

Assessment: Component 2 – Social Epidemiological and Epidemiological Analysis Report

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Part 1: Gender Inequality and Health Outcomes Among Women in the UK

1. Introduction

Inequalities in health are systematic, preventable and inequitable disparities in health between population groups (WHO, 2018). Women present 51% of the UK population and live longer than men, but a larger percentage of their lives are spent in ill health (GOV, 2022). Women have gross disparities in mental health, reproductive health, economic status and exposure to domestic abuse (WHO, 2025). Social determinants of health such as income, employment, education and access to healthcare have a strong influence on these disparities (Rayment-Jones, et al., 2019). This report critically investigates the key health and social inequalities that women face in the UK and assesses the national responses that have been set to curb these inequalities.

2. Contextual Background and Underlying Factors

2.1 Mental Health Inequality Among Women

Mental health disorders create a considerable health disparity in women in the UK. According to the Adult Psychiatric Morbidity Survey, females are nearly twice as likely as males to develop common mental disorders, such as anxiety and depression (NHS Digital, 2025). Even though there may be a biological aspect to it, social epidemiological studies indicate that poverty, responsibility of caregiving, unstable employment and domestic abuse make women susceptible to bad mental health (Kirkbride, et al., 2024). Although NHS Talking Therapies have enhanced access to treatment, existing socioeconomic disparities still have a charge on mental health outcomes, indicating that clinical interventions cannot entirely manage the factors behind this disparity (NHS- Race and Health Observatory, 2023).

2.2 Breast Cancer Burden Among Women

The most prevalent cancer in women in the UK is breast cancer with an occurrence of about 59,000 new cases every year (Cancer Research UK, 2019). Even though the NHS Breast Screening Programme has resulted in better early detection and survival rates, disparities are still noticeable among women in deprived populations and certain ethnic minorities (Hutton, et al., 2025). Reduced screening uptake and decreased diagnosis lead to worse outcomes and increased risks of mortality. These differences indicate that access to services is not enough and broader socioeconomic and cultural barriers are needed to minimise disparities in breast cancer outcomes.

2.3 Maternal Mortality and Reproductive Health Inequality

Maternity mortality is a significant measure of health disparity in the UK. According to MBRRACE-UK about three times more black women are likely to die during pregnancy, childbirth or the postnatal period than White women and almost twice as many Asian women (NPEU, 2022). These disparities point out the impact of deprivation, disparate access to maternity services and broader structural inequities. Despite the aim of the NHS maternity equity programmes to decrease disparities, the fact that they persist indicates that more social determinants and systematic barriers are at work to negatively affect the health outcomes of mothers (Elumogo and Rayment-Jones, 2025).

2.4 Gender Pay Gap and Economic Inequality

One of the key determinants of the health of women is economic inequality. The Office for National Statistics states that in 2024, a full-time employee in the UK had an approximation of 7% of a gender pay gap (ONS, 2024). Reduced lifetime earnings may limit access to healthy housing, healthy nutrition and opportunities that promote wellbeing (Glaubitz, et al., 2024). Despite the rise of organisational responsibility with mandatory gender pay gap reporting, inequalities persist in most areas. The persistence of economic inequalities evidences the role of social and economic status in the unequal health outcomes of women across the life course.

2.5 Domestic Abuse and Violence Against Women

Domestic abuse is a major community health problem extremely impacting women. According to the Office of Statistics, one out of every four women in England experiences domestic abuse during their lifetime (National Centre for Domestic Violence, 2023). The effects are physical trauma, anxiety, depression and lasting psychological trauma. Although the Domestic Abuse Act 2021 has enhanced legal safeguards and support services, there are still obstacles to accessing support, including fear of reporting, financial reliance and capacity of service (GOV, 2022). Domestic abuse is thus a crucial topic to address to decrease health disparities due to gender differences.

2.6 Unpaid Caregiving Burden

In the UK most of the unpaid caregiving roles are done by women who take care of children, elderly and disabled parents and family members. According to Carers UK, women have a much higher likelihood of giving intensive unpaid care as compared to men (Carers UK, 2019). These roles may lead to chronic stress, social isolation and decreased economic involvement which have adverse impacts on physical and mental well-being. Even though due to the flexible working

policies, more support is provided to some carers, there are still numerous carers who face financial and emotional stresses, which reinforce the gender-based health inequalities throughout the life course.

3. National Responses to Reduce Gender Health Inequalities

Various schemes have been implemented by the UK government to minimise the inequalities in healthcare based on gender. The Women's Health Strategy in England aims at enhancing the performance in fields such as reproductive health, mental health and menopause care, a factor that has been neglected in the healthcare systems as regards the health concerns of women (Department of Health & Social Care, 2026). In the same manner, the Domestic Abuse Act 2021 reinforced legal measures against survivors and increased their access to support services (Women's Aid, 2026). Although these programs show that there is a desire to tackle gender inequalities, there is an indication that there are still inequalities, especially among women living in deprived and minority ethnic communities. As such, implementation, continued funding and continuous monitoring are necessary to guarantee that national policies are translated into actual improvements in women's health outcomes.

4. Organisation Supporting Women: Women's Aid

Women's Aid is one of the UK's leading charities that aims to assist women victims of domestic violence, as well as problematic gender-based violence (Women's Aid, 2026). The organisation offers refuge services, advocacy, education and research services to enhance the safety and well-being of women and children. It also informs society about the social injustice connected with domestic abuse and shapes the national policy. Women Aid, through campaigning, support and gathering of evidence and survivors seeks to prevent abuse, promote equality and minimise the high health and social disparities that women face.

5. Conclusion

In the UK, women still face great health inequalities which are primarily caused by the health conditions as well as social determinants in general. The disparities in mental health disorders, breast cancer, maternal mortality, economic disadvantage, domestic violence and workload of caring all lead to unequal results. Despite the valuable assistance offered by national policies and organisations such as Women Aid, there is a need to take long-term measures to tackle structural factors that contribute to gender-based health disparities.

Part 2: Epidemiological Analysis of Type 2 Diabetes Among South Asian Adults in Leicester City

1. Introduction

Type 2 diabetes mellitus (T2DM) is a non-communicable, chronic disease that is characterised by insulin resistance and poor glucose metabolism (Mlynarska, et al., 2025). The number of adults worldwide with diabetes is approximately 589 million, with Type 2 diabetes constituting about 90% (IDF, 2025). Over 4.7 million individuals in the UK are known to have diabetes, potentially posing a significant burden on public health (Diabetes UK, 2017). T2DM is more likely to develop in South Asian adults by up to six times and often develops the condition 5-10 years before that of Whites (Hodgson, et al., 2025). Leicester City displays one of the greatest South Asian populations in England and is more affected by diabetes than the national average (Citiesforbetterhealth, 2018). The illness causes high morbidity, mortality, decreased quality of life and increased healthcare spending.

2. Determinants and Risk Factors

Type 2 diabetes in the South Asian adult population has biological, behavioural and social determinants that affect its development (Misra, et al., 2025). Susceptibility is enhanced by genetic predisposition, family history and greater insulin resistance at lower body mass index levels (Galicia-Garcia, et al., 2020). Risk is further augmented by behavioural factors such as physical inactivity, high refined carbohydrates and saturated fat diets. The social determinants of disease distribution that include deprivation, poor health literacy, employment status and lack of access to culturally sufficient healthcare play a major role in the distribution of diseases. Risk is also influenced by the environment, such as access to healthy food and physical activity opportunities. The social gradient of health in which the disadvantaged groups are exposed to more risk factors accounts for the unequal burden of diabetes. Prevention is thus best achieved by behaviour change and more comprehensive intervention on the socioeconomic determinants.

3. Epidemiological Studies and Health Needs Assessment

Epidemiological research shows that Type 2 diabetes has a disproportionate prevalence among the South Asian communities (Mishra, et al., 2025). South Asian adults have a six times higher risk of developing T2DM compared to White adults and often develop the disease at an earlier age (Prinjha, et al., 2020). The prevalence rates are highly concerned as they are higher than those in the rest of the country and this is due to the large South Asian population. Based on the health needs assessment, adults between the ages of 30 to 70 years, people with a family history

of diabetes and people living in deprived communities are priority groups (Lu, et al., 2024). Underdiagnosis and worse management of the disease are a result of language barriers, cultural beliefs and a lack of awareness of the symptoms and timely use of healthcare services. Despite the benefits of NHS Health Checks in early detection, differences in uptake are still apparent (Eberhardt, et al. 2025). These results highlight the importance of culturally sensitive interventions that focus on clinical risk factors as well as broader determinants of health.

4. Public Health Measures Using the 3Ps

The concepts of protection, prevention and promotion can be used to analyse the application of public health strategies in the prevention and management of Type 2 diabetes among the South Asian adults in the city of Leicester (Citiesforbetterhealth, 2020). Measures that can be taken for protection are NHS Health Checks, retinal screening programmes and routine monitoring that facilitate the early diagnosis and minimization of complications. Prevention programs such as the NHS Diabetes Prevention Programme the high-risk groups and implement lifestyle changes before the development of the disease (NHS, 2026). Promotion activities are aimed at healthy nutrition, physical activity and self-management of diabetes by educating and involving the community in the movement. Even though these interventions are effective, their efficiency is affected by socioeconomic factors, cultural beliefs and health literacy levels. As a result, culturally relevant services and overall action centred on the social determinants of diabetes risk and progression should be coupled with behaviour change strategies in terms of public health measures.

5. Surveillance and Monitoring Systems

Proper surveillance and monitoring will be critical in realising the prevalence and effects of Type 2 diabetes among South Asian adults in the city of Leicester. Active surveillance involves specific screening programmes and case-finding exercises that would identify persons at risk before they develop complications. Passive surveillance is based on regularly gathered information from general practitioners, hospitals and community health services. The National Diabetes Audit is an excellent source of data about prevalence, treatment outcomes and quality of care in England, whereas electronic health records contribute to ongoing monitoring on a population-wide level (NHS Digital, 2024). These systems facilitate trend analysis, resource allocation and assessment of interventions in public health. However, surveillance data might fail to capture the true prevalence of the disease, as the cases that go undiagnosed are still prevalent, especially among underserved groups. The differences in the quality of healthcare engagement and data can also influence accuracy. Despite these limitations, surveillance is still a vital component in terms of

quantifying disease burden and guiding evidence-based strategies in diabetes prevention and management.

6. Public Health Impact and Consequences

The short-term and long-term impacts of type 2 diabetes on individuals, health care systems and society are significant. Poorly controlled diabetes in the short run may result in hyperglycaemia, hospitalisation and impaired daily functioning. The long-term effects are cardiovascular disease, kidney failure, neuropathy, retinopathy and amputations of the lower limbs, all of which cause morbidity and premature mortalities. These complications adversely impact the quality of life, independence and psychological well-being. Socially, the disease may lower the employment opportunities, raise the number of absenteeism and cause more burdens to the family and the caregivers. Considering the increased prevalence of the South Asian population, the disease adds to the increasing disparities in health and underscores the importance of effective prevention, early intervention and long-term disease control strategies.

7. Proposed Health Intervention Programme

The proposed intervention is a community-based program which is called the Leicester South Asian Diabetes Prevention Programme and will decrease the prevalence of Type 2 diabetes among adults aged 30-70 years of South Asian descent. The programme will raise awareness of risk factors of diabetes, enhance uptake of screening and healthy lifestyle behaviours. Some of the important events would be multilingual educational forums, culturally sensitive dietary education, physical health promotion and outreach to the community centres, mosques and local organisations. The Health Belief Model informs the intervention by indicating that people are more inclined to engage in preventive behaviours when they are aware of their vulnerability to disease, perceive its severity and experience the benefits from taking action (Alyafei and Easton-Carr, 2024). Some of the SMART objectives are to increase uptake by 20% of diabetes screening and enhance involvement in physical activity programmes in a twelve-month period. The programme aims to tackle the behavioural risks and minimise the barriers that lead to health inequalities and late diagnosis by integrating health education with culturally relevant community engagement.

8. Evaluation of Intervention

Process, outcome and impact evaluation should be used to evaluate the effectiveness of the Leicester South Asian Diabetes Prevention Programme. Process evaluation would evaluate attendance, rate of participation and programme coverage in the target population. The outcome evaluation would evaluate the change in diabetes knowledge, dietary behaviours, physical activity

levels and screening uptake. Impact evaluation would include analysis of long-term outcomes such as the decrease in the number of new cases of diabetes, the enhancement of HbA1c and the decrease in the number of hospital admissions (Golden, et al., 2017). Baseline and follow-up data would be compared to establish whether the intervention has significant effects on improving health outcomes and minimising diabetes-related disparities in South Asian adults at Leicester.

9. Strengths and Weaknesses of the Epidemiological Approach

Epidemiology offers a scientific concept of the measurement of incidence, prevalence, morbidity and mortality and in the identification of disease patterns among populations. Its main strength lies in the possibility of identifying high-risk groups, tracking the dynamics of diseases and informing evidence-based interventions in public health. Resource allocation and policy development are also supported by epidemiological data which point to health disparities and the needs of the population. However, surveillance mechanisms can fail to capture the true prevalence of the disease since undiagnosed cases will not be recorded especially in underserved populations. Moreover, observational studies can be affected by difficult variables and cannot always determine causal relationships. However, irrespective of these limitations, epidemiology will continue to play a pivotal role in informing the process of diabetes prevention in enhancing population health and minimising disparities among South Asian adults in Leicester.

10. Conclusion

Diabetes type 2 is a serious community health issue among South Asian adults in Leicester. Biological, behavioural and social determinants have been shown to cause unequal disease burden epidemiologically. Incidents, health promotion and provision of culturally competent prevention programs require effective surveillance, targeted interventions and prevention programs to reduce incidences, enhance health outcomes and reduce long-term health disparities in this group.

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