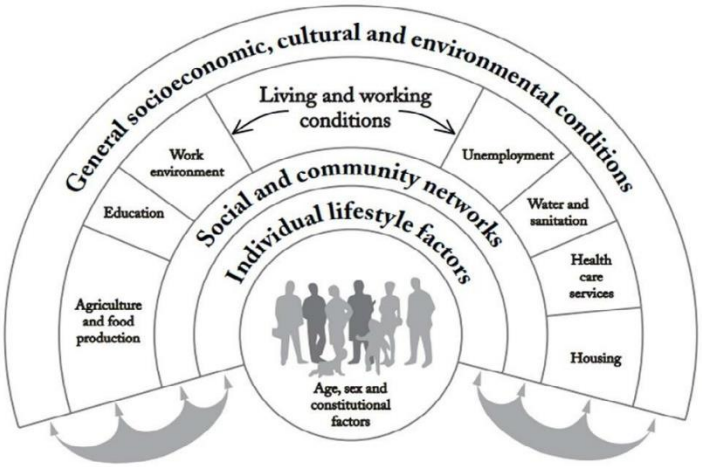
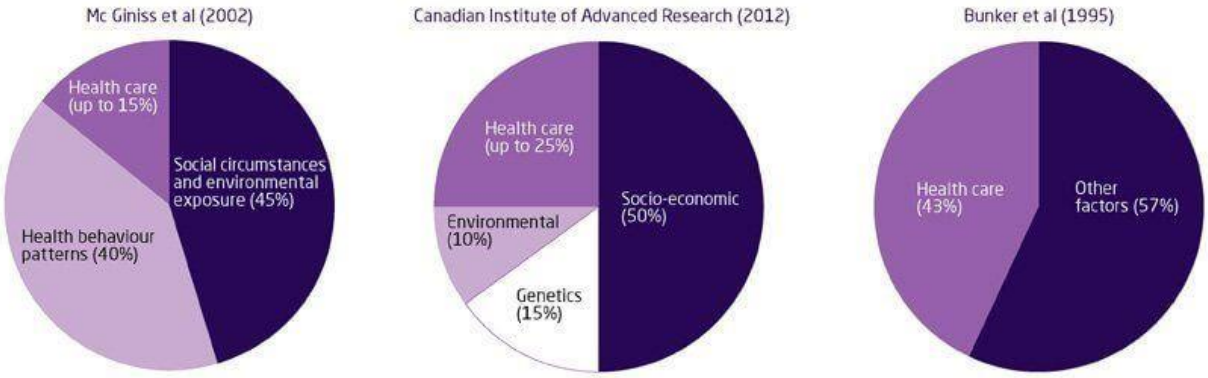
Wider determinants of health and health equity

It has been long-recognised that the world around us impacts our health but many of the aspects which impact us are somewhat beyond our control, such as socio-economic, cultural, and environmental conditions, as well as the influence of social and community networks on health and wellbeing, as illustrated in the Dahlgren and Whitehead rainbow model of health determinants, first published in 1991 (below).



As illustrated in the diagram above, people's health and wellbeing is affected by many factors, and mostly by non-medical factors. Some studies and research has shown that as little as 15% of people's health is dependent on health care (as summarised by The King's Fund).



However, it is also recognised that all these elements of health and wellbeing are interconnected and the interactions between them are numerous and complex. Therefore, addressing them often requires a multifaceted approach and an understanding of the potential for interventions in one aspect can impact others and someone's overall health and wellbeing.

When discussing health and wellbeing, the conversation has typically focused on symptoms and individual responsibility. However, over recent years it has become more accepted that addressing the systemic and structural causes of issues, and that these elements limit people's ability to change their behaviours even if they may want to. Taking an approach which helps to facilitate individual choices through a change in the institutional and systemic aspects can enable people to overcome the barriers they experience. The Commission on Social Determinants of Health by the World Health Organisation concluded that people's day-to-day conditions cause inequalities.

By understanding of the wider determinants of health and how they affect an individual's health and wellbeing, it is quite clear that a gradient in health will relate to people's socio-economic status, with those who are in the highest socio-economic brackets having the best health. Therefore, not only is it important to consider how to address the wider determinants of health, but also the inequalities that they cause and who is disproportionately affected.

Historically, universal service delivery with all (potential) users being treated equally, was seen as a best practice approach. However, it failed to recognise the different barriers and challenges that people face, in turn exacerbating inequalities. Therefore, it is essential that work to address wider determinants of health is done so through a lens of equity and accounts for the baseline inequalities that people experience. Equity is defined as fairness which considers an individual's circumstances and allocates resources accordingly. The Marmot Review (2010) introduced the concept of proportionate universalism which looks to reduce inequalities by providing services that are scaled and intensified according to the level of need within different populations, thus, addressing the potential issues caused by universal service deliver as set out above.

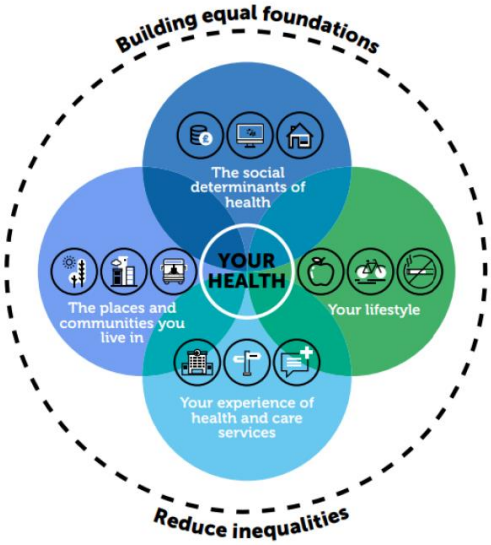
While differences between people and therefore inequalities are inevitable, it is possible to minimise them and avoid the negative consequences such as poor health outcomes and reduced life expectancy. For example, The Marmot Review (2010) illustrates how in London the variance in average (healthy) life expectancy across the city is correlated to deprivation, including within boroughs, with those in the poorest neighbourhoods dying 7 years earlier than those in the richest areas. Their data also shows how people in more routine and manual labour employment have increased mortality compared to those in managerial and professional employment, further illustrating the social gradient in health.

More recently, researchers have used longitudinal studies to investigate the relationship between socioeconomic disadvantage as a risk factor for ill health. The study found that people with social disadvantages had an increased risk of 66 different age-related diseases, showing that people who experience social disadvantage also experienced accelerated aging. This accelerated aging process will contribute to an increase in demand on the health and care system, as well as reduced independence due to the consequences and impact of ill health (e.g. impaired mobility).

The Institute of Health Equity developed the Marmot Eight principles (listed below) to illustrate the social determinants of health which can be impacted at place-level, and act as a model for developing interventions and policies to improve health equity.

1. Give every child the best start in life
2. Enable all children, young people, and adults to maximise their capabilities and have control over their lives
3. Create fair employment and good work for all
4. Ensure a healthy standard of living for all
5. Create and develop healthy and sustainable places and communities
6. Strengthen the role and impact of ill health prevention
7. Tackle racism, discrimination, and their outcomes
8. Pursue environmental sustainability and health equity together

Echoing the above evidence and the recent recognition that the area in which you live can impact your health and wellbeing and health-related behaviours, the 'four pillars' model that Camden has adapted from The King's Fund (below) illustrates the relationship between the social determinants of health, health behaviours, your local area, and your experience of services. This model serves as the basis of the borough's 2022-2030 Health and Wellbeing Strategy, and shows how the different aspects of the Council's work and remit can impact health and wellbeing.

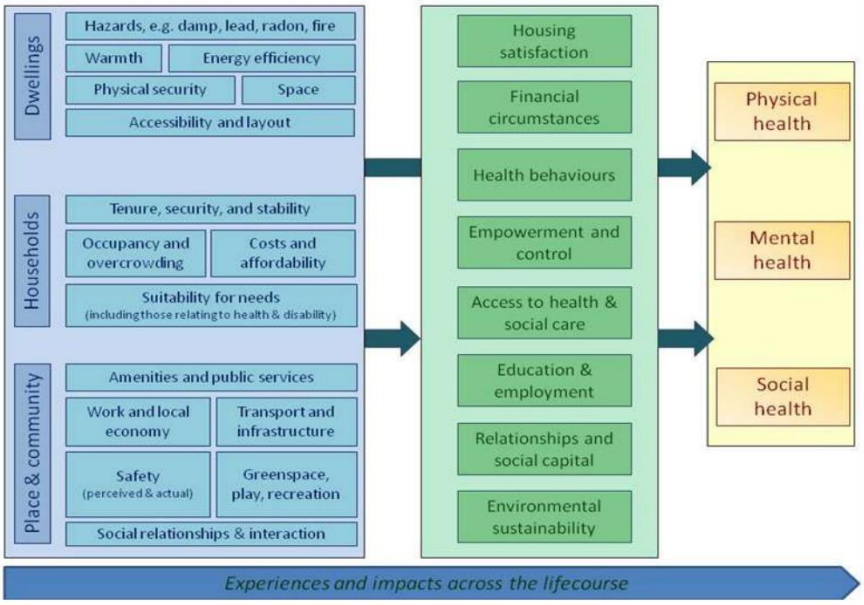


Impact of housing and communities on health

The WHO housing and health guidelines (2018) summarises evidence to illustrate the impact housing can have on an individual's health due to a range of factors including exposures to health risks within the home (e.g. mould), risk of injury due to poor maintenance, stress caused by insecure housing, the impact of indoor temperatures (cold homes can contribute to respirator and cardiovascular issues, while homes that are too warm can increase cardiovascular mortality), and indoor pollution. The report also notes the impact of accessibility limitations within homes, (over)crowded housing including the increased risk of exposure to infectious diseases and stress, and the consequences of poor urban design such as reduced physical activity, poor mental health, and poor cardiovascular health.

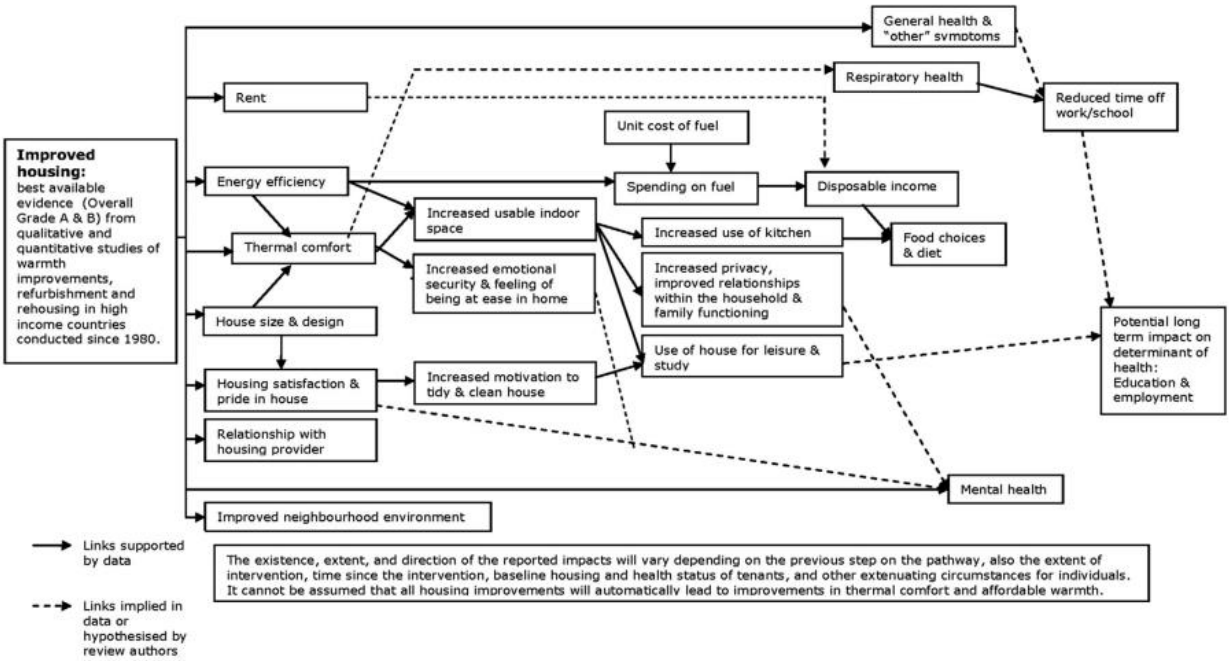
In 2014 range of organisations including the Association of Directors of Public Health, Local Government Association, NHS England, Association of Directors of Adult Social Services, and Public Health England signed a memorandum of understanding to support joint action to improve health through the home, which reflects the impact of housing across the totality of people's lives, social infrastructure, and wider system. The MoU included commitments to (1) develop a workshop that spans multiple sectors and understands the relationship between where they live and their health and wellbeing; (2) promote the housing sector contribution to addressing the wider determinants of health and health equity, and (3) recognise the range of stakeholders that enable an appropriate home environment at a local level including the voluntary and community sector.

The Scottish Public Health Network created a conceptual model that illustrates the links between housing and health, but also recognises the additional elements of the local environment / place (such as air quality and safety), and community in individuals' physical, mental, and social health.



The UK Government's Improving Health Through the Home guidance (2017) reiterates the potential impact housing has on health, as well as the positive impact good housing can have such as living independently, completing healthcare treatment, accessing and sustaining education and employment, and participation in society. The guidance notes that the right home environment is "essential to delivering NHS England's Five Year Forward View and local authority plans for social care" as well as essential to the success of the economy. According to the GLA Housing and Land Research Note (2023), the impact of poor housing in London alone costs the NHS £100.1 million each year. When analysing data across England, the hazards in social rented sector account for approximately £65 million per year in cost to the NHS.

Thomson and Thomas (2015) reviewed the evidence for improving health outcomes via housing interventions to show the relationships between interventions related to warmth and energy efficiency improvements (appendix 1), housing-led neighbourhood renewal (appendix 2), which is summarised in the logic model below.



They found that housing which provides enough space and is affordable to heat can improve health, promote social relationships both within and beyond the household, and may improve school and work attendance.

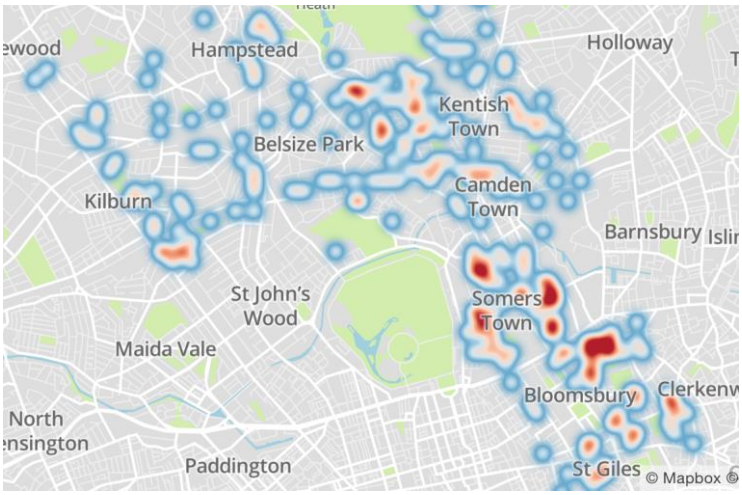
Impact on Urban Health conducted analysis of data in Lambeth and Southwark, which found that neighbourhoods with higher rates of mental health needs are also those which have more unaffordable and overcrowded housing. They also found that neighbourhoods with the lowest average income are also the neighbourhoods with the worst health outcomes, with residents in these areas experiencing a higher risk of living with multiple long-term conditions.

In 2020, Rolfe et al explored housing as a social determinant of health for people in social and private rented housing. It found that a positive tenancy experience, property quality, and neighbourhood quality and social support networks were all significantly correlated with health and wellbeing. Positive tenancy experience reduces stress and empowers tenants by providing autonomy and control; quality housing gives tenants a comfortable space to live in so they can relax and feel a sense of status; and good neighbourhood environment and supportive networks in relation to housing reduces stress and increases the likelihood of socialising.

Inequalities for estates residents and in Camden

The Marmot Review (2010) shows that there is a social gradient in the quality of neighbourhoods with poorer people being more likely to live in deprived neighbourhoods which have characteristics which increase risks to health (e.g. poor housing, higher crime rates, increased air pollution, and lack of green spaces). It also found that nearly half of all social housing is located in the most deprived fifth of neighbourhoods, and the most deprived groups of people have become concentrated in social housing.

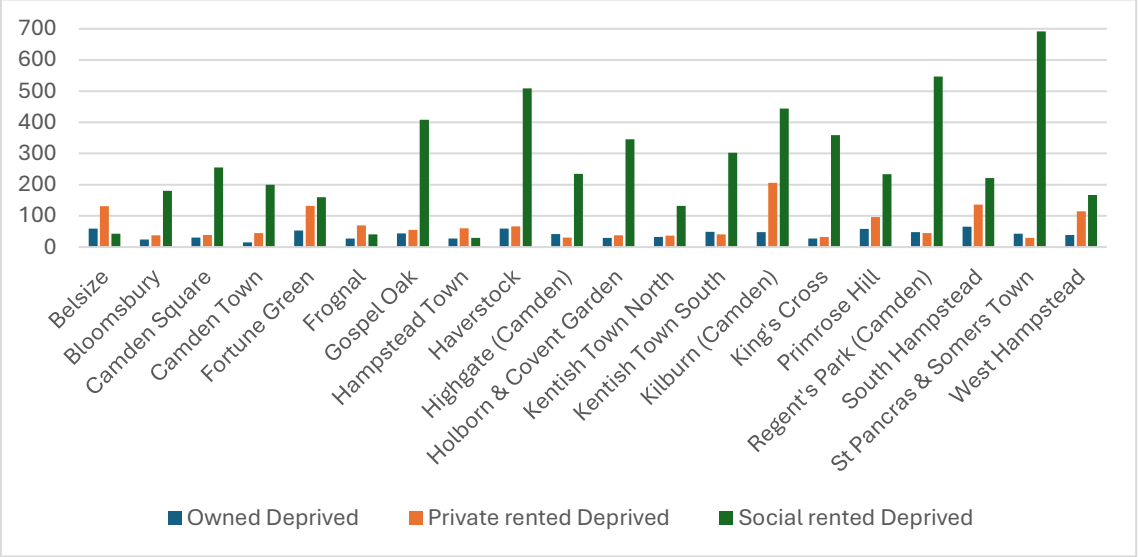
In Camden, 33.7% of residents live on estates (above the London and national averages), and according to the 2021 Census only 73% of social tenants in the borough (as a proxy for estate residents) report their health as being good or very good compared to other tenures (85-94%), and 10% report their health as bad or very bad, which is more than double the rate of any other tenure. The heat map below, using data from the Camden OpenData website, shows that the number of residents living on estates is higher in the most deprived wards of the borough.



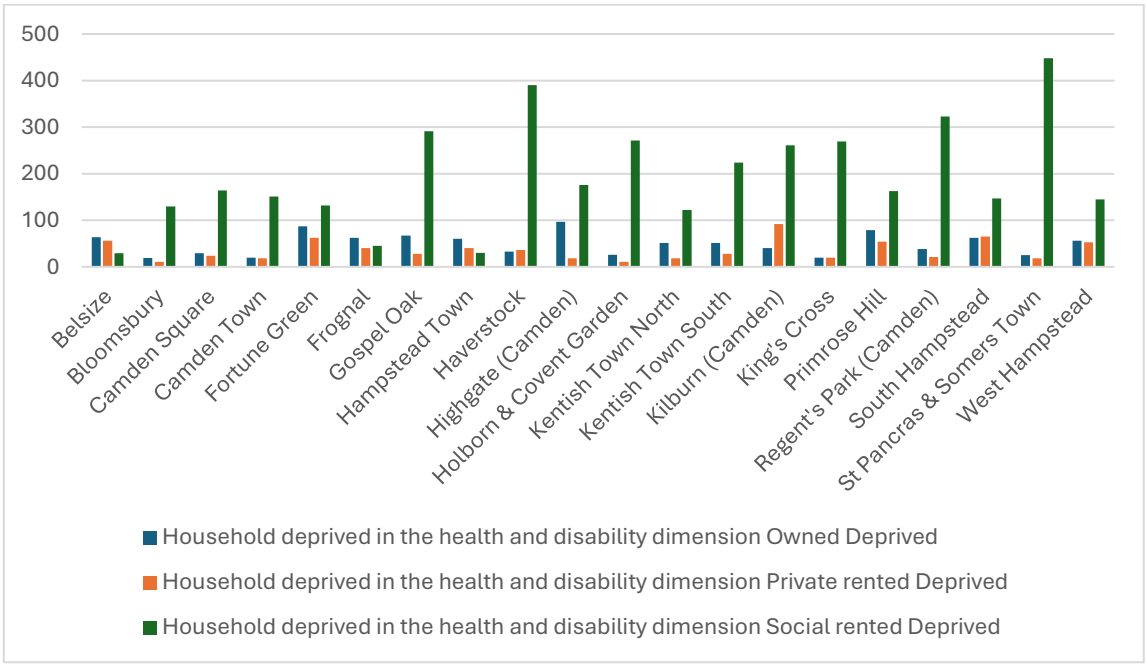
Data from the Institute of Health Equity's Child Health Equity Data Audit, which has been commissioned by the Camden Council Health and Wellbeing Department, shows that 56% of households in Camden with dependent children are living with at least one measure of deprivation (appendix 3). When further analysed by housing tenure according to the 2021 Census, the majority of households with children experiencing one measure of deprivation lived in social housing, equalling 11,853 households. The percentage of households with children living in social housing and experiencing deprivation increases as the number of measures of deprivation increases – 55% of households with children experiencing one measure of deprivation live in social housing, increasing to 77% of those with two measures of deprivation, 88% for three measures of deprivation, and 86% of those with four measures of deprivation.

The IHE's Child Health Equity Data Audit shows that the dimensions of deprivation that are most prevalent in households with dependent children are housing and health and disability, with significantly higher rates for those living in social housing. The number of these households deprived on the housing measure is highest in the areas with the highest density of housing estates on the above map. In decreasing order, the wards with 300 or more households experiencing this measure of deprivation are: St Pancras & Somers Town, Regent's Park, Haverstock, Kilburn, Gospel Oak, King's Cross, Holborn & Covent Garden, and Kentish Town South. Three of these wards are also the wards with the highest rates of these households deprived in the health and disability measure (over 300 households): St Pancras & Somers Town, Haverstock, and Regent's Park. The charts below, from the report, summarise this data.

Number of households with dependent children with one or more measures of deprivation by tenure in Camden, 2021 Census Data



Number of households with dependent children deprived in the housing dimension, 2021 Census Data



Number of households with dependent children deprived in the health and disability dimensions, 2021 Census Data

The Joseph Rowntree Foundation reporting on minimum income standards (MIS) for 2008-2023 shows that not only are people in social housing the group most likely to not have the income required to participate in society, the increase in their risk of living on an inadequate income in 2022/2023 rose to 72.3% (from 64.8% in 21/22) due to the average real-terms falls in come and increased likelihood of

being on low incomes and reliant on benefits for their income, which have not kept up with inflation. Furthermore, the number of working age adults with an income below the MIS is much higher in social housing (70.2% compared to 52.3% in private rented accommodation). This income inequality is a contributing factor to fuel poverty. 1 in 10 households in Camden experienced fuel poverty in 2020, and that number is expected to have increased with the cost of living crisis and increasing fuel prices in recent years.

In addition to increasing fuel costs, the cost of food and non-alcoholic drinks increased by approximately 25% in the 2 years up to January 2024, meaning families are also struggling to afford nutritional meals for their families. In 2024, the Council provided 99,000 supermarket vouchers to families in receipt of free school meals, council tax support, and housing benefits – supporting 16,000 children and 9,000 families. Considering the income gradient for social housing residents, it is reasonable to assume that social housing residents are likely to be impacted disproportionately by this increase in costs, and therefore the consequences of a poor diet on their health and wellbeing. Furthermore, the neighbourhoods in the borough with the highest food desert index scores according to the Consumer Data Research Centre, closely match those in the maps above and below of estates and deprived boroughs.

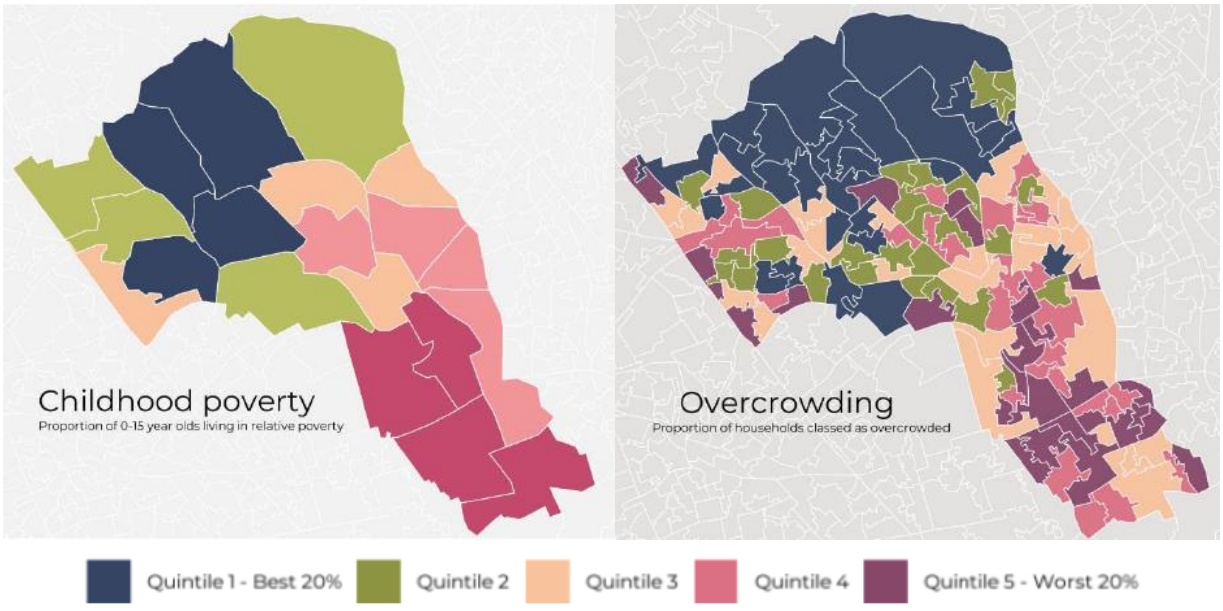
According to Government ethnicity data, for the year ending March 2023, social households with a Black 'lead tenant' accounted for 7% of social housing lettings, in comparison to 4% of 2021 Census respondents identifying as Black. Data also shows that vulnerable households in the white Gypsy and Traveller and 'any other' ethnic groups had the highest percentage of households prioritised due homelessness. The disproportionate representation of these sub-populations within social housing tenancies and applications reflect how some groups are impacted negatively by wider determinants of health more significantly than others. Camden also has disparity in social housing use by ethnicity, with 74% of Black residents living in social housing, compared to 28% of White residents, 38% of Asian residents, and 40% of residents with multiple and mixed ethnicity.

The IHE Strategic Review also analysed three British Birth Cohort Studies which showed that children who live in social housing have an increased risk of multiple disadvantages in later life, with this risk increasing since 1946 when living in social housing was not a risk factor for adult deprivation and unemployment. They found that the domains in which there were negative outcomes associated with living in social housing included health, education, income, and self-efficacy. The authors of the report suggest that this finding is reflective of the relative reduction in status for those living in social housing rather than the housing itself, as home ownership also increased over the same period as the cohort studies.

A 2012 study conducted to assess the impact of residential environment on mental wellbeing in deprived areas found that having a sense of control at home, empowerment with both landlords and local area changes, and the aesthetic qualities of the dwelling and neighbourhood environment were all associated with positive mental wellbeing. Furthermore, a 12-year study of Glasgow neighbourhoods where neighbourhood-level investment, regeneration, and renewal programmes took place showed that higher investment helped to provide a protective effect on physical health and mental health improvements. In 2020/2021 it was found that over 3,800 properties in Camden's local authority housing stock that was identified as in a poor condition. In the 2024 State of the Borough Report for Camden, estate residents reported that improved communal lighting and well-maintained

green spaces were deterrents for anti-social behaviour, whereas poor maintenance of the estate environment and neighbourhood increased rates of anti-social behaviour and therefore reducing their sense of safety.

A 2021 briefing by Shelter found that 1.5 million people in England live in overcrowded social housing of which 730,000 are children. The number of social housing residents living in overcrowded housing has increased by 44% since 2016. 2022 data shows that almost 10% of households in Camden are overcrowded, compared to the national average of 4.4%. Living in overcrowded housing impacts people's physical and mental health, as well as specifically harming children's education and development. These household are more likely to experience issues such as mould and damp, and increased likelihood of infection spreading amongst people in the household. In addition, the 2024 Resolution Foundation Housing Outlook shows that low income families are 8 times more likely to experience overcrowding, and single parent households and households with children are more likely to experience overcrowding - with single parent families experiencing overcrowding at twice the rate of families with two parents. Mapping of overcrowding in Camden overlaps with mapping of children who live in poverty across the borough, illustrating this correlation within the borough. However, it is important to note that it reported that the rates of overcrowding is likely to be under representative of the reality due to the statutory definitions used.



Data from the English Housing Survey in 2023 shows that families from global majority ethnic backgrounds are three times more likely to be in overcrowded housing, evidencing an inequality between sub-populations. It also shows that 48% of children in these households struggle to do their homework due to a lack of space, families report overcrowding has had a negative impact on their physical health (76%) and mental health (77%), and 77% of adults say overcrowding has negatively impacted their personal relationships. In Camden, families from Black and Asian ethnic groups are five times more likely to live in overcrowded housing compared to White households.

Furthermore, overcrowding is a contributing factor to damp and mould, alongside fuel poverty and poor quality housing stock. Damp and mould contributes to increased rates of asthma as well as poor mental health, and in some cases makes the impacts of overcrowding worse due to people avoiding certain rooms in their house. National data shows that approximately 3% of houses across the UK

have at least one room with damp. However, data also shows that some groups are impacted at a higher rate, with Bangladeshi (10%), Black African (9%), and Pakistani (8%) households seeing the highest inequality. Therefore, while prioritising houses at highest risk of damp and mould, and it's negative impact on the health and of the household, for retrofitting with high quality insulation may help, it is essential to also consider the impact of health and wellbeing when prioritising the response and repair of mould and damp reports. While the health impact of delaying a repair for all queries should be considered when prioritising responses, it can have the most impact with regards to damp and mould.

According to the 2024 We Make Camden State of the Borough, 39% of Camden households do not have access to private outdoor space (above the national average by 18%), rising to 79% in some areas. As a borough, Camden has a high number of neighbourhoods which are deprived of green space, and it is the 3rd local authority in the country whose residents have the least access to private green space. Research shows that access to green space has a positive impact on mental health, particularly for people in disadvantaged groups. Additionally, data shows that use of public spaces increases a sense of belonging further contributing to positive mental health and wellbeing.

Informing the estate mission theory of change

This evidence summary has focused on the evidence related to housing and health outcomes, however, there may be benefit in analysing additional data (e.g. crime, life satisfaction, and air pollution statistics) to provide a more comprehensive picture of how the experience of the area in which a person lives impacts their health and wellbeing. Unfortunately, estate-level data was not available at the time of this evidence review. Therefore, social housing data was used as a proxy to understand the factors that impact the health and wellbeing of estate residents.

Not only is the relationship between housing and health undeniable from both evidence and personal experience, but it is also clear that due to the underlying reasons for living in social housing, residents in social housing and on housing estates are more likely to have poor health outcomes (e.g. low income). However, the negative correlation between living in social housing and health outcomes wasn't always the case, illustrating the opportunities available to improve residents' lives and health.

While housing is a significant factor in people's health and wellbeing, it is important to acknowledge the complexity of the relationship between different aspects of people's lives which result in positive or negative health. Furthermore, literature reviews such as that by McGowan et al (2021) have shown that place-based interventions can have positive impact on health and health equity. Macintyre et al (1993) specified five elements of place that local government has the ability to influence by taking a place-based approaches.

1. Physical characteristics of the local area (including air and water quality)
2. Access to health promoting factors (including good housing, secure employment, high quality food, and leisure facilities)
3. Services such as education, transport, community organisations, and health and care services
4. Characteristics of the area including community safety, integration, and networks of support
5. Sense of place and perceptions of the area

With this in mind, taking a hyper-local, estate-focused approach seeks to make the best use of the Council's realm of influence and control, with the potential to have positive impact not only on resident health, wellbeing, and day-to-day experiences, but also many more Good Life Camden measures and goals of the Council.

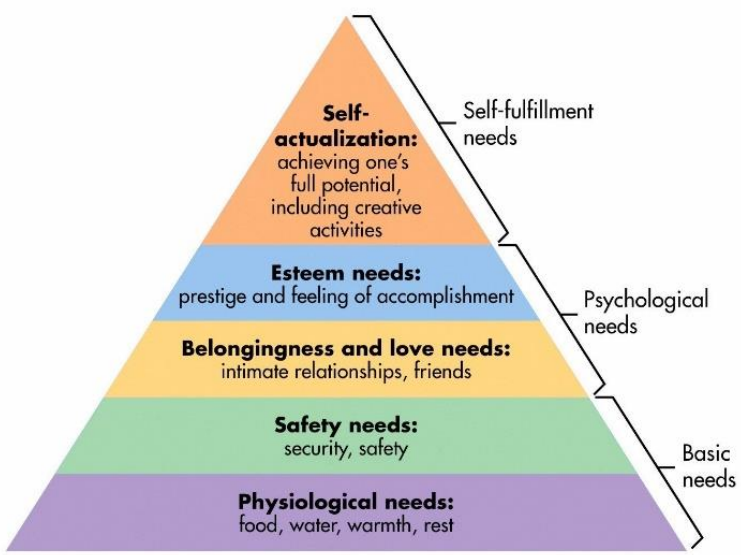
Well London – a programme to enable communities and local organisations to work together to improve health and wellbeing, build resilience, and reduce inequalities – took an estates-based approach to improving health with its own framework and set of measures (see appendix 4 for theory of change). The Regent's Park Estate in Camden was one of those sites covered in phase 2 (2014-2015) of the programme. As part of the programme they created opportunities for residents to come together around different activities including physical activity, healthy eating, singing, gardening, and safe socialising for young women. The participant outcomes report shows that across the 11 London estates who took part in the programme the level of change achieved was higher than expected across all indicators (see table below) evidencing the potential positive impact of an estate-level approach.

Outcome	Indicator	Level of change	
		Targeted	Achieved
Participation	Number participating in all programme activities	7,000	**18,746**
Physical activity	% reporting increases in levels of physical activity	15%	**82%**
	% reporting reduction in sedentary behaviour	5%	**54%**
Healthy eating	% reporting progress towards meeting five a day	20%	**54%**
	% reporting decreases in unhealthy eating	15%	**51%**
Mental wellbeing	% reporting an increase in mental wellbeing	20%	**54%**
	% reporting a reduction in psychosocial stress	15%	**19%**
Social connectedness	% reporting an increase in social connectedness	10%	**31%**
Volunteering	% reporting an increase in levels of volunteering	3%	**60%**

Tower Hamlets, another borough with high levels of deprivation, worked with providers to deliver the Communities Driving Change programme which worked with a selection of estates across 5 years to improve health and wellbeing for residents. This project not only worked with residents to understand what they need and what they'd like services to provide, but also to map the different factors that impact people's day to day lives and the system in the area, to understand the forces which can either enable or prevent changes from happening in order to effectively enact change. Projects within this estate-level approach found that participants reported an improved confidence and participation in community activities, increased use of local green spaces, and more capacity amongst residents due to skills development and partnership working. The programme also created tools to assist similar programmes to conduct mapping and develop a theory of change. In addition, work conducted to understand how to create sustainable community development by researchers such as Cormac Russell shows that local social networks alongside the physical and economic resources of the local place are key.

Statements from residents in the 2024 State of the Borough report echo the finding that connection and community are key contributing factors to good health and wellbeing. They reported that the sense of community and having supportive neighbours on the estate alongside the broader neighbourhood being safe, accessible, and well-maintained led to a positive experience of living on an estate.

All these examples show that creating an environment which provides emotional and psychological safety and regulation through increasing confidence, connection and control lead to improved health and wellbeing. This is underpinned by different psychological and neurological models of human need including Maslow's Hierarchy of Needs, and the triune brain approach. Maslow's Hierarchy of needs describes the five categories of need that humans need to maximise their health (see below). Whereas the triune brain theory (also known as the 3-brain theory) suggests the brain has three roles with different needs and functions – survival behaviours, emotion, and executive function – with the emotional role and regulating it's response being key in mental health and wellbeing. For this reason, the Estates Mission has adopted a people, power, place framework to reflect how confidence, connection, and control can be addressed at a hyperlocal level.



As the 'four pillars' model, as in the Health and Wellbeing Strategy illustrates, building equal foundations and reducing inequalities is foundational to improving health and wellbeing. Additionally, the 2025 Annual Public Health Report summarises the different motivations for place-based approaches which echo the goals of the Estates Mission and neighbourhoods approach the Council is implementing into the following six rationales:

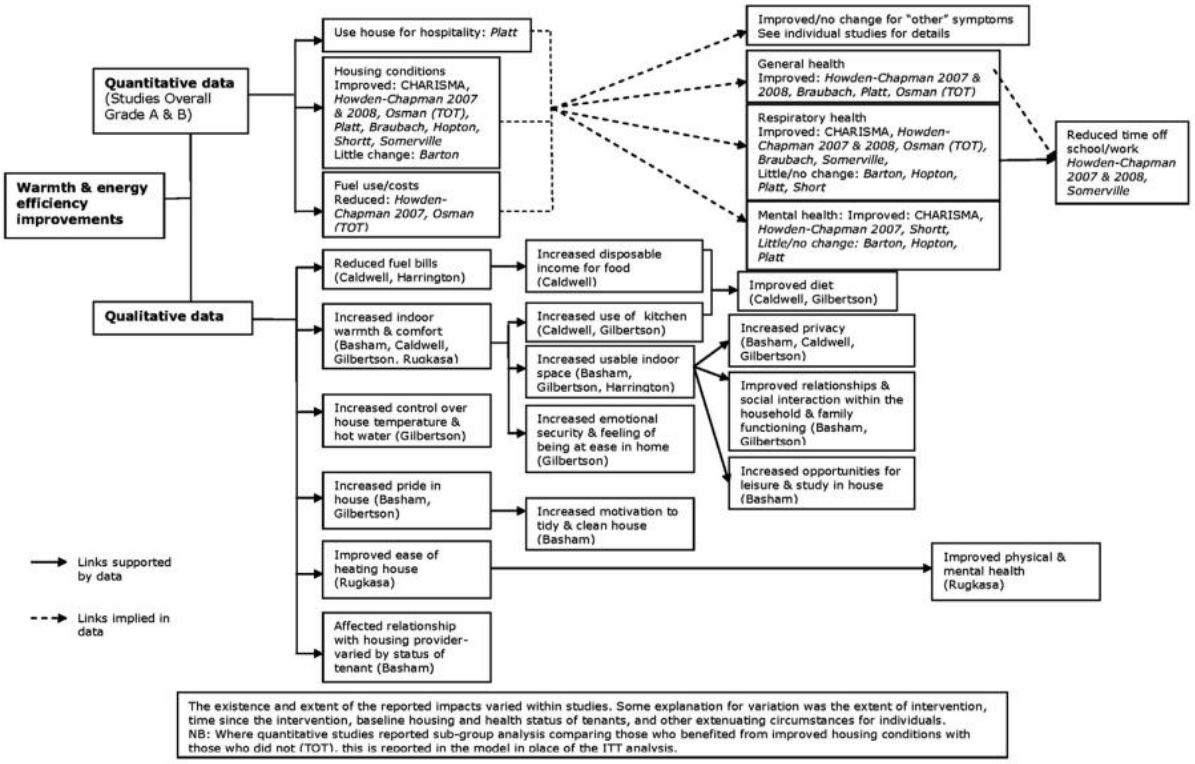
1. Tackling place-based inequalities
2. Developing locally tailored solutions
3. Tackling complex issues
4. Capitalising on social capital
5. Integration of services in a local area
6. Improving efficiency and cost-saving

Therefore, while the health of all residents in Camden is a priority for the Council, focusing on estate residents and working to increase the protective factors for their health, with the goal to reduce the

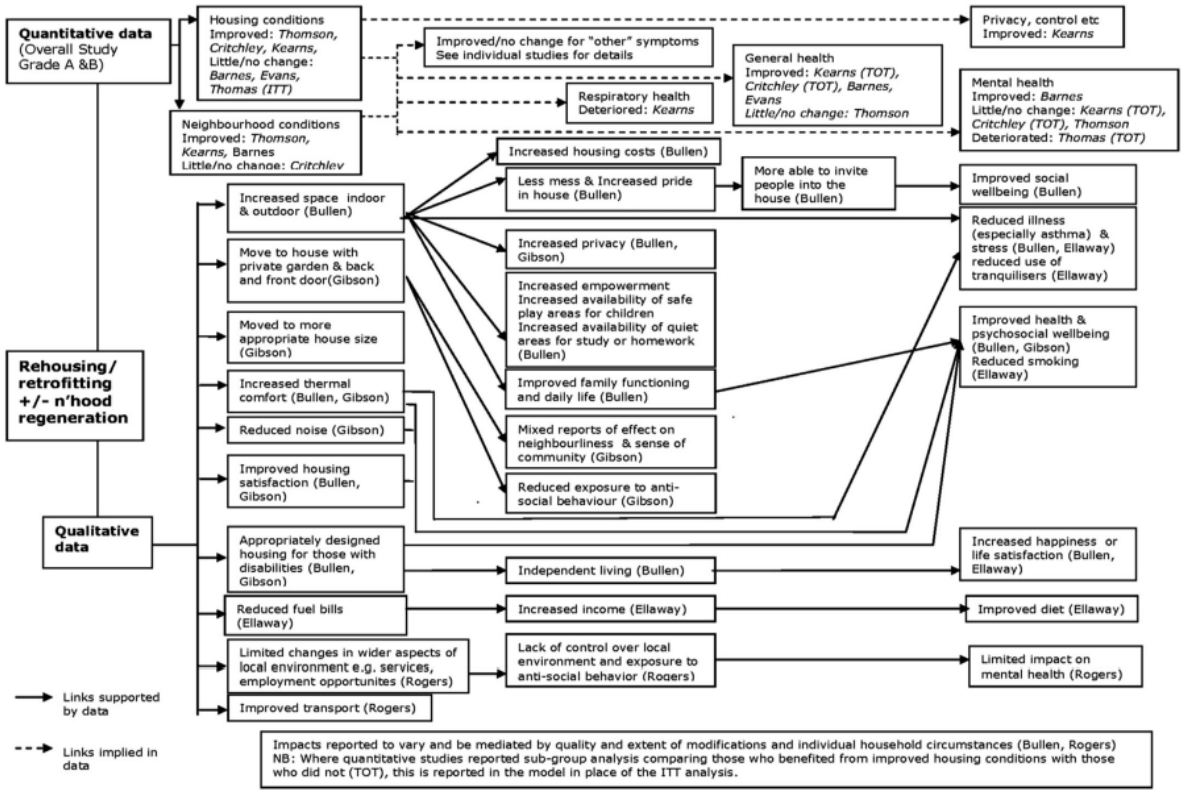
variation in health outcomes and risks between estate residents and those who do not live on estates, can not only have a significant positive impact on residents, but also on the wider borough and health and care system.

Note: *In addition to this evidence summary, additional evidence of the impact the place in which you live has on your health and wellbeing, and what makes place-based interventions successful will be available in the Camden Council 2025 Annual Public Health Report.*

Appendix 1: Logic model of impacts following warmth and energy efficiency improvements to housing (Thomson and Thomas, 2015)



Appendix 2: Logic model of impacts following housing-led neighbourhood renewal (Thomson and Thomas, 2015)



Appendix 3: Measures of Deprivation (from Child Health Equity Audit for Camden, Institute of Health Equity)

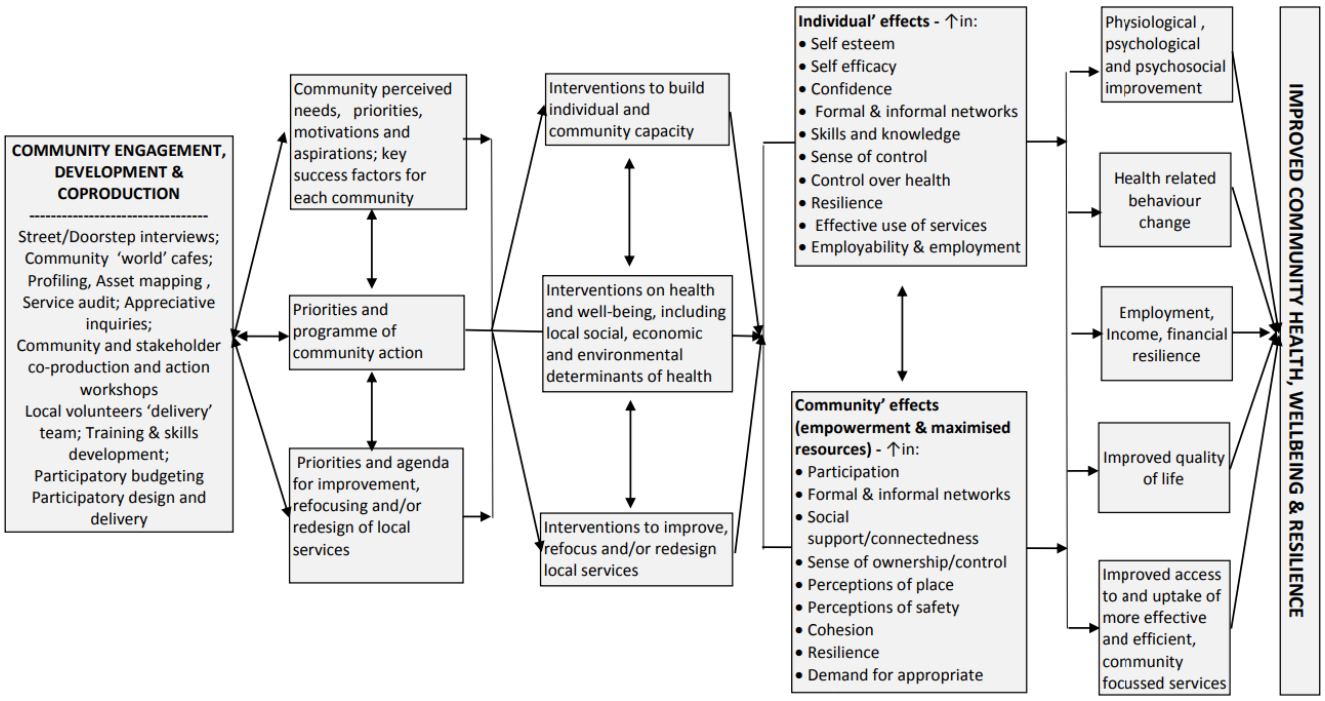
1. A household is classified as deprived in the health dimension if any person in the household has general health that is bad or very bad, or is identified as disabled, People who have assessed their day-to-day activities as limited by long-term physical or mental health conditions or illnesses are considered disabled. This definition of a disabled person meets the harmonised standard for measuring disability and is in line with the Equality Act (2010).

2. A household is classified as deprived in the education dimension if no one has at least a level 2 education and no one aged 16-18 years old is a full time student.

3. A household is classified as deprived in the employment dimension if any member, or not a full-time student, is either unemployed or economically inactive due to long-term sickness of disability.

4. A household is classified as deprived in the housing dimension if the household's accommodation is either overcrowded, in a shared dwelling, or has no central heating.

Appendix 4: Well London Programme Theory of Change



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