



Programme: MSc Public Health and Social Care in Practice.

Module Name: Social Epidemiology and Public Health Development

Module Code: LCHS7000

Assignment Title: Component 2 Analytical Report

Lecturer: Itse Olaoye

Student Name: Ripon Kumar Kar

Student ID: 2525519

Submission Date: 01/05/2026

Table of Contents

TASK 1: Ethnicity and Health Inequality: A Focus on South Asian Communities in the UK	3
1. Introduction	3
2. Contextual Background and Underlying Factors	3
A. Health Issues	3
B. Social Issues	4
3. National Response	5
4. Organisation / Charity	6
5. Conclusion	6
Task 2: Epidemiological Analysis of Type 2 Diabetes Among South Asian Populations in Tower Hamlets	7
1. Introduction	7
2. Public Health Measures (3 P's)	7
3. Determinants / Risk Factors	8
4. Population at Risk (Health needs Assessment)	9
5. Epidemiological Monitoring and Surveillance	9
6. Public Health Impact	10
7. Intervention Programme + Evaluation	10
8. Advantages and Disadvantages of Epidemiological Approach	11
References	12-13

TASK 1: Ethnicity and Health Inequality: A Focus on South Asian Communities in the UK

1. Introduction

Ethnicity is a sense of similarity in terms of shared cultural, linguistic, and ancestral identities that influence the social and health outcomes (Nazroo, 2024). Health inequalities are avoidable and organizational disparities in health among groups of the population and tend to be fuelled by social, economic, and environmental aspects (Ponnusamy & Hakeem, 2023). The South Asians in the UK (approximately 7.5 percent of the population) have a lower quality of life and poorer health outcomes (Watkinson et al., 2021). Those differences are founded on structural inequalities, socioeconomic disadvantage, and cultural barriers (Curtis et al., 2023).

2. Contextual Background and Underlying Factors

A. Health Issues

1. Higher Prevalence of Type 2 Diabetes

Type 2 diabetes occurs 2-4 times more likely in the South Asians of the UK and at an earlier age (Mohan, 2025). This is also based on hereditary tendency, central obesity when the body is at lower BMI (Caleyachetty et al., 2021) and diets high in carbohydrate (Iqbal, 2023). Access to health lifestyles is also restricted by socioeconomic factors including poverty. To respond to this, there is a need to implement culturally legitimized dietary and lifestyle intercessions to lessen the threat and enhance results (Subhan et al., 2022).

2. Cardiovascular Diseases

Another major disparity in health among South Asian communities is cardiovascular disease (CVD), though data indicates a potential risk of coronary heart disease that is about 50 years greater than in the White British communities. This increased risk has been intermingling with the high level of diabetes, high blood pressure, dyslipidaemia among these populations. Structural inequalities such as low levels of access to early screening and preventative health care services support ethnic variations in cardiovascular health. Socioeconomic deprivation is another more important factor

since people with lower incomes are less likely to go into those preventative health behaviours. According to Nazroo (2024), these types of disparities are predominantly propelled by structural inequalities in the healthcare systems as well as the other social strata at large. In the attempts to avert the effect of these risks, special measures in eradicating these risks include early screening programmes and culturally aware NHS interventions, which are important in enhancing cardiovascular outcomes among the South Asian communities.

3. Higher COVID-19 Mortality Rates

The ethnic health disparity that was already prevalent before the COVID-19 pandemic also worsened in that the populations of South Asian origin endured the highest rates of mortality by far: 2-3 times higher compared to Whites. This discrimination was brought about by numerous factors that included the fact that the South Asians were overrepresented in frontline jobs, therefore, exposed to the virus, and multigenerational households, which made the virus spread. More so, the higher rate of underlying health conditions such as diabetes and cardiovascular diseases exposed individuals to severe outcomes. The trends highlight the eventual factor of social inequality to push the upsurge in health since structural disadvantages tend to risk people when the country confronts a health emergency (Kauh et al., 2021). Particular interventions in the domain of the public health area including the enhancement of workplace safety and culturally sensitive communication can serve as the solution to such inequalities.

B. Social Issues

1. Socioeconomic Deprivation

A major determinant of health inequalities in the populations of South Asians is socioeconomic deprivation. The people in these communities have higher chances of living in poverty-stricken households and in the deprived areas that can be linked to the shortage of healthcare facilities, nutritious foods and places where they can engage in physical activities. Poverty is a cause of greater levels of exposure to health risk factors contributing to the prevalence of chronic diseases. As pointed out by Ponnusamy and Hakeem (2023), structural economic disadvantage is a focal point that leads to ethnic health inequalities. To correct these problems, the policy should

be introduced to decrease the level of income inequality and and improve the living conditions.

2. Language and Cultural Barriers

The issue of language and culture also poses a great obstacle to the consumption of healthcare services. The low level of English language may decrease the level of health literacy as it becomes hard to comprehend medical guidance or maneuver the healthcare systems. The thoughts of the culture, including mental illness stigma, also prevent people to get care. Indicatively, Bansal et al. (2022) discovered in one of their studies that the interventions of ethnic minority groups towards mental health services because of stigma and mistrust are less frequent. These obstacles lead to the problem of delayed diagnosis and worse health outcomes. Multilingual services and the provision of culturally sensitive healthcare services can be applied to resolve such issues.

3. Access to Healthcare Services

The populations in South Asia tend to have a lower access to healthcare services which in turn reduces the screening uptake and diagnosis may be delayed. Indicatively, a study shows that the ethnic minority group has a low propensity to visit diabetic eye screening programmes, which puts a greater number of individuals at risk of unavoidable complications (Olvera-Barrios et al., 2021). Such inequalities are fuelled by structural obstacles such as inaccessible and culturally sensitive care, among others, or the absence of awareness on the existence of services. To enhance their access, specific service provision and universal healthcare policies are necessary to accommodate the needs of the various populations.

3. National Response

There are various policies that have been enacted by the UK government in order to curb health inequities. The NHS Long Term Plan (2019) lays emphasis on the reduction of disparities through enhancing preventative services accessibility and high-risk population groups. On the same note, the NHS Diabetes Prevention Programme (DPP) also aims at early diagnosis and treatment of those at risk such as South Asian populations. These projects are expected to decrease the disease burden and advance health outcomes by means of organized liberty interventions. These are

however determined by how culturally adapted and available to the various populations. Such programmes will not be able to access the most in need without proper community engagement.

4. Organisation / Charity

Diabetes UK is very effective in dealing with ethnic health inequalities by investing in a research, creating awareness, and educating patients. The organisation creates cultural-specific resources involving communities of South Asians and they are aimed at enhancing their knowledge of diabetes prevention and management. It also has a role to play in decreasing the level of stigma, facilitating early diagnosis and supporting fair healthcare policies. Overall, Diabetes UK research efforts help in achieving a more informative insight into the ethnic differences in diabetes, and thus create a more effective approach to interventions in its prevalence in the context of population health.

5. Conclusion

Finally, ethnic health disparities in the UK are due to the social, economic, and cultural factors that are interrelated. The South Asians are high-risk populations with respect to diabetes and cardiovascular diseases and barriers to healthcare. The complex of disparities needs to be tackled on the levels of large-scale policies, community actions, and culturally mindful healthcare provision to enhance the health equity and achieve better outcomes.

Task 2: Epidemiological Analysis of Type 2 Diabetes Among South Asian Populations in Tower Hamlets

1. Introduction

Diabetes mellitus type 2 is a metabolic systemic illness that is characterized by insulin resistance and insensitivity that causes severe health effects except when well prevented. It is a considerable international medical issue, and at present, worldwide, there are approximately 537 million adult diabetics. In the United Kingdom, health services are morbid due to an approximate diagnosis of 4.3 million people with this condition. However, there is no even distribution of the burden of disease between populations. The individuals of Bangladeshi, Pakistan, and Indian origin state constitute an overrepresented section of the South Asian community, and it has been demonstrated that this disturbance begins to develop earlier and with significantly more complications than in Whites (Mohan, 2025).

Tower Hamlets is a London borough in which Type 2 diabetes is much more common than it is in the rest of the country, with the proportion being estimated at around 32-40%. This is specially noticeable among the Bangladeshi community who have one of the highest rates of diabetes in the UK. These differences indicate that there is an interplay of genetic, behavioural and social determinants of health and that specific epidemiological analysis is necessary. Knowledge about Type 2 diabetes distribution, determinants, and the influence of this disease in this population is crucial to building effective public health interventions to decrease health disparities.

2. Public Health Measures (3 P's)

The UK approach to Type 2 diabetes prevention, protection and promotion is designed to be based on the principles of prevention, protection and promotion of public health. The prevention of diabetes is mainly based on how to reduce the rate of diabetes using lifestyle measures, which include better diet and more physical activity. One such initiative is the NHS Diabetes Prevention Programme (DPP) that works with high-risk people such as South Asian populations. It has been undergone that it is possible to lower the risk of getting diabetes and enhance the metabolic outcomes using structured lifestyle interventions (Subhan et al., 2022).

Protective measures include early diagnosis and management of the illness by screening programme and primary care. Regular blood sugar levels or risk examinations allow the early diagnosis of this condition which is essential in avoiding the complications. The attendance of South Asian communities at screening programmes, however, is uneven, in part, because of cultural and socioeconomic reasons.

The goal of promotion measures is to create awareness and stimulate behavioural transformation with health education campaigns and community outreach programs. Such programmes come in crucial in dealing with beliefs and misconceptions of diet and health, especially with regard to cultural beliefs. Nevertheless, discrepancies to dietary change and poor health literacy remain barriers and pose a limitation to effectiveness despite these efforts (Rai et al., 2023). Hence, although the 3 Ps construct is a very versatile tool, its effectiveness must rely on the presence of a culturally adjusted implementation process and a long-term active participation in the community.

3. Determinants / Risk Factors

A combination of biological, behavioural and social factors can explain why Type 2 diabetes among South Asian people is very prevalent. Genetic predisposition is another factor, since south Asians have higher tendencies to develop insulin resistance and central obesity. It is worth noting that studies are revealing that this demographic acquires diabetes at a reduced body mass index (BMI) in relation to White Europeans, which are associated with a higher sensitivity to metabolism (Caleyachetty et al., 2021).

Dietary habits add to risk, as well. South Asian staple-based foods are rather rich in refined carbohydrates, sugars, and saturated fats, which are related to poor glycaemic control (Iqbal, 2023). Moreover, there is widespread physical inactivity as a result of sedentary ways of life and inaccessibility to recreational centers especially among deprived cities.

These risks are further aggravated by socioeconomic deprivation which denies these population groups access to healthy food choices, health services, and health education. Altogether these aspects are signs of larger social determinants of health,

and it proves that the burden of diabetes is more of a medical phenomenon inherently than merely of a social or an environmental one.

4. Population at Risk (Health needs Assessment)

A health needs assessment determines that South Asian communities, especially the Bangladeshi community in Tower Hamlets, is a population at high risk of Type 2 diabetes. The adult population aged 25 years and older are particularly susceptible, and it has been found that their onset is earlier than other ethnicities. Poor households beset with socioeconomic factors like poor diet, inadequate healthcare is relatively higher in low-income households.

There is epidemiological evidence of higher incidence and prevalence rates in such communities, but also higher risk of complications. These inequalities are further increased by the concentration of population of South Asians in deprived urban regions. Tower Hamlets can be taken as an example, as it is one of the areas with high rates of deprivation that can directly correlate with poor health.

Risk allocation in this population is critical and should help locate resources and plan interventions. To meet the specific needs of the chosen population, the reduction of health disparities, a focused strategy is required taking into account ethnicity, age, socioeconomic status.

5. Epidemiological Monitoring and Surveillance

Patterns and trend of the disease should be monitored and surveyed in terms of epidemiology of Type 2 diabetes. In UK, data entry is obtained through a variety of ways, including NHS Digital, records of general practitioner (GP), Public Health England databases and global databases, including World Health Organization (WHO). Such sources of data may prove handy when it comes to the prevalence, incidence, and outcomes of the disease.

There are passive and active methods of surveillance. Passive surveillance uses routine data, including hospital admission data and GP records, whereas active does not, and instead uses specific screening programmes to screen people and research studies. These two approaches are essential in determining populations at risk and measuring the success of population health.

By using epidemiological data, policy makers can monitor trends and inequities, along with resource allocation. This analysis may be impaired, however, by such limitations as the absence of complete data, the absence of information concerning ethnicity. Despite all this, surveillance systems continue to be a mainstay of community health planning and disease control.

6. Public Health Impact

Diabetes Type 2 diabetes exhibits both short and long-term effects that are serious and pose challenges to people and the health sector. In the short run, the condition causes high morbidity, decreased living standards and high healthcare costs. Symptoms may include fatigue, blurred vision and frequent infections and may interfere with daily functioning.

Extreme complications of diabetes in the long run include cardiovascular disease, renal failure, and diabetic retinopathy. It has been determined that ethnic differences happen in the progression of complications, with South Asians having a greater prevalence of compromising diabetic retinopathy of a vision problem (Olvera-Barrios et al., 2023). These not just lead to a shortened life expectancy but also cost the NHS a significant amount of money due to higher treatment costs and hospitalization.

The escalating incidents of diabetes among high risk groups underscore the importance of effective prevention and management programs in order to mitigate the consequences of this disease among individuals and the community.

7. Intervention Programme + Evaluation

It is a community based culturally awareness diabetes prevention programme to address the existing Type 2 diabetes prevalence amongst the South Asian communities in Tower Hamlets. The general goal of the intervention are to prevent incidence and assist in management of the disease through lifestyle change.

They would also include culturally appropriate nutritional education which would mainly entail the reduction of consumption of carbohydrates and promoting options of cooking of food that are healthy. There would also be some physical activity programs, such as exercise programs in the community so as to encourage behaviour change.

Community leaders and medical workers would take more roles in offering such interventions in the effort to render it culturally important and sensible.

Observations in the weight management programmes indicate that lifestyle interventions may be used to achieve considerable improvement and even remission of Type 2 diabetes in mammals (Sattar et al., 2022). The success of such programmes however relies on commitment and follow up. The strengths consist of community active involvement and specific delivery, whereas the weakness consists of the possible culture resistance and inabilities to sustain long-term behavioural change.

8. Advantages and Disadvantages of Epidemiological Approach

There are multiple strengths to an epidemiological approach to managing Type 2 diabetes. It provides an opportunity to make evidence-based decisions to see patterns of risk factors and populations at a higher risk. This eases the use of specific interventions and effective resource allocation. Also, epidemiological research can give us some fruitful information related to the course of disease and the efficiency of preventive measures taken by the population.

But there are also significant drawbacks. Lapses in data and underreporting may undermine the quality of results, among the ethnic minority groups especially. There is no comprehensive ethnicity-specific information that will further limit the possibility to make full use of disparities (Kauh et al., 2021). Further, epidemiological data do not necessarily reflect the complexity of social and cultural factors that affect health behaviours.

Although these problems persist, epidemiology continues to be a useful tool in dealing with matters of public health. Its effectiveness in addressing health inequalities can be improved by improving the quality of the data used and with culturally informed solutions.

References

- Bansal, N., Karlsen, S., Sashidharan, S., Cohen, R., Chew-Graham, C., and Malpass, A., 2022. Understanding ethnic inequalities in mental healthcare in the UK: A meta-ethnography. *PLOS Medicine*, 19. <https://doi.org/10.1371/journal.pmed.1004139>
- Caleyachetty, R., Barber, T., Mohammed, N., Cappuccio, F., Hardy, R., Mathur, R., Banerjee, A., and Gill, P., 2021. Ethnicity-specific BMI cutoffs for obesity based on type 2 diabetes risk in England: a population-based cohort study. *The Lancet. Diabetes and Endocrinology*, 9, pp. 419 - 426. [https://doi.org/10.1016/s2213-8587\(21\)00088-7](https://doi.org/10.1016/s2213-8587(21)00088-7)
- Curtis, E., Jones, R., Willing, E., Anderson, A., Paine, S., Herbert, S., Loring, B., Dalgıç, G., and Reid, P., 2023. Indigenous adaptation of a model for understanding the determinants of ethnic health inequities. *Discover Social Science and Health*, 3. <https://doi.org/10.1007/s44155-023-00040-6>
- Iqbal, S., 2023. Cultural factors influencing the eating behaviours of type 2 diabetes in the British South-Asian population: a scoping review of the literature. *Journal of Global Health Reports*. <https://doi.org/10.29392/001c.84191>
- Kauh, T., Read, J., Ghazal, N., and Scheitler, A., 2021. The Critical Role of Racial/Ethnic Data Disaggregation for Health Equity. *Population Research and Policy Review*, 40, pp. 1 - 7. <https://doi.org/10.1007/s11113-020-09631-6>
- Kowal, S., Ng, C., Schuldt, R., Sheinson, D., Jinnett, K., and Basu, A., 2023. Estimating the US Baseline Distribution of Health Inequalities Across Race, Ethnicity, and Geography for Equity-Informative Cost-Effectiveness Analysis.. *Value in health : the journal of the International Society for Pharmacoeconomics and Outcomes Research*. <https://doi.org/10.1016/j.jval.2023.06.015>
- Mohan, V., 2025. Lessons Learned From Epidemiology of Type 2 Diabetes in South Asians: Kelly West Award Lecture 2024. *Diabetes Care*, 48, pp. 153 - 163. <https://doi.org/10.2337/dci24-0046>
- Nazroo, J., 2024. Race/ethnic inequalities in health: moving beyond confusion to focus on fundamental causes. *Oxford Open Economics*. <https://doi.org/10.1093/oec/odad020>
- Olvera-Barrios, A., Owen, C., Anderson, J., Warwick, A., Chambers, R., Bolter, L., Wu, Y., Welikala, R., Fajtl, J., Barman, S., Remagnino, P., Chew, E., Ferris, F., Hingorani, A., Sofat,

R., Lee, A., Egan, C., Tufail, A., and Rudnicka, A., 2023. Ethnic disparities in progression rates for sight-threatening diabetic retinopathy in diabetic eye screening: a population-based retrospective cohort study. *BMJ Open Diabetes Research and Care*, 11. <https://doi.org/10.1136/bmjdr-2023-003683>

Olvera-Barrios, A., Seltene, M., Heeren, T., Chambers, R., Bolter, L., Tufail, A., Owen, C., Rudnicka, A., Egan, C., and Anderson, J., 2021. Effect of ethnicity and other sociodemographic factors on attendance at diabetic eye screening: a 12-month retrospective cohort study. *BMJ Open*, 11. <https://doi.org/10.1136/bmjopen-2020-046264>

Ponnusamy, S., and Hakeem, M., 2023. Ethnic inequality and public health.. *Health economics*. <https://doi.org/10.1002/hec.4759>

Rai, A., Misra, R., Khan, H., Shukla, S., Patel, D., and Brown, A., 2023. Systematic review of the barriers and facilitators to dietary modification in people living with type 2 diabetes and pre-diabetes from South Asian ethnic populations. *Diabetic Medicine*, 40. <https://doi.org/10.1111/dme.15132>

Sattar, N., Welsh, P., Leslie, W., Thom, G., McCombie, L., Brosnahan, N., Richardson, J., Gill, J., Crawford, L., and Lean, M., 2022. Dietary weight-management for type 2 diabetes remissions in South Asians: the South Asian diabetes remission randomised trial for proof-of-concept and feasibility (STANDBy). *The Lancet Regional Health - Southeast Asia*, 9. <https://doi.org/10.1016/j.lansea.2022.100111>

Subhan, F., Fernando, D., Thorlakson, J., and Chan, C., 2022. Dietary Interventions for Type 2 Diabetes in South Asian Populations—A Systematic Review. *Current Nutrition Reports*, 12, pp. 39 - 55. <https://doi.org/10.1007/s13668-022-00446-9>

Watkinson, R., Sutton, M., and Turner, A., 2021. Ethnic inequalities in health-related quality of life among older adults in England: secondary analysis of a national cross-sectional survey.. *The Lancet. Public health*. [https://doi.org/10.1016/s2468-2667\(20\)30287-5](https://doi.org/10.1016/s2468-2667(20)30287-5)