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Abstract: Task 1 discusses the major health disparities affecting women. Additionally, it will highlight the causes and solutions of all the problems. Finally, it will provide an understanding of the national responses and the organisations working behind these issues. Breast cancer is a growing cancer among women aged 50-70 in Hackney. Task 2 mainly focuses on risk factors, implementation of Epidemiological approaches to increase screening participation, and utilization of 3P in the management system of breast cancer in Hackney's women. Hence specific public health intervention is a must for improving outcomes.

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Task-1

Gender-Based Health Inequalities: A Social Epidemiological Analysis

Introduction

Gender is a prime factor that affects everything related to health(Miani et al., 2021). It not only affects the biological risks of the human body but also the way stress is experienced. It also has an impact on inequality, social responsibilities, and the source of important needs. Gender based health inequality is mainly the discrimination that different genders face in health sectors because of different perspectives. In many societies, women face discrimination in terms of healthcare access because of patriarchal traditions. They face many health disadvantages, and their health needs are also affected because of gender inequalities. There are many factors for which them to face these kinds of problems. For example, Traditional myths, gender norms, and patriarchal rules are made by society. These things put them in many dangers. They faces greater health risk that cannot be solved as well, and their health need are not fulfilled (Fazeli Dehkordy et al, 2016).

In this report, all the discrimination faced by women regarding health will be discussed as well, and it will mainly prioritize the main causes of inequalities. The target group is women, and this report will give a thorough understanding of the physiological, social, cultural, and economical factors that impact the discrimination in health. It is really important to know these factors because they will help to take steps for removing discrimination in health among the chosen group. Additionally, it will help in making an effective design for flexible health access.



(David, 2024)

Applicable background and underlying Factors

Disease / Illness Inequalities

Greater amount of Mental disease

Nowadays, many women suffer from mental health-related problems. It shows how gender inequality affects the health condition of females. The number of mental diseases is growing day by day among women. According to a recent study of England, approximately 24% women suffer from mental illness in the fiscal year 2023-2024 (Maxwell, 2025). On the other hand, this percentage is 15% in men. In these mental problems, most of the illnesses are related to anxiety, depression, or poor psychiatric conditions. The percentage of detection of mental illness is 2 times greater in women than in men. Additionally, among this target group, young women are more likely to suffer. It is found that 31% young women suffer from mental illness; on the other hand, this percentage is 13% in men (Vicky, 2025).

The main causes of risk

The increase in these mental diseases has several reasons. The reasons vary from many social causes and family-related issues. Additionally, women go through problems which are related to balancing their job life and family life. Habitually, women are more emotional than men in nature, so they have many expectations. Moreover, stress is one of the prime factors related to mental illness. Women often go through stress while managing their family, child, and work life together (Maddrell et al., 2016).

Solution

An effective mental health awareness campaign should be arranged. As well as women should be provided with flexible psychological counselling.

Gender-based differences between chronic or autoimmune diseases

Not only mental health diseases, but many women suffer from several autoimmune diseases, which are dangerous and life-threatening (Phillips, 2008). According to a recent study, women are at a higher risk of chronic or autoimmune diseases. These diseases vary from rheumatoid arthritis, osteoporosis, or thyroid diseases (Fairweather & Rose, 2004). As women have different psychological features than men so they have a higher risk of autoimmune diseases.

Reason for Risk

Biological factors are the main reason behind these but there are many social factors that are related to this. Sometimes women seek help for their consequences. For example, sometimes when a women suffer from heart disease, it is misunderstood as stress. This type of problem happens because of a lesser understanding of women related consequences.

Solution

To solve these problems, effective research should be done. Flexible policies should be followed to understand the disease representation of women. Additionally, better diagnosis techniques should be followed.

Reproductive and women-based health discrimination

Women's health discrimination is also related to the reproductive system and sexual health problems. Several factors, like availability of contraceptives, maternal care, as well as menstrual care are related to women-centred health inequalities.

Reason for Risk

Women who are from low-income families cannot get proper access to contraceptives and maternal care, which leads to poor health conditions. As well as insufficient information about these situations is also a prime reason.

Solution

Affordable health services should be given as well, and women's health clinics should be established more.

Social Inequalities

Gender focused violence

It is one of the prime factors which affect the health condition of women. According to recent research, approximately 1.6 million women aged 16 faced domestic violence in England and Wales. These victims are at higher risk of anxiety and depression (Allel et al., 2021).

Causes of problems

These types of occurrences are happening because of the patriarchal thought of some people and the imbalance of gender power. Additionally, many women do not have enough economic support for leaving these types of environment.

Solution

Laws and legal procedures should be more flexible regarding domestic violence in women.

Economic discrimination among women

Economic problems are one of the prime factors related to health disparity. In the UK, women are considered low earners because of the low amount of payment. Women face problems regarding nutrition and preventive care because of the economic situation.

Reason for Problems

There are many gender related myths which are still available, and this is the main cause. Most of the time, women don't get adequate care, and this leads to disparity.

Solution

Flexible rules and policies should be made regarding payment methods for women. Job security and flexibility of women-based work should be increased.

Challenges in getting healthcare and gender bias in treatment

Many times women get in problems regarding healthcare access. They face many challenges. For example, few menopause care and maternal care have very few affordable treatments available. Additionally, healthcare-related research and clinical research are very few in terms of women.

Causes of the Problem:

Many institutions are biased towards men as well, and there are very few flexible frameworks for women's health.

Solution:

People should invest more in women-focused health research.

National Response for the reduction of inequalities

Gender focused health tricks:

Some national health services like NHS UK introduced women-focused health access like reproductive care, maternal care and chronic disease support.

Law Against gender sensitive violence

There is a law called the "Domestic Abuse Act". This law strengthens the protection of women (Alldred, 2023).

Organisations That Support Women Facing Health Inequalities

WHC or Women's Health Concern is a UK based organisation that works for health services for women. Organisations like Refuge also support the victims of domestic violence.

Activities of WHC:

Women's Health Concern provides data on women's health issues. Additionally, they motivate women to prioritise their health. They also give guidance regarding access of health services and consultancy.

Goals

The main goal of WHC is to decrease the myths about women's health and get rid of the social stigma. Refuge focuses on giving safe counselling and support to victims.

Conclusion

Acknowledging these inequalities requires flexible research and data. Legal protection and law should be strengthened to remove these problems. Organisations like Women's Health Concern and Refuge play a vital role (Klugman, 2007). Motivating people to increase fairness in health is a matter of public health welfare as well as social justice.

References

1. Alldred, P., 2023. Gender-related violence: what can a concept do?. *Social Sciences*, 12(9), p.479.
2. Allel, K., Salustri, F., Haghparast-Bidgoli, H. and Kiadaliri, A., 2021. The contributions of public health policies and healthcare quality to gender gap and country differences in life expectancy in the UK. *Population Health Metrics*, 19(1), p.40.
3. David, K. (2024) Women's Health: Why do women feel unheard?. Available at: <https://evidence.nihr.ac.uk/collection/womens-health-why-women-feel-unheard/> (Accessed : 30 November, 2025).
4. Fairweather, D. and Rose, N.R., 2004. Women and autoimmune diseases. *Emerging infectious diseases*, 10(11), p.2005.
5. Fazeli Dehkordy, S., Hall, K.S., Dalton, V.K. and Carlos, R.C., 2016. The link between everyday discrimination, healthcare utilization, and health status among a national sample of women. *Journal of Women's Health*, 25(10), pp.1044-1051.
6. Klugman, J., 2017. Gender based violence and the law.
7. Maddrell, A., Strauss, K., Thomas, N.J. and Wyse, S., 2016. Mind the gap: Gender disparities still to be addressed in UK higher education geography. *Area*, 48(1), pp.48-56.
8. Maxwell, B. (2025) Adult Psychiatric Morbidity Survey: Survey of Mental Health and Wellbeing, England, 2023/4 - NHS England Digital. Available at: <https://digital.nhs.uk/data-and-information/publications/statistical/adult-psychiatric-morbidity-survey/survey-of-mental-health-and-wellbeing-england-2023-24> (Accessed : 30 November, 2025).
9. Miani, C., Wandschneider, L., Niemann, J., Batram-Zantvoort, S. and Razum, O., 2021. Measurement of gender as a social determinant of health in epidemiology—A scoping review. *PLoS One*, 16(11), p.e0259223.
10. Phillips, S.P., 2008. Measuring the health effects of gender. *Journal of Epidemiology & Community Health*, 62(4), pp.368-371.

11. Vicky,M.(2025)Insights on Gender Health Inequalities in Today's Society.Available at:<https://cpdonline.co.uk/knowledge-base/mental-health/gender-health-inequalities/>(Accessed : 30 November, 2025).

Task 2

Epidemiological Analysis of Breast Cancer Among Women Aged 50–70 in Hackney, London

Introduction

Breast cancer is one of the most prominent problems in the world right now. Day by day, these life-threatening diseases are increasing (Evans et al., 2016). According to the WHO, it is one of the most common and dangerous diseases, which is increasing rapidly, and approximately 2.3 million people were diagnosed with breast cancer in 2020, with 670,000 deaths occurring worldwide (John, 2025). Though the number of people who survived has increased in recent years because of early diagnosis, there are a lot of inequalities in the diagnosis process, way of presentation and giving services (Peto et al., 2000). In London, where a higher amount of socio-economic poverty exists, inequalities occur most. The most significant example is a borough with serious socio-economic problems (Key et al., 2001). Among all the areas, Hackney has very little participation in the NHS breast cancer screening program. As a result, it causes a greater number of poor diagnoses and late treatments. For a newly joined regional epidemiologist it is really important to evaluate the identification, management and prevention of breast cancer among this population (Smith, 2022). This report will recognise the causal factors, public health responses, and intervention process relevant to breast cancer among women who are 50-70 years old in Hackney.

Determinants and Risk Factors of Breast Cancer

The breast cancer risk is caused by many factors. For example: Environmental, Biological, Social and Behavioral (Kruk and Aboul-Enein, 2006). From them age is one of the most constant and non -changeable factors that influence the disease. After the age of 50, there is a high risk of breast cancer (Nelson et al., 2012). So the women aged between 50 and 70 show the highest

possibility of breast cancer in Hackney's target population. Besides this, there is a huge effect of biological factors in the case of breast cancer. These factors are

- BRCA 1 & BRCA 2 gene mutations
- Early Menstruation
- Late Menstruation
- And many kinds of reproductive cases (Nass and Davidson, 1999).

According to research, the characteristic pattern and way of lifestyle matter a lot in the case of breast cancer. A common cause is obesity. After menopause, many women suffer from obesity. In this case estrogen level rapidly increases. It has a huge effect on the possibility of the occurrence of breast cancer. On the other hand, alcohol has a great impact on breast cancer development. People who consume alcohol daily have a great chance of damaging their DNA function and hormonal dysfunction (Liu et al., 2015). These are big factors in the development of breast cancer risk. Therefore, being inactive for a longer time and frequent use of Hormone replacement therapy are also big reasons behind breast cancer (Beral et al., 2003).

Identification of those at risk

Epidemiological assessment of those who are at risk has several steps to follow. So the assessment in case of breast cancer depends greatly on finding reliable data from a huge population (Henderson and Bernstein., 1991). NCRAS or National Cancer Registration and Analytical Services collect data related to cancer and stores the evidence based data. These data includes events, stage of the detection, type of the tumor as well as possibility of survival (Smittenaar et al., 2019). Additionally NHS plays a vital role in this. They collect data related to uptake, recall and stage of cancers (Evans et al., 2016).

Local public health teams use several techniques to identify high-risk people. They mainly use Joint Strategic Needs Assessment as well as primary Care techniques (Fassie et al., 2018). These programmes and information identify that women who live in underprivileged areas and are black in appearance have a very low percentage of participation in screening programmes. This is a very important factor regarding Hackney because most of the women here belong to ethnic groups. Additionally Health Needs Assessment shows some findings. These are language-based differences, and a lack of knowledge also led to the low amount of participation in screening programmes. From these epidemiological techniques, the need of population based study is shown. Additionally, there is a great need of finding out and solve local challenges.

Public Health Measures Based on the 3 Ps

Three prime public health strategies: Prevention, Protection, and Promotion, can aid in the proper management of breast cancer. The insights are described below:

Prevention

The first fundamental is prevention, which has a great impact on the management procedure. At the early stage, primary prevention mainly priorities the identification of modifiable risk factors. The modifiable risk factors include arranging some effective awareness seminars and Programmes. At first, awareness programs highlighting the reduction of alcohol consumption, obesity prevention and lifestyle changes can be arranged. The women of Hackney who live in underprivileged areas can know many things regarding breast cancer. Moreover, there are many lifestyle-based programmes arranged in Hackney, but these programmes are not breast cancer-specific. So, implementing a breast cancer-specific programme is necessary (Britt et al., 2020).

Protection

It is widely known that early detection is really necessary regarding any kind of disease. Therefore, protection is closely related to this. The NHS conducts many programs which aid in the detection of breast cancer among women aged from 50 to 70. These programmes offer mammography, which is a must-have (Coates et al., 2015). The screening system of the NHS has an early detection Process huge greatly increases the chances of survival. It also improves the treatment process. But it is a problem that the participation in Hackney is really low. According to data, it is between 50 to 55%, while the rate is higher in other cities. This number is compared with National data ranging 64-88%. Due to the lower participation, the amount of detection is lower, so the possibility of surviving is also lower. So many protection techniques like mammography, advanced technology utilization and increment of appointment times will improve the management in Hackney.

Promotion

Promotional initiatives are very crucial for any kind of management. The arrangement of a promotional event can make a huge change in the occurrence of breast cancer. It will reduce the

fear and myth related to breast cancer as well as motivate women to participate in the screening programmes. Several local and community organisations and public health campaigns can help to send the message to a wide part of the population in Hackney. The promotional activities can be conducted by offering evidence based information to a diverse number of people. Therefore, collaboration with famous organisation which works for breast cancer promotes health awareness among people. It can increase the amount of public participation in screening programmes. The women of Hackney need proper knowledge about breast cancer. These promotional strategies will help them in case of knowing about breast cancer risk. As there are many cultural diversity in Hackney so, running health promotion is prime here. It will build their trust in healthcare services (Agide et al., 2018).

Surveillance and Monitoring Framework

A flexible monitoring system is necessary for identifying trends and developing interventions. As said above, in the UK, NCRAS gives a wide amount of evidence based cancer registration data, which has a great role in monitoring. Additionally there is another organisation named the Office for National Statistics, which gives information about the number of incidents and mortality. The NHS breast cancer screening programmes give data about participation and recall as well as detection rate. Hackney has JSNA, which collects data regarding primary care and hospital services to recognise the local demand. These systems help the health professional to find out the population group and identify the intervention result. Through these, they also get to know about the inequality rate. They know whether the rate is growing or decreasing. If regular monitoring is done, issues such as a reduction of screening participation, an increase in the amount of early detection or increasing detection in a specific ethnic group will come to concern. Therefore, in places like Hackney, regular monitoring is much needed because the socioeconomic situation and diverse culture can affect the health results (Muratov et al., 2020).

Public Health Impact and Consequences

In the place like Hackney, where participation in the screening programmes is very lower late detection will increase the mortality rates. As well as long-term consequences, there can be an increasing amount of mental health problems and Chronic fatigue.

Intervention Design

A flexible screening improvement programme can be arranged for the target population in Hackney.

- Reaching in low participated areas through local community champions.
- Mammography units can be placed in areas where women can easily use them. For example, places like a worship area can be a great choice.
- Collaboration with local organisations and increasing primary health care systems.
- Fostering a communication system, such as text message reminders or invitation messages (Hayes et al., 2011).

Strengths and Weaknesses of the Epidemiological Approaches

Epidemiological approaches help in the collection of evidence-based data as well as increasing public awareness, but some limitations always exist in every process. There can be late in collection, as well it can also give less info about certain group also. Sometimes it cannot fully explain cultural barriers (Colditz, 2010). However, in spite of barriers epidemiological framework plays a vital role in improving health outcome at Hackney.

Conclusion

In a nutshell, Epidemiological data shows that there is a huge need of healthcare access in Hackney. Specific groups where inequalities are available, improving screening participation is a must. Hence, by utilisation of the 3 Ps management system, these issues can be solved, and there can be a breast cancer-free Hackney.

References

1. Agide, F.D., Sadeghi, R., Garmaroudi, G. and Tigabu, B.M., 2018. A systematic review of health promotion interventions to increase breast cancer screening uptake: from the last 12 years. *European journal of public health*, 28(6), pp.1149-1155.
2. Beral, V., Banks, E., Reeves, G. and Bull, D., 2003. Breast cancer and hormone-replacement therapy: the Million Women Study. *The Lancet*, 362(9392), pp.1330-1331.
3. Britt, K.L., Cuzick, J. and Phillips, K.A., 2020. Key steps for effective breast cancer prevention. *Nature Reviews Cancer*, 20(8), pp.417-436.
4. Coates, A.S., Winer, E.P., Goldhirsch, A., Gelber, R.D., Gnant, M., Piccart-Gebhart, M., Thürlimann, B., Senn, H.J., Members, P., André, F. and Baselga, J., 2015. Tailoring therapies—improving the management of early breast cancer: St Gallen International Expert Consensus on the Primary Therapy of Early Breast Cancer 2015. *Annals of oncology*, 26(8), pp.1533-1546.
5. Colditz, G.A., 2010. Overview of the epidemiology methods and applications: strengths and limitations of observational study designs. *Critical reviews in food science and nutrition*, 50(S1), pp.10-12.
6. Evans, D.G.R., Donnelly, L.S., Harkness, E.F., Astley, S.M., Stavrinou, P., Dawe, S., Watterson, D., Fox, L., Sergeant, J.C., Ingham, S. and Harvie, M.N., 2016. Breast cancer risk feedback to women in the UK NHS breast screening population. *British journal of cancer*, 114(9), pp.1045-1052.
7. Evans, D.G.R., Donnelly, L.S., Harkness, E.F., Astley, S.M., Stavrinou, P., Dawe, S., Watterson, D., Fox, L., Sergeant, J.C., Ingham, S. and Harvie, M.N., 2016. Breast cancer risk feedback to women in the UK NHS breast screening population. *British journal of cancer*, 114(9), pp.1045-1052.
8. Fassier, J.B., Lamort-Bouché, M., Broc, G., Guittard, L., Péron, J., Rouat, S., Carretier, J., Fervers, B., Letrillart, L. and Sarnin, P., 2018. Developing a return to work intervention for breast cancer survivors with the intervention mapping protocol: challenges and opportunities of the needs assessment. *Frontiers in public health*, 6, p.35.
9. Hayes, S., Rye, S., Battistutta, D., Yates, P., Pyke, C., Bashford, J. and Eakin, E., 2011. Design and implementation of the Exercise for Health trial—a pragmatic exercise

intervention for women with breast cancer. *Contemporary clinical trials*, 32(4), pp.577-585.

10. Henderson, B.E. and Bernstein, L., 1991. The international variation in breast cancer rates: an epidemiological assessment. *Breast cancer research and treatment*, 18(Suppl 1), pp.S11-S17.
11. John,L.(2025)Breast cancer. Available at: <https://www.who.int/news-room/fact-sheets/detail/breast-cancer> (Accessed : 6 December, 2025).
12. Key, T.J., Verkasalo, P.K. and Banks, E., 2001. Epidemiology of breast cancer. *The lancet oncology*, 2(3), pp.133-140.
13. Kruk, J. and Aboul-Enein, H.Y., 2006. Environmental exposure, and other behavioral risk factors in breast cancer. *Current Cancer Therapy Reviews*, 2(1), pp.3-21.
14. Liu, Y., Nguyen, N. and Colditz, G.A., 2015. Links between alcohol consumption and breast cancer: a look at the evidence. *Women's health*, 11(1), pp.65-77.
15. Muratov, S., Canelo-Aybar, C., Tarride, J.E., Alonso-Coello, P., Dimitrova, N., Borisch, B., Castells, X., Duffy, S.W., Fitzpatrick, P., Follmann, M. and Giordano, L., 2020. Monitoring and evaluation of breast cancer screening programmes: selecting candidate performance indicators. *BMC cancer*, 20(1), p.795.
16. Nass, S.J. and Davidson, N.E., 1999. The biology of breast cancer. *Hematology/oncology clinics of North America*, 13(2), pp.311-332.
17. Nelson, H.D., Zakher, B., Cantor, A., Fu, R., Griffin, J., O'Meara, E.S., Buist, D.S., Kerlikowske, K., van Ravesteyn, N.T., Trentham-Dietz, A. and Mandelblatt, J.S., 2012. Risk factors for breast cancer for women aged 40 to 49 years: a systematic review and meta-analysis. *Annals of internal medicine*, 156(9), pp.635-648.
18. Peto, R., Boreham, J., Clarke, M., Davies, C. and Beral, V., 2000. UK and USA breast cancer deaths down 25% in year 2000 at ages 20–69 years. *The Lancet*, 355(9217), p.1822.
19. Smith,B.(2022)Breast screening (mammogram). Available at: <https://www.nhs.uk/tests-and-treatments/breast-screening-mammogram/> (Accessed: 6 December, 2025).
20. Smittenaar, R., Bomb, M., Rashbass, J., Kipps, E. and Dodwell, D., 2019. Early breast cancer in England: Evidence into practice: What can national cancer registration and analysis service datasets tell us?. *Journal of Cancer Policy*, 20, p.100186.