BEDFORDSHIRE, LUTON, AND MILTON KEYNES INTEGRATED CARE SYSTEM

The Denny Review

A rapid evidence review of the health inequalities experienced by the local communities of Bedfordshire, Luton and Milton Keynes

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INTEGRATED RESEARCH SOLUTIONS GLOBAL

Contents

A rapid evidence review to improve understanding of health inequalities in the local communities of Bedfordshire, Luton and Milton Keynes and identify good practices to address them

Executive summary

- **Aim**

  This review aimed to retrieve and critically review the literature on the health inequalities between different social groups and communities of Bedfordshire, Luton, and Milton Keynes and identify good practices to mitigate them.

- **Background**

  Given the BLMK ICS's vision, the review adopted the life course approach (WHO, 2018), and attention was paid to NHS England and NHS Improvement approach Core20PLUS5 to reduce health inequalities. The former approach focuses on the influences of wider determinants of health on an individual's physical and mental wellbeing throughout the life course. The conceptual framework involves understanding and addressing the underlying causes and consequences of inequities in health that can be the conditions in which people are born, grow, live, work and age. The CoreCore20PLUS5 focuses on the most deprived 20% of the national population as identified by the national Index of Multiple Deprivation (IMD) and five priority areas. It targets the most vulnerable groups and communities identified through ICS population data for addressing health inequalities (NHS England, 2021). Given the commitment, the BLMK ICS commissioned this rapid evidence review to improve its understanding of health inequalities in its local communities and good practices to address them.

- **Design**

  A rapid evidence review approach was used to search, locate, organise, and synthesise available evidence to address the review questions.

- **Data sources**

  The review commenced with the local evidence identified by the BLMK ICS, including searches on Healthwatch Bedford Borough, Healthwatch

Central Bedfordshire, Healthwatch Luton and Healthwatch Milton Keynes. In addition, MEDLINE, CINAHL, PsycINFO and grey literature searches were performed on websites of the relevant organisations, including Google Scholar, King's Fund, Department of Health and Social Care, NHS websites, Race and Health Observatory, Race Equality Foundation, Health Foundation, NIHR and NICE.

- **Review method**

  A rapid evidence review method was adopted to keep the review tightly focused for maximum relevance of the data sources to the review questions. The searches into databases and websites were conducted using a systematic search strategy, followed by the screening process through titles, abstracts and full-texts reading. The eligible papers were assessed using appraisal checklists. The relevant data from the included studies were extracted systematically and synthesised thematically.

- **Results/ key findings**

  Eighty-eight documents were identified as containing evidence concerning the review questions. Seventeen relevant documents were retrieved from local BLMK data sources, including BLMK virtual library and four Healthwatch websites. Most of these documents are reports of small qualitative studies, and a few of them are annual reports and place-based profiles and joint need assessment reports of BLMK. Seventy-one academic and grey literature documents were identified through searches into electronic databases, Google Scholar, and other websites. Of the 71 studies, 36 used qualitative methods, 24 quantitative methods, and eleven mixed-methods designs. The nine studies contain research concerning the Covid 19 pandemic, and eight included papers presenting good practice examples.

- **Conclusions**

  The review demonstrated that the wider determinants of health, including socioeconomic deprivation, psychological, cultural, and individual factors affect health and wellbeing throughout the life course. All these factors intersect to have a cumulative effect on an individual, family, social group, or community. The evidence in the review confirmed that the communities affected by the health inequalities in BLMK include ethnic minority groups, including Gypsy, Roma, and Traveller communities, people living in deprived neighbourhoods, people with disability, and people experiencing homelessness, migrants, and LGBTQ+. These groups experience health inequalities from unfair distribution and the impact of wider determinants of health to access health care services. The review demonstrated that single axes of difference focused on health inequalities between groups—most commonly socioeconomic disadvantage —while failing to recognise other dimensions of identity and disadvantage.

In contrast, multiple factors and interconnected systems influence people's lives. The COVID-19 pandemic laid bare structural inequalities as the impact of the coronavirus on ethnic minority groups in the UK has been devastating, which has been exacerbated by historical racial discrimination. Given the complex nature of health inequalities following recommendations are made for the BLMK ICS to address health inequalities.

- **Recommendations**
    - Making quality healthcare services more accessible to most disadvantaged groups based on their needs by prioritising and investing in 'left behind' neighbourhoods. Targeting specific groups such as the homeless, the housebound, LGBTQ+ and ethnic minority groups living in deprived neighbourhoods. This strategy fits the CoreCore20PLUS5 approach that focuses on the most deprived 20% of the national population.
    - The review has identified widespread issues with communication between service providers and communities; this can be addressed by providing quality language and interpretation services and the delivery of information through trusted sources. Also, a targeted communication strategy is required for targeted groups, such as a strategy for young people. Effective communication can also

    increase awareness about the availability of a range of healthcare services through trusted information sources, e.g., VCSE partners, health coaches, or peer health educators.
    - After communication issues, the review identified inequalities due to a lack of cultural competency in healthcare staff. This can be addressed by developing the cultural competency of healthcare staff to understand culturally appropriate needs and provide services accordingly.
    - Assisting people with significant support needs to reduce pressure on healthcare providers. Partnership working with Voluntary Community and Social Enterprise (VCSE) sector organisations can ease the burden on health services by providing information and advice to reduce the number of unnecessary calls and visits to GPs and hospitals. VCSE support to local communities can also help them navigate the wider health and care system.
    - To address health inequalities, the steps and approaches must go beyond widely known health inequalities of socioeconomic deprivation or poor experience and access to health services and consider social exclusion, racism, discrimination, socio-cultural barriers to access and equitable provision and utilisation of health and social care services in decision making and service delivery.
    - BLMK ICS should establish collaborative working relationships between local VCSE sector organisations, including faith-based associations and centres and NHS service providers and commissioners, to deliver fair, accessible, culturally appropriate, high-quality services to the local population experiencing health inequalities.

The review suggested that future research needs to adopt an “intersectionality” frame to understand the nature, causes and potential solutions to inequalities in health through a whole-system approach to understand and inform the evidence-based intervention to tackle health inequalities affecting BLMK local communities. A whole-system approach is seen as an effective way of “responding to complexity” through a “dynamic way of working”, bringing stakeholders, including communities, together to develop “a shared understanding of the challenge” and integrate action to bring about sustainable, long-term systems change (Buck, Baylis, Dougall, 2018, p.17). The research must be commissioned to investigate the wider determinants of health and the environment where people live and work and have exposure to risk factors. This review resonates with other recent reviews (e.g., Kapadia et al., 2022; Regmi & Mudyarabikwa, 2020) and suggests that research on ethnic inequalities in health should investigate specific determinants and their impact on the health of specific ethnic groups, accounting for the intersectionality, instead of treating a ‘community’ as a homogenous group.

Introduction

Bedfordshire, Luton, and Milton Keynes (BLMK) Integrated Care System (ICS) commissioned this literature review under the title of "The Denny Review". The review is part of the ICS's vision "to optimise health and wellbeing, advance equality in our communities and make the best use of our resources". This report presents findings from a systematic search and thematic narrative synthesis and analysis of all relevant published academic and grey literature, including the local reports.

The review set out to address the following research questions:

- What information is available on health inequalities in BLMK communities?
- What are the connections between and gaps in the existing knowledge about health inequalities in BLMK, and what are the key themes emerging?
- What are the good practices, and what could be learnt from good practices elsewhere in reducing inequalities to explore in BLMK?
- What does BLMK ICS need to be asking in collaboration with the communities to improve understanding of people's experiences of inequalities and the action required to reduce them?

Context

The review is aligned with the BLMK ICS's five strategic priorities, including "Start Well, Live Well, Age Well, Growth and Reducing Inequalities". Thus, the target audience for this review is BLMK ICS. However, this review can be accessed by the general public, policymakers and professionals working with the target areas and the population. The focus of this review was to explore and critically evaluate research literature reporting on health inequalities experienced by the local communities of the BLMK. Health inequalities include any measurable differences in health status between different groups and communities, and they are avoidable, unfair, and systematic. The ICS vision is to reduce inequalities that entails a life course approach to ensure that no individual or a social group should have poorer access to and experience of the services because of the way they were born, where they come from, what they believe, or whether they have a disability - because a person's health status (and outcome) may be poor because of the nature of their disability - it should not exclude them accessing or having a good experience.

The COVID-19 pandemic has acted as a magnifying glass, demonstrating the interconnected and structural issues that exacerbate health disparities within communities in the UK. The pandemic has laid bare the inequalities embedded in the very structures of society, healthcare and public health systems, social policies, and institutions. Understanding and addressing such inequalities requires a recognition of their structural nature. The structural nature involves conditions in which people are born, grow, live, work and age and these are influenced by social, political, economic, environmental, and cultural factors. The ICS's strategic priorities were used to conclude the evidence review, pointing to possible actions to address health inequalities.

The review methodology

The review team used the rapid evidence review approach, a type of knowledge synthesis that follows a systematic approach to map evidence on a topic and identify main concepts, theories, sources, and knowledge gaps. It was deemed appropriate to provide a rigorous assessment of what is already known about health inequalities in BLMK local communities’ resilience, connections, and gaps in the existing knowledge and how it can be measured and strengthened. The team used a systematic search strategy to search and critically appraise existing research evidence from a wide range of sources.

Review aim

An overarching aim of the review was to retrieve and assess the current information from published and grey literature about health inequalities and their impact on BLMK communities. This review addressed the following questions:

- What information is available on health inequalities in BLMK communities?
- What are the connections between and gaps in the existing knowledge about health inequalities in BLMK, and what are the emerging key themes?
- What are the good practices, and what could be learnt from good practices elsewhere in reducing inequalities to explore in BLMK?
- What does BLMK ICS need to be asking in collaboration with the communities to improve understanding of people's experiences of inequalities and the action required to reduce them?

Review design

Systematic reviews can be useful for decision-makers because they are extensive and exhaustive, but they can take 0.5 to 2 years to complete (Khangura et al., 2012). The time to undertake this review was limited; therefore, a 'rapid evidence review' approach was deemed appropriate to keep the review tightly focused for maximum relevance to the review questions. The rapid evidence approach to conducting a literature review allows a structured and systematic search and a quality appraisal and provides more timely decision-making evidence than standard systematic reviews. This method is gaining traction in the health care sector, especially when timely evidence is needed to formulate any policy or programme. Due to a timeline of one month, this review produced an integrated thematic summary of qualitative, quantitative and mix-methods studies. The data sources for the review were retrieved through targeted but systematic searches of several databases, grey literature, and citations of key papers. Also, the review report includes a summary of seven evidence reviews published between January 2020 and February 2022, including the most recent review published by the NHS Race and Health Observatory on ethnic inequalities in healthcare. The review team adopted three lines of inquiry suggested by the BLMK ICS, including drawing on local work, relevant national research and initiatives and examples of good practices.

Search strategy

Following the recommended line of inquiry, a systematic search strategy was devised to undertake multiple systematic searches to retrieve published and unpublished sources relevant to the review questions. The team started the review by synthesising the local data sources and went on to undertake the following searches:

- Strategy-led bibliographic database searches
- Grey literature searches.
- Reference and citation searches of key papers identified through the searches.
- References identified by the BLMK ICS Inequalities Review Steering Group members

An inclusion and exclusion criteria were developed to select the most relevant and high-quality evidence.

Data sources		
Data source	**Limits**	**Results**
Local data	The ICS identified the data sources; in addition to these sources, further relevant research and reports were identified by the BLMK colleagues and forwarded to the review team. BLMK 4 Healthwatch websites.	83 documents 20 Duplicate removed **21 Potential**
CINAHL, MEDLINE, Scopus and PsycINFO	10 years, primary research, English language, full text, peer-reviewed papers	15 searches in each database 2568 results **40 potentials**
Google Scholar, King's Fund, Department of Health and Social Care, NHS websites, NIHR and NICE	Maximum relevancy to health inequalities in BLMK communities	Several searches 82 documents **06 potential**
Reference and citation searches	As above	**04 potential**
References identified by the BLMK ICS	As above	56 research reports & papers

Inequalities Review Steering Group members		**25 potentials**
Recent evidence reviews	Thematic relevance – health inequalities in the UK (Jan 2020 – Feb 2022)	10 reviews **07 potential**

Search terms

The following terms and combinations of these terms were searched in the above data sources:

Search terms	
COVID 19 Bedfordshire, Luton, and Milton Keynes Income debt employment unemployment housing homelessness fuel poverty overcrowding education loneliness	crime Mental health racism/discrimination social inclusion/exclusion social capital/support social/community networks cultural barriers religion, culture, traditions Pakistani, Bangladeshi, Indian, Black African and Caribbean Black, Asian and minority ethnic communities

A combination of these search terms was used. All items within each term section were combined with OR, and then each section was combined with AND for different combinations of sections that produced the highest result.

Inclusion/ exclusion criteria

Inclusion/Exclusion Criteria	
Criteria	**Rationale**
Literature from 2010 onwards	To review the latest available evidence.
Literature relating to health inequalities experienced by the local communities of Bedfordshire, Luton, and Milton Keynes (BLMK)	To adhere to the review's aim, assessing the literature about health inequalities and their impact on BLMK communities.
Literature in English	To maintain the maximum relevancy of the literature to the geographical areas, which is mainly published in English.
Empirical research	Primary research provides the most robust evidence to inform policy and practice. There is sufficient primary research published on health inequalities that there is no need to rely on anecdotal evidence or expert opinion.
Studies carried out in BLMK or the UK	Chosen to make recommendations for BLMK practice, policy and planning as a result of the literature review.

Quality appraisal and data extraction

Two researchers identified and screened abstracts and either accepted or rejected them based on the inclusion and exclusion criteria. When screening through abstracts where the abstract was unclear, the papers' full text was obtained, enabling an accurate decision. Full texts of all included documents were obtained, and data on methods, sample size, relevant results/findings, conclusion/implications, and study limitations were extracted (see table 1 & 2). The quality of the included peer-reviewed publications papers was mainly checked against their study design, i.e., research question, methods, conclusions, and limitations. The critical appraisal was not conducted for the local data sources.

Synthesis and analysis

After completing the comprehensive searches, the review team independently read the titles and abstracts of all documents. The reviewers made an initial judgement on the relevance of each of the documents after initial screening; full versions of all the selected sources were obtained. Where consensus was reached on including the documents, an assessment of quality was performed.

The following steps were carried out to extract and organise the data:

- Document characteristics and details were extracted into a table to provide a descriptive overview of the included papers and sources.
- Two team members undertook data extraction. Two different team members reviewed the extracted data for consistency.

A theory-led critical thematic analysis approach (Braun & Clarke, 2006) was used to analyse the data extracted from the included sources of the literature.

Themes

Using the life course approach, the emerging themes were categorised as inequalities in:

General socioeconomic, cultural, and environmental factors

Socioeconomic factors

Socioeconomic factors are key determinants of health and include income, employment, debt, education, and access to green spaces. Nationally, extensive literature acknowledges inequalities in health due to socioeconomic disadvantages (Everest et al., 2022; Centre for Ageing Better, 2022; Fenny & Buck, 2021; Wang & Mak, 2020; Strugnell et al., 2020; Furegato et al., 2026; Hatch et al., 2011). Economical strain for an individual or family generally refers to financial pressure or inadequate resources that can be an inability to meet day-to-day living expenses and debt. This strain can cause psychological stress for individuals and eventually harm physiological health. Poor socioeconomic conditions in which people are born, grow, live, work, and age are considered driving forces of some leading risk factors for ill health and premature mortality. For example, smoking, poor diet, physical inactivity, and harmful alcohol use have been identified as leading risk factors that drive the high burden of preventable diseases and premature deaths (World Health Organisation, 2021; Institute for Health Metrics and Evaluation, 2019).

The ethnic minority groups, including Gypsy, Roma and Traveller, people with multimorbidity, disability, experiencing homelessness, drug and alcohol dependence, and socially excluded groups generally live in socioeconomically deprived areas in the UK. BLMK is no different; it includes four local authority areas, i.e., Bedford Borough, Central Bedfordshire, Luton, and Milton Keynes. For example, Luton is the most deprived and ethnically diverse of the four local authority areas (BLMK Annual Review 2020/21). BLMK's Lower Super Output Areas (LSOAs) are among the top 20% most deprived in England, and ethnic minority groups mainly live in these deprived areas (BLMK Place-based profiles, 2021); thus, the individuals from these groups have a higher likelihood of reporting poor self-rated health and limiting long-term illness (Becares & Nazroo 2013; Hudson et al. 2013). In the same vein, a research analysis by the Centre for Ageing Better (2021) shows that the odds of reporting poor self-rated health have been higher for ethnic minority groups; in particular, it is double for Pakistanis, 1.64 Bangladeshis and 1.5 times higher for the Black Caribbean than for the White/White British group in all the years for which we have data since 1993/1994.

The Public Health England (2020) report on COVID-19 related disparities identified higher risk and worse outcomes for ethnic minority groups than the white British population. It was revealed in the report that the higher risk and worse outcomes from COVID-19 were exacerbated by socioeconomic factors associated with poverty and deprivation, including overcrowded housing, income inequality, occupations with a higher risk of COVID-19 exposure, need to use public transportation and poorer health experiences of healthcare and historical racism. Similarly, the Health Foundation report on geographic inequalities in COVID-19 mortality rates confirmed that the COVID-19 mortality rate for people younger than 65 was almost four times higher in the most deprived areas of England than in the least deprived during the first two waves of the pandemic (Tinson, 2021).

According to a prospective cohort study of the British Household Panel Survey, living in a deprived neighbourhood was associated with an increased risk of poor self-rated health, higher psychological distress, functional health limitations and several health problems over and above individual grade, age, and sex (Jokela, 2015). The Kings Fund's recent report on “the role of NHS in tackling poverty” emphasises addressing child poverty (Fenny & Buck, 2021). Joseph Rowntree Foundation’s (2022) report on the UK’s state of poverty suggests poverty is on the rise across the country. Among the worst affected by poverty are children; one in three children live in poverty, rising to half of all children from single-parent families (Department for Work and Pensions, 2021). 26% of working families live in relative poverty in Luton, 46% of children live in poverty, and 32% of Luton residents live in the most deprived, 20% of wards in England (Luton Council, 2020).

Similarly, 14 out of 103 LSOAs in Bedford are ranked among the most deprived, 20% nationally, with four among the most deprived 10% (Bedford Borough Council, 2019). Growing up in poverty impacts education, wellbeing, health, career prospects- almost every aspect of a person’s life. It is the root cause of many issues, and research suggests that poor socioeconomic conditions have a “cycle of disadvantage” (Gillies cited in Donald et al., 2021, p. 12), impacting other aspects of an individual or a person's family life. For example, in a Luton-based qualitative study, young fathers (20 -25 years) living in the most deprived areas of the town were shown to have challenging childhood that reinforced a ‘cycle of disadvantage’ that had adverse effects on their relationships, educational attainment and employment prospects (Donald et al., 2021).

Another measure of deprivation can be seen in differences in life expectancy. It is evident in the case of BLMK; for example, life expectancy is better than the national average in Bedford Borough (79.5 male and 83.5 female), Central Bedfordshire (81.5 male and 84.6 female) and Milton Keynes (79.5 male and 83.5 female), worse in Luton (78.7 male and 82.7). Still, there are large inequalities in life expectancy across BLMK, depending on where people live, as in the case of Luton, the most deprived and ethnically diverse local authority in which inequalities are more pervasive than in other areas (BLMK Annual Review 2020/21).

In their Southeast London study, Hatch, and colleagues (2011) found that those participants who identified themselves as members of ethnic minority groups had lower educational attainment, higher unemployment and being economically inactive, lower household income, and living in rented accommodation self-reported fair or poor health. The pattern of indicators identifying health inequalities for common mental disorders, poor general health, and long-term illness is similar; socioeconomically disadvantaged individuals have poorer health, and physical health worsens as age increases for all groups. The prevalence of poor health outcomes by ethnic groups suggests important differences between groups, particularly for common mental disorders and poor general health (Ali et al., 2016).

The links between socioeconomic conditions and poor health are complex. For example, a mixed-method study of a nationally representative sample found that adolescents from ethnic minorities, including Black African and Black Caribbean, reported better mental health than White British despite the economic disadvantages. This study reported that family care and connectedness, religious involvement and ethnic diversity of friendships were protective factors for the adolescents from these communities. Also, it acknowledged that racism was an adverse influence on health, in the particular mental wellbeing of ethnic minority ethnic groups (Harding et al., 2015). Concerning a critical determinant of health inequalities, poverty, the King's Fund published a comprehensive report outlining the role of the NHS in tackling poverty to reduce health inequalities. This report cites the data from the Social Metrics Commission's 2020 report, which shows a fifth of the UK's population is experiencing poverty, based on data from 2018/19 (Fenney & Buck, 2021). The report highlighted that the voices and perspectives of people experiencing poverty are still not routinely heard in the NHS. Therefore, it suggested meaningful engagement with people with previous experiences of poverty. In this regard, ICS BLMK can replicate the existing model of engagement project initiated by Healthwatch Luton, "how are you doing?" during the pandemic.

Access to high-quality healthcare is essential, but it is not the lack of healthcare that leads people to become ill in the first place. Still, inequalities in socioeconomic conditions account for a great deal of the inequalities in health. Therefore, to reduce health inequalities, it is necessary to improve the conditions in which people are born, grow, live, work, and age. Of these circumstances, the income of an individual and family is a key area of concern to reduce inequalities.

Cultural factors

Several studies reported that cultural factors such as family support, connectedness, sense of community, the influence of religion and ethnic density are seen as protective factors by people from ethnic minority backgrounds, particularly for their mental wellbeing. Nonetheless, cultural factors can be a major determinant of health and a barrier to accessing health and social care for ethnic minority groups. For example, several studies confirmed that cultural factors include: a religion that may affect compliance or access to health care services (Bailey & Tribe, 2021; Machaka et al., 2021; Munroe, Hammond, & Cole, 2016; Kaur-Bola, & Randhawa, 2012); beliefs and traditions to seek treatment that can lead to the use of traditional remedies (Thomas, 2010; Williams et al. 2019); differences in the presentation of symptoms that can lead to misunderstandings, misdiagnosis, or incorrect referrals (Kerrison et al. 2021; Williams et al. 2019); "fatalism" or shyness (specifically concerning cancer and STIs), which may also lead to a reluctance to seek help resulting in late presentation (Goff et al. 2020; Ehiwe et al. 2012); and other cultural factors such as little or no understanding of English language may mean people could not understand health promotion materials and how to access the related services (Healthwatch Luton, 2019; Ochieng, 2013). For example, the House of Common Women and Equalities Committee (2019) found that Gypsy, Roma, and Traveller people have the worst health outcomes compared to other ethnic groups across many areas. The language barrier was identified as the main factor in this disparity. The research evidence (Ajayi, 2021) suggests that language plays a huge role in patient access to health and social care. The importance of addressing this issue is evident from the review of interpreting and translating services commissioned by the Southwark, Lambeth, and Lewisham CCGs (2019). The review identified the best practices and areas of improvement; for instance, the participants appreciated interpreting and translating services in face-to-face interactions, but the wait time to arrange an interpreter was significantly long. In contrast, arranging an interpreter for telephonic consultation was relatively easier, but the patients experienced difficulties due to poor audio quality, connectivity, and operating issues with equipment. BLMK Healthwatch reports repeatedly have identified and presented as one of the key recommendations for better communication between all stakeholders, including providers, people and services and local authorities.

Kaur-Bola, & Randhawa's (2012) qualitative inquiry into the role of Islamic religious and cultural beliefs regarding intellectual impairment and service use suggested that due to blurred lines between religious and cultural beliefs and practices and poor communication, parents of Muslim background missed accessing essential services for intellectual impairment of their children. Multiple studies have highlighted a greater relative risk of diabetes in ethnic minority groups, particularly South Asians (Narayan & Kanaya, 2020; Unnikrishnan, Gupta & Mohan, 2018; Gujral et al., 2013; Randhawa et al., 2010). On the other hand, several studies also identified inequalities in inadequate access, poor compliance, and low uptake of diabetes services (Wilkinson et al., 2016; Wilkinson & Randhawa, 2013; Wilkinson et al., 2011a; Wilkinson et al., 2011b). In order to tackle the identified inequalities, Wilkinson, and Randhawa (2012) developed a conceptual model focusing on "increasing cultural competency within the system over time will bring policy and practice closer together and reduce the effort needed to bridge the gap in access to quality diabetes care" (p. 1445). Several studies recognise the importance of cultural competency skills for healthcare provision, lifestyle changes and dietary practices. For example, a qualitative focus group study in East Midland with 62 Black African parents and health visitors emphasised the cultural competency skills to advise Black African parents about the cultural influences on diet during early childhood (Ochieng, 2020). In the same vein, a Luton-based conducted in the deprived and ethnically diverse wards of the town confirmed that household food practices were situated in the wider socio-cultural and religious context underpinned by parental norms, values, beliefs, and practices in providing children with a healthy diet (Cook et al., 2021).

Environmental factors

In the context of BLMK, the search found Luton Council report and Milton Keynes Health Impact Assessment discussed the environmental impact on the health and wellbeing of local communities. JSNA Luton (2015) stated that Luton is deficient in green space, with those in the most deprived wards having less access to green spaces than those living in wealthier parts of the town. Since urban planning was formally introduced, environmental factors, overcrowding and sanitation in buildings, and unhealthy urban spaces have been widely recognised as causing illness. Health Impact Assessment Milton Keynes (2021), concerning the environmental impact on health, identified that 5.8% of deaths in adults over 30 are estimated to be due to poor air quality. Also, it was acknowledged that the numbers of people in fuel poverty are lower than the regional and national numbers in Milton Keynes but are increasing and that 72 more deaths at all ages are estimated to have occurred during the winter months than in the non-winter months. The development plan recognised that access to decent and adequate housing is critically important for health and wellbeing, especially for the young and old (Milton Keynes Council, 2021).

Additionally, a couple of studies from other contexts have acknowledged the impact of environmental factors on the health and wellbeing of ethnic minority populations. For instance, a cross-sectional survey and descriptive analysis of surveillance data by Strugnell and colleagues (2020) found a very small difference in the adjusted model for the interaction between ethnicity and socioeconomic position between South Asian, Black African children and White British children in overweight/obesity risk; thus, suggesting other environmental and cultural factors are driving increased risk for ethnic minority children. However, the study did not describe those environmental and cultural factors that increase the risk of overweight and obesity in ethnic minority groups children. This study argues for further empirical research into racial/ethnic inequalities in obesity by investigating the wider intersectional contexts, including social, economic, health care system, food system, environmental, multicultural, and historical factors and their intersections with race/ethnicity, socioeconomic position, and migrant status.

The review included Friends of the Earth's study on England's green spaces that provided evidence on the impact of environmental factors on health and wellbeing. The report used official data on public green spaces, including garden space, and open access land such as mountains, moor, heath, down or common land and analysed with data on neighbourhood populations, ethnicity, and income. The study found a strong correlation between ethnicity and green space deprivation. For instance, it suggests that almost 40% of people of ethnic minorities live in England's most green space-deprived neighbourhoods, and they are more than twice as likely as white people to live within such areas (de Zavlya, Gordon-Smith, Childs, 2020). This report did not estimate the impact of green space deprivation on the health and wellbeing of ethnic minority groups. However, given the stark inequalities in access to green spaces, people from ethnic minority backgrounds couldn't benefit from the perceived gains. Many people tend not to think twice about enjoying and gaining from their routine visits, whether for health, fitness, recreation, and leisure.

Living and working conditions

Poor living and working conditions have determining effect on the health and wellbeing of people. It was recognised as a critical problem for BLMK in all local research reports and plans. For example, many low-income families live in poor quality or overcrowded housing and a shortage of social housing; many low-income families live in temporary accommodation, further disrupting children’s well-being. Children who live in bad housing conditions are more likely to suffer from poor health, suffer a longstanding illness or disability, dislike the area they live in, run away from home, be excluded from school, and leave school with no GCSEs (Finney & Harries, 2013). Poor housing leads to health risks such as respiratory illnesses, poor nutrition, accidents, depression, and anxiety.

The government's figure on the prevention and relief of homelessness in England shows that people from ethnic minority backgrounds are disproportionately affected by homelessness. For example, the Statutory homelessness live tables 2020-21 show that 1 in 23 Black households became homeless or threatened with homelessness, versus 1 in 83 households from all other ethnicities combined (Ministry of Housing, Communities & Local Government, 2021). The most common reasons for homelessness reported include households owed a prevention duty end of private rented Assured Shorthold Tenancy in which landlords wished to sell or relet the property. According to the estimated data from Shelter (2021), one in 66 people in Luton are classed as homeless, the worst figure for the entire UK (excluding London). Milton Keynes was also ranked in the top 10 list of local highest rates areas for homelessness and rough sleeping. There is a direct association between homelessness and access to health and social care services and management of long-term conditions. A national-level cross-sectional survey found that, on the one hand, the odds of older adults having one or more long-term conditions and multimorbidity were higher in minority ethnic groups compared with the White British ethnic group. On the other hand, there were wide ethnic inequalities in perceived support from local services for managing long-term conditions (Watkinson, Sutton & Turner, 2021).

Studies examining the detrimental effects of overcrowding on physical and mental health raised significant concerns (Wilson & Barton, 2021; Jones, 2010; Hacker, Ormandy & Ambrose, 2011). These were echoed by the Race Equality Foundation report by Finney and Harries (2013) on ethnic inequalities in housing revealed that 22% to 27% of Black Africans live in overcrowded houses. The report demonstrated that overcrowding varies across the country, but it is highest in London for people from Black African, Black Caribbean and White British backgrounds.

An evidence review on the determinants of mental health inequalities demonstrated that black ethnic groups, including Black Africans, the Caribbean, and people with a mixed ethnic background, are disproportionately represented in criminal justice and the mental health systems (Devonport et al., 2021). Moreover, this disproportionate presence of Black people in criminal justice settings is coupled with racism and discrimination, exacerbating the negative impact on Black people's health and wellbeing, particularly their mental health. In turn, the criminal justice system acts as a gateway to the mental health system for many Black offenders.

Similarly, the Race and Health Observatory (RHO) rapid evidence review 2022 found that NHS ethnic minority staff enduring racist abuse from other staff and patients was particularly stark for Black groups. This review also presented evidence suggesting that the COVID-19 pandemic has disproportionately affected ethnic minority healthcare workers' working environment regarding access to adequate personal protective equipment (PPE) and the negative effect of the pandemic on ethnic minority staff mental health (Kapadia et al., 2022). A recently released research project report echoes the review findings by highlighting that 52.6% of the sample of ethnic minority staff experienced unfair treatment during the pandemic concerning the deployment of COVID-19 positive environments, PPE, or risk assessment provision (Ramamurthy et al., 2022).

Individual lifestyle and behavioural factors

Several studies contained evidence on individual lifestyle factors, including physical activity, health-seeking behaviour and nutrition that influence their health and wellbeing. The majority of studies investigated individual health-seeking behaviours. Their perceptions of a healthy lifestyle suggest that health-seeking behaviour is one of the key determinants of health among ethnic minority groups, including Gypsy, Roma, and Traveller ethnic groups. For example, a cross-sectional study found that African and South Asian women were more likely to endorse "using traditional remedies" for cancer and were more likely to report "praying about a symptom" than White British women (Williams et al., 2019). Similarly, a community survey by Fernández de la Cruz et al. 2016 revealed that ethnic minorities were more prone to seeking help from their religious groups for obsessive-compulsive disorder. Black African parents favoured not seeking help for the described difficulties and, in general, perceived more treatment barriers. Despite the high prevalence and familiarity with diabetes through the experience of friends and family members, a Luton, West London, and Leicester based qualitative study found patients had strong and emotional feelings of shock, upset and denial when diagnosed with diabetes (Wilkinson, Randhawa & Singh, 2014).

Garcia and colleagues’ (2018) descriptive qualitative study with Pakistani, Bangladeshi, and White British mothers in Luton revealed that very few women consumed folic acid before conception, nor did they understand the benefits of consumption, which would otherwise prevent congenital anomalies. The study recommended increasing public health awareness regarding the optimal time and benefits of consuming folic acid. Another study, Adults, Social wellbeing, and Health (DASH), found that unhealthy behaviours are more prevalent among some ethnic minority groups most at risk of developing obesity and cardiometabolic diseases such as type 2 diabetes. For instance, Black African and Black Caribbean participants had the highest rates of breakfast skipping (Goff et al., 2015).

Access to and uptake of health services

Many research studies and local reports highlight the barriers to access and uptake of health services by ethnic minority groups, including Gypsy, Roma and Traveller communities, people with disabilities, protected characteristic groups, homelessness, drug and alcohol dependence, migrants, LGBTQ+ and victims of domestic abuse. The NHS England Patient Registration Standard Operating Principles for Primary Medical Care (General Practice) states that there should not be any obstacle to GP registration; however, uptake of GP registration by recent entrants to the UK has been low. Nationally, vulnerable migrants (refugees and asylum seekers), homeless people including children, pregnant women, victims of torture, trafficking, domestic and sexual violence, and travellers experience hurdles and discrimination for registering with a GP. Consequently, they cannot get a referral to mental health or hospital diagnostic/treatment. For example, the biggest barrier for migrants to general practice registration is the inability to provide paperwork: 39% of registration refusals were due to lack of ID, 36% lack proof of address, and 13% to immigration status (NHS England, 2018).

Research evidence shows that ethnic minority groups, including Gypsy, Roma and Traveller communities and LGBTQ+ people, face covert or overt prejudice and discrimination from GP surgery staff, including a refusal to register and book an appointment (LGBT Foundation, 2020; NHS England, 2018; Friends, Families and Travellers, 2010).

Though local sources suggest that GP practices in BLMK have more registered patients per GP than the national average, some patients have difficulty getting an appointment. Another key issue to accessing health services highlighted in Healthwatch Luton Reports on “how are you doing” was the communication gap. Similarly, a Luton based mixed-methods study’s participants highlighted the limited availability of interpreters in hospitals hampered their access to services (Ali et al., 2022). Several local qualitative studies also highlighted those patients were not always clear on how to access urgent care services, with several organisations operating NHS 111 and GP out-of-hours services across BLMK.

Similarly, inequalities in access to healthcare were experienced by other groups, such as the D/deaf community. According to Healthwatch Bedford Borough and Central Bedfordshire's (2021) "Seen and Heard" report, most study participants representing the D/deaf community found it challenging to access a GP appointment. The study participants explained that all staff, especially receptionists and GPs, lack deaf awareness and showed concerns that receptionists were not reading a patient's notes accurately before offering an appointment to determine what needs the patient may have and/or if a patient is deaf. The report recommended that training was required for all healthcare staff to reduce the access gap for the D/deaf community.

For example, Petersen, Kandt and Longley's (2021) analysis of hospital admissions between 2009 and 2014 demonstrates that ethnic inequalities were found in cardiovascular, respiratory diseases, and chest pain. Other inequalities were found in nutritional deficiencies, endocrine disorders, and sensory organ diseases. These results align with the Core20PLUS5 approach area of priorities to tackle inequalities. Concerning barriers to access to mental health services, a qualitative study with Pakistani young people by Ali and colleagues (2016) highlights those participants had poor awareness of mental health services and treatment options, specifically child and adolescent mental health services and treatment options for mental health illness. The RHO review confirmed that ethnic minority groups experienced clear inequalities in access to Improving Access to Psychological Therapies (IAPT); overall, ethnic minority groups were less likely to refer themselves to IAPT and less likely to be referred by their GPs, compared with White British people. The review found some evidence for ethnic minority groups but less evidence about the experiences of Roma, Gypsy and Irish Traveller and Chinese groups, although evidence. However, the stakeholder engagement groups highlighted that they might also be reluctant to seek help from services they do not trust (Kapadia et al., 2022).

The studies included in the review found that disparities in access to healthcare for LGBTQ+ people have increased during the COVID-19 lockdown. The LGBTQ+ lockdown wellbeing report (2020) by OutLife revealed that nearly 40% of LGBT people report missing appointments, reaching around 50% of trans people, compared with 35% of cis people.

All four BLMK Healthwatch have identified access to healthcare services and treatment due to language barriers in engagement with local communities. For example, Healthwatch Luton (2019), in its small qualitative study with Roma and Travellers about improving health and social care experiences, identified that failure to understand treatment and diagnosis, illiteracy and language barriers were big issues for these communities when visiting the GPs.

Multiple BLMK based studies identified health inequalities experienced by local ethnic minority groups in terms of inadequate access, poor compliance, and low uptake of diabetes services (Garcia et al., 2021; Wilkinson, Randhawa & Singh, 2014; Wilkinson & Randhawa, 2013; Wilkinson et al., 2011) and end of life care for kidney patients (see Wilkinson et al., 2017; Wilkinson et al., 2016; Wilkinson et al., 2014; Wilkinson et al., 2012; Wilkinson et al., 2011). Additionally, a few studies have evaluated the conceptual model of concordance in the care pathway project as a process through which access to quality diabetes care is achieved. However, cultural competency has been put forward as a part of the initiative to provide appropriate and accessible diabetes care to patients from ethnic minority backgrounds (Wilkinson & Randhawa, 2012a; Wilkinson & Randhawa, 2012b).

Social capital/social networks/community groups/social engagement

Four papers (see the studies social and community studies in the table), three qualitative, and one mixed-methods provided evidence that the participants, mostly representing ethnic minority groups, recognised that the family and community support networks were positive forces for their health and wellbeing. For example, in a qualitative study with African-Caribbean adolescents and their families from the north of England, the participants believed that being a member of a kin network enhanced one's wellbeing, with such networks described as capable of providing protective support for one's health and wellbeing (Ochieng, 2011). Further, the participants preferred to live in neighbourhoods with a high concentration of people of the same ethnicity, despite the effects of neighbourhood deprivation such as poor housing and lack of services. Similarly, a study on spirituality and health found that involved families had considerable knowledge of the government's advice on maintaining health and wellbeing. However, when they identified the actual activities, it was evident that the participants' spiritual and religious beliefs directly influenced their behaviour to maintain health and wellbeing (Ochieng, 2010).

Moreover, a study exploring relationships among health, faith, and places of worship as the therapeutic landscapes argues that faith-based affiliations, ideas, actors, and organisations were significantly relevant for ethnic minority groups, including migrant and Roma groups, to pursue health and wellbeing (Tomalin, Sadgrove & Summers, 2019). The association between mental health and social and community networks is stronger than physical health. For instance, longitudinal study findings revealed that adolescents from Black African groups reported significantly higher mental well-being scores than White adolescents (Smith et al., 2015).

Most of the studies identified a need for empirical research to explore further the structures and influences of social and community networks and neighbourhoods on the full spectrum of an individual's wellbeing.

The pandemic and health inequalities

With the available evidence, it has become clear that the COVID 19 pandemic has disproportionally affected people from ethnic minority backgrounds. In particular, it has highlighted the structural disadvantage experienced by people from these groups who have been at much greater risk of contracting, the severity of diseases, hospitalisation, and death from COVID-19. In this review, eight studies report the evidence concerning the disproportionate toll on ethnic minority groups. One of the most relevant studies for BLMK is the "Talk, Change (TLC) COVID 19", a Luton based multi-methods research by Ali and colleagues (2021). This mixed-methods study explored several issues concerning COVID 19 and wider health inequalities among ethnic minority groups. It revealed that participants acknowledged that wider inequalities experienced by our selected communities contributed to the disproportionate impact of COVID-19 on them. Participants discussed how poor living conditions and overcrowded homes contributed to the transmission of COVID-19. The study also found that participants argued that there was a great deal of community suspicion surrounding how members of their community were treated compared to their white counterparts with COVID-19 and that there was a lack of confidence to complain.

Drawing on the TLC project data, a recently published paper on vaccine hesitancy among Luton's ethnic minority groups found a significant association between educational attainment and vaccine hesitancy. The most common reasons for low vaccine uptake among ethnic minority groups included lack of trust in the government, the vaccine, and concerns about vaccine side effects (Cook et al. 2022). This study has maximum relevancy to BLMK as Luton has the third-lowest uptake of COVID-19 vaccine outside London in the UK (Public Health England, 2021), and Cook et al. (2022) have produced evidence-based recommendations to improve the "communication of vaccine messages" that should focus on improving individuals' knowledge of COVID-19 and the trust in the information provided through trusted sources (p. 10).

Another study discusses the ethnic differences in vaccine hesitancy. Two studies (Raisi-Estabragh et al., 2020 & Lassale et al., 2020) analysed UK Biobank data to investigate the risk of contracting the virus, the severity of the disease and hospitalisation in ethnic minority groups. Both studies reported the over-representation of people from ethnic minorities in the COVID-19 positive group. People from these groups had a greater risk of contracting COVID-19 than the British White population. The studies also concluded that there were clear and significant differences in risk of hospitalisation due to COVID 19 between the ethnic minority and the White population. However, both studies acknowledged that measured factors could not fully explain the wider factors behind the ethnic differences in COVID 19 disease and hospitalisation risk. Lassale and colleagues (2020) adjusted the wider factors, including neighbourhood deprivation, household crowding, smoking, body size, inflammation, glycated haemoglobin, and mental illness. They found that the effects were raised for Black, Asian, and other non-White groups.

Further, a London based observational study (Apea et al., 2021) of five acute NHS hospitals analysed the data of 1737 patients aged 16 years or over admitted to hospital with confirmed COVID-19 infection, and the results show that of the 1737 patients, 340 were from the Black background. This study confirmed that those from minority ethnic backgrounds were younger than White patients, with differing comorbidity profiles and less frailty. Also, Black, and Asian patients were more likely to be admitted to ICU and to receive invasive ventilation.

The review's two included studies (Williamson et al., 2020 & Ayoubkhani et al., 2020) investigated factors associated with the COVID-19 deaths. Both analyses show that people from all ethnic minority groups are all ethnic-minority groups at a higher risk of COVID-19 mortality. Williamson and colleagues (2020) used OpenSAFELY data and quantified a range of clinical factors associated with COVID-19-related death and found that people from South Asian and Black backgrounds had a substantially higher risk of COVID-19-related death than White people but acknowledged that this was only partly attributable to comorbidities, deprivation, or other factors. Aldridge and colleagues (2020) analysis of NHS mortality data from COVID-19 investigating the increased risk of death from COVID-19 among ethnic minority groups in England confirmed the increased risk of death for Black African, Black Caribbean and other ethnic minority groups, including Indian, Pakistani, and Bangladeshi as compared to White Irish and White British population.

All of the studies mentioned above were large. Most of them used national-level data and confirmed the disproportionate impact of COVID-19 on Black ethnic groups. These studies suggested further research to explain the underlying causes and wider factors of the higher risk of contracting the virus, hospitalisation, and COVID-19-related death among ethnic minority groups in the UK.

Emerging evidence suggests that mass vaccination programmes, which are underway globally, can significantly reduce the incidence of COVID-19 infections, hospitalisations, and deaths (Aran, 2021). In the UK, concerns have been raised that people from ethnic minority backgrounds may be more likely to be vaccine-hesitant. Healthcare workers confirmed this concern in a nationwide prospective cohort and qualitative study (Woolf et al., 2021). This study found that compared to White British healthcare workers, people from Black ethnic and the mixed ethnic group, and HCWs from other ethnic minority groups, including Chinese, were significantly more likely to be vaccine-hesitant. The qualitative part of the study reported factors behind the vaccine hesitancy included lack of trust in government and employers, safety concerns due to the speed of vaccine development, lack of ethnic diversity in vaccine studies, and confusing and conflicting information. The study did not report any religious or cultural reasons for vaccine hesitancy.

Good practice examples

Seven potential interventions are discussed in the review that could provide a way forward to tackle health inequalities in BLMK.

- **Total Wellbeing Luton (TWL)**– this programme reflects a person-centred, holistic approach, bringing physical and emotional health into one integrated care system. The programme's impact report 2018-2019 shows that it has supported 16,000 Luton residents to improve their physical and emotional wellbeing. A qualitative study by Liapi et al. (2022) collected and analysed the experience of service users in an Integrated Care Programme for obesity and mental health. The study participants had a positive experience, and the programme improved their social lives and a more optimistic view of life. Both the impact report and the qualitative investigation provide evidence of the effectiveness of Total Wellbeing Luton. However, further independent programme assessment is required to see how TWL contribute to reducing health inequalities.

- **Gym for free** – the evaluation (Rabiee, Robbins & Khan, 2014) of this pilot intervention, 'Gym for Free' in Birmingham, shows the evidence of effectiveness by increasing access to and widening participation in exercise with multiple physical, mental, and emotional benefits. This scheme successfully increased the uptake of the exercise facilities among study participants (n =266) from 25% to 64% either every day or most of the days, and a reduction among those who never used these facilities from 28% to 0%. This intervention particularly increased the participation of women and the most economically disadvantaged. The free element was not removed, but the scheme was extended and now called 'Be Active', which is available free to all residents of Birmingham through the passport to leisure scheme, between 9 a.m. and 5 p.m. on weekdays and for a limited time on weekends.

- **Interpreting and translation services** - a report on the Southwark, Lambeth and Lewisham CCG's review of interpreting and translation services for patients in GP surgeries between October 2018 and January 2019 shows evidence concerning patient engagement to improve particular services by identifying improvement areas such as a mandatory monitoring structure should be in place to ensure that such services meet the needs of the local population. Many studies (e.g., Lehane & Campion, 2018; Kaur-Bola & Randhawa, 2012) have shown that the unavailability of quality and culturally appropriate interpreting services and poor professional and patient communication contribute to health inequalities. It was confirmed by recent research conducted by England's six Healthwatch. The study participants included 109 people from diverse ethnic minority groups and 38 staff members working in different healthcare settings. It revealed that poor availability of interpreting services, including limited access to urgent care services, quality of interpretation, lack of translated information in different languages, low awareness of communication support and funding and cost constraints contribute to health inequalities (Healthwatch, 2022).

- **What works approach** - a comprehensive study report commissioned by Public Health England (2014) to conduct a rigorous and objective review of physical activity interventions across England to identify 'what works'. A systematic approach was taken using the Standardised Evaluation Framework for physical activity interventions to produce tangible evidence of the strengths and weaknesses of the sector with respect to the richness of interventions and variable levels of monitoring and evaluation. The assessment criteria categorised the physical activity interventions as 'proven', 'promising', 'emerging' and 'developing' physical activity practices. The reason to include this report in this review is to signpost the available evidence for effective physical activity. The main objective of this study was to identify 'what works'; however, it could be beneficial locally to further explore 'what works' concerning whom and in what circumstances; such studies can provide wider contextual factors and evidence for designing culturally appropriate and effective interventions to reduce ethnic inequalities.

- **Practical approaches to address health inequalities** (Greig, Garthwaite, & Bambra, 2014)- this paper outlines the good practices to tackle health inequalities, including providing information and training on health equity issues, health inequalities and the social determinants of health for local authority members and officers in planning, housing, environment, and transport. Training could be made mandatory around the wider determinants of health, health equity and other approaches. A good practice example could be the training initiative by Healthwatch Milton Keynes (2019/20) organised a training session for GP Practice staff regarding registration and applying the Equalities act for LGBTQ+ and other groups and the NHS rules appropriately.

- **Food vouchers** - the study results show that women reported that Healthy Start vouchers increased the quantity and range of fruit and vegetables they used, improved the quality of family diets, and established good habits. Also, they identified challenges to accessing the vouchers, including complex registration, eligibility criteria, inappropriate targeting of information about the programme by health practitioners and a generally low level of awareness among families (McFadden et al., 2014). Healthy Start is a statutory means-tested food voucher programme introduced across the UK in 2006. This programme has recently launched a digital scheme that offers prepaid cards instead of paper vouchers. Payment is added to the card automatically, so there's no need to wait for vouchers in the post. Cards are topped up with £4.25 a week, or double if it's for a family with a child under 12 months old. Women who are at least ten weeks pregnant and families with children up to their fourth birthday can register for Healthy Start if they receive qualifying welfare benefits or qualifying tax, or they are pregnant and aged under 18 irrespective of benefits or tax credits. Those registered for Healthy Start receive vouchers that can be exchanged for fresh or frozen fruit and vegetables, plain cows' milk or infant formula, and coupons for free vitamin supplements. The NHS Business Services Authority delivers the scheme on behalf of the Department of Health and Social Care.

- **The peer educator model** (Jain, 2014)– this study reports several notable outcomes of the peer educator programme, including the training and deployment of 10 Peer Educators who reached over 2,700 people from diverse South Asian communities, providing important information on who does what, when, and how to access it – in a culturally competent manner. This model is similar to health trainers (White, Woodward, & South, 2013) and health coach initiatives.

Key discussion points for BLMK ICS to take this forward

- The conceptual framework to address health inequalities: the review suggests that the local healthcare system should acknowledge that COVID-19 has exposed and exacerbated existing health inequalities while opportunities exist for tackling them. In this regard, Olivera and colleagues (2022) have proposed a new approach to address health inequalities. They analysed 44 NHS Long-Term Plan (LTP) response documents produced by local health partnerships in England. The analysis found that local healthcare systems' conceptualisation of health inequalities was vague and varying, and it did not reflect established health inequalities frameworks. Therefore, it was recommended that a clear conceptual local framework for addressing health inequalities that reflect the national framework be needed to support local healthcare systems to address health inequalities meaningfully and sustainably. In line with this recommendation, all the components of the Denny Review of health inequalities in BLMK, including this literature review, can provide a foundation for establishing a framework with clarity, evidence, and commitment to action to reduce health inequalities.

- Collaboration between health services, local businesses and the VCSE sector organisations, including faith-based groups and centres, to support appropriate help-seeking; practitioners using patient-centred communication styles. Most of the BLMK based studies and interactions with communities, particularly 4 Healthwatch engagement activities during the COVID-19, have constantly identified a communication gap between services, including a lack of trusted sources of information. One of the key recommendations of the local study by Cook and colleagues (2022) was to explore the most effective approaches to engaging and communicating with ethnically diverse communities. Similarly, NHS England's (2016) joint review of partnerships and investment in VCSE organisations in the health and care sector recommended thorough engagement with local VCSE organisations and all groups experiencing health inequalities in the local healthcare systems. Recent, the Marmot review for industry report (2022) emphasised that businesses make new connections with the public and voluntary sectors to take a place-based view, working with local systems that shape health: local authorities, ICSs, healthcare providers, educators, housing associations, and the VCSE sector to tackle regional and local inequalities. Collaboration between healthcare services and the VCSE, including faith-based community organisations and centres, can address the communication gap. Evidence provided by the Centre for Ageing Better (2022) on the contribution of the 37 Leeds Neighbourhood Networks concerning three stages of 'healthy ageing' is a best practice example. The evaluation report shows how the networks have contributed to the prevention of ill health through community-based activities, helping people manage long-term conditions to delay illness severity, maintain a good quality of life, and assist individuals with significant support needs.

Acknowledge culture and religion as integral aspects of health and social care. Cultural and religious aspects should be incorporated positively as protective factors when developing interventions to address health inequalities for ethnic minority groups. Research evidence from the UK suggests that parents from ethnic minority backgrounds incorporate religion into most aspects of their parenting, including school choices, teachings on acceptable behaviour, source of protection, and consequently sustaining one's health and well-being

(Machaka et al., 2021; Munroe, Hammond, & Cole, 2016). There is a need to ensure health promotion and support are culturally competent. For example, a mixed-methods study examining the association between ethnicity, social capital, and mental health found that religion was central to most study participants' daily lives (Becares & Nazroo, 2013). Likewise, in their interpretive phenomenological analysis, Munroe, Hammond, & Cole, 2016) found that African immigrant mothers with autistic children in the UK place religion central to all activities. A qualitative study with participants from deprived and ethnically diverse wards in Luton investigated the parental beliefs and practices of providing a healthy diet for young children. It provided evidence that parents' socio-cultural and religious backgrounds influenced the food practices. The study also uncovered that many participants were facing food insecurity due to difficulties in accessing nutritionally healthy and culturally appropriate foods to meet their family's dietary requirements. Therefore, the authors emphasise that increasing the representation of socially disadvantaged communities in research is critical to ensure that targeted public health interventions reflect the wider ethnically diverse groups (Cook et al., 2021).

- Holistic approaches to health and well-being, including mental health care and recovery, involve carers, families, friends, culture, and beliefs. Total Wellbeing Luton had adopted this approach. A qualitative investigation by Liapi et al. (2022) provides evidence that the study service users who participated in the study stated that they had been provided holistic support such as holistically assessed by a health care professional. For example, service users, needs were identified and referred to the relevant services, as one was referred to a GP for weight management and then to social prescribing.

- Research is needed on specific ethnic groups and their particular experiences. Given the significant influence of wider determinants of health, it is necessary to understand the distinct cultural identities and the health beliefs and behaviours of BLMK's diverse population.

- Develop a better understanding and take action to prevent the negative impacts of the environment on the health of local communities. For example, co-produce with the communities' interventions that can help achieve equity, particularly with respect to food and green space (links to health behaviours).

- Recognise and address racism, discrimination and stigma as distinct driving forces of inequalities and inequity in the social determinants of health. Ethnic health inequalities result from experiences of racism and racial discrimination, which directly impact health by causing physical and mental stress and an indirect impact through their effect on socioeconomic status (Stopforth et al., 2021; Wallace, Nazroo, & Becares, 2016). Research evidence shows that the experience of racial discrimination is highly stressful, resulting in other major stressful life events such as job loss (Ramamurthy et al., 2022; Kapadia et al., 2022), loss of income source, strain in marital relationships. Also, both of these sources showed how racism played out in the workplace to hinder ethnic minority staff's career progression and professional development. Researchers have found empirical associations between perceived discrimination and impaired psychological well-being, depression, and decreased self-esteem (Karlsen, & Nazroo, 2002).

- Most of these suggested points are clearly reflected in the BLMK's Long Term Plan (2019) and are supported by locally generated evidence. For example, BLMK people saw a need for better communication to create a greater awareness of existing services and better access to information on how to live a healthy and active life. Also, people requested access to groups and affordable fitness programmes or exercise facilities, particularly locally.

BLMK ICS can take the following actions by applying equity (social justice) principles to reduce health inequalities.

The below-given list of priorities is supported by the evidence generated by the local BLMK based research studies, need and impact assessments, targeted public engagement during the COVID-19, public health reports, annual Healthwatch reports and planning documents. A couple of issues are consistently identified by the BLMK's qualitative research studies "How are you doing?" and local empirical research papers included are issues with communication between service providers and users and lack of cultural competency in healthcare staff. For example, in the targeted engagement with young people in Luton, the young people strongly felt that communications were not intended to aim at them. In the same vein, the mental health needs assessments (2021) noticed too many instances where lack of communication or understanding of the system means young people are not receiving the care they need to ensure the best communication and outcomes. Similar issues were highlighted for ethnic minority groups, including language barriers and lack of cultural competency, particularly in mental health. It is to acknowledge there are local best practice examples that have tackled communications issues. For example, BLMK worked in partnership with Healthwatch Central Bedfordshire volunteers, undertook a GP website survey, and reported the results to the BLMK CCG (Clinical Commissioning Group) to improve the rollout of the Flu Vaccination Programme in 2021/2022. Also, Central Bedfordshire's Good Neighbour Scheme (GNS) provided targeted support to people who experienced communication problems.

- **Make healthcare services more accessible to more deprived groups based on their needs**
    - Prioritising and investing in 'left behind' neighbourhoods (LBN). A recent All-Party Parliamentary Group (APPG) report (2020) on "Overcoming health inequalities in 'left behind' neighbourhoods" presented compelling evidence to prioritise 'left behind' areas. The report shows that more people who self-reported their health as 'bad' or 'very bad' (9.1%) live in these areas and have a higher prevalence of 15 of the most common 21 health conditions (Munford et al. 2022). In addition to LBN, BLMK ICS must prioritise other deprived groups such

as homeless people. Most research evidence related to BLMK has identified that services for homeless people with mental health, drug, and alcohol problems were unsatisfactory.

  - Providing quality language and interpretation services.
  - Making easy and accessible appointment systems.
  - Developing the cultural competency of healthcare staff to enable them to understand culturally appropriate needs and provide services accordingly.
  - Increasing consultation lengths to meet the patient's needs.
  - Increasing the awareness about knowledge of the availability of a range of healthcare services through trusted information sources, e.g., VCSE partners, health coaches, or peer health educators.
  - Targeting specific groups such as the homeless, the housebound, LGBTQ+ and ethnic minority groups living in deprived neighbourhoods.
  - Training all healthcare staff, including administrative staff members, regarding anti-discriminatory practices.
  - Assisting people with significant support needs to reduce pressure on healthcare providers. Partnership working with VCSE sector organisations can ease the burden on health services by providing information and advice to reduce the number of unnecessary calls and visits to GPs and hospitals. VCSE support to local communities can also help them navigate the wider health and care system.
  - Updating websites of existing services, including general practices with imagery, and providing LGBTQ+ and Gypsy, Roma, and Traveller communities representation, including these patient groups in feedback surveys, and monitoring how many patients from these groups use the services.
  - Collecting routine data on sexual orientation and gender identity is required to examine and understand the health inequalities.

Most recent evidence synthesis and reviews on health inequalities – summary

Seven reviews published between January 2020 and February 2022 were summarised in this review (see details in table 3). The six evidence reviews synthesise academic and grey literature from the UK, and one systematic review included evidence from developed countries. Results from the six peer published reviews and grey literature found that several health inequalities exist not among different ethnic groups but also among people living in the same area. Several things include inequalities in mental, maternal and child health, healthcare services, and cultural and social needs.

The recommendations from the studied reviews include:

- Conducting primary research on direct and indirect impacts of racial discrimination by the national health agency staff institutional process on access to various health services.
- Improving the social condition is important to improve people's health, as both social and economic inequalities are bad for health inequalities.
- The proximity of interventions is close to where they are needed the most.
- Greater attention must be placed between sub-groups of the disadvantaged communities.

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Table 1: Summary of papers included in the review

#	Study title	Methods/Sample	Relevant Results/Key Findings	Conclusion/implications	Stated Limitations	Appraisal note
General socioeconomic, cultural, and environmental conditions (income, employment, education, access to green spaces etc.)						
1	The NHS's role in tackling poverty Awareness, action, and advocacy (2021)	**Method**: Qualitative virtual workshops and a plenary session **Sample**: 4 sessions **Analysis**: Thematic	This report highlights that the NHS can play a key role in preventing poverty simply by existing to provide care for everyone, free of use. Also, it can do more to prevent, reduce and mitigate the effects of poverty. It has three spheres of action: the direct provision of health care services to people and communities; it's the wider economic and social role 'in place' under its size and scale in every community; and the leadership role it has in every community, which confers on it a status that can be used more broadly for poverty reduction.	One of the report's key recommendations is that NHS England and NHS Improvement has a key role as national leader in supporting local actions to tackle poverty. The NHS's new local and regional partnerships, including primary care networks (PCNs) and integrated care systems (ICSs), also provide an opportunity for stronger leadership in tackling poverty.	NA	The report sought and consolidated views from a range of stakeholders to determine the role of NHS in poverty prevention.
2	'They Are Kids, Let Them Eat': A qualitative investigation into	**Method**: Qualitative (Focus group phenomenological	The findings highlighted a wide range of inter-relating psychological and sociocultural factors that	Culturally tailored strategies and practical support for parents, particularly	The study limitation was challenged in recruiting black	Well-designed study with rigorous

	the parental beliefs and practices of providing a healthy diet for young children among a culturally diverse and deprived population in the UK (2021)	perspective) Sample: 110 parents **Analysis**: A framework analysis	underpin parental beliefs and practices in providing children with a healthy diet. While aware of the importance of providing children with a healthy diet, parents faced challenges such as lack of time and balancing competing responsibilities, which were clear barriers to providing children with a healthy diet. Access to and affordability of healthy food and overexposure to cheap, convenient, and unhealthy processed foods made it increasingly difficult for parents to provide a healthy diet for their growing families. Household food practices were also situated within the wider context of socio-cultural and religious norms around cooking and eating and cultural identity and upbringing.	surrounding meal planning and preparation, were welcomed, alongside more support on preparing culturally nutritious foods acceptable to their families that remain quick and convenient for the parents. Environmental and community-driven strategies would also be well placed to reduce the risk factors associated with food insecurity and promote sustainable approaches for healthy food access, particularly among the most vulnerable. The role of the child in shaping food choices should also be noted, with adequate support and advice for parents in managing taste preferences and food refusal.	African fathers and black Caribbean mothers. The study population is not a representative sample of Luton's population.	qualitative analysis.

3	How young, disadvantaged fathers are affected by socioeconomic and relational barriers: a UK-based qualitative study (2021)	**Method**: Qualitative (Interviews) Sample: 9 fathers **Analysis**: Thematic analysis	In this study, three interrelated themes demonstrate the cyclical nature of generational disadvantage, reduced socioeconomic circumstances and disrupted relationships, providing a different perspective on the decreased levels of involvement exhibited by young fathers in prior research. The findings also enlighten our understanding of how these fathers can be better supported in policy and practice, contributing to the current academic debate.	The authors concluded that the accounts of the young fathers in this study demonstrate an awareness of, and desire to conform to, societal expectations of paternal involvement. Concomitantly, in an under-researched yet important area of enquiry, the in-depth, qualitative insights presented in this article enlighten us about the personal challenges faced by young, disadvantaged fathers and the subsequent sensitivity and complexities which ought to be considered in future research and practice.	Self-selection of the participant was described as a key limitation of the study.	Given the topic's sensitive nature, the study has a sample but provides interesting and important insights on the subject.
4	Generational health improvement or decline? Exploring generational differences of	**Method**: Quantitative (survey) **Sample**: 21,651 respondents **Analysis**: Statistical Multivariate analyses	The study results show that ethnic minority groups are significantly more likely to report fair and poor health than White British. The health disadvantage remains	This study recommends that recognising the fluid and changing nature of ethnicity and public health sectors could	This study used the current ethnic categorisation that might conceal	Both the research question and methods are

	British ethnic minorities in six physical health outcomes (2020).		significant for first-generation Black Caribbean but is much less pronounced for all second-generation Black Caribbean. It also reports that Black and Asian minority communities are significantly more likely to have a high blood pressure than White British.	not only provide better health services that cater for ethnic/cultural diversity and various lifestyles, but also effectively reduce ethnic inequalities in health.	important heterogeneity within certain ethnic groups (e.g., Indians, Black Caribbean's, and Black Africans), undermining the accuracy of the results.	clearly described.
5	Variation in the Socioeconomic Gradient of Obesity by Ethnicity – England's National Child Measurement Programme (2020).	**Method**: Quantitative (cross-sectional) **Sample**: 2.35 million children **Analysis**: Statistical logistic regression analysis	The study results show that children in the most disadvantaged socioeconomic quintile typically had the highest risk for overweight and obesity, although exceptions to this rule were evident. For example, the socioeconomic difference in overweight/obesity risk for Black and ethnic minority children was largely removed, highlighting that other environmental and cultural factors are driving risks.	This study concludes that culturally sensitive interventions need to be developed and led by researchers, practitioners, and community members within ethnic minority communities.	The ethnicity classification used in this study was taken from the schools' records which might have implications for the heterogeneity of the groups and the generalisability of the findings.	Methods and measures are very clearly set out. The research question is focused.

6	How to end green space deprivation in England (2020)	**Method**: Mixed-methods (secondary analysis) **Sample**: NA **Analysis**: NA	This policy briefing report analysed the data on public green space, garden space, and open access land and found significant inequality in green space availability, access and a strong correlation between green space deprivation and ethnicity. It also found a correlation between green space deprivation and income. It was reported that almost 40% of people of Black, Asian, and Minority Ethnic backgrounds (BAME) live in England's most green space-deprived neighbourhoods.	The report outlined several benefits of accessing green spaces. It recommended that green spaces be developed for all cultures to reduce ethnic disparities in availability and access.	No limitations were stated.	The study has used robust datasets using Green Space Deprivation Rating and other standardised measures.
7	Healthy weight maintenance strategy in early childhood: The views of black African migrant parents and health visitors (2019)	**Method**: Qualitative (focus groups) **Sample**: 62 participants **Analysis**: Thematic analysis	This study found that several factors, including uncertainty in immigration status, socioeconomic disadvantages and discrimination were major constraints for black African parents' ability to promote healthy weight maintenance in early childhood. At the same time, the health visitors felt they did not	The study concludes that there is a need for a system-based approach to meeting the nutritional needs of black African children.	A potential limitation of this project is that the focus was not on parents of children with poor weight maintenance, such as for overweight,	The research question is very broad and not focused.

			have the cultural competency skills to advise black African parents about the cultural influences on diet during early childhood.		obese, or underweight.	
8	Examining the role of socioeconomic deprivation in ethnic differences in sexually transmitted infection diagnosis rates in England: evidence from surveillance data (2016)	**Method**: Quantitative (Survey) **Sample**: Data from all 215 sexual health clinics in England **Analysis**: Statistical analysis	The results show that socioeconomic deprivation only partly explains ethnic differences in STI diagnosis rates. Further, the high rates of STI diagnoses seen in black ethnic minorities relate to a complex interaction of structural determinants such as cultural, social, and economic conditions and individual-level factors. Structural determinants influence the health of communities as a whole and include education, employment, access to services and job security.	The study recommends that the clinic and community-based interventions involve social peer networks to ensure targeted and culturally sensitive.	The study limitations are not given.	The research aim was stated, but there were no stated research questions. The method of analysis is described in detail.
9	The Determinants of young Adult Social well-being and Health (DASH) study: diversity, psychosocial determinants, and health (2015)	**Method**: Mixed-methods **Sample**: 4785 children's data from a longitudinal survey and 42 qualitative interviews	The study findings report that ethnic minority adolescents reported better mental health than White British despite the economic disadvantage & racism. It is unclear what explains this resilience, but findings	The study concludes that cultural factors and family networks played a role in mental health and resilience.	No explicit limitations of the study are stated.	The aim was to estimate the role of psychosocial factors in nurturing the health and well-

		Analysis: Statistical & thematic analysis	support the role of cultural factors. Racism was an adverse influence on mental health, while family care and connectedness, religious involvement and ethnic diversity of friendships were protective.			being of ethnic minorities growing up in the UK. No stated research question. The analysis methods and measures are described in detail.
10	Role of Islamic religious and cultural beliefs regarding intellectual impairment and service use: A South Asian parental perspective (2012)	**Method**: Qualitative (Semi-structured interviews) **Sample**: 14 parents **Analysis**: Grounded theory	The study suggested that most first-generation Muslim families from rural villages could not distinguish between Islamic religious and cultural beliefs on impairment and risked missing out on essential services due to poor professional-parent/patient communication.	While Islamic religious views towards impairment appear constant, cultural influences waver between the negative and positive, depending on the parents' educational attainments and not on Islamic teachings (Deobandi or Barelwi). Parents with higher educational	The study limitations are not stated.	The study has a small sample, but it contains various perspectives from different sects of Islam.

				attainments tended to communicate better with professionals and accessed a wider range of services than non-English speakers and those with lower attainments.		
11	Identifying socio-demographic and socioeconomic determinants of health inequalities in a diverse London community: the Southeast London Community Health (SELCoH) study (2011)	**Method**: Quantitative (structured psychiatric interview) Sample: 1698 participants Analysis: Statistical Inferential Analysis	The analysis found that those participants who identified themselves as being in the Black Caribbean group had markedly poorer health than those who identified as being in the Black African group on all health indicators except hazardous alcohol use. While there was no difference across all ethnic groups for CMD, post hoc analysis showed that the Black Caribbean group was at increased risk for common mental disorders compared to the Black African group.	This study concludes that the health service providers and policymakers should prioritise high risk, socially defined groups in combating inequalities in individuals and co-occurring poor mental and physical problems.	The concerns about the validity of measures, such as the CIS-R being administered by trained lay interviewers were acknowledged.	Methods are quite clear, but the research question(s) is not stated.
12	The emergence of Ethnic Differences in Blood Pressure in Adolescence:	**Method**: Quantitative **Sample**: 4779 adolescents **Analysis**: Statistical analysis	The results show that compared with Whites, children of Black African origin were more likely to be	The study concludes that there is a need for early prevention of adverse cardiovascular	The stated study limitations included that	A clear aim or research question is not stated.

	The Determinants of Adolescent Social Well-Being and Health Study (2010)		socioeconomically disadvantaged. However, ethnic minority groups generally reported better psychological well-being than Whites.	disease risks in later life.	BP was measured three times at each survey on a single occasion. A more precise estimate would have been obtained from multiple measures over several visits. Measuring SEC in children is problematic. At 11 to 13 years of age, most could not report parental occupation or education.	Methods and measures are clearly reported.
#	**Study title**	**Methods/Sample**	**Relevant Results/Key Findings**	**Conclusion/implications**	**Stated Limitations**	**Appraisal note**
Living and working conditions (housing, homelessness, overcrowding, high-risk professions, racial discrimination at the workplace)						
1	Ethnic inequalities in older adult's bowel cancer awareness: findings from a community survey	**Method**: Quantitative (questionnaire survey) **Sample**: 1013 adults **Analysis:** Statistical multivariate regression analysis	The study results show that there are strong associations between ethnicity and CRC screening, risk factor and symptom awareness. It demonstrates that symptom	The study concluded that the awareness of bowel cancer symptoms, risk factors, and screening varies by ethnicity. Interventions	The study reports a few limitations, including relatively low participation	The study methods and research questions were clear

	conducted in an ethnically diverse region in England (2021)		awareness is lower among almost all ethnic minority groups and that risk factors and screening awareness are lower for Afro-Caribbean and Somali adults, specifically.	should target specific groups whose low awareness of screening and risk factors.	among CPs. The study did not have an objective measure of screening participation. The sample size for some ethnic groups was very small.	and aligned. Further, the investigators used a large, ethnically diverse sample, enabling a more nuanced understanding of the relationship between ethnicity and CRC.
2	Ethnic inequalities in health-related quality of life among older adults in England: secondary analysis of a national cross-sectional survey (2021)	**Method**: Quantitative (cross-sectional) **Sample**: 416793 GPPS respondents **Analysis**: Statistical analysis	The study found that the odds of older adults having one or more long-term conditions and multimorbidity was higher for older men, women, or both from 14 (82·4%) of 17 minority ethnic groups compared with the White British ethnic group. It identified particularly wide ethnic inequalities in perceived support from local services	The study concluded that in addition to national-level policies, improving equity of access to local services for older adults with long-term conditions could be particularly important to support healthy ageing among individuals from minority ethnic groups.	A limitation of the dataset used in this analysis is that age is recorded in 10-year bands; therefore, adjustment for age was imprecise. There were more limitations	Methods, measures, and research questions were clearly and sufficiently described.

			for the management of long-term conditions across almost all minority ethnic groups.		reported in the paper.	
3	Providing culturally sensitive diabetes self-management education and support for black African and Caribbean communities: a qualitative exploration of the challenges experienced by healthcare practitioners in inner London (2020)	**Method**: Qualitative (semi-structured interviews) **Sample**:10 healthcare professionals **Analysis**: Thematic content analysis	The analysis suggested that the healthcare professional identified challenges in diabetes self-management education and support posed by cultural beliefs and practices, particularly a distrust of conventional medicine, rejection of body mass index standards and a belief in 'God's will'.	The study concluded that the cultural competency of healthcare professionals & practitioners needs to be developed for providing culturally sensitive diabetes self-management education and support for black African and Caribbean communities.	The sample size was relatively small for a qualitative study.	Methods and research objectives were clearly stated.
4	Exploring barriers to sexually transmitted infections (STIs) and HIV testing among young black sub-Sahara African (BSSA)	**Method**: Qualitative (focus groups & interviews) **Sample**: 60 people in 6 focus groups & 12 individual interviews **Analysis**: A framework analysis	The study found that perceived risk-taking, HIV test embarrassment, sexual health professionals' attitudes, HIV as a death sentence, limited educational awareness, and general HIV stigma	This research concluded that culturally sensitive interventions to reduce the impact of HIV stigma need to be rolled out in different diverse communities.	The stated limitation was that the study was restricted to the English West Midlands region while many black	The methods used in the study were clearly described and aligned with the

	communities in the diaspora, UK (2020)		prevented research participants from testing and impacted their mental health.		sub-Sahara African people live elsewhere in the UK.	research question.
5	Ethnic inequalities in limiting health and self-reported health in later life revisited (2015)	**Method**: Quantitative (secondary analysis) **Sample**: 47678 respondents **Analysis**: Statistical multivariate analysis	The analysis shows that after controlling for social and economic disadvantage, black and minority ethnic (BME) elders are still more likely than white British elders to report limiting health and poor self-rated health.	The study concluded that health policies need to consider differences in social and economic resources between different ethnic groups.	One of the key study limitations was that it should be recognised that the variables on self-reported health and limiting health are based on subjective interpretations of the questions among respondents, which may impact the differences shown.	The research aim was stated, but there were no stated research questions. The method of analysis is described in detail.
6	Understanding ethnic inequalities in housing: Analysis of the	**Method:** Quantitative (secondary analysis **Sample:** NA **Analysis:** Statistical	The analysis shows that around 25% of each ethnic group lives in overcrowded accommodation. The rooms	The report concludes that although levels of overcrowding decreased between	No limitations were mentioned.	The aim and methods of the analysis

	2011 census (2013)		range from 6% of White British households to 35% of Black African households living in overcrowded housing. Further, it reveals that three times as many White Britons as Black Africans live in houses with two or more spare bedrooms.	2001 and 2011, as per definition based on the number of rooms, ethnic inequalities persist.		were clearly described.
7	Black African migrants: the barriers with accessing and utilising health promotion services in the UK (2012)	**Method**: Mixed-methods **Sample**: 90 (40 men & 50 women) **Analysis**: Descriptive	The study reported that the participants with 'little' and 'no understanding' of English found the list of languages into which health promotion materials were translated was limited; consequently, they could not understand health promotion materials and how to access the related services.	The study concluded from the findings and recommended that to improve communication in health promotion services, the participants in this study proposed the need for a link worker between their communities and healthcare providers.	The study sample was selected using purposive sampling techniques, so the sample may not represent newly arrived Black African migrant individuals in the UK.	No stated research question. The analysis methods are described in detail.
8	Ethnic disparities in the knowledge of cancer screening programmes in the UK (2010)	**Method**: Quantitative (secondary analysis) **Sample**: 2216 adults **Analysis**: Statistical analysis	The results show inequalities in awareness of the established breast and cervical screening programmes, with almost 20% fewer ethnic minority respondents being aware of	The study recommended increasing public awareness about bowel cancer screening may enhance acceptance of	The reported limitation of the study was that the ONS and Ethnibus surveys used different	The research aim was stated, but there were no stated research

			breast or cervical screening than the white respondents. It also suggested that deprivation, gender, and age must account for the differences in awareness and uptake. There were significant socioeconomic inequalities in awareness of breast and cervical screening – independent of the effect of ethnicity – with the higher occupational status being associated with greater awareness.	screening programmes and uptake.	sampling techniques, so it is not appropriate to make direct comparisons between them.	questions. The method and measures of analysis are described in detail.

#	Study title	Methods/Sample	Relevant Results/Key Findings	Conclusion/implications	Stated Limitations	Appraisal note
Social capital/social networks/community groups/social engagement (neighbourhoods with a high concentration of people of the same ethnicity, spiritual and faith-based affiliations)						
1	Health, faith, and therapeutic landscapes: Places of worship as Black, Asian, and Minority Ethnic (BAME) public health settings in the United Kingdom (2019)	**Methods**: Qualitative (semi-structured interviews & focus groups) **Sample**: 19 interviews & 3 focus groups **Analysis**: NA	The study argues that faith-based affiliations, ideas, actors, and organisations are relevant to the pursuit of health and well-being. It also contends that places of worship act as therapeutic landscapes.	The study presents a novel idea of places of worship as therapeutic landscapes- settings that provide adjuncts to formal public health promotion services.	The study limitations are not described.	The research question is focused, and study methods are described in detail but not clearly, including how the qualitative

						data was analysed.
2	The influence of social support on ethnic differences in well-being and depression in adolescents: findings from the prospective Olympic Regeneration in East London (ORiEL) study (2015)	**Method**: Quantitative (longitudinal survey) **Sample**: 2426 adolescents **Analysis**: Statistical analysis	The results show that the odds of reporting depressive symptoms were slightly lower in Black African and Asian adolescents than their White UK counterparts. Still, overall, there were no significant ethnic differences in depressive symptoms before or after adjustment. However, Black African groups reported significantly higher well-being scores than the White UK comparison group after adjusting for baseline well-being.	The study concludes that the results show that Black African adolescents in East London may have a positive mental health advantage over their White UK counterparts through social support. Still, it did not fully explain this difference. Thus, further empirical research is needed.	The stated limitation of the study is that the pseudonymised questionnaire in this study is equipped to capture undiagnosed cases through self-completion. Still, the possibility of social desirability bias cannot be excluded.	The research question is articulated as a purpose of the study, which is focused and clearly described. The study methods, including recruitment of the participants, measures, and analysis, are well explained.
3	Social capital, ethnic density, and mental health among ethnic minority people in England: a mixed-methods study (2013)	**Method**: Mixed-methods **Sample**: HSE data & face-to-face interviews with 6704 adults **Analysis**: Statistical descriptive & framework content analysis	The quantitative results show that the association between mental health, ethnic density and social capital with ethnic density effect varied across ethnic groups. The study did not find a mediating effect of social capital on the	This study provides important insights into ethnic minority people's experience of their neighbourhood,	There were differences in the characteristics of HSE data and qualitative interviews that might have implications for	A clear objective is stated, although specific questions are not reported.

			association between ethnic density and mental health.		the study findings.	Methods are reported.
4	The effect of kin, social network, and neighbourhood support on individual well-being (2011)	**Method**: Qualitative (interviews) **Sample**: 42 participants (adolescents n=24 & adults n=18) **Analysis**: Thematic analysis	The study findings show that the participants believed that being a member of a kin network enhanced one's well-being, with such networks capable of providing protective support for one's health and well-being. Further, the participants preferred to live in neighbourhoods with a high concentration of people of the same ethnicity, despite the effects of neighbourhood deprivation such as poor housing and lack of services.	The study recommended more empirical research into support networks and their connections with health and well-being.	The study limitations are not described.	The methods and aims of the study are clearly stated.

#	Study title	Methods/Sample	Relevant Results/Key Findings	Conclusion/implications	Stated Limitations	Appraisal note
Individual lifestyle and behavioural factors (health-seeking behaviour, physical activity, smoking, alcohol etc.)						
1	Mid-adolescent ethnic variations in overweight prevalence in the UK Millennium Cohort Study (2021)	**Method**: Quantitative **Sample**: 10500 adolescents **Analysis**: Statistical regression analyses.	The results show that Black Caribbean males had significantly higher BMI than White males and Black African females had significantly higher BMI than White females. Socioeconomic and behavioural factors often	This study concludes that socioeconomic and behavioural factors are often associated with being overweight. In this study, differences in overweight and BMI among ethnic groups	The low representation of some ethnic groups in the study sample had implications for statistical power.	The research question in the study is focused and justified. Methods, measures, and analyses

			associated with overweight were more prevalent in some ethnic minority groups, but adjustment for these factors did not fully explain ethnic differences in overweight/BMI.	were not fully accounted for by socioeconomic or behavioural factors.		are described in detail. The authors also stated the study limitation sufficiently.
2	A qualitative study to explore the help-seeking views relating to depression among older Black Caribbean adults living in the UK (2020)	**Method**: Qualitative (semi-structured interviews) **Sample**: 8 men & women **Analysis**: Interpretative Phenomenological Analysis	This study found several factors that influenced people's views on their help-seeking behaviours regarding depression. Those factors included their previous experience, migratory histories, culture and religion and personal relationships.	Given those older adults are rising worldwide, these issues need consideration by mental health practitioners and service providers.	The study limitations are not described.	The research question is focused, but the methods are not sufficiently described. Also, the theoretical underpinnings to contextualise the findings are not stated explicitly.
3	Associations of dietary intake with cardiometabolic risk in a multi-ethnic cohort: a longitudinal	**Method**: Quantitative **Sample**: 627 men & women participants **Analysis**: Statistical	The results show lower saturated fat intake amongst Black Africans but not the Black Caribbean. Black African and Black Caribbean participants had the highest	This study provides a useful insight into dietary behaviours and specific ethnic groups that health promotion campaigns could target	The size of the cohort subsample was relatively small, so the researchers did	Methods and research questions are clearly stated and

	analysis of the Determinants of Adolescence, now young Adults, Social well-being, and Health (DASH) study (2019)		rates of breakfast skipping. The study found that unhealthy behaviours are most prevalent among some ethnic minority groups most at risk of developing obesity and cardiometabolic diseases such as T2D.	is, aiming to improve the nutritional intake of the diets of young people.	not have the statistical power to investigate longitudinal patterns by ethnic groups. Also, the study contributes to the very limited longitudinal data on the role of adolescent diet on cardiometabolic risk in young adulthood.	adequately described.
4	Ethnic differences in barriers to symptomatic presentation in primary care: A survey of women in England (2019)	**Method**: Mixed-methods (cross-sectional survey & qualitative interviews) **Sample**: 720 survey respondents + 120 interview participant women **Analysis**: Statistical	The study results suggest that African and South Asian women were more likely to endorse "using traditional remedies" and were more likely to report "praying about a symptom" than White British women.	Health literacy was associated with many barriers to symptomatic presentation among ethnic minority women. The study suggests that cancer communication campaigns addressing common barriers should include sources	The study limitations are noted, but the details of those limitations are not discussed.	A clear objective is stated, but the methods are not clear. The authors have utilised both qualitative & quantitative methods,

				appropriate for those with low health literacy, considering non-written formats as much as possible.		but the paper does not report qualitative findings.
5	The role of faith leaders in influencing health behaviour: a qualitative exploration on the views of Black African Christians in Leeds, United Kingdom (2018)	**Method**: Qualitative (semi-structured interviews) **Sample**: 8 participants **Analysis**: Thematic analysis	The study found that faith leaders could play a significant role in the health behaviour of their congregants. They can influence health behaviour on the individual and socio-cultural and environmental levels. They exert such influence through several mediators, including scriptural influence, social influence and by serving as a role model.	The study concludes that the participants saw that faith leaders had an immense influence on their health behaviour. They saw them as a community resource; thus, they could better organise and foster community participation in health matters. The study recommends that health promoters consider collaborations with faith leaders to enhance the health of their community.	The lack of multiple data coders may have resulted in the researcher's cultural and religious background being apparent in the emergent themes.	Methods and research questions are clearly stated.
6	Patient uptake and adherence to social prescribing: a qualitative study (2018)	**Method**: Qualitative (semi-structured interviews) **Sample**: 15 (GPs, navigators & service users)	The study reported several factors affecting uptake and adherence to SP, including patients' trust in GPs, navigators' initial phone calls, supportive navigators and service providers, free	This study provides insights into the myriad factors affecting adherence to social prescribing and recommends further research, particularly	More female than male service users participated in the study, offering an unbalanced	This is a well-designed study with a focused research question &

		Analysis: Thematic analysis	services, and perceived needs and benefits. Reported barriers to uptake and adherence were fear of the stigma of psychosocial problems, patient expectations, and the short-term nature of the programme.	on how SP can contribute to addressing health inequalities.	view, as women were overrepresented in the study sample. Another limitation is the low response rate from GPs and service users.	appropriate method.
7	Understanding the consumption of folic acid during pre-conception, among Pakistani, Bangladeshi, and white British mothers in Luton, UK: a qualitative study (2018)	**Method:** Qualitative (FGDs) **Sample:** NA **Analysis:** Thematic analysis	The study found that most mothers who participated did not understand the benefits or optimal time to take folic acid pre-conception. On the contrary, healthcare professionals believed most women did consume folic acid before conception.	The study recommended a need for public health awareness of the optimal time and subsequent benefits of taking folic acid to prevent neural tube defects.	The authors state more research is needed to determine an accurate prevalence rate for Luton. This finding was obtained through a small number of self-reports and will identify the scope of the problem.	The research question is specific, and the methods used are appropriate to answer the question.
8	Sexual-health beliefs among minority ethnic	**Method**: Qualitative (FGDs) **Sample**: 32 participants	The study found that the participants	The study concludes that the participants believed that	This study reports two limitations:	The research question,

	families in the north of England (2017)	**Analysis**: Descriptive analysis	believed that young people should not be sexually active until they are married or are adults. It was also revealed that half of the participants did not have direct discussions about sex with their adolescent children.	information on sexual behaviour should reflect their cultural and religious beliefs.	first, it was a small convenience sample; and second, participants in the focus groups might not have been forthcoming on a sensitive topic.	data collection & analysis methods, conclusions, and study limitations are clearly and adequately described.
9	Illness perception, help-seeking attitudes, and knowledge related to obsessive-compulsive disorder across different ethnic groups: a community survey (2016)	**Method**: Quantitative (vignette methodology) **Sample**: 293 participants **Analysis**: Statistical	The results reveal that ethnic minorities were more prone to seeking help from their religious groups for obsessive-compulsive disorder. Ethnic minority African parents favoured not seeking help for the described difficulties and, in general, perceived more treatment barriers.	The study results offer some plausible explanations for the large inequalities in access to services amongst ethnic minorities with OCD. Clinicians and policymakers need to be aware of these socio-cultural factors when designing strategies to encourage help-seeking behaviours in ethnic minorities.	All possible limitations of the study are described in the paper on page 463.	Methods and research questions are clearly stated. However, the choice of methods is not justified as the research objectives could have been addressed using qualitative methods.

10	Parental views of children's physical activity: a qualitative study with parents from multi-ethnic backgrounds living in England (2015)	**Method**: Qualitative (focus groups) **Sample**: 36 parents of school-aged children **Analysis**: Thematic analysis	The study results suggested that all participants valued children's physical activity and knew its benefits. However, they lacked awareness of PA recommendations. Together with other groups, Black Somali participants reported a lack of culturally appropriate PA opportunities for girls.	The study recommended that children's physical activity interventions address influential factors at all levels of the socio-ecological model and reflect the cultural and religious needs of different ethnic minority groups.	The study limitations are clearly and adequately described in the paper on page 10.	The research question and methods are clearly described. However, the study participants from different ethnic minority groups have lumped together, which has implications for the contextualisation of the findings.
11	Black families' perceptions of barriers to the practice of a healthy lifestyle: a qualitative study in the UK (2013)	**Method**: Qualitative (in-depth interviews) **Sample**: 18 participants **Analysis**: Thematic analysis	The study found that the participants believed that principles of healthy lifestyles were largely not relevant to their lived experiences because they failed to consider their experiences of racism, social	The study concluded that socioeconomic disadvantage, discrimination, marginalisation, and racism should be placed at the centre rather than the	The stated limitation of the study was a small sample size.	The study methodology was clearly and adequately described. The research

			exclusion, ethnic identity, values, and beliefs. They also perceived those principles of a healthy lifestyle were part of the social exclusion paradigm experienced by their community.	periphery when considering strategies to make healthier choices an easier option for Black and other ethnic minorities.		question of the study was so broad.
12	Black African migrants' perceptions of cancer: are they different from those of other ethnicities, cultures, and races? (2012)	**Method**: Qualitative (focus groups) **Sample**: 53 participants in 5 focus groups **Analysis**: Iterative inductive analysis	The study identified that fear, shame, and denial were the key elements of people's perception of cancer. Further, secrecy and apprehension were identified as major barriers that have prevented some from adequately accessing and utilising cancer facilities.	The study population exists in secrecy and stigma associated with cancer across different ethnic groups, cultures, and nations.	The small size of the study sample included Ghanaian men and Nigerian men and women.	The research objectives and methods are clearly and sufficiently described.
13	Sex education targeting African communities in the United Kingdom: is it fit for purpose? (2012)	**Method**: Qualitative (focus groups) **Sample**: 15 participants **Analysis**: Thematic analysis	The study findings revealed that the participants recognised the importance of sex education; however, they identified several factors that influenced their perception of it and health promotion. Cultural norms and traditions were the key influencers of their sex education and sexual health behaviours.	Given the small sample size, the study recommended further research among young Black Africans and second-generation migrants.	The researchers employed a voluntary convenience sampling strategy, which means that their participants were self-selected. It is	The study objective was not clear. The methods were clearly described.

					possible that those who had strong opinions on the subject or were more critical of sex education programmes & materials were more likely to participate in the research.	
14	Nutritional composition of the diets of South Asian, black African-Caribbean and white European children in the United Kingdom: The Child Heart and Health Study in England (CHASE) (2010)	**Method**: Quantitative (cross-sectional survey) **Sample**: 2209 children **Analysis**: Statistical analysis	The results show that Black African-Caribbean children had lower total and saturated fat (both absolute and as proportions of energy). Intakes of sugars and NSP were also lower, while intakes of protein and starch were higher compared to South Asian & white European children. Ca intake was lower and Fe intake higher. The differences in fat and starch intake were particularly marked among black African children.	The study concluded that there are substantial differences in the nutritional composition of the diets. The persistence of these dietary differences into adult life could continue the current ethnic differences in chronic disease into the next generation.	The study's strengths and limitations are described in the paper on page 282.	This paper reports the results of a well-designed study with the focused research question and methods.

#	Study title	Methods/Sample	Relevant Results/Key Findings	Conclusion/implications	Stated Limitations	Appraisal note
Access to and uptake health services (language barriers, perception of ill health, beliefs and traditional practices, culturally inappropriate services etc.)						
1	Ethnic inequalities in hospital admissions in England: an observational study (2021)	**Method:** Quantitative **Sample:** 40,928,105 admissions **Analysis:** Thematic	The analysis found ethnic inequalities in cardiovascular diseases, respiratory diseases, chest pain, and diabetes in line with previous studies. Additional inequalities were found in nutritional deficiencies, endocrine disorders, and sense organ diseases.	Further studies would be required to map out the relevant care pathways for ethnic minorities and establish whether preventive measures can be strengthened.	NA	The research question was focused, and the analysis used the appropriate methodology.
2	Analysis of routinely collected data: Determining associations of maternal risk factors and infant outcomes with gestational diabetes in Pakistani, Indian, Bangladeshi, and white British pregnant women in Luton, England (2021)	**Method**: Quantitative (Secondary data analysis) **Sample**: 15,211 **Analysis**: Statistical analysis	The prevalence of gestational diabetes was significantly higher in the sample of Bangladeshi (2.1%) and Pakistani (1.4%) compared to Indian (1%) and white British (0.4%) women. Of the women diagnosed with gestational diabetes, 48.7% the women diagnosed with gestational diabetes in this cohort were Pakistani, compared with 28.3% of Bangladeshi, 6.6% Indian and 16.4% of white British ($\chi2 = 84.57$ df = 6, $p < 0.001$). A number of	In conclusion, this paper demonstrates a higher prevalence of GDM in Pakistani and Bangladeshi women compared with Indian and white British mothers. Additionally, the results of this study show that Pakistani mothers with a disproportionate diagnosis of diabetes during pregnancy, which warrants further attention. Policymakers and service providers	The accuracy of these results depends on the accuracy of data input within the CMiS system. Typically, midwives enter the data in the system, whereby errors may occur when transposing data from paper records.	This paper contains a rigorous secondary analysis of routinely collected data.

			significant Pearson Chi-square associations were found between Pakistani women diagnosed with gestational diabetes and BMI over 30kg/m 2 ($\chi2$ = 43.1 df = 4, $p < 0.001$) and an early gestational age at delivery (24-37 weeks) ($\chi2$ = 4.084 df = 1, $p = 0.043$).	must target GDM screening and associated interventions, and future research seeks to understand the reasons behind these differences.		
3	Improving health and social care experiences: A brief overview report on initial work in Roma and Traveller community (2019)	**Method:** Qualitative (a short questionnaire) **Sample:** 10 (Roma and Irish/English travelling communities) **Analysis:** Thematic	This questionnaire survey found that these communities were having several issues, including failure to understand treatment and diagnosis, illiteracy and language barriers were big issues when visiting the GPs. Stereotyping and lack of cultural awareness played a part in accessing care. Lack of continuity of care affected individuals also. It also highlighted troubles accessing benefits and stereotyping.	Within HWL 2019 – 2020 workplan, there is not a focus on this area at this time. HWL would like to embark on a programme of cultural awareness for the professionals within Luton to ensure they understand the needs of this group. HWL will review neighbouring Healthwatch work in this area to see if a similar project replication can be delivered in Luton.	NA	The study is based on a short questionnaire with a small sample.
4	Time, timing, talking, and training: findings	**Method**: Qualitative (Focus group) **Sample**: 16 participants	The study revealed key themes related to time and the timing of discussions	The study concluded that training, teamwork, and time to	The study limitations included the	The study has a sound

	from an exploratory action research study to improve quality of end-of-life care for minority ethnic kidney patients (2017)	**Analysis**: Thematic analysis	about end-of-life care and the factors that place limitations on patients and providers in talking about end-of-life care. It was also identified that nurses' lack of time and confidence in kidney care, individual attitudes, and workforce composition influence whether and how patients access end-of-life care through kidney services.	discuss overarching issues (including timing and communication about end of life) with colleagues could support service providers to facilitate access and delivery of end-of-life care to this group of patients.	small patient sample, exploratory nature with inclusion criteria requiring patient awareness and knowledge and service provider motivation to be involved in the research process.	research design.
5	Obstacles to "race equality" in the English National Health Service: Insights from the healthcare commissioning arena (2016)	**Method**: Mixed-method **Sample**: Multiple data sources **Analysis**: Qualitative thematic	The findings show limited and patchy attention to ethnic diversity and inequity within NHS England's commissioning. Despite the apparent contrary indications, ethnic equity was a peripheral concern within national healthcare policy, poorly aligned with other dominant agendas. The study revealed that many managers and teams did not consider tackling ethnic healthcare	The study recommended enhancing individual managers' skills, confidence, and competence and commissioning teams and improving organisational structures and processes that support attention to ethnic inequity.	NA	Well, designed multi-methods study presented firm conclusions.

			inequities to be part and parcel of their job, lacked confidence and skills to do so, and questioned the legitimacy of such work.			
6	Pakistani young people's views on barriers to accessing mental health services (2016)	**Method**: Qualitative **Sample**: 33 participants **Analysis**: The framework approach	The study highlighted several barriers to accessing mental health services, including poor awareness of mental health services and treatment options. The study found that the knowledge of treatment options for mental illness focused mainly on counselling. There was little awareness of cognitive behavioural therapy (CBT) or family-based CBT as a therapeutic regime.	The study recommended a culturally appropriate mental health awareness intervention for young people. It was proposed that these become community-based ambassadors facilitating knowledge exchange and discussion at a community level.	The small sample size.	The study has a focused research question and appropriate methodology.
7	Exploring access to the end-of-life care for ethnic minorities with end-stage kidney disease through recruitment in action research (2016)	**Method:** Qualitative (action research methodology with interviews and focus groups) **Sample:** 16 patients and 45 different care providers	The study data highlighted some of the key issues concerning access to end-of-life care. These were: the identification of patients approaching the end of life; their awareness of end-of-life care; language barriers and informal carers' roles in	A focus on South Asian ethnicity contributes to a better understanding of patient perspectives and generic concepts and access to end-of-life kidney care for this group of patients in the UK. Action research	Patient recruitment was based on clinician judgement of end-of-life care needs rather than on a specified	

		Analysis: Thematic analysis	mediating communication; and contrasting cultures in the end-of-life kidney care.	was a useful methodology for achieving this and informing future research to include informal carers and other ethnic groups.	definition and their perception of patient awareness.	
8	What’s the worry with diabetes? Learning from the experiences of White European and South Asian people with a new diagnosis of diabetes (2014)	**Method**: Qualitative (Semi-structured interviews) **Sample**: 47 participants **Analysis**: Thematic analysis	The study revealed that people expressed a range of emotions at diagnosis. Although many participants were familiar with diabetes through family and friends and were undergoing monitoring for comorbidities, they were surprised and upset to be diagnosed. In contrast, a small number reported how they did not worry about their diabetes diagnosis. Others highlighted the different public perceptions about the seriousness of diabetes concerning a diagnosis of cancer.	Attitudes to the diagnosis of diabetes varied on an individual basis and not directly by ethnicity. Practitioners need to be adaptable to work with individuals to facilitate access and support diverse populations.	The study limitations stated were the underrepresentation of ethnic minorities and translation bias.	The study has appropriate methods but a broad research question.
9	Communication as care at the end of life: An emerging issue from an exploratory action	**Method:** Qualitative (semi-structured interviews) **Sample:** 16 interviews with patients and 14	Suppose patients are not fully aware of their condition or end-of-life care. In that case, it is less likely that they will be able to be involved in	The study recommended that communication as care at the end of life be explored further. Also,	Exploratory with a small sample size and limited to single	

	research study of renal end-of-life care for ethnic minorities in the UK (2014)	focus groups **Analysis:** Thematic analysis	decision-making about their care, which is compounded when there are communication barriers. Variations in care provider awareness and experience of providing end-of-life care to South Asian patients, in turn, contribute to a lack of patient awareness of end-of-life care.	researching the South Asian patient experience of end of life highlights many relevant and generalisable issues.	interview and inclusion criteria required the patients to be aware of end-of-life care needs. Focus groups took place with care providers interested in end-of-life care. Care provider participants may have been more aware and familiar with discussing end-of-life care issues than other renal clinicians working in the renal setting.	
10	Understanding the role of primary care in the diabetes care pathway: The	**Method**: Qualitative (Semi-structured interviews) **Sample**: 14 participants	It was found that services had developed through different approaches at each of the three study sites to improve access for different	Service provider research can highlight areas that can be developed to improve quality diabetes care	None stated.	Small sample size but important insights

	views of service providers caring for South Asian populations in the UK (2013)	**Analysis**: Thematic analysis	ethnic groups; however, the role and responsibility of primary care, and in particular GPs, were emphasised. Although national quality improvement initiatives for diabetes have contributed to local service improvements, they have not maximised all opportunities to improve access to primary care.	across all ethnic groups.		from service providers.
11	A multi-centre qualitative study exploring the experiences of UK South Asian and White Diabetic Patients referred for renal care (2012)	**Method:** Qualitative (Semi-structured interviews) **Sample:** 48 participants **Analysis:** Thematic analysis	The study found the patient experience of diabetes ranged from a few months to 35 years, with a mean time since diagnosis of 12.1 years and 17.1 years for the South Asian and White patients, respectively. Confusion emerged as a response to referral shared by both groups. This confusion was associated with a reported lack of information at the time and before referral. Language barriers exacerbated confusion for South Asian patients.	The diabetic renal patients referred for specialist renal care found the referral process confusing have poor awareness of kidney complications of diabetes. Healthcare providers should be more aware of the ongoing information needs of long-term diabetics and the context of any information exchange, including language barriers.	Patients were recruited by their consultant in the clinic or by post, so they could not be recruited if they did not attend their appointments or respond to postal invitations.	This is a well-designed study with a large size sample.

12	An examination of concordance and cultural competency in the diabetes care pathway: South Asians living in the United Kingdom (2012)	**Method**: Qualitative (Semi-structured interviews) **Sample**: 14 participants **Analysis**: Thematic analysis	National policy-level initiatives to improve quality have been mirrored by quality improvements at the local practice level. These achievements, however, have been unable to address all aspects of care that service providers identified as important in facilitating access to all patient groups. Concordance emerged as a key process in improving access to care within the pathway system, and barriers to this exist at different levels and are greater for South Asian patients compared to White patients. The effort required to achieve access and concordance among South Asian patients is inversely related to cultural competency at policy and practice levels. These processes are underpinned by communication.	The study concluded that barriers to concordance exist at multiple levels in the diabetes care pathway system and are greater for some groups of patients compared to others. Focusing on the pathway and developing a model has been a useful way of identifying some of the key concepts for improving access to quality care for South Asian patients who experience inequalities in healthcare outcomes.	None stated.	
13	Concordance facilitates access in diabetes care—	**Method**: Qualitative (Semi-structured interviews)	National policy-level initiatives to improve quality have led to quality	Concordance is a key concept that underpins access and cultural	Participants' ethnicity was not asked. This	Small sample size but

	service provider perspectives of service improvement and cultural competency (2012)	**Sample**: 14 participants **Analysis**: Thematic analysis	improvements at a practical level. These achievements, however, have been unable to address all aspects of care that service providers identified as important in facilitating access for all patient groups. Concordance emerged as a key process in improving access to care within local systems, and barriers to this exist at different levels and are greater for some patients than others.	competency in diabetes service improvement. A focus on concordance at different levels within local systems may improve access to quality diabetes care for ethnic minority groups.	paper is confined to discussing the patient experience of access from the care provider's viewpoint. Other larger Care Pathway study elements explored patient experience through interviews with patients	important insights from service providers.
14	The impact of quality improvement initiatives on diabetes care among South Asian people (2011)	**Method:** Quantitative (Primary care audit) **Sample:** 707 participants **Analysis:** Statistical analysis	This study is an audit of diabetes care in a primary care setting. Overall, it revealed fewer people were diagnosed with diabetes in 2007 (307 people) than in 2004 (400 people). Practices with the larger numbers of people diagnosed in 2004 showed some of the biggest reductions in 2007: 0.81–0.07% of the practice population (91% reduction).	This analysis concluded that primary care organisations are in a key position to improve health through routinely collected data and increased recording opportunities.	None stated.	The paper contains the results of an audit of primary care.

			The composition of the patient sample in terms of ethnicity and gender did not differ greatly when the two audit years were compared. In a third of the practices, very few white people were diagnosed with diabetes in 2004 and 2007, reflecting the reported demographics of those practice populations. Key findings were that south Asian people were 9–10 years younger at diagnosis of diabetes than white Europeans in both audit years.			
15	Lack of awareness of kidney complications despite familiarity with diabetes: A multi-ethnic qualitative study (2011)	**Method:** Qualitative (Semi-structured interviews) **Sample:** 48 participants **Analysis:** Thematic analysis	Access to knowledge about renal complications of diabetes was related to referral to renal services and recent monitoring and not to previous medical encounters. South Asian patients were aware of the high prevalence of diabetes within South Asian communities. A small number reported experience of kidney problems in other	Ongoing renal care information should be provided to people with diabetes, and the cultural context of any information exchange needs to be addressed.	None stated.	The methods and research question of the study are clearly stated.

			family members, although any connection with diabetes was not made.			
16	Spirituality as a Mediating Factor in Black Families Beliefs and Experiences of Health and Wellbeing (2010)	**Method**: Qualitative (ethnographic study) **Sample**: 32 participants (adolescents n=22 & adults n=10) **Analysis**: Not clear	The study found that all the participants believed that their spiritual and religious beliefs were a core element of what constituted good health and well-being. The findings revealed that the involved families had considerable knowledge of the govt advice on maintaining health and well-being. However, when they identified the actual activities, it was evident that the participants' spiritual and religious beliefs directly influenced their behaviour to maintain health and well-being.	The study findings confirmed a connection between spiritual and religious beliefs and maintaining healthy life; however, further empirical research is needed in this area of research.	The study limitations are not stated.	The methods and research question of the study are clearly stated.
The COVID-19 pandemic and wider health inequalities						
1	Vaccination against COVID-19: Factors that influence vaccine hesitancy among an ethnically diverse community in the UK (2022)	**Method**: Mixed-methods (Online & paper-based survey) **Sample**: 1058 participants **Analysis**: Statistical & qualitative content analysis	This study found that age and ethnicity were the only sociodemographic factors to predict vaccine hesitancy. The study identified knowledge of symptoms and transmission routes, alongside ensuring	This study uncovers some barriers to uptake that can be utilised in developing promotional campaigns to reduce vaccine hesitancy in certain sections of the diverse	The study population is not a representative sample of the wider UK population. Particular	This is a multi-methods study with a sound study design and appropriate methods.

			information about COVID-19 as protective factors against vaccine hesitancy. Qualitative analysis revealed that ‘lack of trust in government/authorities’ and ‘concern of the speed of vaccine development’ were the most common reasons for the non-uptake of the vaccine.	UK population. These findings can be utilised in developing programmes and events around reducing vaccine hesitancy in certain sections of the diverse UK population.	cultural and historical experiences not captured within this study may make minority populations feel more vulnerable to vaccine hesitancy.	
2	Ethnic differences in SARS-CoV-2 vaccine hesitancy in United Kingdom healthcare workers: Results from the UK-REACH prospective nationwide cohort study (2021)	**Method**: Mixed-methods (prospective cohort & qualitative) **Sample**: 11,584 HCWs in Cohort and 99 HCWs in the qualitative part **Analysis**: Statistical & framework analysis	The study found that compared to White British HCWs (21.3%), Black Caribbean (54.2%), Mixed White and the Black Caribbean (38.1%), and Black African (34.4%), HCWs were significantly more likely to be hesitant to take up the vaccine. The qualitative data identified that the participants felt a lack of trust in government and employers, safety concerns due to the speed of vaccine development, lack of ethnic diversity in vaccine studies, and	The study concluded that despite the increased risk of COVID-19, HCWs from some ethnic minority groups are more likely to be vaccine-hesitant than their White British colleagues. Strategies to build trust and dispel myths surrounding the COVID-19 vaccine in these communities is urgently required.	The study stated some limitations, including the potential for self-selection/responder bias. The cohort included a relatively small number of ancillary staff, and some of the ethnicity categories had small numbers.	Despite the stated limitations, the study has a clear and adequately described research question, method, and measures for both parts of the study.

			confusing and conflicting information.			
3	Talk, Listen, Change (TLC) COVID-19 co-developing solutions to tackling health inequalities in Luton (Dec 2021)	**Method:** Mixed methods (focus groups, individual interviews, web-based survey& radio discussion) **Sample:** 1084 participants **Analysis:** Thematic framework, qualitative content & descriptive and comparative statistics	This multi-methods study explored several issues concerning COVID-19 from ethnic minority groups. It revealed that participants acknowledged that wider inequalities experienced by our selected communities contributed to the disproportionate impact of COVID-19 on them. Participants discussed how poor living conditions and overcrowded homes contributed to the transmission of COVID-019. The study also found that participants argued that there was a great deal of community suspicion surrounding how members of their community were treated compared to their white counterparts with COVID-19 and that there was a lack of confidence to complain.	Participants highlighted the limited availability of interpreters in hospitals and how this impacted patients' hospital experience during the COVOID-19 restrictions where family and friends were not allowed to visit and support communication between patients and staff. They discussed the importance of messages delivered by family members, community and religious figureheads and the increased likelihood of adherence to messages. Some participants explained that information is transferred orally rather than through written materials within our communities. All given	The study limitation includes that the study does not claim to be nationally representative of the wider UK population. Also, the evidence presented is not causal; therefore, as with other cross-sectional studies, it is impossible to consider how views across time may have changed, particularly in a constantly moving landscape much influenced by wider socio-	This study is a multi-method and large-scale project with specific aims and objectives.

				recommendations in this report are relevant to tackling wider health inequalities in BLMK communities.	political factors.	
4	Ethnicity and outcomes in patients hospitalised with COVID-19 infection in East London: an observational cohort study (2021)	**Method**: Quantitative (secondary analysis) **Sample**: 1737 patients with confirmed COVID-19 **Analysis**: Statistical analysis	The study found that black and ethnic minority patients were more likely to be admitted to ICU and receive invasive ventilation, and they were more likely to die from COVID-19.	The analysis suggested that patients of black backgrounds suffered disproportionately rates of premature death from COVID-19.	The stated limitations of this study included a false-negative rate and suspected but not proven; cases are an important group and missing data.	This study is one of the most well-designed and detailed, exploring COVID-19 outcomes for ethnic minority communities.
5	Greater risk of severe COVID-19 in Black, Asian, and Minority Ethnic populations is not explained by cardiometabolic, socioeconomic or behavioural factors or by 25(OH)-vitamin D status: the study of 1326	**Method**: Quantitative (secondary analysis) **Sample**: 4510 UK Biobank participants tested for COVID-19 (positive, n = 1326). **Analysis**: Regression model	The results showed an over-representation of men and BAME ethnicities in the COVID-19 positive group. BAME individuals had, on average, poorer cardiometabolic profile, lower 25(OH)-vitamin D, greater material deprivation, and were more likely to live in larger households and flats/apartments. Also, the results revealed that male	The study recommended a more comprehensive investigation of wider determinants, including economic, social, and behavioural factors that may cause differences in COVID-19 positivity and disease severity.	Measurement of vitamin D levels may imply the results of the current study. It is also stated that occupational factors may have relevance in determining the risk of	The research, question, methods, and measures are focused on and adequately described.

	cases from the UK Biobank (2020).		sex, BAME ethnicity, higher BMI, higher Townsend deprivation score and household overcrowding were independently associated with significantly greater odds of COVID-19.		exposure and viral transmission, which was not considered.	
6	Ethnic disparities in hospitalisation for COVID-19 in England: The role of socioeconomic factors, mental health, and inflammatory and pro-inflammatory factors in a community-based cohort study (2020)	**Method**: Quantitative (secondary analysis) **Sample**: 340,966 men and women **Analysis**: Regression model	This analysis of UK Biobank data shows that Black individuals had over a 4-fold increased risk of COVID-19 infection compared to the White study participants. It also revealed that after controlling explanatory factors, the estimated effects remained raised for Blacks (2.66; 1.82, 3.91).	The study results show clear ethnic differences in the risk of COVID-19 hospitalisation.	The stated limitations of the study include, due to the absence of systematic testing across the UK, these data come from hospital records, therefore reflecting only patients with a manifestation of the disease severe enough to require inpatient admission into hospital and the UK Biobank cohort	Though research questions and methods were clearly described, the study results do not critically evaluate the explanatory wider factors that increased the risk of COVID-19 for ethnic minorities.

					does not represent the general UK population.	
7	Ethnic-minority groups in England and Wales—factors associated with the size and timing of elevated COVID-19 mortality: a retrospective cohort study linking census and death records (2020)	**Method**: Quantitative (retrospective cohort study) **Sample**: 47 872 412 usual residents in England and Wales in 2011 who were still alive on 2 March 2020. **Analysis**: Statistical analysis	The study results demonstrate that mortality risk remained elevated for the Black people [1.76 (1.63 to 1.90)]. It also explained that differences in COVID-19 mortality between ethnic groups were largely attenuated by geographical and socio-demographic factors, though some residual differences remained.	The study concluded that differences in mortality rates between ethnic groups were considerably reduced following lockdown measures, with the Black population experiencing the greatest fall in mortality rates.	The main limitation of this study included was that the data set used in this analysis had a 9-year lag between census day and the start of the pandemic.	The study research question was focused, and an appropriate study design was used to address the question.
8	Factors associated with COVID-19-related death using OpenSAFELY (2020).	**Method**: Quantitative (primary care records) **Sample**: 17,278,392 adults were pseudonymously linked to 10,926 COVID-19 related deaths. **Analysis**: Statistical analysis	The study results demonstrated that people from all BAME communities were at higher risk than white ethnic groups. When adjusted only for age and sex, hazard ratios ranged from 1.62–1.88 for Black and South Asian individuals and people of mixed ethnicities, compared to white people, decreasing to 1.43–1.48 after adjustment for all included factors.	The study recommended that future studies are needed to investigate the interplay of additional factors that we were unable to examine, including employment, access to personal protective equipment and the related risk of exposure to infection, and household density.	The limitations included that testing has not always been carried out, especially in older patients in care homes; some may have incorrectly identified as having COVID-19.	This study is well designed and robust research.

9	Black, Asian, and Minority Ethnic groups in England are at increased risk of death from COVID-19: indirect standardisation of NHS mortality data (2020)	**Method**: Quantitative (secondary analysis of NHS death data) **Sample**: 16,272 deaths **Analysis**: Statistical analysis	The analysis found that ethnicity was missing for deaths of 9.4% (1,537/16,272). The largest total number of deaths in minority ethnic groups was Indian n=492 and Black Caribbean n=460. The study calculated a higher risk of death due to COVID-19 in Black and African people and other ethnic minorities compared to the white British population.	The study recommended immediate action to address this unacceptable difference in COVID mortality between white and BAME groups.	The limitations of this research study which are almost exclusively data-related, were well-covered in the paper—for instance, missing ethnicity for many deaths.	The statistical methodology is transparently presented and adequately described to answer the focused research question.

#	Study title	Methods/Sample	Relevant Results/Key Findings	Conclusion/implications	Stated Limitations	Appraisal note
Good practice examples						
1	Understanding the experience of service users in an integrated care programme for obesity and mental health: A qualitative investigation of Total Wellbeing Luton (2022).	**Method**: Qualitative (Semi-structured interviews) **Sample**: 14 participants **Analysis**: Thematic analysis	These interviews have contributed to understanding what service users value the most in an integrated healthcare setting. Service users value ongoing support and being listened to by healthcare professionals. The camaraderie and knowledge acquisition support their behaviour change and promote self-regulation following their participation	This study makes an important contribution to understanding what is happening in Total Wellbeing through the lenses of service users. This study put forward a case to evaluate the effectiveness of the Total Wellbeing Luton programme.	The study population is not a representative sample of Luton's population (mostly white – English were included in the study). Small sample size.	This study is well designed but has a small homogenous sample size considering the diversity in Luton.

			in the programme. 'One-size-fits-all' approach is unlikely to be appropriate.		Only a single setting in a single location in the UK was examined.	
2	NHS Lambeth Clinical Commissioning Group. Review of the primary care Interpreting and Translation Service across Lambeth, Southwark, and Lewisham (2019).	**Method**: Qualitative (Online survey & engagement events) **Sample**: 193 patients **Analysis**: Descriptive	The service review identified many good practices and areas of improvement. The review findings revealed that patients who needed face to face interpreting waited up to 1 to 2 weeks for a booked interpreter, except for those requesting a face-to-face BSL interpretation who could wait significantly longer. In contrast, those who use telephone interpreting usually do not have to wait and are seen on the same day.	The review report recommended that a mandatory monitoring structure could be developed to ensure that the interpreting and translating services meet the needs of the local population.	NA	This review report was included because of its relevance to the review question.
3	Gym for Free: The short-term impact of an innovative public health policy on the health and well-being of residents in a deprived constituency in	**Method**: Mixed-methods (cross-sectional survey & focus group interviews) **Sample**: 257 participants in the survey & 9 in 3 focus groups	The study findings demonstrated that the pilot scheme increased the uptake of exercise, particularly for women in economically deprived areas. Also, the use of leisure facilities increased substantially. Therefore, the	This study recommended expanding the scheme across the city and the need to conduct a long-term evaluation of its effectiveness and sustainability to	This study was a cross-sectional study, and recruitment was opportunistic, not random,	Methods, measures, and the research question are clearly stated.

	Birmingham, UK (2015)	**Analysis**: Descriptive, inferential & thematic analyses	pilot scheme addressed health inequality by increasing access to and widening participation in exercise with multiple physical, mental, and emotional benefits.	establish a firm evidence base.	and generalizable.	
4	Identifying what works for local physical inactivity interventions (2014).	**Method**: Quantitative (a review of physical activity programmes in England) **Sample**: 952 physical activity programmes **Analysis**: Statistical analysis	The study used the Standardised Evaluation Framework for physical activity interventions to examine 952 programmes. The results revealed no 'proven', two 'promising', 28 'emerging' and four examples of 'developing' practices.	The study provides tangible evidence of the strengths and weaknesses of physical activity interventions and identified the common features of good and promising programmes.	The report has summarised the limitations of the evaluated programmes but didn't describe the limitations of the review.	The study has used the standardised and reliable Nesta standards to evaluate the physical activity interventions.
5	Addressing health inequalities: five practical approaches for local authorities (2014)	**Method:** Review (Qualitative) **Sample**: NA **Analysis**: Evidence analysis	This analysis suggested that one of the good practices to tackle health inequalities is to provide information and training on health equity issues, health inequalities and the social determinants of health for local authority members and officers in planning, housing, environment, and transport. Training could be made mandatory around the wider	This paper highlights the significant opportunities available for public health practitioners to influence the social determinants of health and reduce health inequalities following the transfer of public health functions into local authorities in England.	NA	NA

			determinants of health, health equity and other approaches.			
6	Can food vouchers improve nutrition and reduce health inequalities in low-income mothers and young children: a multi-method evaluation of the experiences of beneficiaries and practitioners of the Healthy Start programme in England (2014)	**Method:** Mixed-methods **Sample**: 16 individuals **Analysis**: Statistical	The study results show that women reported that Healthy Start vouchers increased the quantity and range of fruit and vegetables they used, improved the quality of family diets, and established good habits. Also, they identified challenges to accessing the vouchers, including complex registration eligibility criteria, inappropriate targeting of information about the programme by health practitioners and a generally low level of awareness among families.	This evaluation of the Healthy Start programme in England suggested that a food subsidy programme can provide an important nutritional safety net and potentially improve nutrition for pregnant women and young children living on low incomes.	The authors acknowledged that the findings are limited because they reflect self-reports of experiences and behaviours. The study did not aim to assess dietary intake to confirm reported increased intakes of fruit and vegetables.	Focused research question and well-designed study.
7	Increasing black, Asian and minority ethnic (BAME) patient & community awareness – using	**Method**: Peer Educators (PEs) programme review	The peer programme has several notable outcomes from the end-of-life work, including the training and deployment of 10 Peer Educators who reached over 2,700 people from diverse	Kidney Research UK's Peer Educator initiative has been well established as an effective and flexible way to raise awareness and reach out to BAME	NA	Methods are not clear.

	the peer educator model (2014)		South Asian communities, providing important information on who does what, when, and how to access it – in a culturally competent manner.	patients and the communities at risk. The model has been deployed across the kidney disease spectrum, including from early detection to diabetes management to addressing organ donation and end of life issues.		
8	Addressing health inequities: coronary heart disease training within learning disabilities services (2014)	**Method:** Quantitative **Sample**: 18 individuals **Analysis**: Statistical	Following the training, improvements in knowledge of CHD related topics were noted. Improvements were also seen in skills and confidence relating to working with others. Participant satisfaction with the training was demonstrated in terms of the acceptability and effectiveness of the training.	Systematic training of this nature could lead to increased awareness of and attention to the cardiac health requirements of individuals, thereby improving the health outcomes, health literacy and ultimately self-management of people with learning disabilities.	Small sample size	The research question was focused; however, the qualitative aspect could have been used for robust results.

Table 2: Summary of the local data sources included in the review

#	Title	Methods/Sample	Relevant Results/Key Findings	Conclusion/implications
1	Healthwatch Luton Reports: How are you doing?	**Method**: Qualitative (telephonic interview)	This report described the participants' experiences. They felt that	Healthwatch Luton will continue to gather feedback in Luton; share

	Being Digitally Excluded Ethnic inequalities in older adult's bowel cancer awareness: findings from a community survey conducted in an ethnically diverse region in England (2021)	**Sample**: N = 5 **Analysis**: N/A	communications, whilst getting information from many sources, including the TV and radio, could be delayed when a person was not digital. There was a need to rely on family or friends for more immediate communications and updates relevant to the local area. Access to GPs had been the most common health experience for those who were digitally excluded. There have been telephone conferences, which have received mixed responses. Understanding the need for vaccination was not necessarily communicated to suit all people. Despite professionals trying to explain the need, some still did not have it. Being digitally excluded was a choice for some, and they largely felt it did not affect them.	feedback with the BLMK wide system; share information about the vaccination programme with residents, and gather feedback about how the pandemic and vaccinations are affecting the residents of Luton. Healthwatch will share with CCG Leads for vaccination roll-out who will use experiences to help shape service delivery; will attempt to work on breaking down language barriers by assisting translations of experiences to share with the public.
2	Healthwatch Luton Reports: How are you doing? Children and Young People's vaccination opinions (2021)	**Method**: Mixed-methods (Online surveys & case studies) **Sample:** Age ≤ 30 years, 31% were male, and 69% were female	When asked if they would have the vaccine if offered free to them, 76% of respondents had already had their vaccine. Of those who hadn't had their vaccine, 4% 'definitely would', 12% 'probably would not' or 'definitely would not', with 8% 'not sure'. Reasons for not getting vaccinated: 'don't know/not sure'; safety of the vaccine,	As above.

		Identities were self-defined: 50% were 'White British' and the other 50% self-defined as BAME, including 'black', 'Bangladeshi', 'British Bangladeshi', 'Asian' and 'Tamil'. **Analysis:** Descriptive statistics	trust in the intentions behind vaccinations were the most popular answers. The report presented two individual case studies to show people's concern for vaccination.	
3	Healthwatch Luton Reports: How are you doing? Booster vaccine experiences 2021 -2022 in Luton	**Method:** Qualitative (Case-Study) **Sample:** 7 **Analysis:** N/A	There are mixed experiences for Luton residents receiving their vaccinations as part of the booster roll-out. The booking process has been easy for the technologically inclined and digitally excluded. The roll-out of the vaccine programme has been able to cover more of the public quickly by using staff from non-clinical areas to more frontline. There has been pressure with COVID-19 affecting staffing levels, yet these have not affected the delivery of vaccinations. The walk-in appointments seem to have worked well, and it was felt by several people that there was no benefit to booking an appointment as that did not give them priority over walk-in when at the vaccination centres.	As above.

4	Healthwatch Luton Reports What are people telling us about COVID-19? Key messages from our evidence – Quarter Report June 2020	**Method**: Qualitative (Structured interview) **Sample**: 300 **Analysis**: N/A	This report described that overall, the Luton residents' support was phenomenal and whilst there are always areas to learn from. It was particularly evident in the feedback we received that the system had worked tremendously hard to ensure people were supported, despite confusion from national and local communications. Concerning what did not work for both professionals and residents, there was a distinct lack of integration initially within the system. Whilst structures were set up, and various bodies enabled more integration working, some people felt they were contacted by both health and care separately, without the two bodies knowing they were contacting the same people. There was confusion over communications, and whilst both health and care systems work in higher structures than the 'local' view – some residents found they were waiting for NHS advice – but wanted to hear from more local health systems. Many people were confused between Gov, public health, and the NHS, and most wanted more 'Luton' advice. It would	To look at local connected and joined up communications from both NHS and Local Authorities – to approach the residents and local voluntary sector organisations can support. It could be suggested to review how local systems work locally or regionally going forward and to internally contest the command-and-control structures, leading to a lack of communication and sometimes support integration. It is suggested that system-wide discussions on preparing for or addressing the lack of a joined-up, integrated approach as a local and regional system lead to resident confusion.

			be good to use residents' views to help shape service delivery about what could be improved. Using Healthwatch across Bedfordshire, or BLMK, would help shape how to potential prepare and plan for another pandemic. It is imperative that the local system work together and at a wider level to ensure a joined-up approach in planning and communicating to the public.	
5	Healthwatch Luton Reports What are people telling us about COVID-19? Key messages from our evidence – Quarter 2 Report July - September 2020	**Method**: Secondary analysis (thematic review) **Sample**: 300 experiences of Luton residents **Analysis**: Thematic analysis	This report is the aggregated thematic analysis of the quarterly reports. The analysis suggested that overall communication with residents was the leading concern for people in Luton. People generally felt 'confused' and 'unsure' what actions to take and approach testing and adhere to local guidance.	The Healthwatch have raised communication concerns locally and nationally. Locally we feed directly into the local Public Health communications team and have helped to support some of the communications out to the public. It raised individual concerns, acting upon and joining the local COVID Champion group, Community Leader group, and COVID-19 Flu Cell communications team.
6	Healthwatch Luton Reports: How are you doing? Vaccination survey: 2021-2022 (January 2022)	**Method:** Quantitative (Online survey) **Sample:** 141 **Analysis:** Descriptive statistics	This survey collected information on several topics, including views on vaccination and the effectiveness of the information. The study found that 83% of the respondents were very positive or fairly positive, 11% as 'very negative' or 'fairly negative', and 3% were 'not sure'. Also, most participants reported that nothing would stop them	There is still a need for better and more robust communication, which is reflective of those who are unvaccinated or nervous about being vaccinated.

			from getting the vaccine'; 17% reported the distance to travel to get the vaccine was the biggest concern, with others (specify) being the third most common reason. The respondents also shared their views on the source of information; for example, 66% (96) of people said they got most of their information from a government website or similar, such as gov.UK or NHS.uk, and 64% (92) said they used the TV or radio. Around 50% (73) used social media, and 27% (39) used a government leaflet or letter for their information.	
7	Healthwatch Luton Reports: How are you doing? Gathering feedback from the public and professionals on how they are coping during the COVID 19 pandemic Targeted Engagement: Care homes	**Method:** Qualitative (structured interview) **Sample:** 39 care home providers	The interview participants explained that the pandemic was challenging but getting there. More able to manage now' compared to March. Providers commended their teams, with one person stating their team had 'found it hard initially, but they are fine now. Staff morale was 'good'. The study found that many things were working well. The residents were getting correct medications, GPs provided services, access to PPE was improved, getting support from the Local Authority, and teamwork	One of the key recommendations has been better communication between providers and services, including the local authority.

			improved. They also spoke about what was not working so well. For instance, several providers, including the telephone consultations, mentioned that GPs struggled to get hold of but eventually got through. When speaking about what can be improved, the respondents said a gap in the communications and policies and procedures with the rules are needed to be improved.	
8	Healthwatch Luton Reports: How are you doing? Gathering feedback from the public and professionals on how they are coping during the COVID 19 pandemic Targeted Engagement: Young People	**Method:** Qualitative (Semi-structured interviews) **Sample:** 7 (14- 25 years old.) **Analysis**: NA	The participants mentioned several barriers to accessing virtual support, including poor Wi-Fi, lack of confidential space, and not having data available on mobile phones. As well as the physical and technical concerns with virtual appointments, some people did not like online access and much-preferred face to face access. The report discusses a disparity between what patients perceive and what the provider believes. This will be shared with the staff who attend the bi-monthly meetings with Healthwatch Luton to further understand the needs of the inpatients.	Healthwatch Luton would like to continue to carry out these sessions and expand them further to other wards until there is a time when we can physically return to the wards.

9	Healthwatch Luton Reports: How are you doing? Gathering feedback from the public and professionals on how they are coping during the COVID 19 pandemic Targeted Engagement: Mental Health Inpatients	**Method:** Qualitative (Semi-structured interviews) **Sample:** 8 **Analysis:** N/A	This report covers the staff and patients' feedback from two mental health inpatient wards. The feedback was positive and negative from both sets of participants. However, all participants were of the view that things were improving. The engagement with patients and the staff mentioned the issue of unclear and ineffective communication.	Healthwatch Luton will continue to gather feedback in Luton; share feedback with the BLMK wide system; share information about the vaccination programme with residents, and gather feedback about how the pandemic and vaccinations are affecting the residents of Luton. It will share with CCG Leads for vaccination roll-out, who will use experiences to help shape service delivery; will attempt to work on breaking down language barriers by assisting translations of experiences to share with the public.
10	Healthwatch Luton Reports: How are you doing? Gathering feedback from the public on how they are coping during the COVID 19 pandemic Engagement Forums: Carers	**Method:** Qualitative (Semi-structured interviews) **Sample:** 8 **Analysis:** N/A	This report captured views of carers on the hat is working well. Overall, they were satisfied with the services. Concerning what is not working well, they identified mainly individual issues such as huge stress, problems accessing stroke services, feeling lonely and never wanting to see or meet anyone. The session participants also identified what could be improved, including support for them, access to digital media and better communication and information about what will happen to the sick person if the carer falls ill.	Healthwatch Luton will continue to consider how those digitally excluded can be included within Engagement Forums whilst there is currently no face-to-face engagement. Healthwatch Luton will work with the local authority to ensure carer's voices are heard and used in service design and delivery and be involved in the Carer's Strategy.

11	Place-Based Profiles - Bedford Borough (Data Packs)	**Method:** Quantitative (survey) **Sample:** 180,000 **Analysis:** Descriptive statistics and Principal Component Analysis	The placed based profile covers many indicators which highlight inequalities in health. For instance, it reported a high rate of dental decay compared to England and a lower rate of breast, cervical, bowel, and prostate cancer screening (25% deaths due to cancer). Further, it revealed significant differences in premature deaths due to circulatory and cancer mortality among towns in Bedfordshire. The profile highlighted high levels of deprivation, with 14% of neighbourhoods (14 LSOAs) in the 20% of most deprived neighbourhoods in England. Most deprived LSOAs are 015F, 012F, 010F and 012A, with 015F ranking in the most deprived 5% in England. 15% of children (5,000) live in low-income households, and 21% of 10 to 11 years olds (400) are classified as obese, the highest percentage of obese children in BLMK. 10.3-year male and 8.2-year female life expectancy gap between the most and least deprived neighbourhoods, the largest in BLMK.	Focus on reducing health inequities among the most and least deprived neighbourhoods, particularly on reducing obesity. Review disparities in average hospital spend per capita.
12	Place-Based Profiles - Central Bedfordshire (Data Packs)	**Method:** Quantitative (survey) **Sample:** 300,000	This data pack presented data on health inequalities, for instance, the high rate of dental decay compared to	With only 3 LSOAs providing enhanced services and support. Support around maintaining

		Analysis: Descriptive statistics and Principal Component Analysis	England and the higher incidence of prostate cancer compared to England. The most affluent place with only 2% of neighbourhoods [3 LSOAs] in England's 20% most deprived neighbourhood. Most deprived neighbourhoods are located in Dunstable-Manshead, Parkside, and Flitwick. 11% of children (5,800) live in low-income households, and 17% (500) of 10 to 11 years olds are classified as obese, the lowest rates in BLMK. 5.4-year male and 5.3-year female life expectancy gap between the most and least deprived neighbourhoods, the lowest in BLMK. Most commonly recorded health conditions (smoking, high blood pressure, depression, obesity, asthma, and diabetes) by GPs are less prevalent than or similar to the CCG averages, apart from high blood pressure and asthma, which appear to be slightly more common.	independent living and providing support towards health in old age. Focus on prevention and treatment of high blood pressure and asthma.
13	Place-Based Profiles - Luton Borough (Data Packs)	**Method:** Quantitative (survey) **Sample:** 214,000	The profile showed a higher level of low-birth-weight babies than in England. A high rate of dental decay compared to England. Lower childhood immunisation compared to England	Focus on reducing health inequalities as the level of deprivation is significantly worse than the BLMK average.

		Analysis: Descriptive statistics and Principal Component Analysis	(96% vs 95%). Lower rate of breast, cervical, bowel, and prostate cancer screening (25% deaths due to cancer). All-cause mortality is 28% higher in the Challney ward than expected based on England's standardised mortality ratio, 25% higher in Biscot and 18% higher in Northwell. 19% (10,000) of children live in a low-income household, and 27% of 10 to 11 years olds (700) are obese. Compared with the BLMK average, a high percentage of households living in fuel poverty (16% vs 11.5%), high levels of unemployment (7% vs 4.5%) and high smoking prevalence (18.2% vs 16.2%). Luton has the lowest rates in the CCG area for cancer screening (bowel cancer, breast cancer, cervical cancer). Most commonly recorded health conditions (smoking, high blood pressure, depression, obesity, diabetes, asthma) by GPs, smoking, obesity, and diabetes appear to be more prevalent in Luton. A high level of diabetes is likely driven by a higher South Asian population who are at increased risk of this condition.	Focus on reducing smoking, obesity, and diabetes due to their prevalence. Focus on improvement in cancer screening. Ensure health provision is meeting the needs of an ethnically diverse population.

14	Place-Based Profiles - Milton Keynes (Data Packs)	**Method:** Quantitative (survey) **Sample:** 270,000 **Analysis:** Descriptive statistics and Principal Component Analysis	This profile highlights health inequalities, including many areas that experience high levels of deprivation, with 12% of neighbourhoods [18 LSOAs] in the 20% of most deprived neighbourhoods in England. 15% of children (8,500) live in low-income households, and 20% of 10 to 11 years olds (600) are obese. The profile reported the highest percentage of people in employment in the BLMK (70% vs 66% BLMK avg.) and low levels of unemployment (3.5% vs 4.5%). Most commonly reported health conditions (smoking, high blood pressure, depression, obesity, diabetes, and asthma) by GPs are less prevalent than the BLMK average, apart from more prevalent smoking.	Focus on reducing the life expectancy gap between most and least deprived neighbourhoods. With the highest employment rate in BLMK and a generally healthy population, a focus could be made on improving and maintaining the health of people of working age/workplaces. Focus on equitable access to health care services.
15	Joint Strategic Needs Assessment Executive summary for central Bedfordshire	JSNA is based on routine data analysis.	Reported domestic abuse incidents have remained stable at 3,370, whilst domestic abuse incidents noted to have a child resident at the location account for 48% of all incidents. It highlights that 9.3% of the population experience income deprivation relating to low income compared to 14.5% in England.	The assessment focuses on quantifying the health impacts of air pollution in the Central Bedfordshire Air Quality Management Areas, tackling them proportionately and developing a comprehensive air quality strategy with strong links to the green space and climate change strategies.

			Economically active compared to the England average (74.7% vs 69.9%). Lower unemployment rate (0.6% vs 1.2%). Higher weekly earnings – 2016 (£545 vs £495).	It emphasises that the commissioners and providers must work together to ensure a comprehensive perinatal mental health pathway. Parents at risk of mental illness during the perinatal period (pregnancy to the first year following birth) should be identified, and timely support offered, including for the infant and wider family where appropriate. Concentrate on increasing physical activity in groups that are less likely to be active, including women and girls, people from lower socio-economic groups, older people, disabled people and those with or at greater risk of long-term health conditions. Ensure statutory and voluntary service providers work together to develop and implement falls and fragility fracture care pathways and initiatives that prevent, identify, assess, and treat falls and fractures in a consistent and timely manner.
16	Healthwatch Luton Reports Champions and challenges.	**Method:** Qualitative discussion forum	This report covers what is happening in Luton concerning the services for	To share the best practice of the strategy with other organisations

	An in-depth look at the health and social care experiences of those with a learning disability and/or autism within Luton.	**Sample:** 130 people **Analysis:** NA	people with learning disabilities and autism. The findings of this forum report highlight issues of access to services and GPs. Also, problems with paid employment for disabled people.	and improve their strategies for people with learning disabilities. To focus more on engaging local organisations and companies in employing those with a learning disability and paying employment. The local authority provides translation support for completing this and any subsequent meetings.
17	Healthwatch Luton Reports ‘It’s all about perspective!’ An in-depth look at mental health services available in Luton and understanding the experiences of those who used mental health services within Luton	**Method:** Qualitative (Report)	**This study found that t**he teams within ELFT showed a great sense of morale and team spirit. Together, the teams were supportive of one another, ensuring the safety of the staff and patients. Staff showed they could support each other and displayed incredible resilience. Regarding c**ommunications, p**atients were unsure who or how to contact the mental health practitioners. Patients were uncertain if they could self-refer into an organisation and how they would do that. Easy access to primary care was a concern for a lot of patients – some felt that they were unable to access the GP at a time when they needed it most.	A meeting is set up to be held quarterly for third sector organisations to share what is happening within their organisations to support individuals with mental health needs and to have the opportunity to Healthwatch Luton 56 to discuss any high-intensity users they have. To ensure better communication about the carers' services to those who would benefit from having it. Invest in more therapies aside from just a medication model.

			It could take up to six weeks to get an appointment when needing medication refilled. Some inpatients felt that they did not receive anything when discharged to support them once they were in the community. Accessing the CMHTs when a patient is in the community could be hard for some service users. Inpatients felt there were not many activities on the wards to keep them occupied.	

Table 3: Most recent evidence synthesis and literature reviews concerning health inequalities in the UK

#	Review title & year of publication	Review method	Results/Findings Summary	Recommendations
1	Ethnic Inequalities in Healthcare: A Rapid Evidence Review (2022).	**Method**: Rapid Evidence Review **Scope**: UK academic and grey literature from Jan 2011 to Oct 2021 plus stakeholder survey **No. of included studies**: 178 **Analysis**: Thematic	The review has described and provided supporting evidence of ethnic inequalities in several areas, which include ethnic inequalities in: - Mental Health Services - Maternal and Neonatal Healthcare	This review is the most recent evidence synthesis on ethnic inequalities in health, and it's the first that reviewed the evidence through a racism lens. The review has provided a recommendation of policy, practice and research in each area covered in the review. The following is a summary of key recommendations. - Conduct primary research on the direct and indirect impacts of racial discrimination by NHS staff and

			- Digital Inclusion and Access to Health Services - Genetic Testing and Genomic Medicine Studies - the NHS Workforce	institutional processes on access to experiences and outcomes of mental health services. - Enforce statutory guidelines on including national, ethnic monitoring data in all NHS mental health clinical data that allows robust statistical Trust-level, regional and national analysis (including data linkage between clinical datasets) to establish the inequalities and ethnic groups. - Establish relationships between ethnic minority VCSE organisations and NHS provider services to provide high-quality services for ethnic minority patients.
2	Ethnic health inequalities in the UK's maternity services: a systematic literature review (2021)	**Method**: Systematic Literature Review **Scope**: UK academic literature from 2013 to 2018 **No. of included studies**: 8 **Analysis**: Thematic	A total of eight studies with various ethnicities and geographical locations were included. Five themes emerged following thematic analysis: communication, midwife-woman relationship, healthcare services and systems, culture, and social needs.	A recommendation for future research would be to explore maternity service or system interventions that aim to reduce the health inequalities
3	Examining the effectiveness of place-based interventions to improve public health and	**Method**: Revised Assessment of Multiple Systematic Reviews tool	Thirteen systematic reviews were identified - reporting 51 unique primary studies.	This review suggests that for interventions to reduce inequalities, high agentic interventions should be placed close to where its most needed

	reduce health inequalities: an umbrella review (2021)	**Scope**: Academic literature published on high-income countries from Jan 2008 to Mar 2020 **No. of included studies**: 13 **Analysis**: Thematic	• Fifty of the studies in this review reported interventions that changed the physical environment, and one reported a change to the economic environment. • Only one primary study reported cost-effectiveness data. • No reviews were identified that assessed the impact of social interventions. • Given heterogeneity and quality issues, the reviewers found tentative evidence that the provision of housing/home modifications, improving the public realm, parks and playgrounds, supermarkets, transport, cycle lanes, walking routes, and outdoor gyms – can all have positive	

			impacts on health outcomes – particularly physical activity.	
4	Do multiple community-based interventions on health promotion tackle health inequalities? (2020)	**Method**: Systematic Literature Review **Scope**: Peer-reviewed articles published in English or German from Jan 1999 to August 2019 **No. of included studies**: 23 **Analysis**: Thematic	More than half (56.5%) of the studies reported improvements in socially disadvantaged communities (i.e., reduced inequalities at the area level) in at least one health behaviour and/or health status outcome. Amongst the remaining studies, we found some beneficial effects in the most deprived sub-groups of residents (8.2%) and studies with no differences between intervention and control areas (34.8%). There was no evidence that any program under review increased health disparity.	The review recommends that - Greater attention should be paid to inequalities between sub-groups within communities when analysing changes in health inequality over time.
5	A systematic review of the factors - barriers and enablers – affecting the implementation of clinical commissioning policy to reduce health inequalities in the National Health Service (NHS), UK (2020)	**Method**: Systematic Literature Review **Scope**: UK academic literature from Jan 1999 to August 2019 **No. of included studies**: 6 **Analysis**: Thematic	The studies reported two broad categories under four different themes: - The agenda of health inequalities have not been given priority. - There was very little evidence for reducing	This review recognises that improving the social condition is important to improve people's health, as both social and economic inequalities are bad for health inequalities. This study provides useful factors e, barriers, and enablers e to implement and deliver CC policy in improving health and reducing health

			health inequalities through the clinical commissioning (CC) process. - CC was positively associated with the restructuring of NHS; and - CC brings better collaboration and engagement, which leads to improved health services access, utilisation, and delivery at the local level.	inequalities. These factors could be assessed in future monitoring/evaluation of local primary care services. Further research is needed to find the best methods and approaches for developing objective measures and interventions to establish the link between clinical commissioning and health inequalities, improving equitable access, health outcomes and effective partnerships.
6	Mental health services designed for Black, Asian and Minority Ethnics (BAME) in the UK: a scoping review of case studies (2020)	**Method**: Systematic Literature Review (Quantitative and qualitative studies) **Scope**: UK academic literature of non-randomised community from Jan 2009 to 2019 **No. of included studies**: 13 **Analysis**: Thematic	Studies were very heterogeneous in terms of their sample and the service provided. After the initial appraisal, the authors presented a narrative synthesis. Overall, all studies reported positive mental health outcomes and beneficial effects.	The review suggests a need for more research to demonstrate the effectiveness of BAME specific services and indicate the place that these services can have in mainstream mental health services. Initiatives are also required to integrate these targeted services within mental health and community services.
7	Factors in implementation of clinical commissioning policy in improving health and wellbeing and/or	**Method**: Systematic Literature Review (Quantitative and qualitative studies)	The final review included six primary studies (including 1155 participants). The studies reported two broad categories under four	The review recommends further assessing future monitoring and evaluation of local primary care services.

	reducing health inequalities in the English NHS: a systematic review of the evidence (2020).	**Scope**: Articles published in English from Jan 2012 to 2020 **No. of included studies**: 6 **Analysis**: Thematic	different themes: agenda of health inequalities not fully addressed; inadequate evidence for reducing health inequalities; reform through restructuring of organisations, and strategic approaches.	