



Prifysgol Cymru
Y Drindod Dewi Sant
University of Wales
Trinity Saint David

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Student Name: Krish Patel

Student ID: 2426744

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Lecturer's Name: Dr Hamdi Hussain

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Task 1: Social Epidemiological Analysis

Title: Disability and Health Inequalities In older people in the United Kingdom

Introduction

Disability is one of the biggest sources of health disparity in United Kingdom, influencing life opportunities, wellbeing, and access of basic services. Social epidemiology emphasizes the fact that the outcomes of health do not only depend on biological conditions but also greatly depend on the social, cultural, and environmental systems (Vineis et al. 2020).

The target population is older disabled individuals in the United Kingdom, and this includes the physically, sensually, cognitively and mentally impaired. Social, economic, and environmental barriers cause them to have great inequalities in their health conditions, resulting in lower health outcomes, poor access to services, and high vulnerability throughout the life course.

There is continuous disadvantage of disabled people because of structural barriers, attitudes of discrimination, inaccessible environment, and allocation of resources unequally. It is estimated that 15% of the world population has at least one type of disability and disabled people always report worse health, lower wellbeing, and more unmet healthcare requirements (Maroto et al. 2022). Consequently, this reinforces disability-related health disparities throughout the life course, which results in chronic disease, mental health struggles, and decreased life expectancy (Martinez et al. 2021). This discussion adopts the social epidemiological approach to highlight the causes, effects, and reactions to the disparities that are related to disability in the UK.

Contextual background and underlying factor

Increased Occurrence of Chronic Disease

Risk factors, such as cardiovascular disease, respiratory illness, and chronic pain are disproportionately borne by adults with disabilities. There are facts such as being higher in the country than in the disabled group these types of diseases (Cosma et al. 2025). These inequalities are created through cumulative exposure to social disadvantage, poverty, and barriers to preventive health care.

Higher levels of Mental Ill Health

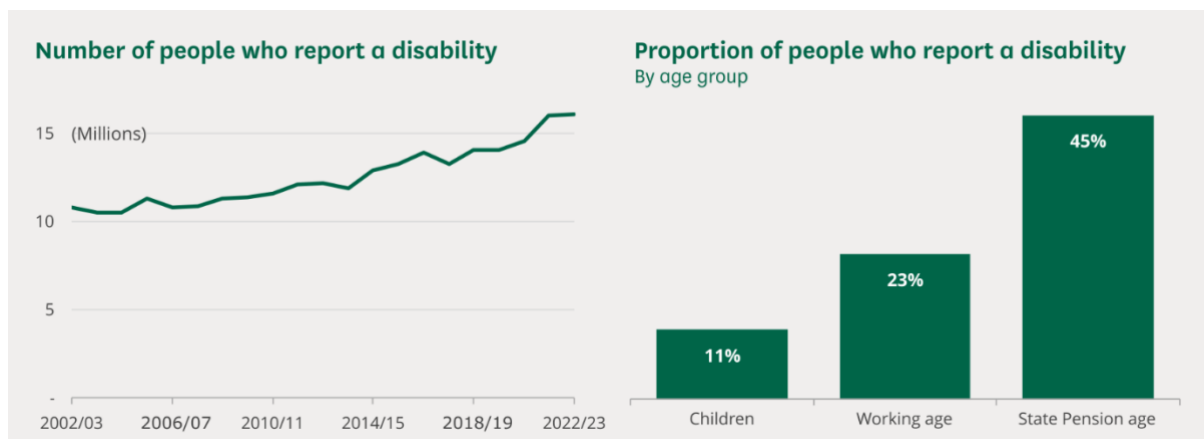


Figure 1: Number of disabled people

(Source: History of Parliament, 2023)

There are stark mental health inequalities, and disabled people experience unacceptably high levels of anxiety, depression, and psychological distress (Maroto et al. 2022). These are influenced by the presence of chronic stressors like stigma, social exclusion, unemployment, and lack of support services. As it has been demonstrated, disabled adults have a much higher chance of being socially isolated, which is one of the major causes of mental distress (Boardman et al. 2022). Some of the solutions are culturally competent mental health services, inclusive community programmes, and focused anti-stigma programs.

Increased Death and shortened Life Existence

The shorter lifespan of disabled people proves the effects of historic disparities in the access to healthcare, early diagnosis, and support (Cosma et al. 2025). Accessibility to facilities, discriminatory practice, absence of continuity in care are some of the barriers that lead to delayed treatment and worse clinical outcomes. When accumulating over the course of life these disparities increase the risk of premature mortality (Atnaфу et al. 2025). The essential measures to decrease disparities in the mortality are the improvement of health pathways, the elimination of environmental barriers, and timely specialist interventions.

Social Isolation and Loneliness



Figure 2: Inclusion health principles

(Source: NHS, 2023)

The issue of social isolation is intertwined with the presence of disability because of the restrictions in mobility, the inaccessibility of the communal setting, and the absence of opportunities to interact with society. Boardman et al. (2022) pinpoint the fact that the presence of disabled people in the society, education, and recreational spheres is usually limited. Loneliness is a cause of mental distress, lack of independence, and poor physical health outcome. The solutions need to be invested in the public areas of communities, engaging activities, better transport, and the digital support programs that contribute to social connectedness. The reason is because a person living in poverty is more susceptible to economic hardships than someone with a high-income level. <|human|>2.5

Poverty and Economic Insecurity



Figure 3: The challenges faced by disabled older people

(Source: Pring, 2015)

Low rates of employment reduced opportunities to advance a career, and other expenses related to disability present a greater threat of poverty to disabled people (Maroto et al. 2022). Poor nutrition, poor housing, and the poor access to healthcare services create poverty as a determinant of health inequality. These problems are self-reinforcing as economic and social inequalities deteriorate health, and fragile health undermines economic involvement.

Housing Inequality and Environmental Obstacles

Inadequate housing and unreachable settings have a great impact on the health of the disabled. Most of them wait a long time before they get home adaptations or fail to acquire proper homes because of cost and facility constraints. Environmental barriers such as unreachable buildings, poor heating, and unsafe design are the factors that result in injuries, chronic respiratory diseases, and permanent functional deterioration (Vineis et al. 2020).

National Responses to Improve Health Inequalities due to Disability

Equality Act 2010

Equality Act 2010 is a legal framework that offers protection to the disabled individuals against discrimination in the areas of employment, education, provision of health care and housing. It requires fair modifications of services whereby disabled individuals are accorded fair and accessible services. This bill is at the center of solutions to structural barriers that have led to health inequalities (Mackelprang et al. 2021).

NHS Long Term Plan (2019)

The NHS Long Term Plan focuses on minimizing health disparities, in particular, those populations that contain complex needs. It covers promises to increase mental health, enhance personalised care, enhance community-based services, and enhance screening of long-term conditions. These projects are meant to create a gap in the differences found in epidemiological studies (Cosma et al. 2025).

The organisations assisting the disabled

Disability Rights UK (DR UK)

Disability Rights UK is a forefront national charity that aims at ensuring equality, human rights, and social justice among the disabled. It proactively attacks structural inequalities through conducting research, promoting changes in policy, and assisting people in negotiating health, welfare, and employment systems. DR UK is also generating awareness about the existing social, economic, and healthcare inequalities that are recorded in national studies (Boardman et al. 2022). Its long-term aim is to promote independence, full participation, and equal access to services by the disabled people in the UK.

Conclusion

In the United Kingdom, disability is a strong and complex factor of health disparity. It has always been proven that disabled individuals have a higher prevalence of chronic diseases, mental health, premature death, poverty, and social exclusion (Cosma et al. 2025; Atnafu et al. 2025). These differences do not occur only due to impairment but as the result of the accumulative effects of structural, environmental, and social constraints (Vineis et al. 2020). The policies on equality like the Equality Act 2010 and the NHS Long Term Plan outline needed frames on how these inequalities are addressed and organisations such as Disability Rights UK are important in this regard and its support to organisations. To minimize disability-related

health disparities, multisector collaboration based on lifespan access, inclusion, and equitable service delivery is necessary (Mackelprang et al. 2021; Martinez et al. 2021). It is only under complete systemic change that the long-term health equity of the disabled would be attained.

Task 2: Epidemiological Analysis of Diabetes Mellitus in the London Borough of Newham

Introduction

Diabetes Mellitus has been identified as one of the most important public health issues with complicated metabolic, behavioural, and environmental factors. It is an acute chronic disease that is judged by persistent hyperglycaemia, and in the long term has risks of cardiovascular disease, neuropathy, nephropathy, and early mortality. Diabetes and its burden have increased significantly globally, and when compared to the previous epidemiological studies, the current mortality and shifting causes of death among patients with diabetes have risen in England (Pearson-Stuttard et al., 2021). Similarly, the number of hospitalizations due to diabetes-associated complications has also been on the rise and it highlights the magnitude of both clinical and population health burden (Pearson-Stuttard et al., 2022).

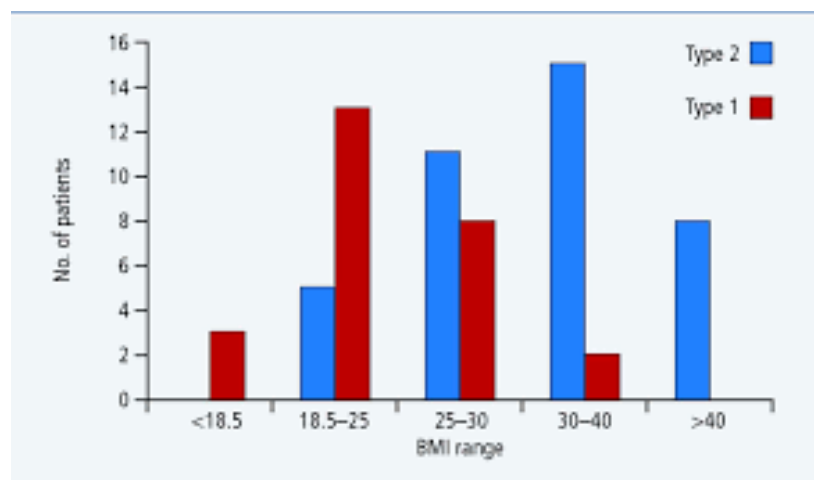


Figure 4: BMI values

(Source: Balasanthiran et al., 2012)

The London Borough of Newham offers a rather meaningful setting of epidemiological evaluation. Newham being one of the ethnically diverse and socioeconomically deprived in England exhibit a high metabolic risk and a rather high preponderance of Type 1 and Type 2 Diabetes. The patterns of increasing incidence in marginalised populations and incoming disease disparities are pointed out as evidence by population-based UK studies (Rafferty et

al., 2021). The susceptibility of diabetes to environmental stressors, such as air pollution, overpopulated housing and unhealthy shopping areas also increases in the deprived boroughs, such as Newham (Burkart et al., 2022).

This discussion focuses on the geographical distribution of diabetes in Newham, the primary factors that influence the risk, and the overall impact of the health problem on the population in both the short and long term.

Public Health interventions in Newham

Newham responses in diabetes through public health act under the protection, prevention, and health promotion. Protection entails ensuring fair access to clinical and community-based services of diabetes, as well as limiting the barriers hindering the early diagnosis or successful management in the long run. This is in line with national initiatives to narrow mortality and hospitalisation gaps between individuals with diabetes, in which the recent patterns indicate disparities based on deprivation and ethnicity (Pearson-Stuttard et al., 2021).

The Newham diabetes strategy is centered on preventive measures, including early detection of metabolic threat, systematized education, and thorough treatment of comorbidity. Regular HbA1c testing, digital self-management support, dietetic support, podiatry, and foot-care pathways are included in the list of interventions that help to restrict the number of complications. This is aligned with the results that preventable complications hospitalisation, including cardiovascular events and infections, is still prevalent in adults with diabetes (Pearson-Stuttard et al., 2022).

In Newham, health promotion initiatives focus on physical activity, minimization of the intake of processed and ultra-processed foods, and dietary advice that is sensitive to the culture. The strong relationships between the risk of developing diabetes and the consumption of processed foods have been proved in the European cohort, which supports the necessity of community-specific nutritional programmes (Dicken et al., 2024).

Risk Factors

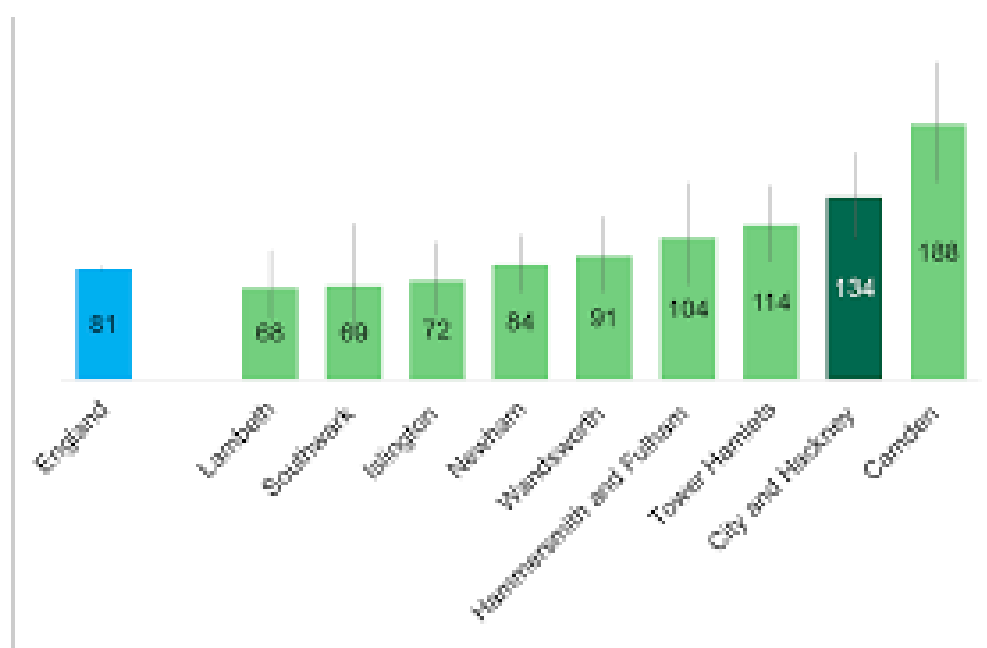


Figure 5: Prevalence

(Source: City Hackney Health, 2016)

The risk factors of diabetes in Newham are interdependent biological, socioeconomic, behavioural, and environmental factors. Biological factors are also associated with the genetic predisposition (as observed in some ethnic minorities) and the early development of metabolic as well as insulin resistance. According to the evidence in the UK and some international research, people with diabetes are susceptible to multifarious musculoskeletal or metabolic complications, such as tendon disorders and dysmetabolic syndromes, which increases the health risks in the long term (Oliva et al., 2022).

The impact of socioeconomic factors can be seen as a potent one as a result of high deprivation levels in Newham, overpopulation in terms of living conditions and lack of access to well-paid employment. Such disparities lead to greater vulnerability to chronic stress and limited access to nutritious foods, which cause greater susceptibility to diabetes. The research literature on the hospitalisation of diabetes in England and Wales reveals that there are strong correlations between socioeconomic deprivation and the severity of healthcare use (AbuHammad et al., 2023).

Such environmental determinants are air pollution and poor access to the green space. Worldwide studies have shown that PM_{2.5} exposure has a substantial role in burdening Type 2 Diabetes and excessive metabolic risk with chronic inflammation (Burkart et al., 2022).

These exposures are increased in urban boroughs like Newham due to the congestion and population density in the area.

Some of the behavioural determinants are eating habits, lack of exercise and poor participation in screening programmes. The studies that point to the role of the intake of ultra-processed food in the development of diabetes reveal the necessity of specific behavioural change measures in underprivileged communities (Dicken et al., 2024).

Population Affected



Figure 6: The factors of diabetes mellitus

(Source: Alam et al., 2021)

Disproportionately high prevalence in adults living in Newham is observed and ethnic minority groups, low-income households, and individuals with many chronic conditions are at higher risk of diabetes. Trends in England, Wales, and broader UK data illustrate that the performance of diabetes in marginalised groups is poor and that the occurrence of disease at an early age is prevalent in communities with a limited socioeconomic background (Rafferty et al., 2021).

Hospitalisation data indicates an adult population vulnerable to deprivation, and cardiovascular, infection and renal complications appear to be more common in populations subjected to lifelong disadvantage (Pearson-Stuttard et al., 2022; AbuHammad et al., 2023).

Due to the cultural aspect, language barrier, and unequal access to preventive treatment, the members of ethnic variety in Newham specifically South Asian, African and Caribbean lineage are also, unfortunately, at greater risk. These factors of intersectional disadvantage increase the risk for later diagnosis, poorer glycaemic control and earlier complications. Environmental

exposures such as air pollution further compound the disease, exposing communities with high-traffic neighborhoods to an inequitable burden of metabolic risk (Burkart et al., 2022).

Public Health Methods and Plans of Surveillance

In Newham, diabetes surveillance relies on the interconnected primary care records, hospital data sets, and national audits that allow monitoring of trends and outcomes as well as service utilization. Linked record analysis has been found to play an essential role in the long-term mortality and hospitalisation trends of diabetic individuals in England (Pearson-Stuttard et al., 2021; 2022).

Protection based surveillance entails tracking service utilization, screening uptake and compliance with clinical guidelines. Prevention surveillance is concerned with the early detection of Type 2 Diabetes, foot-care results, and rate of complications like cardiovascular disease. The health promotion surveillance is looking at the interaction with the community, involvement in programmes on diet and activities and use of digital aids to self-management.

The spatial epidemiology method is useful in Newham because local variation can be mapped to define clusters of unmet need and environmental exposures (Cuadros et al., 2021). Geospatial modelling can be used to discover connections between neighbourhood deprivation, the level of pollution and the prevalence of diabetes that can enable authorities to allocate resources properly.

Community Health Impact: Long-term and Short-term effects

The immediate health effects of diabetes on the general population in Newham are delays in the diagnosis, glycaemic control, high emergency department attendance, and frequent hyperglycaemic events. Acute complications (infections and cardiovascular events) are among the leading causes of short-term morbidity when considering diabetes in hospitalisation studies (Pearson-Stuttard et al., 2022).

The effects are significant in the long run. The significant health burdens are cardiovascular disease, renal failure, neuropathy, and complications of the limbs. Environmental exposures such as PM2.5 have been found to increase chronic metabolic deterioration and the risk of Type 2 Diabetes, which substantiates the environmental injustice in urban boroughs like Newham (Burkart et al., 2022). Long-term risk is also caused by dietary behaviours, and the consumption of ultra-processed foods is strongly linked to the occurrence of Type 2 Diabetes, particularly in high-deprivation environments (Dicken et al., 2024).

Proposed Health Intervention Programme and Evaluation

The Newham Diabetes Equity and Access Programme (NDEAP) is proposed to decrease the disparities through the enhancement of the early detection, the continuity of care, and the environmental and behavioural risk factors. They are community-based screening, culturally competent education, mobile diabetes clinics, digital self-management, and workforce training to enhance diabetes-competency.

Environmental health is also integrated into the programme including collaborations to lower the impediments of healthy food access and enhance the possibilities of safe bodily exercise. It is in agreement with the evidence connecting air pollution and dietary habits with the rise in incidence of diabetes (Burkart et al., 2022; Dicken et al., 2024).

The assessment is based on a mixed-method approach. The quantitative measures will consist of the changes in the levels of HbA1c, screening rates, foot-care outcomes, the hospital admission rates, and complication rates. Data related to hospital and primary care will be linked and will be used to measure the changes in the morbidity patterns based on the approaches to the measures of the national analyses (Pearson-Stuttard et al., 2021; 2022).

Strengths and Weaknesses of the Epidemiological Approach

The epidemiological model can be used to provide a systematic analysis of the patterns of diabetes, its risk factors, and inequalities in Newham. Linked datasets and geospatial techniques allow to intervene, detect high-risk groups, and assist in tracking mortality and hospitalisation outcomes (Pearson-Stuttard et al., 2021; Cuadros et al., 2021).

However, limitations remain. Epidemiological data can miss lived experience, cultural factors, and psychosocial realities, which define the outcomes of diabetes. Poor representation of minorities in regular datasets and incomplete coding decreases accuracy. Structural barriers and behavioural drivers, based on deprivation and discrimination cannot be fully explained using quantitative data. Thus, epidemiological evidence should be combined with qualitative and social-structural approaches to give a more comprehensive picture and promote fair diabetes policy in Newham.

Conclusion

The epidemiological assessment of diabetes in Newham demonstrates that there is an interaction of biological, socio-economic, behavioural and environmental determinants that serves to produce disproportionately high rates of illness and complications. The patterns of

inequality and risk are compounded by deprivation and variation within the ethnic diversity. The findings of surveillance systems and linked datasets can illuminate trends, risk and gaps in service provision. Although qualitative knowledge and understanding are needed to address lived experiences and structural barriers. The focus on strengthening prevention, improving access and prioritising the reduction of environmental and behavioural risk factors remains the stable priorities for Newham to consider to reduce long-term burden and advance health equity.

References

- AbuHammad, G.A.R., Naser, A.Y. and Hassounah, L.K.M., 2023. Diabetes mellitus-related hospital admissions and prescriptions of antidiabetic agents in England and Wales: an ecological study. *BMC endocrine disorders*, 23(1), p.102. <https://link.springer.com/content/pdf/10.1186/s12902-023-01352-z.pdf> [Accessed on 16 Nov, 2025].
- Alam, S., Hasan, M.K., Neaz, S., Hussain, N., Hossain, M.F. and Rahman, T., 2021. Diabetes Mellitus: insights from epidemiology, biochemistry, risk factors, diagnosis, complications and comprehensive management. *Diabetology*, 2(2), pp.36-50. <https://doi.org/10.3390/diabetology2020004> [Accessed on 16 Nov, 2025].
- Atnafu, D.D., Kuper, H. and Mbazzi, F.B., 2025. Left behind in primary healthcare: A qualitative exploration of healthcare experiences of people with disabilities in Ethiopia. *PLOS Global Public Health*, 5(9), p.e0005147. <https://journals.plos.org/globalpublichealth/article?id=10.1371/journal.pgph.0005147> [Accessed on 16 Nov, 2025].
- Balasanthiran, A., O'shea, T., Moodambail, A., Woodcock, T., Poots, A.J., Stacey, M. and Vijayaraghavan, S., 2012. Type 2 diabetes in children and young adults in East London: an alarmingly high prevalence. *Practical Diabetes*, 29(5), pp.193-198a. <https://onlinelibrary.wiley.com/doi/abs/10.1002/pdi.1689> [Accessed on 16 Nov, 2025].
- Boardman, J., Killaspy, H. and Mezey, G., 2022. *Social inclusion and mental health: Understanding poverty, inequality and social exclusion*. RCPsych Publications. https://books.google.com/books?hl=en&lr=&id=2kKdEAAAQBAJ&oi=fnd&pg=PR7&dq=tigma+and+social+attitudes+towards+disability+may+restrict+the+inclusion+into+community+life,+decrease+access+to+meaningful+work,+and+affect+mental+health&ots=d_sclQ9ERa&sig=ubnuAZ2HJGbjTHLdO7aeFj9sgQc [Accessed on 16 Nov, 2025].
- Burkart, K., Causey, K., Cohen, A.J., Wozniak, S.S., Salvi, D.D., Abbafati, C., Adekanmbi, V., Adsuar, J.C., Ahmadi, K., Alahdab, F. and Al-Aly, Z., 2022. Estimates, trends, and drivers of the global burden of type 2 diabetes attributable to PM2· 5 air pollution, 1990–2019: an analysis of data from the Global Burden of Disease Study 2019. *The Lancet Planetary Health*, 6(7), pp.e586-e600. [https://www.thelancet.com/pdfs/journals/lanplh/PIIS2542-5196\(22\)00122-X.pdf](https://www.thelancet.com/pdfs/journals/lanplh/PIIS2542-5196(22)00122-X.pdf) [Accessed on 16 Nov, 2025].

City Hackney Health., 2016. Diabetes. <https://www.cityhackneyhealth.org.uk/wp-content/uploads/2018/12/Diabetes-1.pdf> [Accessed on 16 Nov, 2025].

Cosma, G., Abakasanga, E., Kousovista, R., Shabnam, S., Kaur, N., Akbari, A., Kiani, R., Zaccardi, F., Jun, G.T. and Gangadharan, S., 2025. Comorbidity Patterns and Temporal Associations of Multiple Long-Term Conditions in Adults with Intellectual Disability: an observational study in the United Kingdom. *arXiv preprint arXiv:2503.08378*.<https://arxiv.org/abs/2503.08378> [Accessed on 16 Nov, 2025].

Cuadros, D.F., Li, J., Musuka, G. and Awad, S.F., 2021. Spatial epidemiology of diabetes: methods and insights. *World journal of diabetes*, 12(7), p.1042. <https://pmc.ncbi.nlm.nih.gov/articles/PMC8311478/pdf/WJD-12-1042.pdf> [Accessed on 16 Nov, 2025].

Dicken, S.J., Dahm, C.C., Ibsen, D.B., Olsen, A., Tjønneland, A., Louati-Hajji, M., Cadeau, C., Marques, C., Schulze, M.B., Jannasch, F. and Baldassari, I., 2024. Food consumption by degree of food processing and risk of type 2 diabetes mellitus: a prospective cohort analysis of the European Prospective Investigation into Cancer and Nutrition (EPIC). *The Lancet Regional Health–Europe*, 46. [https://www.thelancet.com/pdfs/journals/lanepi/PIIS2666-7762\(24\)00210-2.pdf](https://www.thelancet.com/pdfs/journals/lanepi/PIIS2666-7762(24)00210-2.pdf) [Accessed on 16 Nov, 2025].

Francis, A., Harhay, M. N., Ong, A. C., Tummalapalli, S. L., Ortiz, A., Fogo, A. B., ... and International Society of Nephrology. (2024). Chronic kidney disease and the global public health agenda: an international consensus. *Nature Reviews Nephrology*, 20(7), 473-485. <https://www.nature.com/articles/s41581-024-00820-6.pdf> [Accessed on 16 Nov, 2025].

History of Parliament., 2023. Visibility of Disability in the House of Commons: Food for Thought. <https://historyofparliament.com/2023/12/05/visibility-of-disability-in-the-house-of-commons/> [Accessed on 16 Nov, 2025].

Mackelprang, R.W., Salsgiver, R.O. and Parrey, R.C., 2021. *Disability: A diversity model approach in human service practice*. Oxford University Press.https://books.google.com/books?hl=en&lr=&id= 8JPEAAQBAJ&oi=fnd&pg=PP1&dq=Disability+has+two+main+models+to+define,+one+is+the+social+model+and+the+other+one+is+the+medical+model.&ots=oH-03URbkY&sig=ZqITNXQGZEiY_HF64xFiTIrhQDq [Accessed on 16 Nov, 2025].

Maroto, M. and Pettinicchio, D., 2022. *Relational inequality and the structures that disadvantage*. Oxford University

Press.<https://books.google.com/books?hl=en&lr=&id=7inBEAAAQBAJ&oi=fnd&pg=PA389&dq=+Systemic+disadvantages+are+usually+experienced+by+the+disabled+&ots=GRxF0vJp6B&sig=ax37navCondudFmF6b2sA2XTc0> [Accessed on 16 Nov, 2025].

Martinez, R., Morsch, P., Soliz, P., Hommes, C., Ordunez, P. and Vega, E., 2021. Life expectancy, healthy life expectancy, and burden of disease in older people in the Americas, 1990–2019: a population-based study. *Revista Panamericana de Salud Pública*, 45, p.e114.<https://pmc.ncbi.nlm.nih.gov/articles/PMC8489742/> [Accessed on 16 Nov, 2025].

NHS., 2023. A national framework for NHS – action on inclusion health. <https://www.england.nhs.uk/long-read/a-national-framework-for-nhs-action-on-inclusion-health/> [Accessed on 16 Nov, 2025].

Oliva, F., Marsilio, E., Asparago, G., Gai Via, A., Biz, C., Padulo, J., Spoliti, M., Foti, C., Oliva, G., Mannarini, S. and Rossi, A.A., 2022. Achilles tendon rupture and dysmetabolic diseases: a multicentric, epidemiologic study. *Journal of clinical medicine*, 11(13), p.3698. <https://www.mdpi.com/2077-0383/11/13/3698> [Accessed on 16 Nov, 2025].

Pearson-Stuttard, J., Bennett, J., Cheng, Y.J., Vámos, E.P., Cross, A.J., Ezzati, M. and Gregg, E.W., 2021. Trends in predominant causes of death in individuals with and without diabetes in England from 2001 to 2018: an epidemiological analysis of linked primary care records. *The lancet Diabetes & endocrinology*, 9(3), pp.165-173. [https://www.thelancet.com/pdfs/journals/landia/PIIS2213-8587\(20\)30431-9.pdf](https://www.thelancet.com/pdfs/journals/landia/PIIS2213-8587(20)30431-9.pdf) [Accessed on 16 Nov, 2025].

Pearson-Stuttard, J., Cheng, Y.J., Bennett, J., Vámos, E.P., Zhou, B., Valabhji, J., Cross, A.J., Ezzati, M. and Gregg, E.W., 2022. Trends in leading causes of hospitalisation of adults with diabetes in England from 2003 to 2018: an epidemiological analysis of linked primary care records. *The lancet Diabetes & endocrinology*, 10(1), pp.46-57. [https://www.thelancet.com/pdfs/journals/landia/PIIS2213-8587\(21\)00288-6.pdf](https://www.thelancet.com/pdfs/journals/landia/PIIS2213-8587(21)00288-6.pdf) [Accessed on 16 Nov, 2025].

Pring. J., 2015. Disability poverty rose sharply in fourth year of coalition.<https://www.disabilitynewsservice.com/disability-poverty-rose-sharply-in-fourth-year-of-coalition/> [Accessed on 16 Nov, 2025].

Rafferty, J., Stephens, J.W., Atkinson, M.D., Luzio, S.D., Akbari, A., Gregory, J.W., Bain, S., Owens, D.R. and Thomas, R.L., 2021. A retrospective epidemiological study of type 1 diabetes mellitus in Wales, UK between 2008 and 2018. *International Journal of Population Data*

Science, 6(1), p.1387. <https://pmc.ncbi.nlm.nih.gov/articles/PMC8103995/pdf/ijpds-06-1387.pdf> [Accessed on 16 Nov, 2025].

Vineis, P., Avendano-Pabon, M., Barros, H., Bartley, M., Carmeli, C., Carra, L., Chadeau-Hyam, M., Costa, G., Delpierre, C., d'Errico, A. and Fraga, S., 2020. Special report: the biology of inequalities in health: the lifepath consortium. *Frontiers in public health*, 8, p.118.<https://www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2020.00118/full> [Accessed on 16 Nov, 2025].

World Health Organization., 2022. *Global report on health equity for persons with disabilities*. World Health Organization.<https://journals.sagepub.com/doi/abs/10.1177/10442073211043521> [Accessed on 16 Nov, 2025].