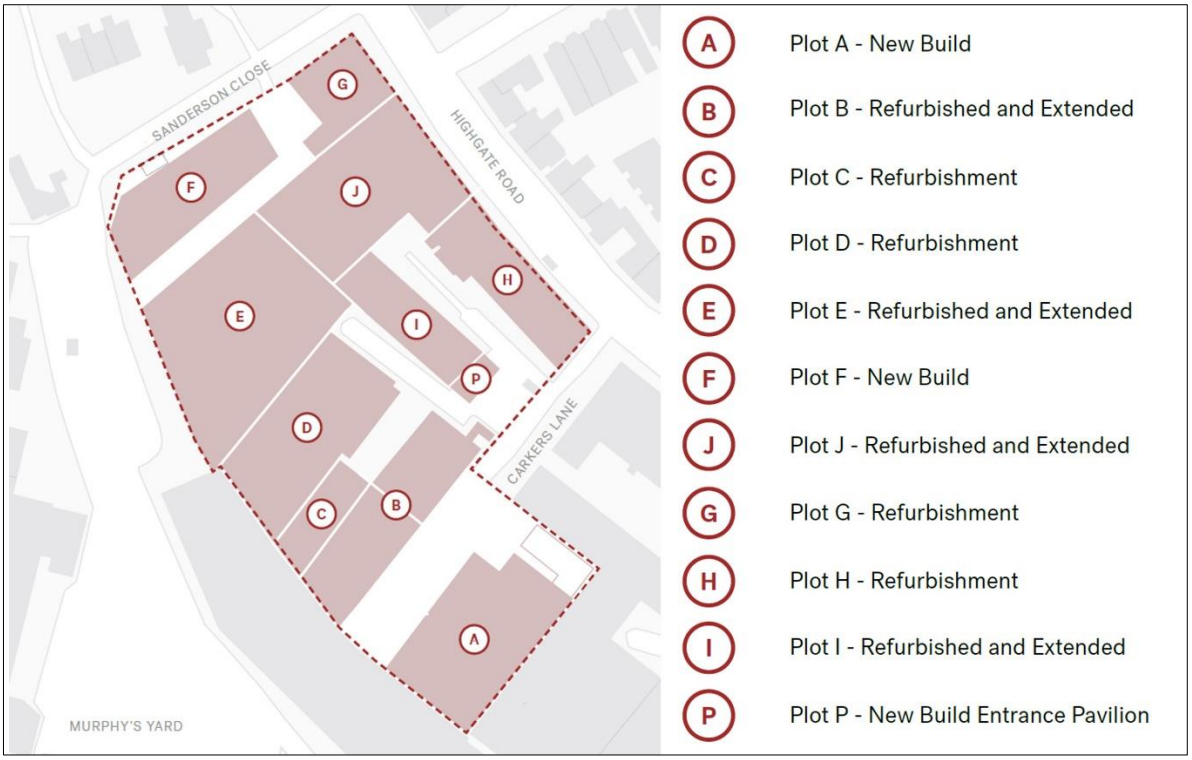
- Context: the baseline for health is summarised in Section 4. Further detail is provided in 9.1. Local, regional and national: policy for public health and for planning is reviewed in Section 9.1. Scientific findings on the links between aspects of the social and built environment are provided in Section 9.4.
- Scoping: see Section 6. Supporting detail is set out in Section 9.1.
- Assessment: see Section 7. This is based on a review of the studies that have been conducted for the proposed development.
- Recommendations and findings: see Section 8.
- Appendices: further detail as described above, see Section 9.
- References: the sources used throughout the report are provided in Section 10.

3 Description of the Proposed Development

3.1.1 The proposed scheme is to provide two new buildings, blocks A and F, and extensions on three other buildings, blocks B, E & J. The site and its location is shown in Figure 3-1 and Figure 3.1.

3.1.2 The proposal is for the demolition of existing buildings and structures at Plot A and Plot F and erection of a 7-storey building at Plot A and 4-storey building at Plot F; erection of extensions at Plot B, E, J and I on the existing buildings; external refurbishment of the existing buildings at Plot C and D; introduction of a new entrance pavilion, with cycle parking, hard and soft landscaping and associated works and plant; to provide Class E (g) use plus a range of other supporting and ancillary uses.' The proposed development is anticipated to comprise demolition of existing buildings across the application site. The proposed development parameters would split the application site into two Plots.

Figure 3-1: Application Plan

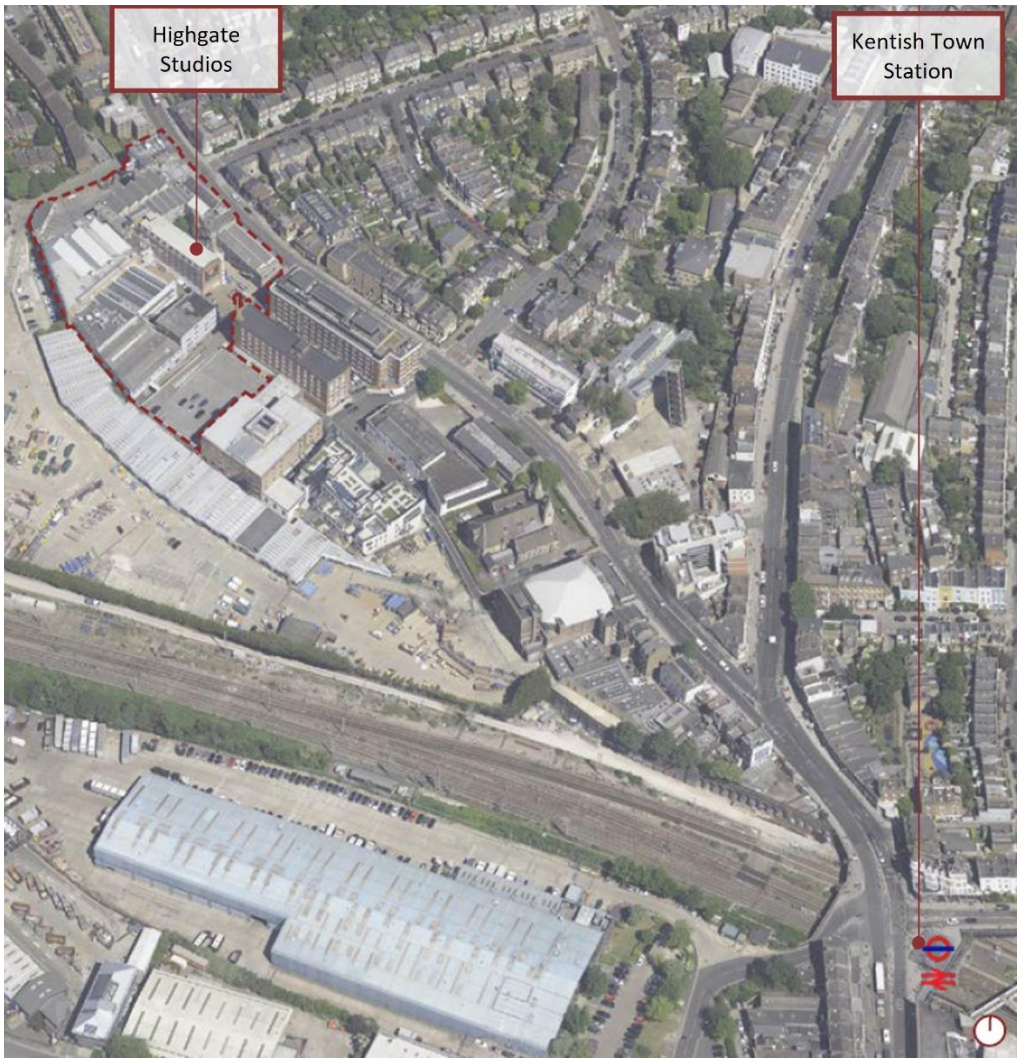


Reproduced from Highgate Studios, Design and Access Statement

3.1.3 New pedestrian routes would be provided within the application site as well as associated parking/cycle storage facilities. Open Space zones would be provided which would allow for landscaping; surface water attenuation; structural planting; footpaths and cycleways; and ecological habitats. It is anticipated that the demolition and construction programme would be sequenced over an approximate three year period.

3.1.4 Health effects may arise from both actual risks and also understanding of risks. Peoples' understanding of the development is therefore relevant to their response to it, including mental wellbeing effects.

Figure 3-2: The Application Site



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4 Baseline Conditions

4.1.1 Health Profiles (4), Health Assets Profiles (5) and Wider Determinants of Health (5) from Public Health England (PHE) have informed the local, regional and national baseline for this HIA.

4.1.2 Office of National Statistics and Nomis official labour market statistics (6) have also informed the baseline. Figure 9-3 to Figure 9-9 provide current baseline data used by Public Health England at the local authority level.

4.1.3 Table 9-3 and Figure 9-3 to Figure 9-9 set out baseline data for site-specific, local, regional and national population groups. Data from these sources are discussed in the following paragraphs. The site sits on the boundary of two Lower Layer Super Output Areas (LSOA). An LSOA is a geographic area that is automatically generated, across England and Wales, and which is as consistent in population size as possible. LSOAs have a minimum population of 1,000 and a mean population of 1,500. The two LSOAs are the site-specific area for this assessment. The study areas are explained in full on page 50.

4.2 Health in Summary

4.2.1 The health of Camden Borough residents is generally good compared to national averages. In the closest LSOA to the project site (Camden 003E) 76.9% have no long term physical or mental health conditions, which is lower than for Camden Borough (79.1%) and London Region (81.5%) but slightly higher than the adjacent LSOA, Camden 001D (73.0%) and national (75.9%) averages. Few residents in LSOA Camden 003E rate their health as bad (4.4%) or very bad (1.4%) it is however higher than the Camden (3.8% bad; 1.3% very bad), London (3.2% bad; 1.0% very bad) and national (4.0% bad; 1.2% very bad) averages. Residents of LSOA Camden 001D rate their health as being a little worse (6.4% bad; 1.5% very bad)

4.2.2 The closest LSOA to the project site (Camden 003E) has a similar age demographic to Camden Borough (12% aged 65 and older in Camden 003E, Camden Borough and London Region, but is comparatively younger than the closest LSOA Camden 001D (15% aged 65 and older) national average (18% aged 65 and older).

Health Inequalities

4.2.3 Healthy life expectancy is 64.6 for men and 66.8 years for women, which is higher than both regional (63.8 for men; 65 for women) and national averages (63.1 for men; 63.9 for women).

Child Health

4.2.4 About 13.3% (6,451) of children live in relative low-income families in Camden, this is better than both the regional (16.6%) and national (18.5%) averages. Rates of child obesity are better than the rest of England, with 20.5% of children classified as obese (compared to 22.3% English average). Levels of teenage pregnancy and smoking at time of delivery are better than the England average. The percentage of children achieving a good level of school readiness at the end of reception is similar between Camden Borough (65.3%) and England (65.2%), but lower than for the London Region (67.8%).

Adult Health

4.2.5 Life expectancy is higher for men (79.5) and women (83.8) than the average for England (78.7 men; 82.8 women). Camden has slightly lower rates of cardiovascular disease (75.2 per 100,000) than England (76.0 per 100,000). Camden has lower rates of smoking (14.2%) than England (15.4%) and higher rates of physical activity among adults (69.3% Camden; 65.9% England). [1]

Mental Health

4.2.6 It is estimated that 19.4% of people in Camden at 16 years and over have a common mental disorder. 4.88% of over 65s are recorded by their GP to have dementia compared to the national average of 3.97%. In terms of self-reported well-being, 64.4% report a high happiness score and 67.1% a high satisfaction score .

Ethnic groups

4.2.7 The Office for National Statistics (7) states that in 2021, 6.8% of Camden residents identified their ethnic group within the "Other" category ("Arab" or "Any other ethnic group"), up from 3.8% in 2011. The 2.9 percentage-point change was the largest increase among high-level ethnic groups in this area. Across London, the percentage of people from the "Other ethnic groups" ("Arab" or "Any other ethnic group") increased from 3.4% to 6.3%, while across England the percentage increased from 1.0% to 2.2%.

4.2.8 In 2021, 59.5% of people in Camden identified their ethnic group within the "White" category (compared with 66.3% in 2011), while 18.1% identified their ethnic group within the "Asian, Asian British or Asian Welsh" category (compared with 16.1% the previous decade). The percentage of people who identified their ethnic group within the "Black, Black British, Black Welsh, Caribbean or African" category increased from 8.2% in 2011 to 9.0% in 2021.

Environmental Conditions

4.2.9 The rate of complaints about noise in Camden (44.1 per 1,000) is higher than both regionally (40.1) and nationally (12.0). Noise indicator data is not published at the site-specific level (i.e. for the closest LSOAs). For transport noise in Camden both the percentages of people in Camden exposed to more than 65 dB(A) in the day (18.4%) and more than 55 dB(A) at night (21.7%) are higher the national average (5.5% and 8.5% respectively). This is not uncommon in urban settings, but it is higher than the London average (12.1% >65 dB(A) day; 15.9% >55 dB(A) night).

4.2.10 In terms of air pollution in Camden, the fine particulate concentration indicator is 9.8 µg/m^3 which is higher than regional (9.6 µg/m^3) and national (7.5 µg/m^3) averages, but within UK statutory limits.

4.2.11 In Camden, 32.5% of households are overcrowded compared to 8.7% across England, and the ratio of housing affordability is worse in Camden (19.1) than it is in London (13.7) and England (9.1 The fuel poverty rate in Camden (10.2%) is better than the national average (13.2% in England).

[1] https://fingertips.phe.org.uk/search/physical%20activity

4.2.12 The closest LSOA to the project site (Camden 003E) has a lower proportion of households with no car or van (57.4%) than the average of Camden (63.6%) but higher than the national average (23.5%). 5.0% of adults cycle for travel and 30.0% walk for travel in Camden, which is more than the national averages (2.3% cycle and 15.1% walk).

4.2.13 The percentage of people aged 16-64 in employment in Camden (71.5%) is lower than the national average (75.4%). Unemployment is slightly above the national average (4.7% in Camden compared to 4.5% in England). 67.8% of the closest LSOA to the project site (Camden 003E) is economically active, and 30.7% are inactive. This is slightly better than Camden Borough (59.3% active, 37.3% inactive) which is similar to national rates of economic activity. 10.0% of the closest LSOA to the project site (Camden 003E) is retired, which is lower than Camden Borough (10.8%) and England (21.5%) and may reflect the slightly younger population in that LSOA.

4.2.14 The closest LSOA to the project site (Camden 003E) has a slightly higher percentage of people in the highest social grade (26.1%) compared to Camden Borough (23.8%) and much higher than the national average (13.2%). The percentage of people in the lowest social grade in the LSOA (Camden 003E) (8.2%) is lower than both Camden Borough (9.8%) and the national average (8.5%).

4.2.15 People with no qualifications in the closest LSOA to the project site (Camden 003E) (10.8%) is lower than Camden Borough (11.8%) and the national average (18.1%).

4.2.16 In Camden Borough, 17.1% of people utilise outdoor space for exercise or health reasons, which is slightly lower than the national average of 17.9%.

4.2.17 Camden Borough has a much higher density of fast food outlets (140.5) compared to both the regional (101.4) the national average (88.2).

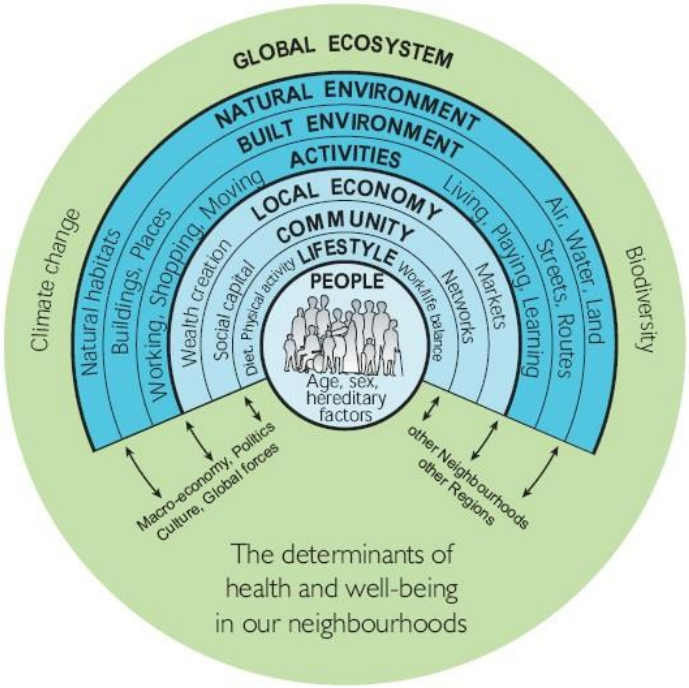
5 Methodology for Health Impact Assessment

5.1 Defining health

5.1.1 The assessment defines health as a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity (8). Wellbeing is defined, by the WHO definition for mental health, as being a state in which every individual realises his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community (9). Health and wellbeing are influenced by a range of factors, termed the 'wider determinants of health'.

5.1.2 Figure 5-1 shows how health is affected by many factors and how most of them lie outside the health services.

Figure 5-1: The main determinants of health



The Health Map by Hugh Barton and Marcus Grant is licensed under a Creative Commons Attribution-Non-Commercial-No Derivative Works 2.0 UK: England & Wales Licence.

Barton and Grant (10)

5.1.3 Many of these factors will be changed or influenced by the proposed development and so it is reasonable to expect the potential for changes in population health. The HIA seeks to identify issues that may harm, or improve, general levels of health.

5.1.4 In all geographical areas there are inequalities in health between population groups. Policy C1 of the Camden Local Plan (11) notes this and also notes the need for measures to help achieve the health and wellbeing aims of the Camden Plan (12) and the strategies and plans prepared by the Health and Wellbeing Board (13).

5.1.5 The HIA seeks to identify how health inequalities may be affected by the proposal. At all times the HIA will seek to identify mitigation and enhancement that may improve health and reduce inequalities in health.

5.2 London Borough of Camden guidance

5.2.1 The LB Camden guidance *Planning for health and wellbeing* (1, para 1.43) states that "HIA should be undertaken for all developments that give rise to significant health impacts. Policy C1 of the Camden Local Plan requires, as a minimum, a screening assessment on major development sites (10 or more residential units or 1,000m^2 additional non-residential floorspace) (11). A HIA may, however, be relevant for other proposed schemes. An example is where a town centre use gives rise to significant health impacts (an issue identified by Policy TC4 of the Local Plan). A HIA is also likely to be necessary where there are sensitive or vulnerable populations that may be affected by a proposed scheme."

5.2.2 The LB Camden guidance *Planning for health and wellbeing* (1, para 1.45) states that "for schemes of between 10 and 99 dwellings and with 1,000-9,999m^2 of additional commercial or visitor floorspace, developers should use the NHS London Healthy Urban Development's Rapid Health Impact Assessment Tool (2) for preparing their HIA." The Highgate Studios development has no residential development. The Gross Internal Area will increase from 22,967m^2 to 36,655m^2. The scheme provides an additional 13,688m^2 of office space.

5.2.3 As per paragraph 1.48 (1) this HIA has sought to avoid duplication and in the assessment below (see Section 7) it references assessments and other documents that are relevant to the HIA and that have been submitted to the Council as part of the planning application. The Applicant sought the views of residents and affected groups in order to understand how a proposed scheme may impact on a range of factors including their health and wellbeing. LB Camden states this must include engagement with vulnerable and sensitive groups when they are likely to be affected by a development, including construction impacts (1, para 1.49).

5.2.4 The HIA approach is based on assessment using the Healthy Urban Development Unit (HUDU) Planning for Health Rapid HIA Tool (2). The scope of the assessment is informed by a scoping exercise using the Institute of Environmental Management and Assessment (IEMA) guidance on scoping (3). The HUDU approach asks whether a topic is relevant or not and it does not allow for scoping topics out so each of the HUDU tables have been completed.

5.3 National and international guidance

5.3.1 In England there is no overarching guidance for HIA of development projects. The HIA approach has been further informed by relevant UK guidance on HIA. The Institute of Environmental Management and Assessment (IEMA) provides guidance on the scoping of Human Health in Environmental Impact Assessment (3). Other guidance is that by Public Health England for HIA in local planning (14); guidance by the Wales Health Impact Assessment Support Unit (15); and the Institute of Public Health in Ireland for the island of Ireland (16).

6 Scope

6.1.1 Table 6-1 sets out the scope of issues considered. It links to Table 9-2 which sets out the full list of health determinants and the rationale for scoping a topic in or out. The HIA considers a range of lifestyle, social, community, environmental, economic, access and service determinants of health. Where scoping identified a determinant of health as having the potential for likely significant population health effects, that determinant has been scoped in (see left-hand column of Table 6-1). This table shows the link between the IEMA (3) and the HUDU (2) approaches. Some determinants of health in the IEMA guidance have been grouped together for discussion (see left-hand column of Table 6-1) To maintain a proportionate scope relevant to the proposed development.

Table 6-1: Technical scope of health issues

HUDU Section 7	**Demolition & Construction**	**Operation**	**Pathway**	**Wider determinant** Table 9-2
Social cohesion and lifetime neighbourhoods	✓	✓	creation of opportunities for community identity, community engagement	community identity, culture, resilience and influence
	✓	✓	creation of opportunities for community participation and interaction, and for social and family support, community meeting places, volunteering opportunities, social support and networks	social participation, interaction and support
Accessibility and active travel	✓		Changes to existing routes	physical activity
		✓	Provision of footpaths and cycleways which may impact on active transport and of open space, play space and leisure space which enables physical activity	transport modes, access and connections
Access to Open Space and Nature – 'open and natural spaces		✓	the design of the Project, the ongoing management of the developed site, crime and the fear of crime	community safety

HUDU Section 7	**Demolition & Construction**	**Operation**	**Pathway**	**Wider determinant** Table 9-2
welcoming and safe and accessible for all'			and relations between different groups/communities.	
Air quality, Noise and Neighbourhood Amenity	✓	✓	Dust and other pollutants and noise emitted during construction. Noise during the operation.	air quality; noise and vibration
Access to healthy food		✓	access to affordable healthy food options; promotion of non-obesogenic environment	diet and nutrition
Access to Open Space and Nature – 'play spaces for children and young people'		✓	Provision of facilities that encourage physical activity, use of space and social networking	open space, leisure and play
Access to Open Space and Nature		✓	Contribution that the Project makes to wider societal infrastructure and resources	wider societal infrastructure and resources

6.1.2 At the scoping stage the main reason for scoping out a potential health effect is that it is unlikely to generate significant health effects, i.e. that it lacks a plausible source-pathway-receptor linkage, or that the requisite conditions for an effect are improbable.

6.1.3 The scope has been informed by the studies prepared for the development.

6.1.4 Table 9-1 sets out scoping results in relation to population groups that may be more sensitive to change. Table 9-2 sets out full scoping results in relation to the determinants of health and wellbeing that may be affected, including scoping rationales.

7 Assessment of Effects

7.1.1 The London Healthy Urban Development Unit (HUDU) Planning for Health Rapid Health Impact Assessment Tool (2) has been completed and the tables are set out in Table 7-1 to Table 7-8 below. HUDU provides Assessment Criteria and asks whether it is Relevant to the current project. The table then requires Details or Evidence to be provided. This is based on the review of documentation prepared for this development. The type of impact is then recorded. Actions are recommended to mitigate a negative effect or enhance or secure a positive effect. A final column has been added to the HUDU tool. This column has the title: *Potential health effect assuming recommendation adopted* and it has been included to show the expected health effect if the recommendations are adopted. Where no recommendation is made the finding from the *Potential health impact?* column is copied across.

Housing quality and design

7.1.2 With one exception, this topic is not included due to the fact that the development does not provide housing. The question "Does the proposal promote good design through layout and orientation, meeting internal space standards?" has been considered in relation to the internal design of the new build.

7.1.3 Issues to consider

- Internal space standards, orientation and layout;
- Energy efficiency.

Potential Health Impacts

7.1.4 Environmental factors, overcrowding and sanitation in buildings as well as unhealthy urban spaces have been widely recognised as causing illness since urban planning was formally introduced. Post-construction management also has impact on community welfare, cohesion and mental wellbeing.

Table 7-1: Housing Quality and Design

Assessment Criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions	Potential health effect assuming recommendation adopted
Does the proposal seek to meet all 16 design criteria of the Lifetime Homes Standard or meet Building Regulation requirement M4 (2)?	☐ Yes ☐ No ☒ N/A	The scheme will meet Building Regulation requirement M4 (2).	☐ Positive ☐ Negative ☒ Neutral ☐ Uncertain		☐ Positive ☐ Negative ☒ Neutral ☐ Uncertain
Does the proposal address the housing needs of older people, i.e. extra care housing, sheltered housing, lifetime homes and wheelchair accessible homes?	☐ Yes ☐ No ☒ N/A	N/A	☐ Positive ☐ Negative ☒ Neutral ☐ Uncertain		☐ Positive ☐ Negative ☒ Neutral ☐ Uncertain
Does the proposal include homes that can be adapted to support independent living for older and disabled people?	☐ Yes ☐ No ☒ N/A	N/A	☐ Positive ☐ Negative ☒ Neutral ☐ Uncertain		☐ Positive ☐ Negative ☒ Neutral ☐ Uncertain
Does the proposal promote good design through layout	☒ Yes ☐ No	The scheme describes how it will relate to internal space standards.	☒ Positive ☐ Negative		☒ Positive ☐ Negative

Assessment Criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions	Potential health effect assuming recommendation adopted
and orientation, meeting internal space standards?	☐ N/A		☐ Neutral ☐ Uncertain		☐ Neutral ☐ Uncertain
Does the proposal include a range of housing types and sizes, including affordable housing responding to local housing needs?	☐ Yes ☐ No ☒ N/A	N/A	☐ Positive ☐ Negative ☒ Neutral ☐ Uncertain		☐ Positive ☐ Negative ☒ Neutral ☐ Uncertain
Does the proposal contain homes that are highly energy efficient (e.g. a high SAP rating)?	☐ Yes ☐ No ☒ N/A	N/A	☐ Positive ☐ Negative ☒ Neutral ☐ Uncertain		☐ Positive ☐ Negative ☒ Neutral ☐ Uncertain

Access to Healthcare Services and other Social Infrastructure

7.1.5 Issues to Consider

- Needs and demand for services
- Capacity of existing facilities and services
- Timing, location and accessibility and developer contributions
- Reconfiguring health and social care services
- Multipurpose buildings and co-location of services
- Access and use of buildings by disabled and older people.

Potential Health Impacts

7.1.6 Strong, vibrant, sustainable and cohesive communities require good quality, accessible public services and infrastructure. Access to social infrastructure and other services is a key component of Lifetime Neighbourhoods. Encouraging the use of local services is influenced by accessibility, in terms of transport and access into a building, and the range and quality of services offered. Access to good quality health and social care, education (primary, secondary and post-19) and community facilities has a direct positive effect on human health. Opportunities for the community to participate in the planning of these services has the potential to impact positively on mental health and wellbeing and can lead to greater community cohesion.

Table 7-2: Access to Healthcare Services and other Social Infrastructure

Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions	Potential health effect assuming recommendation adopted
Does the proposal retain or re-provide existing social infrastructure?	☒ Yes ☐ No ☐ N/A	There is currently a children's nursery on site, which has an outdoor space. The proposals seek to retain this nursery at a discounted rent and to retain and refurbish the outdoor space.	☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain		☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain
Does the proposal assess the impact on healthcare services?	☐ Yes ☐ No ☒ N/A	No assessment of the capacity of existing healthcare services is made. It is considered reasonable that this is not assessed.	☐ Positive ☐ Negative ☒ Neutral ☐ Uncertain		☐ Positive ☐ Negative ☒ Neutral ☐ Uncertain
Does the proposal include the provision, or replacement of a healthcare facility and does the facility meet NHS requirements?	☐ Yes ☐ No ☒ N/A	A healthcare facility is not proposed.	☐ Positive ☐ Negative ☒ Neutral ☐ Uncertain		☐ Positive ☐ Negative ☒ Neutral ☐ Uncertain

Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions	Potential health effect assuming recommendation adopted
Does the proposal assess the capacity, location and accessibility of other social infrastructure, e.g. schools, social care and community facilities?	☐ Yes ☐ No ☒ N/A	The impacts on other social care and community facilities have not been assessed. It is considered reasonable that this is not assessed.	☐ Positive ☐ Negative ☒ Neutral ☐ Uncertain		☐ Positive ☐ Negative ☒ Neutral ☐ Uncertain
Does the proposal explore opportunities for shared community use and co-location of services?	☒ Yes ☐ No ☐ N/A	The DAS shows there will be a communal meeting room at mezzanine level in Plot P. This will provide up to 42m^2 of community meeting space. This was identified in consultation with local groups. It will be available to local groups free of charge.	☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain		☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain

Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions	Potential health effect assuming recommendation adopted
Does the proposal contribute to meeting primary, secondary and post 19 education needs?	☐ Yes ☐ No ☒ N/A	Primary, secondary and post 19 education educational facilities are not proposed. There is currently a children's nursery on site, which has an outdoor space. The proposals seek to retain this nursery at a discounted rent and to retain and refurbish the outdoor space.	☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain		☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain

Access to Open Space and Nature

7.1.7 Issues to Consider

- Opportunities for physical activity
- Access to open and natural space
- Formal and informal outdoor play spaces
- Maintenance of open space

Potential Health Impacts

7.1.8 Providing secure, convenient and attractive open/green space can lead to more physical activity and reduce levels of heart disease, strokes and other ill-health problems that are associated with both sedentary occupations and stressful lifestyles. There is growing evidence that access to parks and open spaces and nature can help to maintain or improve mental health.

7.1.9 The patterns of physical activity established in childhood are perceived to be a key determinant of adult behaviour; a growing number of children are missing out on regular exercise, and an increasing number of children are being diagnosed as obese. Access to play and community spaces can encourage physical activity. There is a strong correlation between the quality of open space and the frequency of use for physical activity, social interaction or relaxation.

Table 7-3: Access to Open Space and Nature

Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions	Potential health effect assuming recommendation adopted
Does the proposal retain and enhance existing open and natural spaces?	☒ Yes ☐ No ☐ N/A	The site does not currently include open and natural spaces. There is a single tree on the site. This will be retained. The proposal enhances existing open space. See row below for summaries from the DAS and the BREEAM Ecology and Land Use Assessment.	☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain		☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain
In areas of deficiency, does the proposal provide new open or natural space, or improve access to existing spaces?	☒ Yes ☐ No ☐ N/A	The DAS (p41) states that urban greening, amenity and well-being are among the key priorities for the design. The site is a compact urban site and close attention has been paid in the design of the site to increase the amount of open space and the use of planting to increase connection with green areas. The open spaces will include green space, footpaths and street furniture. This can provide benefits in terms of physical	☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain	The provision of green space, footpaths and street furniture could be done in accordance with existing guidance, such as NICE guideline (17) on physical activity and the environment that support increased levels of physical activity and in alignment with LB Camden Planning for Health and Wellbeing, for example availability of benches, appropriate lighting, traffic calming and access to public toilets and baby change facilities (1, para 1.25)	☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain

Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions	Potential health effect assuming recommendation adopted
		activity and mental health and wellbeing. The BREEAM Ecology and Land Use Assessment considers whether the proposed design is eligible for credits. The credits for *Ecological change and enhancement* are for: *Managing Negative Impacts on Ecology*; *Ecological Enhancement*; and *Change and Enhancement of Ecology*. Credits are awarded for all these categories. For example, the assessment finds that measures have been implemented to enhance on site ecological value. Such measures include the incorporation of raised planters, rain gardens, façade bound green wall climbers, extensive green roof, intensive green roof and scattered trees. The net gain in biodiversity units means that the design achieves the Exemplary Level Criteria.			

Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions	Potential health effect assuming recommendation adopted
		The DAS (p40) shows the landscape proposals across the entire site increase greening and create amenity for tenants and the local community.			
Does the proposal provide a range of play spaces for children and young people?	☐ Yes ☒ No ☐ N/A	There is currently a children's nursery on site, which has an outdoor space. The proposals seek to retain this nursery at a discounted rent and to retain and refurbish the outdoor space.	☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain		☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain
Does the proposal provide links between open and natural spaces and the public realm?	☒ Yes ☐ No ☐ N/A	The site is an urban site with a predominance of hardstanding and there are currently no 'natural spaces'. An extract is provided from the DAS (p163) to illustrate how the design provides links between the public realm and open and/or green space. *Highgate Passage: This main thoroughfare connects Carkers Lane to Sanderson Close Through the F&B indoor area in Plot J. Cherry trees are placed*	☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain		☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain

Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions	Potential health effect assuming recommendation adopted
		strategically to give a strong character to the space while keeping the views clear towards Highgate passage. A generous outdoor seating area is created using planted areas with integrated benches to shield the space from the main circulation path. The Urban Greening Factor Assessment concludes that the landscaping plans greatly increase the urban greening on the site which [currently consists of] impermeable paving and one single urban tree. [The] landscaping plans will provide new additional habitat for a range of species in the local area from invertebrates to foraging and nesting birds and foraging and roosting bats. Management of the habitats is required in order to make sure each habitat type reaches and maintains is full urban greening potential.			

Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions	Potential health effect assuming recommendation adopted
Are the open and natural spaces welcoming and safe and accessible for all?	☒ Yes ☐ No ☐ N/A	The Estate Management Plan states that the 'overall management strategy is one of an inclusive and cooperative environment that will make it a pleasure to either work or play at the Estate'. A Customer Experience Manager will be a local community point of contact and will manage community engagement.	☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain	The Estate Management Plan describes how developing the strategy will be an iterative process based on the final tenant mix of the estate and their specific needs for example such as extended operating hours. This iterative approach could be extended to community engagement to ensure that all age groups and all ethnicities find the space welcoming, safe and accessible.	☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain

Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions	Potential health effect assuming recommendation adopted
Does the proposal set out how new open space will be managed and maintained?	☒ Yes ☐ No ☐ N/A	The Estate Management Plan sets out how the new open space will be managed and maintained. The BREEAM Ecology and Land Use Assessment considers whether the proposed design is eligible for credits. Credits are awarded for each of the criteria in *Long term ecological management and maintenance*: i.e. *Management and maintenance throughout the project*; and *Landscape and ecology management plan*.	☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain	As above	☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain

Air Quality, Noise and Neighbourhood Amenity

7.1.10 Issues to Consider

- Construction impacts
- Air quality
- Land contamination
- Noise, vibration and odour
- Quality of the local environment
- Provision of green space and trees.

Potential Health Impacts

7.1.11 The quality of the local environment can have a significant impact on physical and mental health. Pollution caused by construction, traffic and commercial activity can result in poor air quality, noise nuisance and vibration. Poor air quality is linked to incidence of chronic lung disease (chronic bronchitis or emphysema) and heart conditions and asthma levels among children. Noise pollution can have a detrimental impact on health resulting in sleep disturbance, cardiovascular and psycho-physiological effects. Good design and the separation of land uses can lessen noise impacts.

Table 7-4: Air Quality, Noise and Neighbourhood Amenity

Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions	Potential health effect assuming recommendation adopted
Does the proposal minimise construction impacts such as dust, noise, vibration and odours?	☒ Yes ☐ No ☐ N/A	**Air quality including dust:** The air quality assessment concludes that the air quality impacts of local emissions sources on the Proposed Development will be 'not	☐ Positive ☒ Negative ☐ Neutral	This assessment agrees with the proposal to ensure that the construction of the scheme uses best practice techniques, plant and	☐ Positive ☐ Negative ☒ Neutral

Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions	Potential health effect assuming recommendation adopted
		significant' in terms of compliance with Air Quality Objectives (AQOs) and Limit Values (LVs). The demolition and construction stage would have a temporary slight adverse effect on air quality due to dust. The air quality assessment concludes that the predicted concentrations of NO_2, PM_{10} and $PM_{2.5}$ within the Proposed Development all achieve the AQOs and are below the LVs in the assessment year. Consideration has been given to the $PM_{2.5}$ targets however, there is no requirement to achieve these targets in the assessment year. Concentrations of NO_2 at all receptors at the Proposed Development are predicted to be below the AQL 3 (WHO IT2) of 30 µg/m^3 in 2025. Concentrations of PM_{10} at all receptor locations at the Proposed Development are predicted to be below the AQL2 (WHO IT4) of 20 µg/m^3. Concentrations of $PM_{2.5}$	☐ Uncertain	management to minimise construction impacts such as dust, noise and vibration. Particular regard should be given to sensitive receptors such as the existing residential communities near the site.	☐ Uncertain

Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions	Potential health effect assuming recommendation adopted
		at all receptor locations at the Proposed Development are predicted to be below AQL 3 (WHO IT 3) of 15 µg/m^3. These AQLs are not statutory thresholds but as they are acknowledged non threshold effects of the pollutants at any level there is a small potential risk of adverse health effects due to exposure of future users of the Proposed Development. **Noise:** The SCI notes that some residents expressed concern about the impact of construction noise. A noise assessment has been conducted based upon attended and unattended surveys. This concludes that the representative background sound levels from the noise survey were $L_{A90,15min}$ 53 dB during the day, and $L_{A90,15min}$ 50 dB during the night to the north of the site, and $L_{A90,15min}$ 51 dB during the day, and $L_{A90,15min}$ 41 dB during the night to the south of the site.			

Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions	Potential health effect assuming recommendation adopted
		Odour: This is not expected to be a feature of this development and it has not been assessed.			
Does the proposal minimise air pollution caused by traffic and energy facilities?	☒ Yes ☐ No ☐ N/A	Figure 16 in the Healthy Streets Assessment (p23) shows the Proposed Trip Generation when the site is operational. This is calculated as 6,839 two-way movements by all modes over the course of a typical weekday. This would include a total of 78 two-way vehicle movements. Figure 17 shows the net impact of the development's Trip Generation. This shows an increase in Active Travel modes and decrease in vehicle trips. These calculations are for the whole development (39,552m^2 Floorspace).	☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain		☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain

Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions	Potential health effect assuming recommendation adopted
Does the proposal minimise noise pollution caused by traffic and commercial uses?	☒ Yes ☐ No ☐ N/A	As above.	☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain	It may be appropriate to monitor operational noise and regularly share the findings with the local community in a non-technical format.	☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain

Accessibility and active travel

7.1.12 Issues to consider

- Streetscape
- Opportunities for walking and cycling
- Access to public transport
- Minimising the need to travel
- Discouraging car use
- Road traffic injuries.

Potential health impacts

7.1.13 Convenient access to a range of services and facilities minimises the need to travel and provides greater opportunities for social interaction. Buildings and spaces that are easily accessible and safe also encourage all groups, including older people and people with a disability, to use them. Discouraging car use and providing opportunities for walking and cycling can increase physical activity and help prevent chronic diseases, reduce risk of premature death and improve mental health.

Table 7-5: Accessibility and active travel

Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions	Potential health effect assuming recommendation adopted
Does the proposal prioritise and encourage walking (such as through shared spaces?)	☒ Yes ☐ No ☐ N/A	The application site benefits from good transport infrastructure in the locality which facilitates travel by non-car modes, such as walking and public transport.	☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain		☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain

Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions	Potential health effect assuming recommendation adopted
		The proposals seek to create a north-south route (Highgate Passage). They seek to remove a small building at the lower end of Carker's Lane, which currently would block the future route through to the Murphy's Yard site. Carker's Lane will be landscaped and futureproofed for future connection through to the walking and cycling routes proposed as part of the Murphy's Yard scheme, as agreed with Camden Council. Figure 16 in the Healthy Streets Assessment (p23) shows the Proposed Trip Generation when the site is operational. This is calculated as 6,839 two-way movements by all modes over the course of a typical weekday. This would include a total of 78 two-way vehicle movements. Figure 17 shows the net impact of the development's Trip Generation. This shows an increase in Active Travel modes and decrease in vehicle trips. These calculations are			

Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions	Potential health effect assuming recommendation adopted
		for the whole development (39,552m^2 Floorspace).			
Does the proposal prioritise and encourage cycling (for example by providing secure cycle parking, showers and cycle lanes)?	☒ Yes ☐ No ☐ N/A	The development will provide best-in-class cycle commuter facilities within the new blocks A and F to encourage an increased uptake on green and active transport modes. This includes secure storage for tenants at the offices and for visitors to the site. This includes showering and washing facilities and toilets.	☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain		☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain
Does the proposal connect public realm and internal routes to local and strategic cycle and walking networks?	☒ Yes ☐ No ☐ N/A	The site is to the north-west of TfL Cycleway route C6, Kentish Town to Elephant and Castle The Travel Plan.	☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain		☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain

Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions	Potential health effect assuming recommendation adopted
Does the proposal include traffic management and calming measures to help reduce and minimise road injuries?	☒ Yes ☐ No ☐ N/A	The Travel Plan states that the proposed development would be car-free.	☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain		☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain
Is the proposal well connected to public transport, local services and facilities?	☒ Yes ☐ No ☐ N/A	The application site benefits from good transport infrastructure present in the locality which facilitates travel by non-car modes. The Transport Plan states that the site achieves a Public Transport Accessibility Level (PTAL) 6a defined by TfL to provide an "excellent" level of public transport accessibility. The Healthy Streets Assessment records the nearest bus stops, rapid transit/rail, leisure centre/facilities and town centre and the current/future strategic cycle network (paragraphs 4.22-4.23).	☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain		☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain

Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions	Potential health effect assuming recommendation adopted
		• The nearest bus stops are located on Highgate Road, stops Lady Somerset Road and Greenwood Centre. • The nearest rapid transit/rail station is Kentish Town at an approximate 500m (7-minute) walk. • The nearest town centre is Camden at an approximate 1.8km (22-minute walk). The site is also located to the north-west of Kentish Town Road which is the location of a number of chain and independent businesses which could meet site users needs. • The nearest TfL Cycleway is route C6 on Kentish Town Road at an approximate 1.1km (4-minute) ride. The nearest leisure centre is Kentish Town Sports Centre at an approximate 1.2km (14-minute) walk and the nearest greenspace is Hampstead			

Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions	Potential health effect assuming recommendation adopted
		Heath at an approximate 900m (12-minute) walk.			
Does the proposal seek to reduce car use by reducing car parking provision, supported by the controlled parking zones, car clubs and travel plans measures?	☒ Yes ☐ No ☐ N/A	The Travel Plan states that the proposed development would be car-free with no car parking provided except for the provision of disabled persons parking bays to incorporate electric vehicle charge points, whilst additional high-quality cycle parking facilities would be provided, both of which in line with current London Plan standards for all new floorspace. The proposed development would reduce car parking from 95 to 4 car parking spaces (Healthy Streets Transport Assessment, p23). All delivery and servicing movements would be accommodated within the site.	☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain		☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain

Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions	Potential health effect assuming recommendation adopted
Does the proposal allow people with mobility problems or a disability to access buildings and places?	☒ Yes ☐ No ☐ N/A	Access Statement [extracts]. There will be safe and accessible routes to all parts of the development. A single designated accessible car parking bay is proposed at the end of Carkers Lane. Accessible cycle parking spaces will be in Plots A & F. Showers and changing rooms, alongside the cycling facilities, will include one wheelchair accessible shower, WC and changing room in each Plot. Step free access into all the building entrances, other than to plant only areas, will be provided. Internal circulation, horizontal and vertical, will allow for wheelchair use. Accessible toilets, single sex and unisex, will be provided. Evacuation routes, in the event of emergency, will enable safe and dignified evacuation for wheelchair users and people with mobility needs.	☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain		☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain

Access to healthy food

7.1.14 Issues to consider

- Healthy localised food supply
- Hot food takeaways
- Social enterprises
- Allotments and community food growing spaces.

Potential health impacts

7.1.15 Access to healthy and nutritious food can improve diet and prevent chronic diseases related to obesity. People on low incomes, including young families, older people are the least able to eat well because of lack of access to nutritious food. They are more likely to have access to food that is high in salt, oil, energy-dense fat and sugar.

7.1.16 Opportunities to grow and purchase local healthy food and limiting concentrations of hot food takeaways can change eating behaviour and improve physical and mental health.

Table 7-6: Access to healthy food

Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions	Potential health effect assuming recommendation adopted
Does the proposal facilitate the supply of local food, i.e. allotments, community farms and farmers' markets?	☒ Yes ☐ No ☐ N/A	The food and beverage offer within the site previously comprises one coffee-shop style café. The intention is to introduce a variety of food and beverage units within the ground floor units, and for that reason the application seeks a dual-use class of office/ food and beverage to these units. This is a new offering which will hope to create a shift in culture within the development, so will take time to build up a behavioural change hence the dual use / later conversion to food and beverage to some ground floor units. There will be opportunities for small 'pop-up' markets with local suppliers that will provide outlets for local foods.	☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain		☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain

Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions	Potential health effect assuming recommendation adopted
Is there a range of retail uses, including food stores and smaller affordable shops for social enterprises?	☐ Yes ☐ No ☒ N/A	The development will not have retail space.	☐ Positive ☐ Negative ☒ Neutral ☐ Uncertain		☐ Positive ☐ Negative ☒ Neutral ☐ Uncertain

Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions	Potential health effect assuming recommendation adopted
Does the proposal avoid contributing towards an over-concentration of hot food takeaways in the local area?	☐ Yes ☐ No ☒ N/A	As above.	☐ Positive ☐ Negative ☐ Neutral ☒ Uncertain	It is recommended that consideration is given to how the allocation of any A5 (hot food takeaways) land use could affect local diets, particularly those of children in surrounding communities who may walk to school past the application site and the diet of young adults given the proximity of secondary schools such as Acland Burghley School; LaSWAP Sixth Form Consortium; William Ellis School and Parliament Hill School. The recommendation aims to supports avoiding an over-concentration of hot food takeaway in the local area.	☐ Positive ☐ Negative ☒ Neutral ☐ Uncertain

Social cohesion and lifetime neighbourhoods

7.1.17 Issues to consider

- Social interaction
- Mixed communities
- Access to community facilities
- Voluntary sector involvement
- Community severance
- Lifetime neighbourhoods.

Potential health impacts

7.1.18 Friendship and supportive networks in a community can help to reduce depression and levels of chronic illness as well as speed recovery after illness and improve wellbeing. Fragmentation of social structures can lead to communities demarcated by socio-economic status, age and/or ethnicity, which can lead to isolation, insecurity and a lack of cohesion.

7.1.19 Voluntary and community groups, properly supported, can help to build up networks for people who are isolated and disconnected, and to provide meaningful interaction to improve mental wellbeing.

7.1.20 Lifetime Neighbourhoods places the design criteria of Lifetime Homes into a wider context. It encourages planners to help create environments that people of all ages and abilities can access and enjoy, and to facilitate communities that people can participate in, interact and feel safe.

Table 7-7: Social cohesion and lifetime neighbourhoods

Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions	Potential health effect assuming recommendation adopted
Does the proposal connect with existing	☒ Yes	The Landscape Design and Access Statement shows how the site will	☒ Positive	Monitor the Estate Management Strategy to	☒ Positive

Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions	Potential health effect assuming recommendation adopted
communities, i.e. layout and movement which avoids physical barriers and severance and land uses and spaces which encourage social interaction?	☐ No ☐ N/A	connect with existing communities. It sets out the opportunities afforded by the development. These include proximity to transport and to local amenities as well as to the possible future development of Murphy's Yard; make Carkers Lane into a main pedestrian access route; create a north-south route (Highgate Passage); enhance character of existing yards and increase the amount of green area; include gardens to harvest rainwater; and provide vertical greening. The Estate Management Plan places a premium on social interaction. It states that the 'overall management strategy is one of an inclusive and cooperative environment that will make it a pleasure to either work or play at the Estate'. 'A Customer Experience Manager will be a local community point of contact and	☐ Negative ☐ Neutral ☐ Uncertain	ensure the environment is inclusive and cooperative for tenants and for all members of the surrounding communities.	☐ Negative ☐ Neutral ☐ Uncertain

Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions	Potential health effect assuming recommendation adopted
		will manage community engagement.'			
Does the proposal include a mix of uses and a range of community facilities?	☒ Yes ☐ No ☐ N/A	The Sustainability Statement describes how the development will provide affordable and multifunctional work and business-space with the aim of optimising economic viability and usage from the surrounding areas. The DAS shows there will be a communal meeting room at mezzanine level in Plot P. This will provide up to 42m^2 of community meeting space. This was identified in consultation with local groups. It will be available to local groups free of charge.	☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain	Monitor the use and reach of this offer. Include social enterprise and voluntary sector organisations.	☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain
Does the proposal provide opportunities for the voluntary and community sectors?	☒ Yes ☐ No ☐ N/A	As above	☐ Positive ☐ Negative ☒ Neutral ☐ Uncertain	As above	☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain

Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions	Potential health effect assuming recommendation adopted
Does the proposal address the six key components of Lifetime Neighbourhoods?	☒ Yes ☐ No ☐ N/A	The development will contribute to delivering the six key components of Lifetime Neighbourhoods (18). It will contribute to improving access through the care-free nature of the development and the changes to layout of the site; services and amenities through the provision of community meeting space; built and natural environments through the design improvements described above; social networks/well-being in the local area through the provision of community meeting space. It will not deliver housing.	☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain		☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain

Minimising the use of resources

7.1.21 Issues to consider

- Making the best use of existing land
- Recycling and reuse
- Sustainable design and construction
- Waste management
- Potential hazards.

Potential health impacts

7.1.22 Reducing or minimising waste including disposal, processes for construction as well as encouraging recycling at all levels can improve human health directly and indirectly by minimising environmental impact, such as air pollution.

Table 7-8: Minimising the use of resources

Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions	Potential health effect assuming recommendation adopted
Does the proposal make best use of existing land?	☒ Yes ☐ No ☐ N/A	The DAS and the Highgate Studios Circular Economy Statement set out how the design maximises retrofit of existing buildings while preserving and enhancing the historic nature of the site. Redevelopment on brownfield sites (as is the case for the proposed development) ensures that land is effectively used, recycled and enhanced.	☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain		☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain
Does the proposal encourage recycling (including building materials)?	☒ Yes ☐ No ☐ N/A	The Highgate Studios Circular Economy Statement considers the proposed development from construction to end of life strategy. It provides a summary of the work that has gone into the design to date, and it sets out aspirations for the future. It uses the OneClick LCA tool The aspiration is that 86% of the existing site floor area will be retained.	☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain		☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain

Assessment criteria	Relevant?	Details/evidence	Potential health impact?	Recommended mitigation or enhancement actions	Potential health effect assuming recommendation adopted
Does the proposal incorporate sustainable design and construction techniques?	☒ Yes ☐ No ☐ N/A	The development is based upon examination into sustainable construction techniques, balanced with the longevity and appropriateness when applying to 150 year old warehouses in order to secure a long and vibrant future for the buildings. Considerable focus has been placed on the re-use and conversion of the buildings for the future, and materials and construction techniques selected on the basis of whole-life carbon (not short term goals). The Project has a Sustainability Champion to set the targets, monitor the performance of the design team and ensure as far as practicable that the goals are met during the construction phase	☒ Positive ☐ Negative ☐ Neutral ☐ Uncertain		☐ Positive ☐ Negative ☐ Neutral ☐ Uncertain

8 Conclusions

8.1 Recommendations

8.1.1 This section lists the recommendations made in Section 7.

8.1.2 In order to enhance the potential health benefits of the proposal, and to avoid potential harms, the following recommendations are offered for the detailed design stage:

8.1.3 This report has provided an assessment based on available evidence and information.

8.1.4 As with any development the potential for construction and demolition related health effects can be anticipated (linked to emissions, disturbance and disruption). However, any potential for significant negative effects to population health associated with demolition and construction activities are expected to be avoided or appropriately reduced through standard good practice mitigation and design. The particular need to confirm this in relation to construction noise is discussed below.

8.1.5 The predominant feature of the proposed development is TEXT

8.1.6 The potential for population health effects is discussed below.

8.2 Findings

8.2.1 TEXT

Demolition and construction

8.2.2 TEXT

Completed development

8.2.3 TEXT

9 Appendices

9.1 Scope

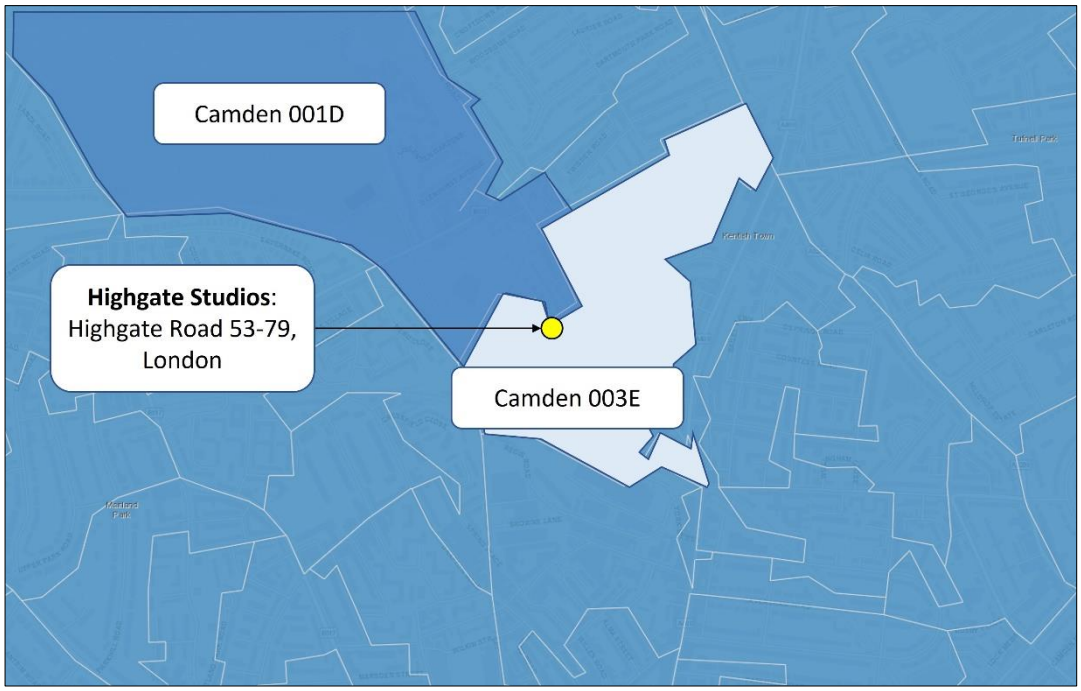
Study areas

9.1.1 The following geographic area classifications have been used:

- site-specific (population near the application site);
- local (the London Borough of Camden);
- regional (the London Region);
- national (England); and
- international.

9.1.2 The 'site-specific' level considers localised effects with reference to routine statistics collected for Lower Layer Super Output Areas (LSOAs). The LSOAs are selected to indicate the representative characteristics of the population potentially affected. The selected LSOAs are the adjacent LSOAs: Camden 001D (north of the site boundary) and Camden 003E (in which the proposed development is situated. LSOAs boundaries are shown on Figure 9-1).

Figure 9-1: Site specific study area



From ONS (19)

9.1.3 The LSOAs are selected to define a representative population in terms of sensitivity, they do not define the extent of effects.

9.1.4 Within the study areas the assessment defines ten population groups (described below). Four of these population groups are geographically defined, the remaining six are defined in relation to reasons that a population may be sensitive, other than due to proximity.

9.1.5 The study areas used in chapters of the ES are of relevance, but do not necessarily define the boundaries of potential health effects. For example, effects on mental health and wellbeing may not be limited to the area defined in relation to achieving certain thresholds (e.g. for air quality or noise). Consequently, this report uses study areas to broadly define representative population groups rather than to set boundaries on the extent of potential effects.

Geographic population groups

9.1.6 Four population groups have been selected based on the geographic study areas:

- the population near the application site, Camden 001D and Camden 003E (site-specific);
- the population of the London Borough of Camden (local);
- the population of London (regional); and
- the population of England and beyond the borders of England (national and international).

Potentially vulnerable groups

9.1.7 In addition, six further population groups are defined in relation to their potential sensitivity to changes associated with the proposed development (beneficial or adverse):

- Young age: Children and young people (including pregnant women and unborn children).
- Old age: Older people (particularly frail elderly).
- Low income: People on low income, who are economically inactive or unemployed/workless.
- Poor health: People with existing poor health
  - Those with existing long-term physical or mental health conditions or disability that substantially affects their ability to carry out normal day-to-day activities.
- Social disadvantage: People who suffer discrimination or other social disadvantage
  - Relevant protected characteristics under the Equality Act 2010 (20) or groups who may experience low social status or social isolation for other reasons.
- Access and geographical factors: People experiencing barriers in access to services, amenities and facilities and people living in areas known to exhibit high deprivation or poor economic and/or health indicators
  - People living in areas with high multiple deprivation (combinations of deprivation in relation to: income; employment; health deprivation and disability; education skills and training; barriers to housing and services; crime; or living environment).

9.1.8 These groups are broadly defined to facilitate a consistent discussion across health issues. People falling into more than one group may be especially sensitive.

Temporal scope

9.1.9 The temporal scope of this HIA has been defined as follows:

- 'very short-term' relates to effects measured in hours, days or weeks (e.g. effects, associated with changes in exposure during particular weather conditions);
- 'short-term' relates to effects measured in months (e.g. a particular construction activity);
- 'medium-term' relates to effects measured in years (e.g. the entire construction stage);
- 'long-term' relates to effects measured in decades (e.g. routine operational effects).

Technical scope

Scoping – supporting tables

9.1.10 Table 9-1 sets out scoping results in relation to the identification of relevant population groups that may be more sensitive to change.

Table 9-1: Scoping by Population Groups

Population Group	Effect Type	Mechanism
Age		
Children Young people Older people	Direct	During Construction, there is the potential for disruption and increases in noise, air pollution and visual disturbance due to activities of the proposed development. Potential for physical activity benefits due to the proposed development.
Income		
People on low incomes Economically inactive Unemployed/workless	Direct	Affordable and multifunctional work and business-space to optimise economic viability and usage from the surrounding areas. During Construction, there is the potential for economically inactive groups to experience greater effects (increases in noise, air pollution and visual disturbance) due to more time spent at home.
	Indirect	Wider indirect economic benefits may be associated with the new development facilitating employment growth, expected to generate XXX jobs.
Health Status		
The elderly, children and people affected by pre-existing health issues such as heart or lung disease. People who are unable to work due to ill health	Direct	During Construction, there is the potential for people with existing poor health to experience greater effects (increases in noise, air pollution and visual disturbance) due to increased susceptibility (e.g. to air pollutants) or more time spent at home.
Groups who Suffer Discrimination, or other Social Disadvantage		
People with physical or learning disabilities/difficulties	Direct	Any effects relating to health status are captured within the separate consideration of 'health status related groups' above. For people with impaired mobility, there is potential

Population Group	Effect Type	Mechanism
		for physical activity benefits due to the footpaths / cycleways that form part of the proposed development.
Single-parent families Lesbian, gay and transgender people Refugee groups Black and minority ethnic groups People seeking asylum Religious groups Travellers	Indirect	Potential for conflict between the needs of an office space and the needs of a space that is open and accessible to the public. Any restrictions may be experienced to a greater extent by members of these population groups.
Geographical Groups		
People living in close proximity to the application site People living in isolated/over-populated areas People unable to access services and facilities	Direct	During Construction, there is the potential for people in close proximity to sources of disturbance or emissions to experience greater effects (increases in noise, air pollution and visual disturbance).

9.1.11 Table 9-2 sets out scoping results in relation to the determinants of health and wellbeing that may be affected.

9.1.12 The categories and the wider determinants of health are taken from IEMA, Guide to Effective Scoping of Human Health in Environmental Impact Assessment (3).

Table 9-2: Scoping by Determinants of Health

Categories	Wider determinants of health	Impact	Health Effects (Health Outcomes) to include …	In/out	Justification
Health related behaviours	physical activity	**Demolition and Construction:** Changes to existing routes **Completed Development:** Provision of footpaths and cycleways which may impact on active transport and of open space, play space and leisure space which enables physical activity	Cardiovascular health; respiratory health; mental health & wellbeing; type 2 diabetes	in	Demolition and Construction and Completed Development: Physical activity is also linked with the determinants of *open space, leisure and play* and *transport*.
	risk taking behaviour[2]	**Demolition and Construction:** Presence of construction workforce can lead to increase in offers of, and/or opportunities for, risk-taking behaviour. **Operation:** Commercial outlets that sell alcohol,	Mental health, use of alcohol, cigarettes, e-cigarettes and non-prescribed drugs; problem gambling; Sexually transmitted infections	out	Demolition and Construction: The potential for the leisure time activities of the construction workforce to change community behaviours, such as smoking habits or alcohol intake, is considered to be small. This reflects the expectation that accommodation for construction workers would be relatively dispersed and that they would predominantly originate from within the Greater

[2] Risk taking behaviour includes changes to the ways in which people use alcohol, cigarettes, e-cigarettes and non-prescribed drugs and the ways they engage in sexual activity and problem gambling (and other addictive behaviours).

Categories	Wider determinants of health	Impact	Health Effects (Health Outcomes) to include …	In/out	Justification
		cigarettes, e-cigarettes or premises for gambling.			London region. For the same reasons other risk-taking behaviours, including those associated with gambling and sexually transmitted infections, are also scoped out. Although an adverse community effect is unlikely, it would be beneficial for health promotion material to be provided in any construction amenities facilities on-site, particularly in relation to smoking cessation. Completed Development: Licensing and planning regime of the London Borough of Camden will regulate the density and volume of commercial outlets that sell alcohol, cigarettes, e-cigarettes or premises for gambling.
	diet and nutrition	**Demolition and Construction:** limited opportunity to influence non-obesogenic environment during construction	Mental health in children and adolescents; diabetes, heart disease, and other obesity related health problems	out	Demolition and Construction: limited opportunity to influence non-obesogenic environment during construction.
		Completed Development: access to affordable healthy food options; promotion of non-obesogenic environment		in	Completed development: health outcomes associated with access to healthy food options; promotion of non-obesogenic environment. Food and beverage outlet will be provided. It is noted that the applicant will not control the type of food and beverage floorspace that is provided.
Social environment	housing	**Demolition and Construction:** Demolition of existing housing	Respiratory health, diet (due to availability of cooking facilities and affordability of food);	out	The development will not provide residential accommodation. This determinant of health is not considered further. Demolition and Construction: N/A

Categories	Wider determinants of health	Impact	Health Effects (Health Outcomes) to include …	In/out	Justification
		Completed Development: Provision of new housing	mental health (due to privacy, household and family relationships)		Completed Development: N/A
	relocation	**Demolition and Construction:** relocation of tenants of current office spaces population	Mental health; accessibility of health care, and social networks; mortality (for older population)	out	Demolition and Construction: The intention is to work around the tenants of current office spaces. There may need to be some temporarily relocation during the construction. Completed Development: The intention is to retain existing tenants.
	open space, leisure and play	**Demolition and Construction**: Provision of facilities that encourage physical activity, use of space and social networking	Cardiovascular health Respiratory health Mental health & wellbeing Type 2 diabetes	out	Demolition and Construction: N/A
		Completed Development: Provision of facilities that encourage physical activity, use of space and social networking		in	Completed development: health outcomes associated with design opportunities to encourage physical activity, use of space and social networking; health outcomes associated with open spaces, recreational amenities and facilities and play facilities etc.
	transport modes, access and connections	**Demolition and Construction**: Provision of active, safe and sustainable transport and access. **Completed Development:** Provision of active, safe and sustainable transport and access.	Cardiovascular health; Respiratory health; Mental health & wellbeing; Type 2 diabetes; Injury	in	Demolition and Construction and Completed development: health outcomes associated with active, safe and sustainable transport and access. Note: a Healthy Streets Transport Assessment has been completed.

Categories	Wider determinants of health	Impact	Health Effects (Health Outcomes) to include …	In/out	Justification
	community safety	**Demolition and Construction**: presence of a construction site	Injury, mental health	out	Demolition and Construction: the construction site will be secure and will pose no appreciable injury risk to members of the public. All construction will be conducted to appropriate safety standards.
		Completed Development: the design of the Project, the ongoing management of the developed site, crime and the fear of crime and relations between different groups/communities.		in	Completed development: health outcomes associated with the design of the Project and its ongoing management.
	community identity, culture, resilience and influence	**Demolition and Construction and Completed Development:** creation of opportunities for community identity, community engagement	Health literacy: mental health; prevention and control of chronic non-communicable disease (e.g. cardiovascular diseases, cancers and diabetes)	in	Demolition and Construction and Completed development: Health outcomes (mental health) associated with community identity, community engagement,
	social participation, interaction and support	**Demolition and Construction and Completed Development:** creation of opportunities for community participation and interaction, and for social and family support, community meeting places, volunteering opportunities, social support and networks	Health literacy: mental health; prevention and control of chronic non-communicable disease (e.g. cardiovascular diseases, cancers and diabetes)	in	Demolition and Construction and Completed development: health outcomes associated with opportunities for community participation and interaction, and for social and family support, community meeting places, volunteering opportunities, social support and networks

Categories	Wider determinants of health	Impact	Health Effects (Health Outcomes) to include …	In/out	Justification
Economic environment	education and training	**Demolition and Construction and Completed Development:** opportunities for education and training	Education is associated with improved physical and mental health outcomes	out	The development will not directly provide opportunities for education and training. Tenants of the office space can be expected to provide these opportunities, but this is not in the control of the applicant. This determinant of health is not considered further. Demolition and Construction and Completed development: N/A
	employment and income	**Demolition and Construction and Completed Development:** opportunities for employment	Employment is associated with physical and mental health outcomes	out	The development will not directly provide opportunities for employment. Tenants of the office space can be expected to provide these opportunities, but this is not in the control of the applicant. This determinant of health is not considered further. Demolition and Construction and Completed development: N/A
Bio-physical environment	climate change mitigation and adaptation	**Demolition and Construction and Completed Development**: aspects of Project design and need to mitigate against and adapt to climate change.	Physical and mental health outcomes associated with rainfall; heatwaves; windstorms and drought.	out	Demolition and Construction and Completed development:
	air quality	**Demolition and Construction**: emissions from vehicles and plant machinery **Completed Development**: emissions from vehicles and buildings	Respiratory health, cardiovascular health (and a range of physical health outcomes across the lifecourse).	in	Demolition and Construction and Completed development: The air quality assessment establishes links with human health with regard to increase in exposure to NO_2, PM_{10}, $PM_{2.5}$.

Categories	Wider determinants of health	Impact	Health Effects (Health Outcomes) to include …	In/out	Justification
	water quality or availability	**Demolition and Construction and Completed Development**: release of biological or chemical agents in the water supply	Physical health outcomes associated with exposure to contaminated water.	out	Demolition and Construction and Completed development: Any source-pathway-receptor linkage that may lead to human exposure to water pollution will be interrupted by good practice mitigation. The health chapter will keep the findings of the EIA water resources conditions chapter under review.
	land quality	**Demolition and Construction:** mobilisation of historic pollutants; discovery of unexploded ordnance **Completed Development**: N/A	Physical health outcomes associated with exposure to contaminants in soil; injury.	out	Demolition and Construction and Completed development: Any source-pathway-receptor linkage that may lead to human exposure to pollution, or other hazard, will be interrupted by good practice mitigation. The health chapter will keep the findings of the EIA ground conditions chapter under review.
	noise and vibration	**Demolition and Construction and Completed Development:** Noise or vibration from plant, vehicles and construction activities	Annoyance, sleep disturbance, cardiovascular health	in	Demolition and Construction and Completed development: The noise assessment assesses effects with regard to demolition and construction activities and traffic emissions during demolition and construction. Any source-pathway-receptor linkage that may lead to human exposure to noise pollution will be interrupted by good practice mitigation. The health chapter will keep the findings of the EIA ground conditions chapter under review.
	radiation	**Demolition and Construction and Completed Development**: electrical infrastructure eg cables and substations	Mental health (Public concern about radiation, for example electromagnetic fields)	out	Demolition and Construction and Completed development: Project electrical infrastructure will be built to comply with current standards and will pose no risk to human health. If concern about

Categories	Wider determinants of health	Impact	Health Effects (Health Outcomes) to include …	In/out	Justification
					radiation is raised it can be addressed through Project communications.
Institutional and built environment	health and social care services	**Demolition and Construction:** access to health services	Physical and mental health outcomes; accessibility of services	out	Demolition and Construction and Completed development: No change to accessibility of, or demand for, services is expected as a result of the Project.
		Completed Development: increase in population and change in demand for health services			
	built environment	**Demolition and Construction and Completed Development:** Design of the built environment and provision of facilities that contribute to physical, mental and social wellbeing.	Physical and mental health outcomes	out	Demolition and Construction and Completed development: The potential health effects associated with the built environment are considered under the category of social environment above.
	wider societal infrastructure and resources	**Demolition and Construction**: N/A	Physical and mental health outcomes	out	Demolition and Construction: N/A
		Completed Development: Contribution that the Project makes to wider societal infrastructure and resources		in	Completed development: The landscaping will protect and enhance the natural environment (e.g. biodiversity, access to natural spaces and habitats).

9.2 Baseline

9.2.1 Table 9-3 sets out baseline data for the site specific, local, regional and national level from the 2021 Census. Figure 9-2 to Figure 9-9 set out further baseline information for Camden (local level) across public health indicators with regional (London region) and national (England) comparators.

Site-specific, Local, Regional, National

Table 9-3: Baseline census statistics 2021: Site-specific, Local, Regional, National

Population group	Site-specific				Local		Regional		National	
Variable	**Camden 001D**		**Camden 003E**		**Camden**		**London**		**England**	
	number	%	number	%	number	%	number	%	number	%
TS001 - Number of usual residents in households and communal establishments, TS006 - Population density										
All usual residents	1,587	-	1,711	-	210,136	-	8,799,728	-	56,490,048	-
Density (residents per square kilometre)	1,771.2	-	6,784.2	-	9640.9	-	5,597.6	-	433.5	-
TS041 - Number of Households										
Number of households	681	-	752	-	92,759		3,423,890	-	23,436,085	-
TS007A - Age by five-year age bands (summarised)										
Age 0 to 14 – children and young people	230	15	264	15	30,293	14	1,595,891	18	9,838,977	17
Aged 15 to 64 – working age people	1,111	70	1,239	72	155,013	74	6,160,416	70	36,249,768	64
Aged 65 and over – older people	243	15	208	12	24,829	12	1,043,418	12	10,401,303	18
TS038 - Disability										

Population group	Site-specific				Local		Regional		National	
Variable	**Camden 001D**		**Camden 003E**		**Camden**		**London**		**England**	
	number	%	number	%	number	%	number	%	number	%
Disabled under the Equality Act	333	21.0	277	16.2	31,882	15.2	1,164,456	13.2	9,774,510	17.3
Disabled under the Equality Act: Day-to-day activities limited a lot	135	8.5	115	6.7	14,052	6.7	505,909	5.7	4,140,357	7.3
Disabled under the Equality Act: Day-to-day activities limited a little	198	12.5	162	9.5	17,830	8.5	658,547	7.5	5,634,153	10.0
Not disabled under the Equality Act	1,254	79.0	1,436	83.8	178,254	84.8	7,635,272	86.8	46,715,538	82.7
Not disabled under the Equality Act: Has long term physical or mental health condition but day-to-day activities are not limited	95	6.0	118	6.9	12,051	5.7	459,554	5.2	3,856,029	6.8
Not disabled under the Equality Act: No long term physical or mental health conditions	1,159	73.0	1,318	76.9	166,203	79.1	7,175,718	81.5	42,859,509	75.9
TS037 - General health										
Very good health	774	48.8	941	54.9	116,692	55.5	4,712,358	53.6	27,390,829	48.5
Good health	509	32.1	486	28.4	61,665	29.3	2,802,395	31.8	19,040,735	33.7
Fair health	179	11.3	187	10.9	21,109	10.0	908,941	10.3	7,147,346	12.7
Bad health	101	6.4	75	4.4	8,013	3.8	283,864	3.2	2,248,255	4.0
Very bad health	24	1.5	24	1.4	2,657	1.3	92,170	1.0	662,881	1.2
TS039 - Provision of unpaid care										
Provides no unpaid care	1,344	89.3	1,500	91.6	185,499	92.7	7,674,309	92.8	48,734,833	91.2
Provides 19 hours or less unpaid care a week	100	6.6	82	5.0	7,853	3.9	295,499	3.6	2,303,725	4.3

Population group	Site-specific				Local		Regional		National	
Variable	**Camden 001D**		**Camden 003E**		**Camden**		**London**		**England**	
	number	%	number	%	number	%	number	%	number	%
Provides 20 to 49 hours unpaid care a week	30	2.0	23	1.4	3,192	1.6	138,520	1.7	969,769	1.8
Provides 50 or more hours unpaid care a week	31	2.1	32	2.0	3,560	1.8	162,444	2.0	1,404,771	2.6
KS106EW - Adults not in employment and dependent children and persons with long-term health problems or disability for all households										
No adults in employment in household										
TS003 - Household composition										
Households with dependent children	164	24	182	24	21,067	23	1,071,106	31	6,675,819	29
TS040 - Number of disabled people in the household										
No people disabled under the Equality Act in household	414	61.0	548	73.1	67,119	72.4	2,512,350	73.4	15,928,198	68.0
1 person disabled under the Equality Act in household	208	30.6	172	22.9	21,501	23.2	736,752	21.5	5,950,081	25.4
2 or more people disabled under the Equality Act in household	57	8.4	30	4.0	4,140	4.5	174,788	5.1	1,557,806	6.6
TS011 - Households by deprivation dimensions										
Household is not deprived in any dimension	259	38.0	411	54.4	44,082	47.5	1,645,474	48.1	11,349,737	48.4
Household is deprived in 1 dimension	250	36.7	209	27.7	29,601	31.9	1,126,411	32.9	7,842,691	33.5
Household is deprived in 2 dimensions	124	18.2	92	12.2	13,535	14.6	493,114	14.4	3,320,584	14.2
Household is deprived in 3 dimensions	43	6.3	40	5.3	4,938	5.3	145,789	4.3	868,104	3.7
Household is deprived in 4 dimensions	5	0.7	3	0.4	603	0.7	13,104	0.4	54,970	0.2

Population group	Site-specific				Local		Regional		National	
Variable	**Camden 001D**		**Camden 003E**		**Camden**		**London**		**England**	
	number	%	number	%	number	%	number	%	number	%
TS045 - Car or van availability										
No cars or vans in household	434	63.6	432	57.4	59,037	63.6	1,440,271	42.1	5,516,098	23.5
One or more cars or vans in household	248	36	320	43	33,722	36	1,983,619	58	17,919,987	77
TS058 - Distance travelled to work[3]										
Less than 2km	62	8.2	85	9.1	9,572	9.3	331,191	7.6	2,898,994	11.0
2km to less than 5km	96	12.7	90	9.6	11,530	11.2	484,894	11.1	3,335,948	12.6
5km to less than 10km	87	11.5	93	9.9	9,350	9.1	533,671	12.2	3,099,302	11.7
10km and over	51	7	48	5	4,522	4	558,297	13	4,933,206	19
Works mainly from home	367	48.7	541	57.7	58,110	56.7	1,836,823	42.1	8,321,252	31.5
Works mainly at an offshore installation, in no fixed place, or outside the UK	91	12.1	80	8.5	9,429	9.2	615,201	14.1	3,816,512	14.5
TS066 - Economic activity status										
Economically active (excluding full-time students)	798	59.3	975	67.8	105,519	59.3	4,511,789	63.5	26,945,252	58.6
Economically inactive	507	37.7	441	30.7	66,384	37.3	2,400,296	33.8	18,005,455	39.1

[3] Note from NOMIS: "The estimates are as at Census Day, 21 March 2021. Census 2021 took place during a national lockdown. The government advice at the time was for people to work from home (if they can) and avoid public transport. People who were furloughed (about 5.6 million) were advised to answer the transport to work question based on their previous travel patterns before or during the pandemic. This means that the data does not accurately represent what they were doing on Census Day."

Population group	Site-specific				Local		Regional		National	
Variable	**Camden 001D**		**Camden 003E**		**Camden**		**London**		**England**	
	number	%	number	%	number	%	number	%	number	%
Economically inactive: Retired	194	14.4	144	10.0	19,146	10.8	912,920	12.9	9,882,054	21.5
Economically inactive: Looking after home or family	79	5.9	55	3.8	9,675	5.4	425,661	6.0	2,207,738	4.8
Economically inactive: Long-term sick or disabled	84	6.2	86	6.0	8,120	4.6	256,223	3.6	1,874,300	4.1
TS064 - Occupation - minor groups										
Plant and Machine Operatives	-	-	-	-	46	0.0	4,128	0.1	81,356	0.3
Construction Operatives	-	-	-	-	298	0.3	24,411	0.6	163,643	0.6
Road Transport Drivers	-	-	-	-	2,126	2.1	141,053	3.2	893,267	3.4
Mobile Machine Drivers and Operatives	-	-	-	-	62	0.1	9,743	0.2	120,004	0.5
Elementary Construction Occupations	-	-	-	-	179	0.2	24,963	0.6	162,811	0.6
Elementary Process Plant Occupations	-	-	-	-	66	0.1	13,783	0.3	213,236	0.8
TS067 - Highest level of qualification										
No qualifications	181	13.5	155	10.8	20,948	11.8	1,151,250	16.2	8,317,789	18.1
Level 1 qualifications	102	7.6	70	4.9	8,996	5.1	545,269	7.7	4,456,198	9.7
Level 2 qualifications	104	7.7	90	6.3	12,776	7.2	707,518	10.0	6,126,130	13.3
Apprenticeship	24	1.8	26	1.8	3,402	1.9	227,622	3.2	2,446,935	5.3
Level 3 qualifications	203	15.1	183	12.7	25,154	14.1	937,875	13.2	7,784,977	16.9
Level 4 qualifications and above	685	51.0	879	61.2	101,932	57.3	3,316,829	46.7	15,606,458	33.9

Population group	Site-specific				Local		Regional		National	
Variable	**Camden 001D**		**Camden 003E**		**Camden**		**London**		**England**	
	number	%	number	%	number	%	number	%	number	%
Other qualifications	44	3.3	33	2.3	4,701	2.6	217,622	3.1	1,268,468	2.8
TS062 - NS-SeC[4]										
L1, L2 and L3 Higher managerial, administrative and professional occupations	244	18.2	375	26.1	42,391	23.8	1,246,931	17.6	6,092,791	13.2
L4, L5 and L6 Lower managerial, administrative and professional occupations	306	22.8	383	26.7	37,323	21.0	1,461,688	20.6	9,172,372	19.9
L7 Intermediate occupations	126	9.4	94	6.6	11,971	6.7	693,967	9.8	5,255,333	11.4
L8 and L9 Small employers and own account workers	130	9.7	146	10.2	16,020	9.0	793,247	11.2	4,873,402	10.6
L10 and L11 Lower supervisory and technical occupations	48	3.6	43	3.0	4,566	2.6	274,709	3.9	2,460,733	5.3
L12 Semi-routine occupations	122	9.1	92	6.4	11,259	6.3	615,668	8.7	5,183,579	11.3
L13 Routine occupations	90	6.7	73	5.1	9,840	5.5	615,256	8.7	5,522,275	12.0
L14.1 and L14.2 Never worked and long-term unemployed	160	11.9	117	8.2	17,475	9.8	731,530	10.3	3,915,482	8.5

From NOMIS (21)

[4] The National Statistics Socio-economic Classification (NS-SEC) indicates a person's socio-economic position based on their occupation and other job characteristics. It is an Office for National Statistics standard classification. NS-SEC categories are assigned based on a person's occupation, whether employed, self-employed, or supervising other employees.

Wider determinants of health: Local, National

Figure 9-2: Key

Figure 9-3: Wider Determinants of Health – Health Assets

Indicator	Period	Camden			Region	England	England		
		Recent Trend	Count	Value	Value	Value	Worst	Range	Best
Gender pay equality	2020	–	-	89.4%	85.5%	84.0%	62.7%		102.1%
Percentage of people in employment	2021/22	→	132,900	71.5%	75.2%	75.4%	62.9%		85.1%
School readiness: percentage of children achieving the expected level in the phonics screening check in Year 1	2021/22	→	1,114	77.3%	78.2%	75.5%	62.6%		83.4%
School readiness: percentage of children achieving a good level of development at the end of Reception	2021/22	→	-	65.3%	67.8%	65.2%	53.1%		74.4%
Breastfeeding prevalence at 6-8 weeks after birth - current method	2021/22	–	1,549	*	*	49.2%*	-	*Insufficient number of values for a spine chart*	-
Healthy life expectancy at birth (Male)	2018 - 20	–	-	64.6	63.8	63.1	53.5		74.7
Healthy life expectancy at birth (Female)	2018 - 20	–	-	66.8	65.0	63.9	54.3		71.2
Access to woodland	2020	–	13,556	4.8%	11.9%	15.0%	0.0%		56.2%
Proportion of people who use services who feel safe	2019/20	–	1,825	64.2%	66.4%	70.2%	56.6%		91.0%
Access to NHS dental services - successfully obtained a dental appointment	2020/21	→	1,123	78.0%	79.4%	77.0%	58.7%		85.4%
Percentage of people who said they had good experience when making a GP appointment	2020/21	→	2,594	75.3%	69.9%	70.7%	54.7%		81.0%
Social Isolation: percentage of adult social care users who have as much social contact as they would like	2021/22	–	-	40.4%	37.8%	40.6%	24.3%		51.4%
Social Isolation: percentage of adult carers who have as much social contact as they would like (18+ yrs)	2021/22	–	70	26.8%	27.5%	28.0%	16.0%		43.2%
Proportion of people who use services who have control over their daily life	2019/20	–	2,110	74.2%	71.9%	77.3%	63.0%		92.4%

Figure 9-4: Wider Determinants of Health – Vulnerability

Indicator	Period	Camden			Region	England	England		
		Recent Trend	Count	Value	Value	Value	Worst	Range	Best
Homelessness: households owed a duty under the Homelessness Reduction Act	2021/22	–	873	7.5	14.4	11.7	29.9		4.4
Homelessness - households with dependent children owed a duty under the Homelessness Reduction Act	2021/22	–	220	8.8	17.4	14.4	39.3		4.5
Homelessness - households owed a duty under the Homelessness Reduction Act (main applicant 16-24 yrs)	2021/22	–	148	1.3	2.5	2.4	7.2		0.7
Homelessness - households owed a duty under the Homelessness Reduction Act (main applicant 55+ yrs)	2021/22	–	92	2.5	5.2	2.8	12.5		1.0
Homelessness: households in temporary accommodation	2021/22	–	535	4.6	16.3	4.0	47.8		0.1
Children in care	2022	–	191	52	52	70	218		26
Teenage mothers	2021/22	→	-	*	0.3%	0.6%	2.4%		0.0%
Social Isolation: percentage of adult social care users who have as much social contact as they would like	2021/22	–	-	40.4%	37.8%	40.6%	24.3%		51.4%
Mortgage home repossessions: rate per 1,000 dwellings	2017/18 Q2	→	14	0.14	0.23*	0.20	0.44		0.09
Food Insecurity (INDIRECT measure) – percentage of local authority population living in areas at highest risk of food insecurity New data	2021	–	4,666	2.2%	-	-	-	-	-

Figure 9-5: Wider Determinants of Health – Work and the Labour Market

Indicator	Period	Camden			Region	England	England		
		Recent Trend	Count	Value	Value	Value	Worst	Range	Best
Percentage of people in employment	2021/22	→	132,900	71.5%	75.2%	75.4%	62.9%		85.1%
Gap in the employment rate between those with a physical or mental long term health condition (aged 16 to 64) and the overall employment rate	2021/22	–	-	12.8	8.8	9.9	20.3		-6.5
The percentage of the population with a physical or mental long term health condition in employment (aged 16 to 64)	2021/22	–	-	58.7%	66.4%	65.5%	45.2%		80.5%
Gap in the employment rate between those who are in receipt of long term support for a learning disability (aged 18 to 64) and the overall employment rate	2021/22	–	-	68.4	70.0	70.6	80.9		46.4
The percentage of the population who are in receipt of long term support for a learning disability that are in paid employment (aged 18 to 64)	2021/22	–	13	3.1%	5.2%	4.8%	0.3%		21.8%
Gap in the employment rate for those who are in contact with secondary mental health services (aged 18 to 69) and on the Care Plan Approach, and the overall employment rate	2020/21	–	-	63.5	68.5	66.1	76.0		47.7
The percentage of the population who are in contact with secondary mental health services and on the Care Plan Approach, that are in paid employment (aged 18 to 69)	2020/21	–	59	6.0%	6.0%	9.0%	1.0%		29.0%
Unemployment (model-based)	2021	–	6,900	4.7%	5.6%	4.5%	8.0%		2.6%
Long term claimants of Jobseeker's Allowance	2021	↓	443	2.2	2.3	2.1	8.4		0.2
Economic inactivity rate	2021/22	→	45,700	24.6%	20.5%	21.2%	31.6%		11.8%
Employment and Support Allowance claimants	2018	↓	9,870	5.5%	4.5%	5.4%	12.0%		2.1%
Job density	2020	–	-	1.97	0.99	0.85	0.39		3.93
Sickness absence: the percentage of employees who had at least one day off in the previous week	2019 - 21	–	-	2.0%	1.8%	1.8%	4.0%		0.5%
Sickness absence: the percentage of working days lost due to sickness absence	2019 - 21	–	-	1.5%	0.9%	1.0%	2.2%		0.1%
Food Insecurity (INDIRECT measure) – percentage of local authority population living in areas at highest risk of food insecurity New data	2021	–	4,666	2.2%	-	-	-	-	-

Figure 9-6: Wider Determinants of Health – Natural and Built Environment

Indicator	Period	Camden			Region	England	England		
		Recent Trend	Count	Value	Value	Value	Worst	Range	Best
Transport									
Percentage of adults walking for travel at least three days per week	2019/20	–	-	30.0%	22.1%	15.1%	6.8%		33.4%
Percentage of adults cycling for travel at least three days per week	2019/20	–	-	5.0%	4.1%	2.3%	0.0%		11.3%
Killed and seriously injured (KSI) casualties on England's roads (historic data)	2016 - 18	–	-	-	-	-	-	-	-
Neighbourhood design									
The rate of complaints about noise	2020/21	↑	12,340	44.1	40.1*	12.0*	731.3		0.9
The percentage of the population exposed to road, rail and air transport noise of 65dB(A) or more, during the daytime	2016	–	44,260	18.4%	12.1%	5.5%	22.1%		0.9%
The percentage of the population exposed to road, rail and air transport noise of 55 dB(A) or more during the night-time	2016	–	52,220	21.7%	15.9%	8.5%	37.0%		1.3%
Density of fast food outlets	2014	–	330	140.5	101.4	88.2	198.9		33.3
Access to Healthy Assets & Hazards Index	2022	–	234,656	84.0%	65.6%*	22.6%*	100%		0.0%
Natural and sustainable environments									
Access to woodland	2020	–	13,556	4.8%	11.9%	15.0%	0.0%		56.2%
Air pollution: fine particulate matter (new method - concentrations of total PM2.5)	2020	–	-	9.8	9.6	7.5	10.6		4.5
Air pollution: fine particulate matter (historic indicator)	2020	–	-	9.1	8.9	6.9	10.0		4.0
Utilisation of outdoor space for exercise/health reasons	Mar 2015 - Feb 2016	–	-	17.1%*	18.0%	17.9%	5.1%		36.9%
Housing									
Affordability of home ownership	2021	–	765,000	19.1	13.7	9.1	24.8		4.4
Fuel poverty (low income, low energy efficiency methodology)	2020	–	10,684	10.2%	11.5%	13.2%	22.4%		5.2%
Excess winter deaths index	Aug 2019 - Jul 2020	–	70	20.1%	18.8%	17.4%	50.2%		0.7%
Emergency hospital admissions due to falls in people aged 65 and over	2021/22	–	610	2,484	2,187	2,100	3,272		1,394
Adults in contact with secondary mental health services who live in stable and appropriate accommodation	2020/21	–	-	63.0%	61.0%	58.0%	5.0%		86.0%
Adults with a learning disability who live in stable and appropriate accommodation	2021/22	↑	359	86.9%	77.5%	78.8%	34.4%		97.3%

Figure 9-7: Wider Determinants of Health – Income

Indicator	Period	Camden			Region	England	England		
		Recent Trend	Count	Value	Value	Value	Worst	Range	Best
Children in absolute low income families (under 16s)	2020/21	→	5,460	11.2%	13.8%	15.1%	39.2%		5.2%
Children in relative low income families (under 16s)	2020/21	→	6,451	13.3%	16.6%	18.5%	42.4%		6.2%
Income deprivation, English Indices of Deprivation	2019	–	34,414	14.1%	-	12.9%	25.1%		4.4%
Fuel poverty (low income, low energy efficiency methodology)	2020	–	10,684	10.2%	11.5%	13.2%	22.4%		5.2%
Average weekly earnings	2021	–	-	£694.2	£604.8	£496.0	£394.2		£767.7
Gender pay gap (by workplace location)	2020	–	-	19.0%	18.3%	16.6%	39.3%		-4.9%

Figure 9-8: Wider Determinants of Health – Crime

Indicator	Period	Camden			Region	England	England		
		Recent Trend	Count	Value	Value	Value	Worst/ Lowest	Range	Best/ Highest
Children entering the youth justice system (10-17 yrs)	2020/21	↓	84	3.6	3.5	2.8	5.7		1.1
First time entrants to the youth justice system	2021	↓	35	149.9	187.0	146.9	446.9		56.3
Re-offending levels - percentage of offenders who re-offend	2019/20	–	-	34.2%	26.4%	25.4%	12.2%		36.8%
Re-offending levels - average number of re-offences per re-offender	2019/20	–	-	3.31	3.20	3.74	2.54		4.82
First time offenders	2021	↓	268	108	188	166	95		352
Domestic abuse related incidents and crimes	2021/22	–	-	35.4*	35.4	30.8	12.3		45.2
Violent crime - hospital admissions for violence (including sexual violence)	2018/19 - 20/21	–	295	33.3	44.3	41.9	116.8		12.0
Violent crime - violence offences per 1,000 population	2021/22	↓	6,894	24.7	27.0*	34.9*	15.1		79.1
Violent crime - sexual offences per 1,000 population	2021/22	↓	751	2.7	2.5*	3.0*	1.4		6.3
Crime deprivation: score	2019	–	-	0.33	-	0.01	1.21		-1.21

Figure 9-9: Wider Determinants of Health – Education

Indicator	Period	Camden			Region	England	England		
		Recent Trend	Count	Value	Value	Value	Worst	Range	Best
School readiness: percentage of children achieving a good level of development at the end of Reception	2021/22	→	-	65.3%	67.8%	65.2%	53.1%		74.4%
School Readiness: percentage of children with free school meal status achieving a good level of development at the end of Reception	2021/22	→	-	53.9%	56.2%	49.1%	35.2%		67.0%
School readiness: percentage of children achieving the expected level in the phonics screening check in Year 1	2021/22	→	1,114	77.3%	78.2%	75.5%	62.6%		83.4%
School readiness: percentage of children with free school meal status achieving the expected level in the phonics screening check in Year 1	2021/22	→	395	68.9%	68.7%	62.0%	44.1%		78.7%
Average Attainment 8 score	2021/22	–	71,831	52.4	52.9*	48.7	39.2		61.3
Average Attainment 8 score of children in care	2021	–	383	25.6	24.7	23.2	14.2		38.3
GCSE achieved 5A*-C including English & Maths with free school meal status	2014/15	–	187	43.7%	45.8%	33.3%	20.5%		60.0%
Pupil absence	2020/21	→	326,962	5.3%	4.5%	4.6%	6.4%		3.0%
16 to 17 year olds not in education, employment or training (NEET) or whose activity is not known	2021	↓	110	3.4%	3.4%	4.7%	14.7%		1.4%

9.3 Policy context

9.3.1 This section sets out information that has informed the professional judgements made in this HIA.

London Borough of Camden Health Priorities

Camden Health and Wellbeing Strategy 2022-30

9.3.2 The Camden Health and Wellbeing Board sets out guiding principles to improve population health in Camden (13). The five overarching guiding principles include: Prioritising prevention; Tackling inequalities and disproportionality; Empowering communities; Integrating and communicating; and Sharing responsibility. The Board has simultaneously set out a set of short-term priorities, including; Good work and employment and Community connectedness and friendships.

London Boroughs of Camden Islington, 2018, Annual Public Health Report 2019-20

9.3.3 The Annual Public Health Report 2019-20 (22) defines four recommendations to reduce health inequalities and improve health and wellbeing: person and community centred public sector system; systematic investment and use of resources to reduce health inequalities; focus on ethnic inequalities and improving experiences and outcomes for people with disabilities; and emphasis on prevention, early intervention and resilience.

Planning Policy

Local: London Borough of Camden

Camden Local Plan

9.3.4 The strategic objectives of London Borough of Camden's Local Plan (11) aim to create the foundation to harness the benefits of economic growth, reducing inequality, securing sustainable neighbourhoods and improve health and wellbeing. Strategic objective 11 is "To improve health and wellbeing of Camden's population and reduce health inequalities through good spatial planning, supporting healthier lifestyles and environmental improvements, as well as ensuring appropriate access to health facilities."

9.3.5 Camden Local Plan Policy C1 requires:

- a) development to positively contribute to creating high quality, active, safe and accessible places; and
- b) proposals for major development schemes include a Health Impact Assessment (HIA)

9.3.6 LB Camden sets out supplementary guidance for *Planning for health and wellbeing* (1).

The Kentish Town Neighbourhood Plan 2016

9.3.7 The Kentish Town Neighbourhood Plan 2016 (23), sets out a vision to protect the "potential to be a fantastic place to live and work full of […] thriving businesses", " to retain existing employment space and protect our green and open spaces" and, "through the Neighbourhood Plan to foster positive and innovative developments over the next fifteen

years that will enhance the well-being of individuals living and working here." Objective 1 is Shopping and Working: With an emphasis on environmental improvements; Objective 5 is for Green & Open Spaces; and Objective 7 Spatial Policies names the development site.

Regional: London Plan

9.3.8 Policy CG3 of the London Plan is called *Creating a healthy city* (24). The text is reproduced below. It states that "To improve Londoners' health and reduce health inequalities, those involved in planning and development must:

- A ensure that the wider determinants of health are addressed in an integrated and co-ordinated way, taking a systematic approach to improving the mental and physical health of all Londoners and reducing health inequalities
- B promote more active and healthy lives for all Londoners and enable them to make healthy choices
- C use the Healthy Streets Approach to prioritise health in all planning decisions
- D assess the potential impacts of development proposals and Development Plans on the mental and physical health and wellbeing of communities, in order to mitigate any potential negative impacts, maximise potential positive impacts, and help reduce health inequalities, for example through the use of Health Impact Assessments
- E plan for appropriate health and care infrastructure to address the needs of London's changing and growing population
- F seek to improve London's air quality, reduce public exposure to poor air quality and minimise inequalities in levels of exposure to air pollution
- G plan for improved access to and quality of green spaces, the provision of new green infrastructure, and spaces for play, recreation and sports
- H ensure that new buildings are well-insulated and sufficiently ventilated to avoid the health problems associated with damp, heat and cold
- I seek to create a healthy food environment, increasing the availability of healthy food and restricting unhealthy options."

National

9.3.9 The National Planning Policy Framework (NPPF) (25)includes the following statements that frame planning policy and planning determinations:

9.3.10 "Achieving sustainable development means that the planning system has three overarching objectives, which are interdependent and need to be pursued in mutually supportive ways (so that opportunities can be taken to secure net gains across each of the different objectives):

9.3.11 b) a social objective – to support strong, vibrant and healthy communities … by fostering well-designed, beautiful and safe places, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being." – NPPF, Section 2, Paragraph 8

9.3.12 "Planning policies and decisions should aim to achieve healthy, inclusive and safe places which: 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…" – NPPF, Section 8, Paragraph 92

9.3.13 "To provide the social, recreational and cultural facilities and services the community needs, planning policies and decisions should: b) take into account and support the delivery

of local strategies to improve health, social and cultural well-being for all sections of the community" – NPPF, Section 8, Paragraph 93

9.3.14 "Planning policies and decisions should support development that makes efficient use of land, taking into account: e) the importance of securing well-designed, attractive and healthy places." – NPPF, Section 11, Paragraph 124

9.3.15 "Planning polices and decisions should ensure that developments: f) create places that are safe, inclusive and accessible and which promote health and well-being, with a high standard of amenity for existing and future users; and where crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesion and resilience." – NPPF, Section 12, Paragraph 130

9.3.16 "Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should: a) mitigate and reduce to a minimum potential adverse impacts resulting from noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life. [….]" – NPPF, Section 15, Paragraph 185

9.3.17 "Planning policies should: f) set out criteria or requirements to ensure that permitted and proposed operations do not have unacceptable adverse impacts on the natural and historic environment or human health, taking into account the cumulative effects of multiple impacts from individual sites and/or a number of sites in a locality" – NNPF, Section 17, Paragraph 210

Regulatory Standards

9.3.18 The HIA has had regard to the following UK regulatory standards.

9.3.19 The assessment is based on UK regulatory standards for noise (26-29). The HIA notes World Health Organization's (WHO) guide values but does not hold the proposed development to these values where it is more stringent than UK regulatory requirements.

9.3.20 The assessment is based on UK statutory standards for air quality (30,31). The HIA notes WHO guide values (32) but does not hold the proposed development to the WHO standard where it is more stringent than UK regulatory requirements.

9.3.21 The assessment is based on UK statutory standards for water quality (33). The HIA notes WHO guide values (34) but does not hold the proposed development to the WHO standard where they are more stringent than UK regulatory requirements.

Legislation

9.3.22 The following legislative context has informed the assessment.

9.3.23 The Health and Safety at Work etc Act 1974 (35) places the following duties on employers:

- "It shall be the duty of every employer to ensure, so far as is reasonably practicable, the health, safety and welfare at work of all his employees."
- "It shall be the duty of every employer to conduct his undertaking in such a way as to ensure, so far as is reasonably practicable, that persons not in his employment who may be affected thereby are not thereby exposed to risks to their health or safety."

9.3.24 The Clean Air Act (1993) (as amended) aims to reduce pollution from smoke, grit and dust and gives local authorities powers to designate smoke control areas (36). The Air Quality

Standards Regulations 2010 (30) transpose into English law the requirements of Directives 2008/50/EC (37) and 2004/107/EC (38) on ambient air quality.

9.3.25 Part III of the Environmental Protection Act 1990 (as amended) manages the control of emissions (including dust, noise and light) that may be prejudicial to health or a nuisance (39). Control of Pollution Act 1974 (40) (as amended) provides the definition of Best Practicable Means (BPM) to minimise noise (and vibration), including prior consent for works on construction sites. It also establishes the meaning of an environmental hazard (including in relation to health and the disposal licences). The Environmental Permitting (England and Wales) Regulations 2016 (41) manage and reduce pollution from certain industrial activities through permitting, monitor compliance with permit conditions.

9.3.26 In the UK all drinking water, whether from public supplies or other sources, has to meet standards laid down in the EU Drinking Water Directive (98/83/EC) (42). The Water Supply (Water Quality) Regulations 2016 transpose these requirements for England (33).

9.3.27 Electricity Safety, Quality and Continuity Regulations 2002 (43) impose requirements regarding the installation and use of electrical networks and equipment, including provisions relating to substation enclosure.

9.4 Literature review

9.4.1 An evidence base of publicly available information has been used to support this HIA. Evidence statements have been extracted from a review of abstracts and full articles published in English on PubMed [5], predominantly from the past five years. The review is not exhaustive and aims to provide a summary only of the key issues relevant to the scope of this report.

9.4.2 The evidence summary contextualises the links between developments and health. These summaries are useful in underpinning the professional judgements of the HIA. The evidence statements are from the international published literature and therefore not specific to the proposed development.

Noise

9.4.3 This section corresponds to XXXX

9.4.4 Noise is pervasive in everyday life and can cause both auditory and non-auditory health effects. Although people tend to habituate to noise exposure, degree of habituation differs for individuals and is rarely complete. If exposure to noise is chronic and exceeds certain levels, then negative health outcomes can be seen (44).

9.4.5 Environmental noise (e.g. noise from road, rail, and air traffic, and industrial construction) has been linked to a range of non-auditory health effects including annoyance, sleep disturbance, cardiovascular disease, and impairment of cognitive performance in children (44).

9.4.6 Annoyance is the most prevalent community response in a population exposed to environmental noise. Noise annoyance can result from noise interfering with daily activities, feelings, thoughts, sleep, or rest, and might be accompanied by negative

[5] PubMed comprises more than 28 million citations for biomedical literature from MEDLINE, life science journals, and online books. The Cochrane Database of Systematic Reviews is one of many health-related databases included in MEDLINE. https://www.ncbi.nlm.nih.gov/pubmed/

responses, such as anger, displeasure, exhaustion, and by stress-related symptoms. In severe forms, it could be thought to affect wellbeing and health, and because of the high number of people affected, annoyance substantially contributes to the burden of disease from environmental noise. Although the overall community response depends on societal values, several personal (e.g. age and noise sensitivity) and situational characteristics (e.g. dwelling insulation) might affect the individual degree of annoyance (44).

9.4.7 Sleep disturbance is thought to be the most deleterious non-auditory effect of environmental noise exposure, because undisturbed sleep of a sufficient length is needed for daytime alertness and performance, quality of life, and health. Human beings perceive, evaluate, and react to environmental sounds, even while asleep. Elderly people, children, shift-workers, and people with a pre-existing (sleep) disorder are thought of as at-risk groups for noise-induced sleep disturbance (44).

9.4.8 Regarding noise and health, groups at risk most often mentioned in the literature are children, the elderly, the chronically ill and people with a hearing impairment. Other categories encountered are those of sensitive persons, shift-workers, people with mental illness (e.g., schizophrenia or autism), people suffering from tinnitus, and foetuses and neonates (45).

9.4.9 The available evidence shows that children are less vulnerable for annoyance than adults, but more vulnerable for cognitive effects of noise (45). They are not per se more vulnerable as a group, but more at risk because of less-developed coping strategies, and they are in a sensitive developmental period. This is indicative of a life phase effect rather than an age effect. Children seem to be less vulnerable for awakenings due to noise but more vulnerable for physiological effects during sleep and related motility (45).

9.4.10 Evidence does not indicate that the elderly are more vulnerable to noise in terms of annoyance and sleep disturbance. Age-specific comparisons rather show an inverted U-shaped relation and indicate that both young and older people are less at risk as far as annoyance and disturbance are concerned. But, possibly, the elderly are more vulnerable regarding cardiovascular effects, and this may be a combined effect of air pollution and noise (45).

Air quality

9.4.11 Air pollution is a heterogeneous and a complex mixture of dust, particulate matter (PM), fumes, gases, carbon monoxide, nitrogen dioxide, sulphur dioxide and ozone. Environmental air pollution is associated with increased risk of cardiovascular diseases (46) and with moderate or severe asthma exacerbation (47).

9.4.12 The main anthropogenic sources of PM are traffic and transportation, and combustion processes. Nitrogen dioxide and carbon monoxide are principally emitted from fossil fuel combustion in urban environments. Ozone is a secondary pollutant formed by photochemical reactions between sunlight and pollutant precursors, such as nitrogen oxides and volatile organic compounds (47).

9.4.13 Increased pollution exposures have been associated with increased numbers of hospital admissions and emergency-room visits, mainly due to exacerbations of chronic obstructive pulmonary disease and asthma (47).

9.4.14 In the atmosphere, different PM sizes can be found. The coarse fraction (PM10–PM 2.5) can penetrate into the upper airways, but the fine fraction (PM 2.5-PM1) can be deposited in the lung, especially in the alveoli, although it could pass to the systemic circulation.

Besides the size of PM, the chemical composition is very important to understand the health effects (47).

Physical activity, green space and leisure/play amenities

9.4.15 There is strong evidence that active travel can result in substantial health benefits (48). Engagement in leisure activities is also associated with increased well-being (49) and decreased risk of type 2 diabetes (50).

9.4.16 Natural environments such as green or open spaces, but also attractive views of nature integrated within the urban landscape, are important environmental factors sustaining physical activity in the population (51).

9.4.17 An activity friendly neighbourhood that is walkable, dense, accessible, equipped with walk/cycle facilities and safe from traffic is associated with more active transportation to school in children (52) Access to active play in nature and outdoors, even with its risks, is essential for healthy child development (53).

9.4.18 Physical activity can improve mental health, the strongest evidence indicates that this is through improvements in physical self-perceptions that accompany enhanced self-esteem (54).

9.4.19 Anxiety symptoms (below the threshold of anxiety disorders) are common in older adults. Regular physical activity may be effective for improving anxiety symptoms in older adults (55).

9.4.20 Nearly half of people aged over 60 years are inactive. Access difficulties (environmental barriers or affordability) are one of the barriers to physical activity participation amongst older people (56).

Community identity

9.4.21 Places and locations hold meanings and memories for people. The ways in which people are able to relate to, access and enjoy these places and locations are important for mental health and well-being (57).

9.4.22 Cognitive social capital (shared norms, values, attitudes, and beliefs, predisposes people towards mutually beneficial collective action) is protective, at the individual and community level, against developing common mental disorders (58). Cognitive social capital improves prevention and control of chronic non-communicable disease (e.g. cardiovascular diseases, cancers and diabetes) (59).

9.4.23 Neighbourhood context contributes to help-seeking intentions for mental illness. Living in a neighbourhood with a communicative atmosphere and having adequate health literacy facilitate informal and formal help-seeking for mental illness (60).

9.4.24 Community engagement can reduce health inequalities, empower community members, improve health behaviours, improve public health planning and build social capital (61).

9.4.25 Favourable psychosocial environments go hand in hand with better health. Poor psychosocial environments may be health damaging and contribute to health inequalities. Children and young people from neighbourhood environments that are considered to have fewer psychosocial advantages (such as low social capital, social resources and social cohesion) may shoulder a disproportionately high burden of physical and psychological ill health (62).

9.4.26 Social networks provide a powerful approach for health behaviour change. Social networks can be conceptualized as the specific sources of social support. The exchange of social support is the major basis of developing and maintaining social relationships. Types of social support include emotional, financial or material, informational, instrumental and socialization. Social support may include communications about health issues, including perceived risk and coping assistance (63).

Neighbourhood design

9.4.27 More accessible neighbourhood design (including well laid out good quality walking surfaces) is important for older adults' health and functioning, as a majority of older adults are inactive and physical inactivity is linked to quality of life, morbidity, and mortality (64).

9.4.28 Access to nearby parks and natural settings is associated with improved mental health and reduced anxiety (65). Whilst high levels of neighbourhood social disorder are linked to depression (66).

9.4.29 Access to goods and services within one's community also promote and sustain health (67). Specifically:

- The presence of pavements and crossings, bike paths, playing fields, parks, shopping accessible on foot, and public transportation, along with the perception that it is safe to be outside, contribute substantially to the average amount of regular physical activity that residents of a neighbourhood achieve.
- Education and employment opportunities influence health by providing the means to achieve an adequate standard of living now and in the future.
- Neighbourhoods with better access to supermarkets and other retail outlets with minimally processed foods tend to eat a healthier diet than their counterparts in neighbourhoods with less access to these goods.

9.4.30 Physical activity participation provides mental and physical health benefits and can also reduce the risk of many chronic diseases. The built environment can both enable and limit physical activity participation. Neighbourhood characteristics such as the proximity and mix of land uses, pedestrian connectivity, aesthetics and interesting scenery, and traffic and personal safety are important correlates of physical activity (68). Physical activity opportunities are not confined to green space. Neighbourhoods that are characterized as more walkable, either leisure-oriented or destination-driven, are associated with: increased physical activity; increased social capital; fewer overweight people; lower reports of depression; and less reported alcohol abuse (69).

9.4.31 Access to nearby parks and natural settings is associated with improved healthy weight among children. Actual and perceived attributes including safety, aesthetics, amenities, maintenance, and proximity are important for encouraging park use (65).

Diet

9.4.32 Socioeconomically disadvantaged children are at higher risk of consuming poor diets, in particular less fruits and vegetables and more non-core foods and sweetened beverages. Socio-economic position is associated with children's nutrition knowledge, home healthy food availability and accessibility. (70)

9.4.33 Foods of lower nutritional value and lower-quality diets generally cost less per calorie and tended to be selected by groups of lower socio-economic status. In addition to price, less-healthy food choices are also shaped by the lack of nutrition knowledge, local attitudes, or by cultural norms. (71)

9.4.34 Although causation is unclear, unhealthy dietary patterns are associated with poorer mental health in children and adolescents. Given that the average age of onset for anxiety and mood disorders is 6 years and 13 years, respectively, the potential for early intervention using strategies targeted at improving dietary intake at a population level may be of substantial public health benefit. (72)

9.4.35 Modifiable lifestyle risk behaviours such as smoking, unhealthy diet, physical inactivity and alcohol misuse are the leading causes of major non-communicable diseases. The prevalence rate of multiple risk behaviours in adults in England has been reported at 68%. The adoption and maintenance of healthy behaviours, like regular physical activity and eating a healthy diet, are key to preventing chronic, non-communicable disease. (73)

9.4.36 Access to healthy and nutritious food can improve diet and prevent chronic diseases related to obesity. People on low incomes, including young families and older people, are the least able to eat well because of lack of access to nutritious food. They are more likely to have access to food that is high in salt, oil, energy-dense fat and sugar (74).

9.4.37 The built environment has a direct influence on healthy food access. For example, access to quality and affordable fruit and vegetables is influenced by food production, food transport, retail mix and retail pricing policies. A high prevalence of fast food outlets near schools and workplaces has been shown to negatively impact on people's food choices (75). Increased exposure to fast food restaurants, along with the intensive marketing of such foods, has been shown to negatively influence children's eating habits (76).

9.4.38 Areas where food access is limited or constrained, called 'food deserts', are associated with higher rates of diabetes, heart disease, and other obesity related health problems (77).

10 List of references

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