



MSc Public Health and Social Care in Practice
LCHS7000 Social Epidemiology and Public Health Development

Component 2: Analytical Report

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Task 1: Gender Inequalities in Health among Women in England

1.1 Introduction

The chosen target group for this research is the women population of England, and the rationale behind their inclusion in this study is the observed gender inequalities affecting their health outcomes in the country, which are further elaborated throughout the following sections here.

1.2 Contextual Background and Underlying Factors

1.2.1 Health Issues

1.2.1.1 Health Issue 1: Endometriosis

Endometriosis is a gynaecological condition that affects the health of women, and in the UK, its prevalence is significant, because approximately 1 in 10 women of reproductive age are affected by the condition, which is estimated to affect around 15 million women (Endometriosis, 2026). From the perspective of general practitioners, the symptoms of the disease are often non-specific, contributing to diagnostic delays among women in England (Dixon et al., 2021). The quality of women's lives is severely affected because of disease-related pain and infertility, which can negatively affect their mental health and contribute to depression, stress, and anxiety (Maulenkul et al., 2024). Therefore, the combination of diagnostic delays, chronic symptoms and limited recognition of the condition can contribute to gender-related inequalities in women's health outcomes.

1.2.1.2 Health Issue 2: Breastfeeding and Maternal Health

Inequalities in maternity and breastfeeding support can affect women differently. For example, despite experiencing certain birth-related challenges, some women report receiving positive support from their personal network regarding breastfeeding, while others reported receiving negative support from both their personal and professional networks, with some being actively encouraged to use infant formula, which caused feelings of disappointment (Thomson et al., 2022). In this context, Page, Emmott and Myers (2022) also acknowledged that breastfeeding problems contribute to postnatal depression. Therefore, the synthesis of these findings suggests that unequal experiences of breastfeeding support from personal and maternity networks can adversely affect women's mental health and maternal wellbeing. This highlights how differences in the support available to women can contribute to inequalities in maternal health outcomes.

1.2.1.3 Health Issue 3: Autoimmune Diseases

Women suffer from autoimmune diseases more than men because of different biological and evolutionary reasons, as follows -

- Women possess more antibodies than men evolutionarily, intended to offer greater protection to their offspring.
- Additionally, in the postpartum phase, the serum antibody level in women sharply increases, triggering a surge in autoimmune responses (Kronzer, Bridges Jr and Davis III, 2021).

In addition to this, gender-related healthcare inequalities are also observed to be affecting overall health outcomes. Contextually, public health policies of the UK can be cited here, especially the behavioural health policies, such as banning smoking and advertising of tobacco, which are more effective for men than women (Allel *et al.*, 2021).

1.2.2 Social Issues

1.2.2.1 Social Issue 1: Gender Pay Gap

Social issues also contribute to the exacerbation of gender-based inequalities in health among women in England. In this context, the gender pay gap in the UK can be discussed as an important socioeconomic determinant of health. Though the gender pay gap in the country came down from 7.1% in 2024 to 6.9% in 2025, the median hourly earnings of men are significantly higher (£20.27) than those of women (£18.87) (ONS, 2025). As a consequence, lower earnings may contribute to greater financial insecurity among women, potentially limiting their ability to afford health-related costs and access appropriate healthcare, while also negatively impacting their overall mental health and well-being. Thus, persistent differences in earnings can contribute to wider socioeconomic inequalities that affect women's health.

1.2.2.2 Social Issue 2: Unpaid Caregiving

Labour force data from 125 countries highlights that, compared to approximately 800 million men, globally approximately 1.6 billion women are engaged in unpaid caregiving work (ILO, 2024). Contextually, a longitudinal study in the UK also supports this global finding, as women are more likely to undertake caregiving responsibilities, which can contribute to lower earnings and poorer physical and mental health (Seedat and Rondon, 2021). The synthesis of these findings suggests that women's greater responsibility for unpaid childcare and family caregiving contributes to increased stress, reduced employment opportunities, financial disadvantages and poorer wellbeing. Therefore, unpaid caregiving represents an important social determinant that can reinforce gender inequalities in health.

1.2.2.3 Social Issue 3: Gender-Based Violence

The National Centre for Domestic Violence in the UK reported that women are more likely to experience domestic violence, with women accounting for 95% of people seeking domestic violence advice, and the likelihood of women facing such incidents can increase during pregnancy (NCDV, 2025). This indicates that domestic violence experienced by women in the UK can result in both immediate and long-term health consequences, including physical injuries and psychological harm. In addition to this, female victims of domestic violence may also suffer from reproductive and sexual health consequences, as well as increased risks of mental health problems. Consequently, gender-based violence represents a significant social determinant of health and can contribute to persistent inequalities in women's physical, reproductive and mental health outcomes.

1.3 National Response to Reduce Health Inequalities

In response to the existing gender inequalities in health among women in England, the government has launched a Renewed Women's Health Strategy for England, under which the government has emphasised several priorities, including:

- Ensuring shorter waiting times for gynaecological care.
- Providing easier access to health screening services closer to women's homes.
- Improving women's working lives and workplace experiences.
- Ensuring that women's health concerns are taken seriously at their first point of contact with healthcare services (UK Gov, 2026).

In addition to government action, NHS England has also taken measures to tackle existing healthcare inequalities, particularly those experienced by women, by prioritising specific areas:

- Restoring pre-pandemic levels of service accessibility, with particular focus on ethnic minority and socioeconomically deprived communities.
- Providing face-to-face healthcare for digitally excluded communities.
- Proactively engaging with populations experiencing poorer health outcomes (NHS, 2021).

These measures demonstrate that the national response extends beyond clinical treatment and also seeks to address accessibility, early diagnosis and wider social inequalities affecting women's health. However, the effectiveness of these strategies depends on their implementation and ability to reach women experiencing the greatest barriers to healthcare.

1.4 Organisations Supporting Women

There are several organisations in the UK that offer targeted support to women in society. For example, Women's Aid works with women who have experienced domestic abuse (Women's Aid, 2026). Besides offering support to such women, the organisation also campaigns for policy and social change, raises awareness of domestic abuse, and provides information and training to support women and professionals in responding to domestic abuse (Women's Aid, 2026). Additionally, organisations such as The Lucy Rayner Foundation and Women's Trust also offer mental health support to women through online and face-to-face services (Thelucyraynerfoundation, 2026; Womanstrust, 2026). Among these organisations, Women's Aid is particularly relevant to the present analysis because gender-based violence was identified as a significant social determinant contributing to inequalities in women's physical and mental health.

1.5 Conclusion

The discussion here helps to discover how biological, social, economic and structural factors interact to produce gender inequalities in women's health. The prevalence of endometriosis and autoimmune disease, unequal breastfeeding support, engagement in unpaid care, and gender pay gaps causing poor financial health, and the structural inefficiencies of the NHS and the UK government are found to have resulted in gender inequalities in health among women in England.

Task 2: Epidemiological Analysis of Prevalence of Cardiovascular Disease (CVD) in England

2.1 Introduction

According to the British Heart Foundation, in 2026 more than 7 million people in England are living with cardiovascular diseases, which makes CVD a major public health problem in the country (BHF, 2026). The National Library of Medicine defines CVD as a group of disorders affecting the heart and blood vessels, including coronary heart disease, cerebrovascular disease, peripheral arterial disease, and other vascular conditions (Lopez, Ballard and Jan, 2023). Due to the varying nature of CVD, the mortality rate associated with these conditions is also comparatively high. Recent data show that CVD accounts for approximately 26% of annual deaths in England, amounting to over 140,000 deaths yearly (BHF, 2026). Therefore, the substantial prevalence and mortality associated with CVD highlight the importance of effective prevention, early identification and management of cardiovascular risk factors in England.

2.2 Public Health Measures – Prevention, Protection and Promotion (3Ps)

2.2.1 Prevention

Considering the severity of CVD, the NHS England has suggested certain measures that can help to prevent the disease. For example, the NHS mostly emphasised transitioning to a healthy lifestyle by quitting smoking and alcohol consumption, besides encouraging people to resort to a healthy diet and embrace regular exercise as well (NHS, 2026a). The evaluation of this information helps to perceive the fact that ceasing to smoke, choosing to eat healthily, and taking up physical activities can help an individual to better manage their weight, which in turn can significantly reduce the risk of contracting CVD. Therefore, adopting healthier behaviours can contribute to reducing an individual's risk of developing CVD.

2.2.2 Protection

To remain protected against CVD, the NHS has identified certain risk factors, including hypertension, atrial fibrillation, and high cholesterol (NHS, 2026a). Hence, the effective management of these risk factors can offer protection against CVD. To protect the population from the disease, the NICE has published a guideline NG238, which recommends starting primary prevention through statin treatment administered to individuals with a QRISK score of 10% and above (Williams, Round and Jones, 2024). Apart from integrating CVD risk assessment through QRISK scores, the guideline also encourages lipid modification through statin treatment, which is effective in lowering LDL by 30% on average (Williams, Round and Jones, 2024).

2.2.3 Promotion

In order to prevent further worsening of the disease prevalence and protect the population from the disease, the NHS has clearly listed certain health-promoting actions, which include the following -

- Eating healthy.
- Exercising regularly.
- Stopping smoking.
- Lowering the consumption of fatty food and alcohol (NHS, 2026b).

In addition to promoting a healthy lifestyle, the NHS also facilitates raising awareness of CVD conditions among individuals by offering free-of-charge health check facilities to individuals aged between 40 and 74 years (NHS, 2026b). The evaluation of these sets of information points to the fact that the prevention and health-promoting activities of the NHS focus more on preventive measures.

2.3. Determinants and Risk Factors

There are different factors that contribute to CVD. Some of these factors are modifiable, and some are non-modifiable. The major determinants of CVD are as follows -

- High body-mass index, blood pressure, and non-HDL cholesterol, besides high smoking rate, and the presence of comorbid conditions, such as diabetes (GCRC, 2023).
- Ageing, hypertension, and abdominal obesity also contribute to CVD, apart from low income preventing healthcare access for disease identification, and the lack of education impacting disease awareness (Tian *et al.*, 2023).
- Other than genetic factors, environmental factors, including air pollution, exposure to high-pitched noise, extreme heat events, and climate change, are other risk factors (Münzel *et al.*, 2022).

2.4. Epidemiological Studies and Health Needs Assessment – Population at Risk

A recent study highlighted that cholesterol, one of the key risk factors for CVD, is considerably high among individuals aged between 45 and 64 years, while a considerably high prevalence of hypertension is observed among individuals aged 75 years and above (NHS, 2026c). From the perspective of premature deaths caused by CVD, a government report noted that the most socio-economically deprived community members, which is approximately 10% of the total population of England, are at risk (Gajjar and Burnett, 2025). The analysis of these prevalence

and mortality data indicates that health needs assessments and policy responses should prioritise older adults and socioeconomically deprived populations, where the burden of CVD is particularly significant.

2.5. Surveillance and Monitoring

For the surveillance and monitoring of hospitalisation and mortality caused by the different risk factors contributing to CVD, NHS England has launched the CVDPREVENT initiative. The initiative allows the NHS to audit the GP records across the country, helping the organisation to understand the prevalence trend of the disease nationally, besides enabling them to figure out the conditions that are fuelling the exacerbation of CVD among the population (NHS, 2026d). Therefore, CVDPREVENT provides an important surveillance mechanism for identifying potentially undiagnosed or undertreated cardiovascular risk and supporting evidence-based service planning.

2.6. Public Health Impact – Short- and Long-Term Consequences

2.6.1 Short-term Consequences

The short-term consequences of CVD events, such as heart attacks or strokes, can impact both individuals and NHS services. According to what Dattani *et al.* (2023) observed, CVD, including strokes and heart attacks, causes the highest number of deaths (33%) yearly. From the analysis of this information, it becomes evident that people experiencing such severe health conditions would certainly resort to healthcare facilities to save their lives. This puts a tremendous financial burden on the public health system of the UK, which Shih *et al.* (2025) estimated to be more than 29 billion pounds, including direct and indirect costs, including medication and emergency care.

2.6.2 Long-term Consequences

The long-term consequences of CVD equally affect an individual as well as the healthcare system as a whole. For example, while individuals with CVD experience disability, limiting their physical movements significantly and affecting their overall quality of life, the disease is also a leading cause of premature mortality (Masaebi *et al.*, 2021; Vaduganathan *et al.*, 2022). On the other hand, the long-term care costs associated with CVD, as found in the 2021-22 financial year in the UK, were approximately 4.65 billion pounds (Shih *et al.*, 2025). The synthesis of this information suggests that cardiovascular events not only reduce the overall quality of life and cause premature deaths, but it also increases healthcare costs significantly in the long term.

2.7. Health Intervention Program – Proposed Intervention

2.7.1 Core Components

In alignment with the NHS Health Checks and Community Pharmacy Hypertension Case-finding, the proposed intervention contains three core components, as follows -

- **Design and outreach** - Integrating health checks for individuals aged between 40 and 74 into community pharmacies, especially those located at or near deprived community hotspots.
- **Taking protective and preventive measures** - Campaigning to raise awareness and educate in a culturally suitable manner on the risk factors of CVD, besides taking actions for Statin initiation.
- **Monitoring and evaluation** - Auditing community pharmacy reporting to understand treatment uptake and outcomes.

2.7.2 Evaluation

The evaluation of the proposed intervention with the core components, as discussed above, helps to uncover the potential of the health intervention program. The proximity of pharmacies to socio-economically deprived community hotspots can significantly increase screening uptake, helping the NHS identify the prevalence of CVD conditions and the risk factors contributing to the disease prevalence. Moreover, with awareness and education campaigns, patient participation would also increase, contributing to disease prevention, and thereby achieve a better CVD outcome as well.

2.8. Strengths and Weaknesses of the Epidemiological Approach

2.8.1 Strengths

The epidemiological approach taken up in this research has both strengths and limitations. As for the strengths of this study, the integration of the CVD trends here has the potential to assist the NHS in terms of formulating evidence-based planning and resource allocation with respect to the identified high-risk population. The findings of this study can be particularly helpful for the further expansion of the CVDPREVENT program of the NHS because the proposed intervention would also allow them to audit community pharmacy data.

2.8.2 Weaknesses

As far as the weakness of this approach is concerned, it is important to highlight that the emphasis on quantitative epidemiology can prove to be of limited effectiveness, particularly when it is integrated into the aspects of social, cultural, and behavioural causes that together contribute to the exacerbation of CVD in the UK population as a whole. In the context of the

limitation of the quantitative approach here, the incomplete data factor can be held accountable.

2.9. Conclusion

The burden of cardiovascular disease in England is manifested through more than 7 million people who are living with the condition. By promoting healthy lifestyle choices, including daily exercise and avoiding smoking, the NHS aims to prevent the disease burden. With the CVDPREVENT initiative, the NHS has also aimed at tracking the prevalence of the disease and the potential contributing risk factors. The NG238 forms a solid base, allowing the NHS to work on evidence-based CVD risk management. The adverse health impacts on socio-economically weak communities made ensuring equitable access to healthcare obvious in England's context.

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